**VONDLE & ASSOCIATES, INC.**

**2016 STRATIFIED MANAGEMENT   
AND OPERATIONS AUDIT OF**

**PPL ELECTRIC UTILITIES CORPORATION**

**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

****

**FINAL REPORT  
VOLUME II OF II**

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# customer services

This chapter covers the Customer Services function at PPL Electric Utilities Corporation (PPL EU). The chapter is divided into six sections:

1. Overview
2. Customer Experience
3. Customer Services Operations
4. Regulatory Programs and Business Services
5. Advanced Metering and Data Operations
6. Revenue Operations

Each section has Background, Findings, and Recommendations sections.

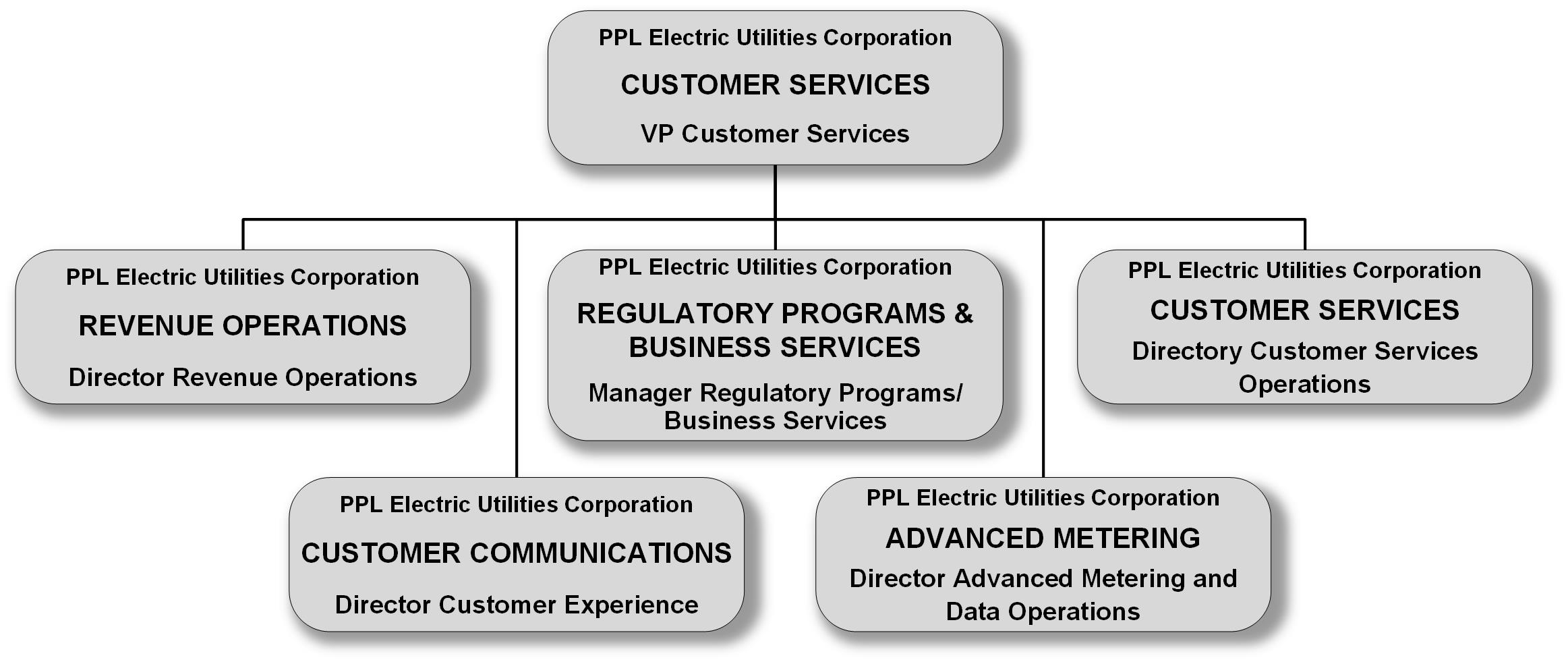
## overview

Background

Organization Structure

Customer Services has a relatively new Vice President and was being reorganized during the fieldwork of the Management Audit. There are five functions reporting directly to the Vice President: Customer Experience, Customer Services Operations, Regulatory Programs, Advanced Metering and Data Operations, and Revenue Operations. The corporate organization chart is shown below. (Please note that some of the organizational units shown on this chart do not represent the organizational names used by Customer Services.)

Exhibit ‑  
PPL EU Customer Services Organization



Source: DN 01-071

The Customer Experience group is comprised of the Customer Contact Centers (CCCs); Training, Development and Quality Assurance (QA); Major Accounts, Customer Experience - Digital Strategies; and Energy Efficiency.

Customer Services Operations provides support for customer contact work management, performance metrics and improvement strategies.

Regulatory Programs manages mandated low-income customer programs and compliance, which are discussed in more detail in Chapter X – Customer Assistance Program.

Advanced Metering and Data Operations manages the existing Automated Metering Infrastructure (AMI) system and the new Smart Metering (MeterVision 20/20) project implementation that was approved by the PUC in 2015.

Revenue Operations is comprised of Metering Operations, Revenue Protection, Billing Operations, and Credit and Collections.

Staffing and Performance Management

Overall, the Customer Services organization has 425 employees, about 17% of PPL EU’s 2,551 total employees as of mid-2015. The Customer Services 2015 O&M budget was about $96 million, about 21% of PPL EU’s total O&M budget of $450 million in 2015.

The Vice President uses the Customer Services Monthly Performance Indicators Report at monthly meetings as a platform for performance management discussion. The monthly graphs generally depict performance relative to targets set for various metrics. The reports reflect performance by month and compare monthly YTD performance to prior YTD performance as well as forecasts and targets for the remainder of the year. Most of the graphs are accompanied by explanatory and analytic text, including goals, objectives, measure definitions, and status. The first page is a scorecard summary for the above categories. There are 12 Customer Service Department Level Goals which are reported up to the next management level and 27 additional goals used by Customer Services, totaling 39 goals represented on the scorecard summary. A number of the performance indicators are discussed in some detail in each of the relevant organizational units in this chapter.

Customer Services is working to create a “customer-centric culture” as part of an “enterprise-wide initiative to enhance the holistic customer experience.” “The initial focus is on leadership development and providing the necessary training to ensure leaders understand their role in support of the customer experience.” Customer Services has created a cross-functional team to begin discussions around how each functional area can enhance the customer experience.

Customer Services’ long-term objective is to:

.… reach customers when they want and by using their communication channel of choice, thus helping to achieve top quartile in customer communications. Customers who have a positive online user experience consistently rate PPL EU higher in customer satisfaction than those who do not interact online. As online trends and expectations evolve, it is critical that it continually enhance and evolve its website and mobile communications channels.

To help achieve this objective, Customer Services is using process reengineering to improve the customer experience and move towards a more customer centric culture. Leaders and Customer Service Representatives (CSRs) are encouraged to challenge the status quo by recognizing process gaps, identifying root causes, conducting proper due diligence to understand scope, providing alternative solutions or recommendations, creating a project plan to rectify inefficient process, and executing on the plan to mitigate risk going forward. Customer Services has engaged a consulting firm to assist with the process reengineering effort and periodically uses another firm to assist in identifying corporate culture issues and improvement opportunities.

At the same time, Customer Services is implementing changes to improve the customer experience and quality of performance, it is also acting to improve productivity and efficiencies and reduce operating and maintenance (O&M) costs. Customer Services stated:

Our “initial response to improve the customer experience is to expand hours of support to be available for our customers when they want to interact with us.  We have developed a new Quality Assurance (QA) program focused on the customer experience, and we have begun contracting with an independent firm to monitor both in-house and vendor partners using the new QA program.

A new vendor has been selected to significantly increase the number of Customer Satisfaction surveys, from approximately 400 to 5,000, to supplement our QA program to get a better feel for our customers’ needs and to help us more quickly respond to our customers.

We have also created the Business Process Improvement team … to identify inefficient processes and re-define new more efficient ways of doing things: through automation, streamlined processes and optimized operations. These efficiencies will help reduce the current staffing level while reducing O&M in the future.”

findings

1. Customer Services has been undergoing significant changes affecting strategies, organizational design, service quality, and staffing configurations that are likely to improve the customer experience and reduce operating costs.

Customer Services has embarked on a mission to create a customer service culture and is implementing changes that are state of the art for the regulated utility industry, and consistent with experience from non-utility competitive industry leaders. Customer Services has been focusing on: engaging leadership, engaging customers, hiring the right people, aligning culture, educating and training, retaining the best employees, empowering employees, communicating service success, and creating and tracking metrics. Customer Services is on the right path but the necessary changes are a work in progress. With good execution, these initiatives are likely to improve customer service and reduce costs.

1. PPL EU has consistently ranked highest among large utilities in the East Region on the J.D. Power’s Electric Utility Residential Customer Satisfaction Study.

PPL EU ranked highest among large utilities in the East Region in the 2015 J. D. Power Electric Utility Residential Customer Satisfaction Study for a fourth consecutive year. The study measures customer satisfaction by examining six factors: power quality and reliability, price, billing and payment, corporate citizenship, communications, and customer service. The East Region large utility group is comprised of 17 utilities. PPL EU improved on their 2014 score with the biggest gains achieved in communications, price, corporate citizenship, and power quality and reliability.

1. Analyses of unit costs in 2014 showed that certain PPL EU customer services costs were higher than industry averages.

Customer Services engaged an independent consulting firm in 2014 to evaluate operations, identify opportunities, and make recommendations. The firm used utility industry as well as non-utility industry measures, including unit costs and other ratios, to identify PPL EU deviations from the industry average and first quartile mean. While there were comparisons that showed PPL EU performing better than the average and mean, there were other measures where PPL EU performed worse.

PPL EU’s Cost per Call, Cost per Customer, and Cost per Billing FTE Hour were significantly higher than the industry average and the 1st quartile mean. The results are sufficiently compelling to demonstrate that unit costs are a valuable tool for identifying opportunities for improving performance, and even more valuable when used on an on-going month-to-month and year-to-year basis.

1. The Customer Services Monthly Performance Indicators Report lacks key information to improve performance management.

The focus of the Monthly Report is the current year’s month-to-month and year-to-date performance compared to the previous year which lacks a longer term view to identify significant trends. Although there are some functions that have budget-spend indicators, the report does not explicitly link service quality performance with the costs to achieve those service levels. Customer Services has explored unit cost metrics, but there was no commitment for implementation as of the end of 2015. A number of metrics are based on success in achieving goals that are nearly 100%, but this success rate approach does not adequately focus attention on root causes of failure or error rates that have significant impacts on service quality and allocation of resources.

1. Customer Services is not meeting its DART safety target.

One of Customer Services’ 12 Department Level performance indicators is safety which encompasses a number of functions. The Customer Service objective is to support PPL EU improvement to 1st quartile safety performance.

The five-year performance through the end of 2015 for two metrics, Days Away, Restricted or Transferred injuries (DART) Rate and DART Count, is shown below:

Exhibit ‑  
Customer Services DART Rate and Count

| **Factor** | **2011** | **2012** | **2013** | **2014** | **2015** | **2015 Goal** |
| --- | --- | --- | --- | --- | --- | --- |
| DART Rate | 0.47 | 0.67 | 0.90 | 0.47 | 0.78 | 0.22 |
| DART Count | 2 | 3 | 4 | 2 | 3 | 1 |
| Sources: DN 04-230; PPL EU edits | | | | | | |

DART is one of OSHA’s employee safety measures. The DART Rate is a function of the number (Count) of injuries and illnesses that meet this DART definition and the number of employee annual hours, relative to the DART benchmark of 200,000 hours per year. The 2015 DART Count was three and the number of employee hours was 768,799, resulting in the DART Rate of 0.78 (calculated as: 200,000 divided by 768,779 multiplied by 3).

The DART Count does not reveal any trend, but in every year the DART Rates were well above the 0.22 target for 2015.

recommendations

1. Incorporate unit costs and service quality metrics into the Customer Services Monthly Performance Indicators Report to improve performance management. (See Findings 3 and 4)

The Customer Services Monthly Performance Indicators Report serves as the primary performance management tool. It has evolved over the years and continues to undergo changes. The focus continues to be on service quality and budget performance, but noticeably missing are unit costs that that should be linked with the quality metrics so that the “cost to serve” becomes clear. The objective should be to improve the customer experience while understanding the implications to O&M costs. Unit costs will narrow the focus of management’s attention on priorities, resource reallocations, and improvement initiatives for long-term achievement of the goals. Tracking and managing unit costs will also help in benchmarking with other utilities.

Customer Services has already begun to reassess existing performance indicators and experiment with new ones. Three categories of unit cost levels were considered: Enterprise-wide, Customer Services, and Customer Services working group level. This unit cost approach would roll up the unit costs from the working group level to the mid-level and then to the Enterprise level. A unit cost matrix was created that should capture the majority of costs by function and organizational unit. Ultimately, this approach could be used to link service quality and costs. The following unit costs were explored by Customer Services and should be implemented:

* Cost per Customer (Excluding Uncollectible Expenses)
* Cost per Customer
* Average Residential Active Overdue per Customer
* Net Write Offs per Customer
* Purchase of Receivables Credit per Customer
* Cost per Overdue Customer
* Cost per CCC Interactions
* Cost per Field Action
* Cost per Back Office Transaction
* Cost per Low Income Customer Served
* Cost per Complaint
* Cost per Business Account Served
* Cost per Customer Contact Representative (Revenue Protection)
* Cost per Bill Sent
* Cost per Letter Sent

Customer Services has used unit costs in support of business cases from time to time, including the justification for building a LIHEAP Portal that would eliminate a large number of phone calls on the basis of average cost per phone call. Some of the unit cost metrics above should be incorporated into the Customer Services Monthly Performance Indicators Report for visibility and priority focus. Others should be used for performance management but that do not necessarily need the same level of visibility at the monthly meetings.

Other parts of this chapter contain findings and recommendations related to performance metrics, see Section B: Customer Experience Recommendations 1, 2 and 3; Section D: Regulatory Programs Recommendations 1, 2, and 3; and Section F: Revenue Operations Recommendations 3 and 4.

1. Identify root causes for each DART incident and act to correct the underlying problems. (See Finding 5)

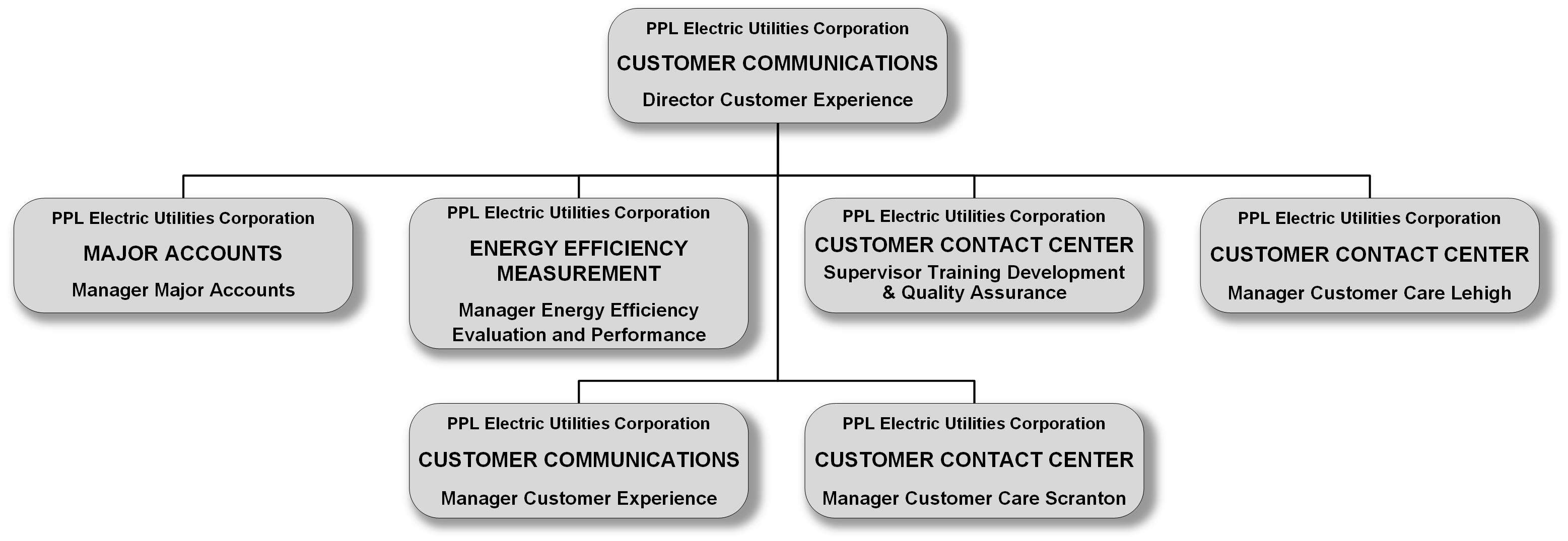
Customer Services should identify and analyze the root causes that account for each DART event and then correct the underlying causes. With respect to performance tracking, Customer Services should identify realistic stretch targets that are achievable in the near-term. If there are conditions that differentiate work practices, both in the field and in the office environment, Customer Services should consider multiple targets that are uniquely customized to the work practices. For example, personnel from both Metering Operations and Revenue Protection perform field work, but there may be unique work practices that would suggest different DART Rate targets.

## Customer experience

Background

The Customer Experience group consists of a number of customer-related functions, as part of the recently reorganized Customer Services organization. The following organization chart shows the six units reporting to the Customer Experience Director. Please note that the organizational chart was taken from the corporate chart available at the time of the Audit and that Customer Services refers to this organization as Customer Experience.

Exhibit ‑  
Customer Experience Organization



Source: DN 01-071

The group now consists of the two PPL EU Customer Contact Centers (CCCs or call centers), Training, Development and Quality Assurance (QA), Major Accounts, Customer Experience (Digital Strategies), and Energy Efficiency. Each group is described below.

Customer Contact Centers

The CCCs handle communications with customers via CSRs. The work processes include:

* Responding to customer inquiries (phone, email, and U.S. mail) related to billing, credit, and collections
* Processing applications for new service at an existing location and processing the initial applications for new service installations
* Processing billing exceptions and updating customer records (referred to as back-office work)
* Training and quality assurance initiatives (with the assistance of the Training, Development and QA group)

There are two PPL EU CCCs, one located in Lehigh and the other in Scranton. PPL EU also uses the PPLSolutions’ call center in Hazle Township and a non-affiliated contractor to provide call center services, with one location in Bethlehem and the other in Florida. At the time of the Management Audit (field work ending December 31, 2015), there were about 260 total CSRs: 160 employees and 100 contractors.

In late 2015, the hours of availability of CSRs has been expanded. At the time of the Management Audit, CSRs were available from 8 AM to 5 PM, Monday through Friday for general customer service issues. For payment assistance and setting up payment agreements, CSR availability was expanded, from 7 AM to 10 PM, Monday through Friday, via a separate toll-free phone number. The Interactive Voice Response (IVR) system (without live CSR assistance) provides the ability to make payments via debit and credit cards on a 24-hour, seven-day basis (24/7).

Customer Services uses PPLSolutions for the same call center services that are performed by the PPL EU CCCs, including supplemental, periodic, and seasonal call center functions, such as payment arrangements, connect/disconnects, Low Income Home Energy Assistance Program (LIHEAP), Winter Relief Assistance Program (WRAP), Customer Choice, the Customer Assistance Program (OnTrack), and language interpretation. (Please see the Customer Assistance Program chapter regarding a pilot project with PPLSolutions for the OnTrack program.)

Customer Services started using a new third-party contractor, for call center services in 2015, and has been reassigning hours and tasks among PPL EU CCCs, PPLSolutions, and the third-party contractor. PPLSolutions is providing primary support for OnTrack customers and support during the core business hours of 8 AM to 5 PM and the expanded fringe hours of 7 AM to 10 PM, Monday through Friday. The third-party call center, located in Bethlehem, will be used to provide support on a 24/7 basis with primary focus on after-hours support, covering nights and weekends, and for specialized projects, such as outbound collections campaigns. The third-party contractor will also be available for peak period calls that cannot be handled by PPL EU and PPLSolutions. The third-party Florida call center will be used for disaster recovery and redundancy.

The most frequently used services provided by PPLSolutions have been for payment arrangements and connect/disconnects, representing about 78% of the billed services. About 85% of calls are received between the hours of 8 AM to 5 PM, Monday through Friday.

The Customer Service System (CSS) is the primary platform for handling the work of the CSRs. Other systems interact with CSS, such as the Continuous Transition Program (CTP) that is built on top of the CSS. The CTP reduced the number of windows that need to be opened by the CSRs and the CTP provides scripts to assist the CSRs during the calls.

Customer Experience is reassessing its existing performance indicators to determine relevance and value in achieving improved customer experience and reducing costs. These metrics include: Customer Satisfaction Scores, First Contact Resolution, Transfer Rate, and Service Level. New analysis and additional data may lead to better metrics and may provide targets that are challenging but achievable through operational and process changes. The Customer Services Operations group, which recently consolidated analytic and performance management skills, has been working with Customer Experience and the call centers as part of the reassessment.

An “Agent Scorecard” is used to measure performance of the CSRs in the CCCs. The existing scorecard displays the following metrics: FCR (First Call Resolution), ATS (Adherence to Schedule), ACW (After Call Work), Hold (Average time calls placed on hold), Calls Handled (number of calls handled by the agent or group), Auxiliary Percent (percentage of time spent in non-phone time compared to staffed time), and Transfer Percent (total transfers divided by calls handled). These metrics are consistently applied at the PPL EU, PPLSolutions, and contractor call centers. Customer Services is working with a contractor specializing in solutions for measuring, monitoring, and analyzing business performance in contact centers to develop and build a new agent scorecard.

Training, Development, and Quality Assurance

The Supervisor of Training, Development, and QA reports to the Director of Customer Experience and has seven staff that support the call centers by providing call quality assurance monitoring, call assessment contractor management, and CSR training and development. The group also performs email audits and focused audits of the CCCs.

Call Assessments of the CSRs are based on 18 characteristics, such as warm welcome, clear communication, effective listening, genuine concern, information quality, and efficiency. The reports include discussion of the opportunities for improving specific characteristics. Recommendations are made to the supervisors for discussion with the CSRs. The report summarizes the results into five categories: Does Not Meet Expectations, Needs Improvement, Meets Expectations, Very Good, and Excellent.

The QA team has been working with all of PPL EU’s CCCs and the contractor call centers to periodically listen in and calibrate assessments of calls to ensure consistency for the Call Assessments among the call centers. Customer Services increased sampling from two to four calls per month in 2015.

The group conducts standard training classes for new employees by call type and for each CSR title progression level and provides training for PPLSolutions’ trainers. PPLSolutions trains its own call center CSRs according to training materials and directions from PPL EU. PPLSolutions also performs quality assurance call monitoring and participates with PPL EU in Call Assessment calibration sessions. PPLSolutions’ fees include supervision, quality assurance, and training.

Major Accounts

The Major Accounts group is led by a Manager and is responsible for interfacing with small and large commercial and industrial accounts through two subgroups. The Key Account Managers (KAMs) visit the largest customers in the PPL EU service territory. The Business Account Specialists (BASs) respond to and initiate calls in an office setting. Both groups handle customer billing inquiries, service requests, service expansions, and other customer issues.

There are five KAMs that are assigned to more than 200 Key Accounts to provide frequent and personalized communications to large power customers and reliable and timely intelligence back to PPL EU functions requiring the information. The functions of the Key Account Managers are:

* Act as the primary liaison between PPL EU and its major industrial and commercial customers for business and operational matters related to the cost of electricity (tariffs and rates), especially shopping, rate cases, load, and energy management programs. This relationship enables PPL EU to obtain timely intelligence about customer plans that could impact electric service.
* Develop and sustain an effective relationship with assigned accounts in a manner that earns the trust and confidence of customers relative to how the electricity provided by PPL EU impacts their business.
* Provide PPL EU with accurate and timely intelligence regarding customers’ plans related to energy consumption and use, opinions about rate options and tariffs, service needs, and overall opinion about PPL EU.
* Maintain up-to-date knowledge about issues, rates, and service requirements and broker timely and effective responses to customer issues and questions about electric service and related economic issues. This accountability includes an understanding of the customer business issues that are affected by PPL EU's service requirements, rates, and tariffs.

There are six BASs and their functions are:

* Respond to internal/external inquiries, requests, and complaints by phone, email, or in person while complying with PUC regulations, tariff rules, and company policies and procedures. The team initiates outbound phone calls to existing customers to help educate the customer on rate options and choices and to continue fostering positive relationship building and a single point of contact. The BASs respond to electric service, billing, tariff, and customer choice issues. Common tasks include responding to high bill calls, analyzing and correcting billing errors, and providing operating cost projections related to rate changes, planned new equipment or entirely new customer facilities, and electricity purchasing process in Pennsylvania’s deregulated marketplace.
* Analyze customers’ electric usage and service needs and advise on proper voltage and rate schedule for efficient and least cost operation of their facilities. They interpret and comply with tariff rules and rate schedule provisions that apply to industrial and commercial customers and document customer inquiries and the company’s responses and/or actions.
* Develop an understanding of customers’ operations in order to obtain accurate service requirements and load estimates for new electric service requests and service changes for the customer’s facilities. They initiate work requests related to these projects and assist with modifications and follow-up work requests as needed.
* Initiate contacts with customers to provide them information on how to purchase electricity as well as the resources available to support the customers in the purchasing process. These activities include inbound and outbound customer calls.
* Act as a customer advocate and liaison with appropriate company personnel during outages. They provide outage information necessary for customers to make decisions about their operations. They resolve service issues by working with other PPL EU employees in Distribution Operations, Engineering, Planning, and System Operations.

Major Accounts had two initiatives underway to improve services that it provides to customers and a customer satisfaction survey program was under development:

* From benchmarking other utilities, Major Accounts has identified additional useful information for the customer profile, including: a summary of all accounts associated with the customer’s main account, key contacts and secondary contacts at the facility, a summary of operations, fiscal information such as budget cycle dates, peak load information, operations schedule, planned power quality improvements, energy efficiency projects, and maintenance schedule.
* The Key Account Customer on-line survey was under development and a draft questionnaire was being considered. The questions were designed to elicit responses primarily regarding the customer’s experience with communications with the Key Account Manager for that customer.

Customer Experience

The newly created Customer Experience Digital Strategies team is responsible for digital strategies, including channel planning and analytics. The team focuses on developing and implementing Customer Services’ digital strategy for an enhanced digital experience for customers. Long term, the team will help develop and deliver a multi-channel strategy, defined as a consistent and seamless experience across all digital support platforms (web, mobile, email, social media, live-chat, and IVR). By doing so, they are making it easier for customers to do business with them and delivering streamlined solutions that empower the customer to transact or engage how and where they prefer.

There are nine positions reporting to the Manager of the Customer Experience:

* Program Marketing Specialist - Crafts effective marketing solutions; manages various vendors, multi-disciplinary teams, and content; and ultimately empowers and executes best in class customer engagement strategies. Develops and implements marketing strategies across multiple mediums, writes marketing material, ensures marketing content meets brand standards, executes campaigns, and serves as a subject matter expert to vendors and internal clients.
* Digital Media Specialists (two positions) - Provides customers with timely and accurate resolution to a variety of different customer service issues and complaints that they send through various digital media channels. Once in communication with a customer, the Specialist will own that conversation until resolution or an escalation of the issue takes place and the loop is closed. The Specialist will participate in the evolution of PPL EU's digital customer care strategy aimed at making customers happier, resolve issues more quickly and on their terms. The Specialist will work through multiple social media channels (Facebook, Twitter, and Google+) and email.
* Customer Experience and Web Curator - Assists in the creation of customer-facing website pages as well as internal and external customer communications. Key initiatives will include the creation and promotion of web content that helps customers self-serve, understand their electricity use, manage their accounts, and participate in programs and services that can help them save money.
* Senior User Experience Web Designer - Involved in the development and execution of high-end creative solutions and interaction design concepts for website, blogs, social media, outbound emails, and other digital channels.
* Market Researcher (two positions) - Provides analytical and business support for Market Research. Supports the organization with market research, brand awareness, consumer sentiment, and competitive benchmarking. Participates in the marketing and communications strategy, manages research projects, and supports the customer experience team.
* Internal Communications Specialist - Responsible for the development, distribution, and follow up as it relates to communications within the customer contact centers. Applies knowledge and understanding of change management principles and communication techniques and technologies to ensure work force readiness. Engages with other departments to effectively manage the timing, content, and coordination of multiple messages from multiple internal and external groups to customers. Partners with training, subject matter experts, process improvement specialists, and other staff to provide a knowledge base and other reference materials that facilitates ease of learning and use. Pursues latest communication tools and technologies and benchmarks other industry communication trends.
* Speech Analytics Coordinator - Provides strategic analytical support to drive better customer experience, operational efficiency, and consumer complaints analytics. Designs and conducts ad-hoc analyses and develops advanced statistical models to identify root causes related to customer experience, operational risks and efficiency, evaluates business impacts and identifies opportunities for continuous process improvements.

Customer Services is planning to implement a Speech Analytics Tool. Speech analytics will allow PPL EU to more easily track key real-time business issues. The software will provide keyword and phrase identification and analyze both call agent and customer audio streams separately to understand the context of spoken words. Perhaps most importantly, using speech analytics will allow identification of trends and gain business intelligence in a more sophisticated way. This data may also be used to identify areas for additional customer education or proactive communications. A Speech Analyst was hired in May 2016.

Customer Services plans to add a chat feature to assist customers during web transactions. Customer Services tracks customer satisfaction for using the “CCC Transactional Index” for multiple channels: Web, Agent (CSR), IVR, and Email. As the number of Web transactions increase, its value to customers would be enhanced if a chat feature were added, enabling the customer to more quickly and successfully navigate the Web site with the assistance of a CSR when needed. Chat-related metrics will be easier to develop because they are integrated in the IVR. A chat platform was launched in January 2016.

The Customer Experience team is exploring the use of data in a number of ways to improve customer experience and efficiencies. Data is used to align customer preferences with business decisions, expand and improve programs and services, correct issues with dissatisfied customers, and help customers better manage their energy usage. By analyzing customer insights and cross-channel behavior, PPL EU will better understand what drives and motivates customers, detect behavioral patterns, adapt strategies, and ultimately satisfy customer needs.

PPL EU has been active on social media since 2010. Through market research and current customer engagement, Customer Services plans to expand its social media strategy beyond public relations and crisis/outage communications. A digital media team is working to provide customers with timely and accurate resolution to a variety of customer service issues.

The market research function, coordinated by a research analyst, manages residential and small business customer satisfaction and awareness surveys, primarily for transactional experience. The Major Accounts group handles large customer research. The core work processes include: (1) develop and administer surveys to capture customer feedback on topics related to electric service delivery, (2) convey research findings to internal departments, (3) act an as internal advocate for the customer, and (4) solicit PPL EU employee feedback regarding various internal programs, including their level of satisfaction.

There are four types of research studies: (1) larger studies done by a vendor, for phone call surveys, (2) In-house studies done by an on-line survey platform that is purchased from another vendor that enables market research to create and customize surveys, (3) in-house employee surveys for feedback on PPL EU initiatives/projects to assess project effectiveness, and (4) tree trimming and vegetation management follow ups with customers. There are four regional customer satisfaction teams that are involved in the follow-up.

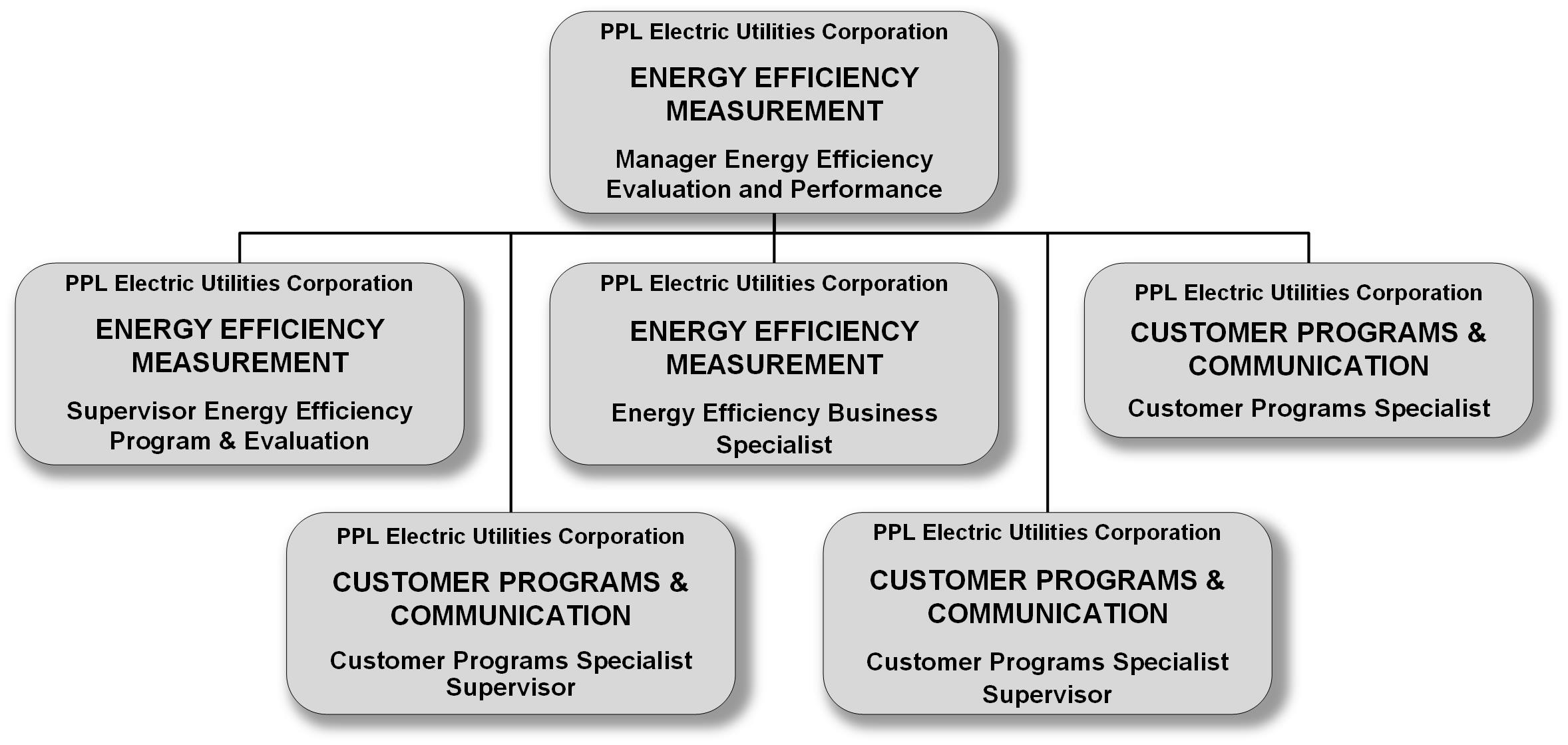
The market research analyst uses a vendor to manage a residential customer pool of 1,000 PPL EU customers who serve as a type of focus group. A new pool is selected each year. Market Research writes the questionnaire for the on-line survey. The vendor recruits the customers, provides rewards (e.g., gift cards), and collects the survey feedback data. The vendor gets a 66% average response rate and PPL EU analyzes the data and writes a report. The goal is to understand customer preferences, especially with regard to self-service options and channels.

Energy Efficiency Evaluation and Performance

The Energy Efficiency Evaluation and Performance (Energy Efficiency) group is responsible for managing PPL EU’s Energy Efficiency and Conservation (EE&C) Program Plan, required by Pennsylvania Act 129 and the PUC, covering a time period between June 2013 and May 2016. Each plan year runs 12 months, from June through May. At the time of the Management Audit, Plan Year 7 was underway, from June 2015 through May 2016. The rolling three-year plan is updated every year.

Energy Efficiency is organized as shown in the chart below:

Exhibit ‑  
Energy Efficiency Evaluation and Performance



Source: DN 01-071

There are 16 FTEs, including the Manager, who are responsible for managing EE&C Program Plan spending of up to $151 million by the end of 2015. Contractors implement the EE&C programs.

The Energy Efficiency group’s responsibilities include: (1) Managing Pennsylvania’s Act 129 energy efficiency programs, including megawatt hours per year savings reductions and costs by sector (residential, large commercial and industrial (C&I), small C&I, government/non-profit/institutional, and low income) on a program year basis to achieve the megawatt hours per year savings targets within an allocated budget; (2) Accurately determining and reporting the savings, costs, and status of the EE&C programs; and (3) Ensuring sufficient documentation and controls exist to substantiate the evaluated savings.

An evaluation contractor prepares annual EE&C performance reports for PPL EU which are submitted to the PUC. The contractor evaluates PPL EU’s ten programs, including measurement and verification of the energy savings. In the November 15, 2014 report for the period June 2013 through May 2014, the contractor found that the utility achieved 84.73% of the energy savings compliance target.

Certain contractors are referred to as Conservation Service Providers (CSPs) and are defined as individuals or firms under contract to PPL EU to provide consultation, design, administration, management, and/or implementation services related to the delivery of its EE&C programs. Specifically, CSPs:

* Deliver turnkey program services or functions within or across programs
* Are trained on PPL EU’s reporting requirements, use of the PPL EU’s data management and tracking system, customer service requirements, quality assurance and control standards, and protocols for addressing quality issues
* Submit monthly or quarterly reports to PPL EU that include customer data and detailed information on installed measures and incentive transactions to support Evaluation, Measurement, and Verification (EM&V), tracking against the Plan’s budgets and goals, and reporting to the PUC

In addition to the CSPs, there are trade allies that include:

* Comprehensive Audit Contractors who support delivery of the comprehensive audit component of the Residential Energy Assessment and Weatherization Program
* Survey Contractors who support delivery of the survey component of the Residential Energy Assessment and Weatherization Program, the Agriculture Program, and the Master-Metered Low-Income Multifamily Housing Program
* Lighting and other dealers and installers

PPL EU’s EE&C Plan costsinclude all direct costs and common costs. Direct costs are charged to specific programs. Common costs span the portfolio and are allocated to customer sectors at the conclusion of the phase. These are the costs that are in the Plan budget and subject to the funding cap. Also included are the Act 129 Statewide Evaluator (SWE) who monitors and verifies data collection, quality assurance and the results of each electric distribution company’s (EDC’s) EE&C Plan and the EE&C program as a whole. These SWE costs that are allocated to PPL EU are not subject to the funding cap.

PPL EU’s Energy Efficiency Management Information System (EEMIS) allows program activities to be tracked in near real-time. This system generates reports and queries to allow ongoing monitoring, management, analysis, and reporting of activities.

findings

Customer Contact Centers

1. The First Call Resolution and the Alert Message metrics do not yet have targets.

As of October 2015, the Customer Services Monthly Performance Indicators Report included the First Call Resolution (FCR) metric. There are two related measures: “Associate [CSR] FCR” is the percentage of callers who spoke with an agent and did not call back within seven calendar days to speak with an agent again. “Total FCR” is the percentage of callers who called and did not call back within seven calendar days, regardless of whether they spoke to an agent or remained in the IVR. The objective is to maintain or improve first call resolution. The YTD October 2015 Associate FCR metric was 83% and the YTD for Total FCR was 66%. There were no goals or targets for these metrics, but targets were planned for 2016. The report notes that: “Changes were made to the reconnect call flow in the IVR to provide more accurate information about the cut-in date to the customer, to reduce follow-up calls for clarification. Associate FCR and Total FCR remain relatively steady.”

The PPL Alerts Message Volume and Pricing metric is the number of messages sent to customers and the total cost for voice, SMS (texts), and email messaging. The objective is using Alerts to help support the goal of achieving 82% customer satisfaction with PPL EU’s ability to keep customers informed about power restoration in the manner in which they choose. Email alert message volume grew the most during 2015. There were no goals or targets identified. The Report notes: “All customers for whom we had a phone number or email address were automatically enrolled in outage alerts in May. Alert volume is dependent upon storms and other outages. In addition, alert volume will decrease as users receive their first alerts and opt to unsubscribe.”

1. Several call center metrics are near their targets.

The IVR Authentication Success metric is the measure of the number of callers authenticated within IVR, divided into the total number of calls to PPL EU’s 800-numbers on a 24/7 basis. The objective is to improve IVR account authentication success rate in order for more customers to self-serve, keep agent call handle times to a minimum, and avoid call transfers. The October 2015 YTD Actual Percent Authenticated was 77% compared to the goal of 80%. The Customer Services Monthly Performance Indicators Report noted that: “Authentication rates have risen slightly following efforts to retain the customer's account and authentication information in the CIC database to assist with caller lookups.”

The IVR Self-Service Success metric is the number of callers beginning a self-service path in the IVR versus the number who successfully complete a transaction. The objective is to ensure that efforts to allow customers to self-serve are successful and create a positive customer experience. The YTD actual was 76% compared to the target of 80%. The Report notes that: “Self-service [October] success remains at around 77% and that analysis needs to be done to determine why certain transactions have lower success rates and what can be done to improve them.”

IVR Containment Rates are total calls serviced within the IVR compared to total calls that went to the CSR queue, during core business hours. The objective is to improve the IVR containment rate in order for more customers to self-serve and reduce calls going to CSRs. The “Total Percent Contained” grew slightly in 2015, with YTD actual of 43% compared to a target of 50%. The report noted: “With the implementation of the reconnect process in the IVR, customers who are cut for non-payment can now self-serve to reconnect their service and no longer need to speak with an associate [CSR]. This has helped close the gap between calls serviced by the IVR and calls that fall out of queue during cut season.”

Transactions Handled by Channel is the total transactions completed for each of the three channels: IVR, Web, and CSRs. The objective is to improve self-service success in order to reduce or, at minimum, maintain the number of calls going to CSRs. The 2015 month-to-month Percent Self-Service varied, especially for transactions handled through the Web. The aggregate Percent Self-Service for the three channels ranged from a low of 47% to a high of 73%. The Report noted: “Web transactions increased [in September and October] as a result of more billing and payment transactions; namely, scheduling payments. IVR transactions increased as a result of adding stop service as a self-service option in the IVR.”

1. Customer Services implemented an important state-of-the-art tool that should significantly improve the CSRs’ ability to serve the customer.

The Intelligent Desktop is a “one stop shop” application for CSRs to use while servicing customers. CSRs will need to navigate to fewer systems and significantly fewer screens within those systems. This application will build a “360-degree” view of a customer’s information and interactions with PPL EU (including Web, IVR, and calls); provide the ability to update customer information in one location; see critical customer contacts in one place (cut scheduled, overdue, collections, outage, etc.); and see and update all customer program enrollments (Auto-Pay, Budget Billing, Paperless) and PPL EU Alerts in one place. It will also display billing, financial, usage, and supplier information and include auto-documentation features, reducing after-call work.

Customer Services sees this tool as “critical to our associates’ [CSRs’] success in providing a positive customer experience while reducing the time and money it takes to provide this experience.” Initial deliverables included:

* Search for and retrieve accounts
* View customer and account information: (name, address, phone, account and meter numbers, rate and revenue class, etc.)
* View supplier information: (name, phone, supplier history, etc.)
* View collection activities: (collection status, last collection action, next collection action, customer financial information, etc.)
* View financial activity: (payments made, pending payments, account balance, past due balance, excess credit, etc.)
* View account contacts
* Caller verification (moved from Continuous Transaction Program)
* Edit mailing and email addresses
* Edit primary and alternate phone numbers
* Unlock online accounts and reset passwords

Additional useful features will continue to be added.

Major Accounts

1. Major Accounts does not have work management metrics that track the numbers of work units and costs expended to deliver the services.

A 2015 goal was to “Ensure customers are satisfied of the outcome of their contact and that it is completed with the least amount of effort.” The goal, however, lacked quantifiable metrics that could be used to measure productivity, such as Key Account Manager hours per assigned account and number of calls, emails, and visits per customer per month, etc. Moreover, there are only eleven staff – five Key Account Managers and six Business Account Specialists. With more than 200 Key Accounts assigned to each of the five Key Account Managers, it is difficult to assess their capacity to serve customers.

Customer Experience

1. The newly created Customer Experience (digital strategies) team represents a commendable strategy to consolidate a number of necessary responsibilities and skills that are needed to expand and provide a changing multi-channel experience, improve the customer experience, and reduce costs.

Long term, the Customer Experience team will help develop and deliver an “omni-channel” strategy, defined as a consistent and seamless experience across all digital support platforms (web, mobile, email, social media, live-chat, and IVR). By doing so, it will be easier for customers to do business with PPL EU, delivering streamlined solutions that empower customers to transact or engage how and where they prefer.

1. Customer Services has not measured the cost impacts associated with increasing customer use of the web and IVR channels.

Customer Services tracks the in-bound contact volumes of the three communication channels handled by the call centers, as shown below.

Exhibit ‑  
CCC Handled Contact Volume by Channel  
(Excludes Outage-Related)

| **Channel** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Web | 2,016,231 | 2,324,386 | 2,369,026 | 2,554,339 | 2,816,593 |
| IVR | 808,241 | 908,324 | 953,047 | 1,121,449 | 1,436,591 |
| Inbound CSR Contacts | 2,225,752 | 1,923,160 | 2,050,589 | 2,135,325 | 2,133,250 |
| Sources: DN 04-177/197; PPL EU edits | | | | | |

As total contact volumes increase, the self-service options of Web and IVR are increasing at a faster rate than inbound CSR contacts. The Web channel had more contacts in 2015 than the other channels. Recent customer satisfaction metrics show that Web transactions have the highest satisfaction levels compared to the other channels.

Absent from this report is the impact that the increasing self-service channels may be having on costs. Self-service channels have significantly lower costs per contact and, presumably, a unit cost approach would show that total call center costs are decreasing or growing at a slower rate as the lower unit costs of the IVR and Web replace growth in the volume of inbound CSR contacts.

According to an independent study, moving a customer to self-service channels from telephone calls to CSRs saves an average of $0.60 to $1.50 per call. However, PPL EU does not track actual cost/benefit dynamics of shifting contact preferences by customers, particularly when multiple contact types are used in a single transaction.

1. Some customers are reluctant to enroll in automated bill payments with credit cards because of fees.

Some customers are reluctant to pay PPL EU fees for enrolling in the automated credit card bill payment plan. Customer Services recognizes that there may be regulatory hurdles if PPL EU eliminates the fee and seeks to recover the costs. Analysis may demonstrate that savings associated with the use of the credit card (e.g., eliminate paper mailings) could offset PPL EU’s absorption of the fee.

1. Customer Services’ market research program is comprehensive and appropriately focused on process and performance improvement.

A contractor conducts four market research surveys quarterly. Because the survey format was changed in 2013, results are only available for 2014 and 2015. The following are recent survey results for the residential, business, transactional, and tree trimming research programs:

**Residential.** The Customer Satisfaction (CSAT) residential survey program is conducted on a quarterly basis to measure and track overall satisfaction and other key components that impact performance. The program is utilized to improve operational effectiveness. The data is obtained primarily via online interviews as well as phone interviews. A total of 991 surveys were completed in the second quarter (Q2) of 2015 among the seven regions of Central, Harrisburg, Lancaster, Lehigh, Northeast, and Susquehanna. Data are weighted by region and age, significance testing conducted at a 95% confidence level, and detailed diagnostics are provided. Overall measures are: Satisfaction, Image, Value, Reliability, and Communication. Each has more specific measures. Key findings reported for Q2 2015 were:

* *Overall satisfaction among residential customers fell significantly in Q2 2015 due, in part, to the announcement of PPL EU’s rate increase request and customers struggling with high bills. This is also evident with the decline in Overall Value and Overall Image. These issues were mentioned as customers voiced their displeasure with the rate increase and their high bills in the open-end comments this quarter.*
* *Additionally, 18–49 year-old satisfaction levels fell in Q2, yet still remained over the YTD goal. This younger group continues to hold much lower satisfaction levels than the 50 plus age group. The Total PPL EU Overall Satisfaction (OSAT) goal and the Restoration Progress goal were both met as well, albeit slight declines in Total in Q2 were registered.*
* *Despite these decreases, most Residential customers still believe that PPL EU provides reliable service. Additionally, customers continue to praise PPL EU for responding quickly when outages do occur and their strong customer service.*
* *In order to improve overall satisfaction, PPL EU should consider focusing on boosting perceptions of the overall value they offer, what PPL EU is doing to help reduce the cost of electricity, and educate consumers on ways to manage usage – especially with younger customers. Doing these things could also improve PPL EU’s image.*

**Business.** The CSAT Business program is conducted on a quarterly basis to measure and track overall satisfaction and other key components that impact performance among Business customers. The program is utilized to improve operational effectiveness. The person interviewed is the individual most knowledgeable about electric service for his or her organization. A total of 200 surveys were completed in Q2. Data are weighted by rate classification, significance testing conducted at a 95% confidence level, and detailed diagnostics provided at the end of each quarter. Key findings reported for Q2 5015 were:

* *Overall satisfaction among Business customers remained strong and steady in Q2, 2015, with 84 percent giving a top 3 box rating [highest satisfaction check-offs]. However, the Total PPL EU score decreased due to Residential declines following a solid Q1 performance. Overall satisfaction among GS-1 (small general service rate class) business customers has trended higher since Q4 2014.*
* *Reliability remained particularly strong among GS-3 (large general service rate class) businesses and improved among GS-1 businesses, eliminating the previous gap. Customers continue to praise PPL EU for providing reliable electricity and being proactive and responsive when outages do occur.*
* *Perceptions of PPL EU’s image were also quite high in Q2 as a result of an uptrend driven by GS-1 customers. Most business customers strongly believe PPL EU operates ethically and is concerned about its customers and community.*
* *While overall value has slowly improved there still exists some dissatisfaction regarding the cost of electricity. PPL EU could consider focusing on improving efforts to help reduce the amount of electricity by providing tools to manage usage and improving the information provided on energy efficiency programs.*

**Transactional.** The New Service Transactional Satisfaction Program is conducted quarterly to measure and track satisfaction of residential and business customers who have recently requested and received new service or a service upgrade. In Q1 2015, a total of 1,139 mail surveys were mailed, yielding 347 total paper completes for an overall response rate of 30%. Key findings reported for Q1 2015 were:

* *Overall satisfaction with the New Service/Upgrade process was unchanged, with 76% of customers giving a Top 3 Box [highest] rating.*
* *The amount of customer effort required appears to be a key driver in satisfaction.*
* *Keeping customers updated throughout the process can eliminate perceptions of poor communication and high customer effort, and thus improve satisfaction.*
* *Time to Complete Project also appears to impact satisfaction, as this was another top complaint.*
* *PPL EU excels during the Design phase, as customer perceptions were very high on all measures here.*
* *The System Total exceeded the 2015 YTD Goal by 2%*.

**Tree Trimming**. The Tree Trimming Customer Relations Study is conducted on a quarterly basis to measure and track satisfaction of residential customers who have had trees trimmed on or close to their property by one of the contract tree trimming companies. A total of 485 on-line and phone surveys were completed. Data was weighted by sample received from each contractor. Additionally, weighting was applied 50/50 phone/online to each of the four tree trimming contractors. Some key findings for Q2, 2015 were:

* *Perceptions that tree trimming improves reliability remained very strong in Q2, 2015, yet overall pruning satisfaction decreased, with the largest declines seen among two of the four contractors.*
* *More urban and suburban customers were interviewed in Q2, likely playing a role in the overall satisfaction decline as these groups tend to hold lower perceptions than the small town/rural customers. However, small town/rural satisfaction fell in Q2 as well.*
* *Over-pruning, poor appearance of trees, and not cleaning up properly were top complaints.*

Energy Efficiency

1. The EE&C Plan’s MWh savings were forecast to exceed the year-end 2015 target while expenditures were at or below budget.

There are two metrics that are reported as part of the October 2015 Monthly Customer Services Performance Indicators for the 2015 EE&C Plan:

* MWh Totals for Reported Savings – The objective was to achieve between 500,000 and 544,000 MWh per year of cumulative reported savings toward the Phase 2 compliance target by the end of 2015. As of October 2015, the year-end forecast was over the upper limit of the 2015 year-end target. October YTD actual was 537,690 MWh per year. To control spending, certain programs were moved to “wait list” status.
* Budget Actual and Goal Dollars – The objective was to ensure cumulative spending was less than $151 million by the end of 2015. Energy Efficiency reported that October YTD spending was $124 million and was on target to meet the year-end budget goal.

1. EE&C Plan Actual MWh saved have exceeded the targets through 2015.

One Energy Efficiency performance indicator, EE&C Plan MWh Saved Annually, has been consistently reported for five years in the Customer Services Monthly Performance Indicators Report. The EE&C Plan Budget Dollars indicator (actual against goal) was reported beginning in 2014. Other Energy Efficiency-related metrics were reported within Energy Efficiency unit, but not at the Customer Services Monthly Performance Indicators Report level. The EE&C Plan annual MWh saved and targets are shown below.

Exhibit ‑  
PPL EU Energy Efficiency and Conservation Plan  
MWh Saved Annually

| **MWh/Year** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| EOY Actual (MWh/Year) | 310,650 | 833,353 | 1,315,307 | 106,715 | 321,043 | 576,615 |
| EOY Target (MWh/Year) | 266,692 | 600,000 | 1,300,000 | 100,000 | 297,500\* | 522,000 |
| \* Note: The 2014 Target is the midpoint between the lower and upper limit target for that year. | | | | | | |
| Sources: DN 04-177/197; PPL EU edits | | | | | | |

This trend shows that the EE&C programs have been effective in meeting targets.

1. Customer Services lacks internal cost performance and other productivity and effectiveness metrics associated with Energy Efficiency and Conservation Plan compliance and performance.

The Energy Efficiency unit prepares a monthly report with EE&C Plan performance metrics. The June 2015 report consisted of 39 pages of graphs that portray the monthly status update for Phase 2 cumulative portfolio reported MWh/year savings, cumulative portfolio costs, and individual customer sector MWh/year savings and costs. The report also depicts PPL EU internal common costs associated with its organizational units and functions including: Advertising and Marketing, EM&V, Tracking System – EEMIS, General Management/Plan Management, Statewide Evaluator, Plan Development, Market Research, and Major Accounts.

In accordance with the PUC-approved EE&C Plan, direct costs are charged to specific programs. Common costs span the portfolio and are allocated to customer sectors at the conclusion of the phase.

According to the EE&C Plan, PPL EU will have $36.1 million of estimated common costs and $148.2 million of estimated direct costs, by the end of Plan Year 7, for a total portfolio estimated cost of $184.3 million. PPL EU’s common costs are about 24% of the direct costs (19% of total portfolio costs) and represent a significant pool of dollars that should be analyzed for cost reduction opportunities.

Energy Efficiency tracks all cost categories (including common costs) to determine if the actuals are in line with the PUC-approved EE&C Plan budget. These actual costs are itemized in quarterly and annual reports to the PUC and the public. PPL EU examines the cost of each category during the preparation and approval of its EE&C Plan. The objective is to ensure that actual savings (by program customer sector, and overall) exceed actual costs. However, if PPL EU is under budget, the PUC requires that savings be increased until the budget is fully committed. Therefore, any cost reductions in one category (such as reduced evaluation costs) would be used to increase costs in another category (such as CSP fees or incentives), which would require a formal change to the PUC-approved EE&C Plan.

Administrative costs include implementation contractor fees, utility program management, evaluation, tracking systems, and marketing. Some of these administrative costs are direct costs (directly to programs) and some are common costs that span all programs. Whether an item is accounted for as a “common cost” or a “direct cost” is based on the method described in the approved EE&C Plan.

As discussed above, the Energy Efficiency unit complies with the regulatory tracking requirements for the EE&C Plan implementation, however, the Energy Efficiency unit does not have specific performance metrics that address the effectiveness and efficiency of its administrative functions in achieving Plan compliance and performance.

For example, there are no metrics that track internal administrative costs per Plan result (dollars spent per MWh saved or per demand reduction). There are no metrics that track the performance (input costs compared to output results) of Energy Efficiency staff, PPL EU common staff/FTEs, or the contractors. Similarly, the Customer Services Monthly Performance Indicators Report lacks these internal performance metrics. Tracking, reporting, and analyzing these types of metrics would likely lead to opportunities to reduce PPL EU internal O&M administrative costs and make both the EE&C programs and PPL EU more cost-effective.

Recommendations

1. Create targets for the First Call Resolution and the Alert Message metrics. (See Finding 1)

PPL indicated that it plans to implement targets for its First Call resolution and Alert Message metrics sometime in 2016. Until developed, PPL EU does not have quantifiable targets to help drive improvement.

1. Establish work management and performance metrics and targets for the Major Accounts group. (See Finding 4)

The Major Accounts group appears to be understaffed, given the importance of their work responsibilities and the number of large customers in PPL EU’s territory. Customer Services should re-evaluate the assignment of more than 200 Key Accounts to each of the five Key Account Managers (KAMs) and consider increasing the staff, prioritizing and scaling back the number of accounts per KAM, or other alternatives. As part of the assessment, new quantifiable goals should be established and performance metrics should be aligned with the goals, tracked monthly, trends analyzed, and actions taken to improve performance as necessary. The following metrics should be established:

* Number of account visits per month per KAM
* Number of productive (on-site visit) hours per KAM per month
* Number of non-productive (travel, etc.) hours per KAM per month
* Number of calls per month per KAM
* Number of emails per month per KAM
* Post contact survey assessments, by KAM, per month

1. Develop and implement appropriate metrics and targets across all existing and new customer contact channels. (See Finding 6)

Omni- or multi-channel implementation will need to be accompanied by quality and cost-related metrics that can be tracked by individual channel and across channels when customers use more than one channel during the same contact or for the same transaction. Metrics should include:

* Cost per inbound PPL EU CSR contact, per month and YTD
* Cost per inbound PPLSolutions CSR contact, per month and YTD
* Cost per inbound non-affiliated contractor CSR contact, per month and YTD
* Cost per IVR contact, per month and YTD
* Cost per Web contact, per month and YTD
* Cost per transaction requiring more than one channel to resolve, per month and YTD
* Cost per First Call Resolution, per month and YTD
* Cost per First Contact Resolution, per month and YTD

Some of these metrics should be included in the Customer Services Monthly Performance Indicators report. Appropriate targets should be developed for each metric.

1. Reduce barriers to automated bill payments because of credit card fees. (Finding 7)

Credit card usage fees paid by customers for automated billing should be eliminated or reduced through an offset to savings because of reduced paper billing and payment processing, negotiating lower fees with vendors, or a combination of both.

1. Develop additional metrics and targets for assessing the effectiveness and efficiency, including unit cost performance, of the Energy Efficiency function. (See Finding 11)

Customer Services should develop Energy Efficiency performance indicators that measure the productivity and effectiveness of PPL EU internal costs to support and manage the EE&C Plan expenditures, MWh saved, and MW demand reductions. Regardless of the relatively smaller administrative costs compared to other component and overall program costs and regardless of comprehensiveness of cost and budget management, PPL EU will benefit from measuring and understanding its internal unit cost performance that supports the delivery of the Plan goals. In addition to meeting regulatory reporting requirements, industry standard metrics, and comparable utility performance, Energy Efficiency should explore additional practices and metrics for performance measurement.

Appropriate new metrics include:

* Energy Efficiency FTEs and related costs, per MWh saved per month and YTD
* Energy Efficiency FTEs and related costs, per MW demand avoided or reduced per month and YTD
* Total PPL EU (Energy Efficiency plus other common staff) costs, per MWh saved per month and YTD
* Total PPL EU (Energy Efficiency plus other common staff) costs, per MW demand avoided or reduced, per month and YTD
* Contractor costs per unit or service delivered, per month and YTD
* Contractor costs per MWh saved, per month and YTD
* Contractor costs per MW demand avoided or reduced, per month and YTD
* Individual program total costs per unit or service delivered, per month and YTD
* Individual program total costs per MWh saved, per month and YTD
* Individual program total costs per MW demand avoided or reduced, per month and YTD

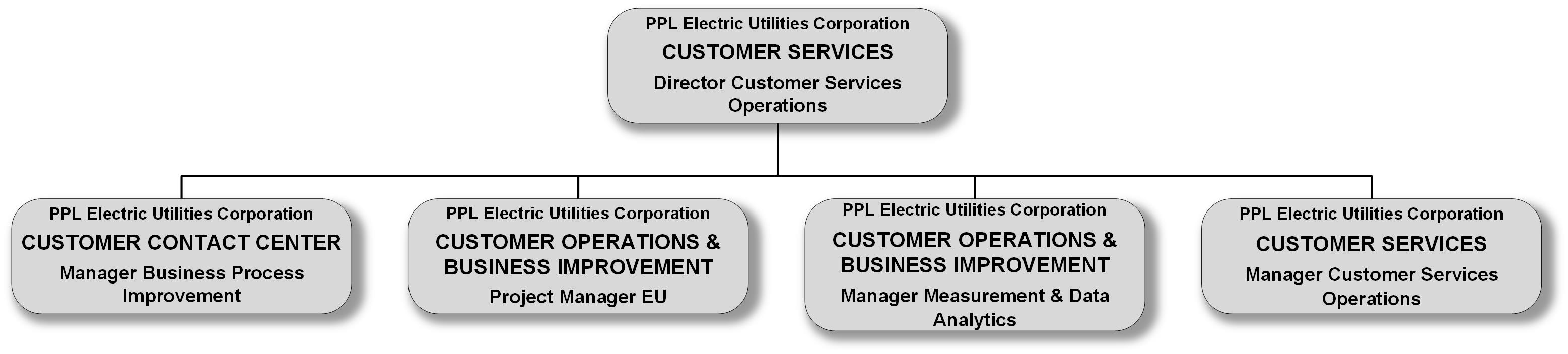
It would be especially useful to elevate some of these new performance measures to the Customer Service Monthly Performance Indicators Report. Establishing contractor-specific performance metrics will also provide input into negotiating contract terms, including unit pricing and at-risk fees linked to performance metrics. Appropriate targets should be set for each metric.

## Customer services operations

Background

The Customer Services Operations (CS Ops) unit was reorganized during the Audit fieldwork. The Director of Customer Operations has four direct reports, with a total of 28 employees. The following chart shows the current organization:

Exhibit ‑  
Customer Services Operations Organization



Source DN 01-071

The functions of the four direct reports are:

* Business Process Improvement – Technology enhancement projects and process improvement coordination
* IT Project Management - Coordinating Customer Services projects requiring IT support. Currently, 16 projects are planned for completion at the end of 2015. These projects cost approximately $6.8 million per year as part of the Consumer Services IT (information technology) budget category.
* Measurement and Data Analytics – This newly created function will: (1) Define and extend the strategy around the Self-Serve Business Intelligence (BI) and Reporting platform, (2) Expand and develop business analytics for measurements of business performance, including KPIs, metrics and scorecards, and (3) Evaluate performance, set common measurements, and report on and drive improvements in operational efficiency.
* Customer Services Operations – Responsibilities for CCC operations, including planning, workforce scheduling and coordination, multi-channel routing, and vendor management

CS Ops is working on creating efficiencies at the CCCs. In 2015, the unit has built a digital display for supervisors of phone queues and response times. Now, the CCC canvas is updated every two hours and resources are reallocated as needed. The unit is focusing on average handle time, including talk, hold, and after call time. Handle times are being shortened as a means of improving productivity.

CS Ops focuses on four key performance indicators: (1) Service Levels, as the number of calls answered within 30 seconds, (2) Average Speed to Answer (this is an interim, internal metric), (3) C-SAT – customer satisfaction survey and market research, and (4) First Contact Resolution (FCR), a new metric that is being evaluated. Service Levels is the primary performance indicator from the CS Ops perspective. The CS Ops unit is redefining a number of performance indicators and exploring the need for new ones in support of the Customer Services objectives and strategies. These performance indicators are tracked at all of the call centers: PPL EU, PPLSolutions, and the third party contractors.

Three Customer Services contact center performance indicators are being tracked by Customer Services Operations and will be revised with additional experience:

* CCC Contact Volumes are (1) calls answered without an outage on a 24/7 basis, (2) outage calls answered 24/7, and (3) calls offered. The second measure combines web and emails received and completed. The third measure is Work Assignment and Tracking Tool (WATT) contacts created and completed (WATT is the management system for back-office work). There are no targets associated with these volumes and PPL EU noted that this is for information only.
* Percent of Calls Transferred is Percent of Calls Transferred within the CCCs and from the third party call center contractor during core business hours. The objective is to limit the number of calls being transferred. (PPL EU noted that call transfer monthly break-down was unavailable for PPL EU and PPLSolutions until April 2015. Standard Offer transfers are included in 2015 but not in 2014 data.)
* Call Monitoring (Call Assessments) is the overall measure of CSRs. The specific measures are: Percentage of CSRs Not Meeting Expectations, Percentage of CSRs Needing Improvement, Percentage of CSRs Meeting Expectations, Percentage of CSRs Scoring Very Good, Percentage of CSRs Scoring Excellent, and number of Calls Monitored. PPL EU noted that it was using the first six months of 2015 to establish a baseline. By July 1, 2015, it planned to identify an improvement target to meet by end of 2015.

The Service Level metric has not shown any trending but has improved in 2015. Service Levels is the percent of time that a customer’s call is answered within 30 seconds. PPL EU had previously referred to the metric as Grade of Service. The 30-second standard is widely used by utility companies. The metric includes IVR transaction time. The annual data starting in 2006 is shown below.

Exhibit ‑  
Service Levels (with IVR)

| **Service Levels** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Service Levels (with IVR) | 79% | 83% | 76% | 81% | 79% | 82% | 83% | 75% | 74% | 86% |
| Sources: DN 04-177; PPL EU edits | | | | | | | | | | |

The metric has been inconsistent over the years and has shown improvement in 2015. Customer Services is reassessing the value of the metric.

The First Call Resolution metric was trending down but started to improve in 2015. The First Call Resolution (FCR) is a measure of the customer’s perception based on surveys of whether the issue was resolved during the call. The CS Ops FCR rates for 2011 through 2015 are show below.

Exhibit ‑  
First Call Resolution

| **Metric** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| First Call Resolution | 84% | 90% | 85% | 75% | 83% |
| Sources: DN 04-177/197; PPL EU edits | | | | | |

The YTD 2015 data suggest that performance is improving.

CS Operations has planned an overall reduction in CSR FTE resources and a significant reduction in the use of PPLSolutions for 2016 due to call volume history and business, technology changes, and productivity improvements.

The forecast of FTE staffing is built on a five-year history of call volume by season, coupled with the assumption that subcontractor support would not grow and call volume and the contact rate would remain flat. With changes to the business and technology, Customer Services believes that it is impractical to present a reliable five-year forecast of staffing.

findings

1. The contracting process with PPLSolutions has not been consistently applied nor uniform with regard to contract content.

PPL EU has contracted extensively with PPLSolutions, an unregulated affiliate, for call center services including CSR call time, back office work, QA, and training. Direct charges to PPL EU are based on contractual rates for specific services rendered.

The Management Audit reviewed previous PPL EU contracts with PPLSolutions, some of which were in effect during the audit. Customer Services has been using PPLSolutions for ongoing call center functions, temporary back fill replacements of employees on sick leave, special projects with limited duration, and special occasion and seasonal staff augmentation.

A review of prior contracts dating to 2008 showed that:

* The contracts did not have adequate or any service level commitments.
* PPL EU had no requirements in its previous contracts with PPLSolutions for annual performance reports.
* PPLSolutions signed a number of contracts, but only a few had PPL EU signatures.
* A number of contracts were amended, sometimes more than once, but the amendment language was not clearly identified and explained.
* Some contracts lacked cover pages that ordinarily provide summary information.
* Most contracts contained hourly rates or costs for CSRs, supervisors, etc. but did not have SLAs or requirements that PPLSolutions report units of work performed by CSRs to determine cost-effectiveness or value received.
* A number of contracts specified that monthly billings would be determined by PPLSolutions, but there were no requirements for PPL EU sampling or auditing to verify billed amounts.

For example, the PPLSolutions Standard Offer Program (SOP) contract expired on May 31, 2015 and was extended by amendment through May 31, 2017. Although the contract specifies the CSRs’ responsibilities, availability, and a performance requirement that at least 80% of the calls must be responded to within 30 seconds, it did not include a service level agreement with annual performance metrics.

1. The recently signed contract with PPLSolutions for call center services resolves a number of problems with the previous contracts, but not all.

The contract signed on October 14, 2015 and effective October 1, 2015 does not have many of the deficiencies of previous contracts:

* The scope of work is detailed and comprehensive, including inbound calls, outbound calls, back-office (work orders), WRAP call handling and processing, OnTrack special referral project, OnTrack Enrollment Pilot, Low Income Heating Assistance Program application process, removal of accounts from external collection agencies, Electric Choice information process, and call coverage for Major Accounts during training sessions and meetings. (The OnTrack Enrollment Pilot is an outbound calling campaign based on lists of customers likely to be eligible, prepared by Regulatory Programs. Please see the Customer Assistance Program chapter for further discussion.)
* This new contract was signed by the responsible officers, namely PPL EU’s VP of Customer Services and the President of PPLSolutions.
* There are four defined service levels for inbound calls, each tied to at-risk performance measures. The service levels are First Call Resolution, Reducing Transfers, Customer Satisfaction Survey Results, and Adherence to Schedule.
* The at-risk monetary impact is 10% of total (previous month’s) bill for each service level based on the service level performance criteria.

Only the routine inbound functions have service levels, as noted above. The remaining scope of work does not have service levels or other metrics.

1. The recently signed contract with an unaffiliated vendor has a number of deficiencies.

PPL EU signed a new contract with an unaffiliated vendor dated September 10, 2015. This vendor replaced a previous contractor and is supplying call center services. This contract has several necessary components but also has some of the same deficiencies that existed with the previous PPLSolutions’ contracts.

Appropriate and necessary components included in the contract are:

* Detailed statement of work, including types of customers to be supported, hours of support, channels of support, types of interactions within channels, back office work, collection work, and emergency preparedness response (in the event of a PPL EU labor dispute)
* Explicit pricing and hourly rates
* Overtime definition
* Key performance indicators: First Call Resolution, Minimize Transfers, and Customer Satisfaction Results
* At-risk fee rates (10%) off billable charges for each of the performance indicators (similar to the at-risk component in the PPLSolutions contract)
* Total compensation estimated at $9 million during the (unspecified) term of the contract

Deficiencies include:

* A directly responsible PPL EU officer has not signed the contract.
* Performance indicators for work other than inbound calls (no service levels or metrics for non-call work, such as back office)
* “Exhibit E – Metric Measurements” is missing from the contract.
* The term of the contract is not identified.

1. Customer Services has established disaster recovery services for its call center functions.

Customer Services has contracted with a non-affiliated vendor to provide two call centers to support expanded hours and to establish a disaster recovery plan for the two PPL EU call centers and the PPLSolutions call center, all three of which are located in Pennsylvania. One of the vendor centers is located in Pennsylvania and the other in Florida, providing sufficient geographic separation to minimize or eliminate the impacts of weather-related or other disaster events.

1. The 2016 LIHEAP Portal project will yield significant customer benefits and reduced costs.

Pennsylvania’s Low Income Home Energy Assistance Program (LIHEAP) helps low-income families pay their heating bills. LIHEAP offers assistance in the form of a cash grant, sent directly to the utility company or a crisis grant for households in immediate danger of being without heat.

The LIHEAP Portal project will establish a web portal to PPL EU for use by the Pennsylvania Department of Human Services (DHS) and regional and local community assistance agencies. It will allow LIHEAP caseworkers to self-serve in order to obtain PPL EU customer information to approve LIHEAP grants. PPL EU planned to launch the web portal by February 1, 2016.

PPL EU describes the benefits of the project as:

* Reduce approximately 30,000 phone calls handled by PPL EU CCC staff and contractors regarding LIHEAP applications and to verify various customer data.
* Improve internal processes.
* Enhance the customer experience by more timely approval of LIHEAP applications.
* Avoid unnecessary terminations of service and associated collection costs.
* Strengthen working relationships with DHS staff.

PPL EU noted in its business case of the web portal project that, as of YTD August 31, 2015, the average cost per phone call was $10.41. If PPL EU achieves a call reduction of 30,000 per year, the project will deliver the two goals of improved customer satisfaction and reduced costs.

The business case for this web portal project also demonstrates the value of tracking unit costs as a measure of cost performance in conjunction with improving customer satisfaction and related measures.

recommendation

1. Correct contracting deficiencies and establish a contract management function within Customer Services. (See Findings 1, 2, and 3)

Customer services should correct the following contract deficiencies: (1) No evidence that terminating contracts were renegotiated on the basis of alternative call center providers and comparable unit cost analysis, (2) Day-to-day contract performance management was not well defined or coordinated, and (3) No evidence that the contracts were in compliance with PUC or FERC requirements, with respect to affiliate relationships or codes of conduct.

The recent reorganization of Customer Services Operations resulted in the appointment of a Vendor Support Specialist to oversee the call center contract performance with respect to performance indicators and SLAs for both PPLSolutions and the non-affiliated vendor. The Vendor Support Specialist had no role in the contracting process and negotiations or in identifying improvements to contracting practices. The new contract with PPLSolutions identifies the PPL EU contact as either the “Director-Customer Services Operations” or “Vendor Management;” however, the contact responsibilities are not defined.

Customer Services should create a contract management function for call center services and other contractor services used throughout the Department. The responsibility for effective contracting and contract management should remain with Customer Services, the user of the services. The Supply Chain function should provide assistance.

The Customer Services contracting and contract management function should:

* Explore best practices for contracting processes and contract design, including regulatory compliance.
* Develop a competitive bidding process.
* Establish contract work definitions tied to performance metrics.
* Coordinate the day-to-day contractor performance with respect to contract compliance.
* Initiate monthly and annual contractor performance reporting, including work volumes, quality, and unit cost performance.
* Explicitly include call center contractor performance in the Customer Services Monthly Performance Indicators Report.
* Manage expired or soon-to-expire contracts for a seamless transition, either for a cost-effective re-negotiated contract extension or a competitive RFP process.

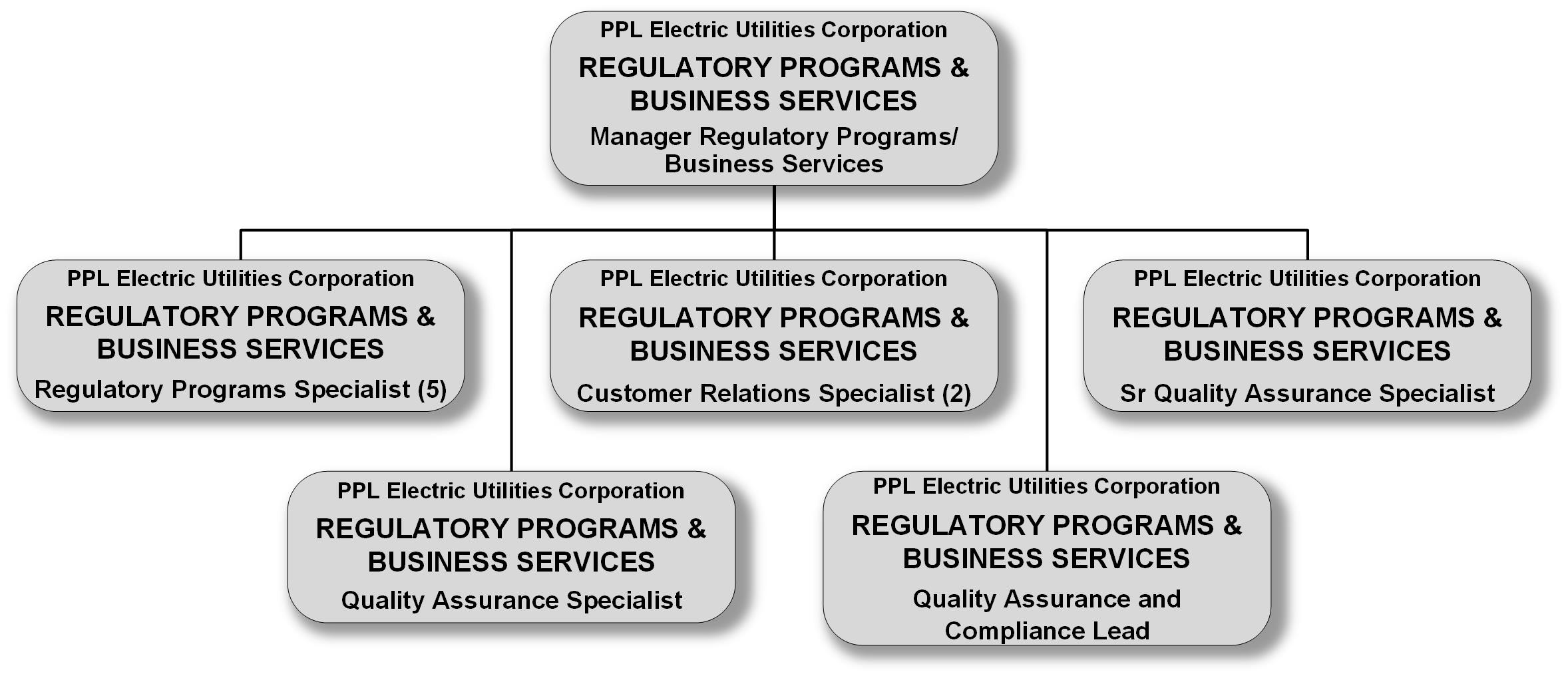
Additional information related to performance metrics and contract management is presented in Section F: Revenue Operations Recommendation 4 of this chapter.

## regulatory programs and BUsiness Services

background

The Regulatory Programs and Business Services organization structure is shown below.

Exhibit ‑  
Regulatory Programs Organization



Source: DN 01-071

In addition to the ten staff and Manager shown above, there are ten Universal Service Representatives reporting through these groups who provide support, for a total of 21 employees. The O&M budget is less than $3 million per year, mostly for employee costs.

The core work processes are: (1) managing a variety of programs that assist eligible low-income customers, (2) responding to customer, agency, and contractor needs related to the low-income programs, (3) meeting PUC reporting requirements associated with the low-income programs, (4) answering “informal” complaints filed by customers with the PUC, (5) working with PUC investigators to address informal complaints, and (6) providing compliance-related training and information to internal audiences.

Most of the staff have multi-program responsibilities and the team can be viewed as a matrix-type organization. One of the two Customer Relations Specialists coordinates the two Winter Relief Assistance Programs (WRAP) (Universal Service and Act 129 programs), and the other coordinates the OnTrack program.

In 1988, the PUC required utilities to implement the Low-Income Usage Reduction Program (LIURP) for qualified customers. PPL EU had an existing WRAP that it modified to satisfy the LIURP requirements. In 1998, as part of industry restructuring, PPL EU implemented the Universal Service Programs (USP), defined as “a collective name applied to the policies, protections, and services that help low income customers maintain utility service and includes payment assistance programs, termination of service protections, energy reduction programs, and customer education.” There are four USP programs:

* WRAP (LIURP) – Qualifying households receive an energy audit, free installation of conservation and efficiency measures, and energy education.
* CAP/OnTrack – Qualifying households receive payment assistance and debt forgiveness.
* Customer Assistance and Referral Evaluation Service (CARES) – Qualifying households may receive a credit applied to their electric bill and/or other referrals to community resources that can assist in energy payment during an emergency or extenuating circumstances.
* Operation HELP – A hardship fund supported by donations from PPL Corporation, its employees, retirees, and customers. This fuel fund assistance program targets low-income customers who have overdue balances and an inability to pay the full amount of their energy bills.

Regulatory Programs manages another WRAP that was implemented as part of PPL EU’s Act 129 Phase I Energy Efficiency and Conservation Plan and a subsequent Phase II, through May 2016. This program is referred to as Act 129 WRAP Phase 2.

PPL EU uses contractors to install weatherization measures and conduct audits, inspections, and energy education sessions. Regulatory Programs selects contractors from qualified weatherization agencies and local private contractors. Weatherization contractors may use sub-contractors for specialized work (e.g. electrical, plumbing, and heating equipment repair).

PPL EU issues contracts on a three-year basis with the opportunity for annual adjustments. PPL EU staff will select the contractors through a request for proposal process, in accordance with the procurement guidelines and policies.

PPL EU conducts a performance review with individual WRAP contractors at least once per year and evaluates contractors on their ability to complete assigned work on time, quality of their work, cost-effectiveness, and customer satisfaction. The performance review gives contractors the opportunity to express any problems or concerns and to make suggestions for improvement.

PPL EU encourages customers with high usage to enroll in WRAP, with specific focus on OnTrack program customers. Following is the outreach and enrollment process:

* CSRs use all call transactions to offer WRAP to high usage customers.
* PPL EU provides monthly lists of newly enrolled OnTrack customers to PPLSolutions.
* PPLSolutions screens participants on the list using the following criteria: (a) Premise has not received WRAP within 7 years (the last USECP allowed for 5 years if usage was still high), (b) No pending WRAP case, and (c) Budget bill of $150 or greater with the option to change based on volume.
* PPLSolutions sends a WRAP referral letter to the customer. The customer can mail the letter back to PPL EU in a postage-paid envelope, apply on-line, or call PPLSolutions who will take the application over the phone.
* If the customer does not complete the application in 30 days, PPLSolutions calls the customer (3 attempts, different days and times). Customers can return the phone call between 7:00 am – 6:00 pm Monday through Friday.
* If PPLSolutions takes the application over the phone, the CSR enters the information into the recently developed Low-Income Energy Assistance Programs system (LEAP - PPL EU’s WRAP system) and sends a Landlord Consent Letter, when applicable.
* Applying for WRAP is not a requirement for being eligible for OnTrack. Under the PPL EU's current USECP, OnTrack customers are encouraged to comply with the WRAP process. Failure to comply may result in removal from OnTrack.

Customer Services deployed the Low-Income Energy Assistance Programs system (LEAP), in March 2015 (Release 1). LEAP is a new database and reporting system for both LIURP WRAP and Act 129 WRAP. LEAP features include:

* Automatic enrollment of qualified applicants into LIURP or Act 129 WRAP, or sending the application for internal review.
* Customers also have the option to apply online
* Enabling PPL EU WRAP staff and contractors to track the status of WRAP cases and budget
* Provides real-time customer and consumption data for PPL EU WRAP staff and contractors
* Data validation and ensures regulatory compliance (for example, a contractor can only install the allowed measures for the assigned Job Type).
* The Company released Release 2, Version 1 of LEAP on May 18, 2016 which featured improved invoicing and metrics for tracking completed and pending work, the ability to capture data for new LIURP reporting requirements, and the functionality to coordinate LIURP work with the Act 129 Phase 3 CSP. Work is ongoing on two subsequent releases for 2016 deployment. Future enhancements include improved field communications between the customer, contractor and PPL EU, the ability to monitor changes in post-weatherization consumption, and the functionality to generate the annual LIURP Report within LEAP.

findings

1. A cost comparison measuring the effectiveness of services offered between the Universal Service WRAP program and the Act 129 WRAP program has not been made.

The Universal Service WRAP and the Act 129 WRAP programs have separate budgets but have common contractors and are managed and designed to provide the same weatherization services. Comparing the dollars spent per WRAP job between the two programs reveals the following:

Exhibit ‑  
Comparison of Dollars Spent per Job  
for Universal Service WRAP and Act 129 WRAP

| **Program** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Act 129 WRAP Dollars per Job | 2219 | 2362 | 1249 | 1430 | 1907 |
| Universal Service WRAP Dollars per Job | 2347 | 2615 | 2499 | 3479 | 3236 |
| Act 129 WRAP Dollars (millions) | $9.8 | $9.3 | $3.1 | $5.8 | $7.5 |
| Act 129 WRAP Jobs | 4416 | 3937 | 2474 | 4057 | 3933 |
| Universal Service WRAP Dollars (millions) | $7.8 | $8.0 | $8.2 | $9.7 | $9.4 |
| Universal Service WRAP Jobs | 3323 | 3059 | 3281 | 2788 | 2905 |
| Sources: DN 04 -177/197; PPL EU edits | | | | | |

The dollars per job comparison suggests that the Act 129 WRAP program produces lower costs per job. In 2015 for example, the Universal Service WRAP unit costs were 70% greater than Act 129 WRAP unit costs. This cost disparity may partially be caused by more costly, full-heating jobs that were pushed off to Universal Service WRAP (Low-Income Usage Reduction Program (LIURP)) due to Act 129 WRAP budget restrictions. Although there may be acceptable reasons for the disparity, an ongoing unit cost comparison will bring attention and analysis to the different unit costs. Unit cost comparisons may also illuminate differences in contractor performance.

The PUC Bureau of Consumer Services (BCS) has proposed a project that will compare contractor performance between Act 129, LIURP and eventually, the Department of Community and Economic Development's Weatherization Assistance Program. The project has been approved and BCS will be working directly with the Statewide Evaluator in Phase III of Act 129 to gather the data necessary to implement this comparison. The data analysis will be done through the LIURP third-party evaluator.

1. The costs per customer for the Universal Service WRAP have increased significantly in 2014 and 2015.

The graph below shows the costs per customer for five years and YTD November 2015:

Exhibit ‑  
Universal Service WRAP Cost per Customer

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| WRAP Monthly Cost per Customer | $0.49 | $0.48 | $0.49 | $0.49 | $0.59 | $0.57 |
| Sources: DN 14-175; PPL EU edits | | | | | | |

The cost per customer spiked in 2014 and was higher in 2015 compared to stable unit costs from 2010 through 2013. The average of 2014 and 2015 ($0.58) is about 18% higher than the previous three years.

The recent upward trend in Universal Service (LIURP) WRAP Cost per Customer was explained as: (1) The number of completed Full Cost (heating) jobs increased from 1,284 in 2013 to 1,614 in 2014, with a mild decrease to 1,579 in 2015. PPL EU channeled the majority of non-heating jobs for customers below 150% of the federal poverty level guidelines to Act 129 WRAP from June 2013 through 2015, (2) PPL EU’s health and safety allowance for Full Cost jobs increased from $250 to $650 in accordance with its approved 2014-2016 Three-Year Plan, (3) The price for standard electric water heaters increased in 2015 as a result of changes in federal standards, (4) In 2014, a number of municipalities introduced new permits and/or regulations in conjunction with water heater replacement or weatherization work, (5) In June 2014, PPL EU implemented the installation of Light-Emitting Diode bulbs (LEDs) as opposed to Compact Fluorescent Bulbs (CFLs) as a standard WRAP measure. At that time, LEDs had a significantly higher material price than CFLs, and (6) Funding for the Pennsylvania Weatherization Assistance Program (American Recovery and Reinvestment Act) decreased after 2012; therefore, there were fewer opportunities for inter-utility coordination.

Reasons for these increased unit costs may be understood and actions may be underway to control the increases, nevertheless, tracking the unit costs will help Customer Services compare year-to-year internal changes and provide comparability with other utilities for benchmarking purposes. PPL EU recovers expenses only for WRAP and OnTrack through the Universal Service Rider. Any reductions in the costs per customer will directly translate to a reduction in the Rider and resulting bill impact.

1. Additional metrics have not been employed to measure or gauge the spending strategies of the PPL EU WRAP programs.

Neither of the two WRAP programs explicitly track and report the estimated KWh saved on either a per job or per administrative cost basis.

The PUC uses a single contractor to analyze and report annually on Pennsylvania's Act 129 programs at each electric distribution company (EDC). With respect to Act 129 WRAP, the "Process Evaluation Report on PPL EU EE&C Plan, Program Five," dated November 13, 2014, compared Average EDC Cost Per Participant. PPL EU's unit cost was $1.92, 116% higher than the next highest EDC.

The contractor noted that PPL EU had the second highest total Total Resource Cost (TRC) benefits of all Pennsylvania EDCs, it also had the highest total TRC costs. PPL EU reported aggregate costs into two categories—management and EDC incentives to participants. Other EDCs break costs out by additional categories, so it was not clear to the contractor what was driving PPL EU’s higher costs. Regardless, PPL EU's total TRC costs were higher than other EDCs in PY4 and in Phase I. Although PPL EU’s WRAP had the third-highest MWh savings per participant and the second-highest total TRC benefits of all seven EDCs, the program also had the highest total TRC costs.

The contractor also determined the acquisition costs (cost per KWh saved) for PPL EU's 2013 and 2014 LIURP (WRAP), although these costs were not included as part of the required regulatory reporting.

More granular metrics and unit costs illuminate the relationship of controllable administrative dollars spent and jobs completed compared to estimated Watt-hour savings. Additional metrics may address the contractor's observation that PPL EU lacked certain reporting categories and explain what was driving PPL EU's higher costs. Such information may suggest alternative program spending strategies and improved administrative cost-effectiveness.

1. Customer Services has been failing to meet its 2015 target of maintaining the Justified Informal Complaint Rate below five percent.

A justified informal consumer complaint is a complaint in which the PUC has determined that the utility did not follow Commission procedures, orders, or regulations. Once a customer contacts the PUC with an informal complaint, the utility is notified that a complaint was filed. The utility must reply to the PUC with all records concerning the complaint, including any specific contacts with the customer about the complaint, within 30 days. The PUC reviews the information, interacts with both the complainant and utility, as necessary, and renders a decision.

The data below depicts the 2015 informal complaints received and managed by Regulatory Programs:

Exhibit ‑  
2015 Percent PUC Informal Complaints Determined as “Justified”

| **Complaint Types** | **Complaints Received by PUC** | **Complaints Justified** | **Percent of Total Justified** |
| --- | --- | --- | --- |
| Application for Service | 404 | 9 | 5.7% |
| Billing | 628 | 90 | 57.3% |
| Collections | 533 | 24 | 15.3% |
| Customer Choice | 471 | 16 | 10.2% |
| Equipment Issues | 23 | 7 | 4.5% |
| Financial Accountability | 82 | 8 | 5.1% |
| Other | 68 | 3 | 1.9% |
| Total | 2209 | 157 | 100.0% |
| Source: PPL EU edits | | | |

In 2015, about 7% of the complaints were justified, as determined by the PUC. The most frequent justified complaint types in 2015 were Billing (57.3%) and Collections (15.3%).

Regulatory Programs analyzed the reasons for the justified complaints and reported that four general reasons accounted for most of the complaints, as shown below:

Exhibit ‑  
Reasons for Justified Complaints



| **Reason** | **Percent** | **Number of Complaints** |
| --- | --- | --- |
| Human Performance - Dispute Process Errors | 45.9% | 72 |
| No Bills | 29.3% | 46 |
| Human Performance - Other | 13.4% | 21 |
| Programming | 11.5% | 18 |
| Total | 100.0% | 157 |
| Source: PPL EU edits | | |

The above data shows that Dispute Process Errors accounted for 45.9%. Further analysis by Regulatory Programs of the Dispute Process Errors category showed a breakdown of the errors, as shown in the below table:

Exhibit ‑  
Dispute Errors by Type

| **Dispute Process Error Type** | **Number of Errors** |
| --- | --- |
| Failure to send utility report within 30 days | 20 |
| Failure to suspend account during dispute | 17 |
| Failure to recognize dispute | 9 |
| Rendered inaccurate utility report | 9 |
| Failure to investigate | 7 |
| Failure to treat "slamming" as a dispute | 5 |
| Failure to provide enough information | 4 |
| Sent termination letter during open dispute | 1 |
| Source: PPL EU edits | |

The most frequent problem was “Failure to send utility report within 30 days.” The second most frequent problem was “Failure to suspend account during dispute.”

Customer Services tracks “Justified Informal Complaints” in its Monthly Performance Indicators Report. The objective is to improve customer satisfaction and compliance performance by incurring no more than five percent PUC justified informal complaints. The measure is total justified complaints divided by total informal PUC complaints. The January 2016 Report shows that the PPL EU ended 2015 with a 7.1% justified complaint rate. The magnitude of total informal complaints decreased from 5,147 in 2014 to 2,209 in 2015. The Regulatory Programs team determined that there were 143 justified complaints in 2014 compared to 157 in 2015. However, the total 2014 justified complaints were 2.8% compared to more than twice the rate of 7.1% in 2015.

In 2014, PPL EU took in 5,147 complaints. Of these, more than 2,000 were complaints specific to supplier prices. Because the complaints were not about PPL EU, the complaints were not analyzed for compliance correctness. Adjusting for this, Regulatory Programs actually analyzed 3,086 informal complaints in 2014. The adjustment results in a 4.6% justified complaint rate.

Customer Services has several initiatives underway aimed at improving dispute handling performance, including working with the senior CSRs to improve their dispute handling skills so that they can better assist their teams, developing “dispute-focused” training clips, and improving the dispute information in the training materials.

recommendations

1. Develop unit cost metrics that compare dollars spent per job for both Universal Service WRAP and Act 129 WRAP programs. (See Findings 1 and 2)

Customer Services neither explicitly tracks dollars spent per WRAP job nor does it compare Universal Service dollars spent per WRAP job with Act 129 dollars spent per WRAP job. V&A analysis indicated that there were significant differences between the unit costs of the two funding sources and on a year-to-year basis. Analysis also showed that the Universal Service WRAP cost per customer ratio has increased 20% from 2013 to 2014 and continued to be elevated in 2015. Developing, tracking, and analyzing the trends of these unit costs will lead to the identification of opportunities for improved processes and practices and for cost reductions.

1. Develop metrics that track and report comparable KWh saved per administrative dollars spent and per job completed for the Universal Service WRAP and Act 129 WRAP programs. (See Finding 3)

WRAP program performance, as well as Customer Service’s performance in delivering those programs, should be better understood. Tracking the relationships of administrative dollars spent and jobs completed compared to estimated KWh savings will enhance that understanding. Such information may suggest alternative program spending strategies and improve administrative cost-effectiveness.

1. Revise the Justified Complaints Rate target of “no more than 5%” to 0% and allocate additional resources to analyze and resolve internal controllable errors. (See Finding 4)

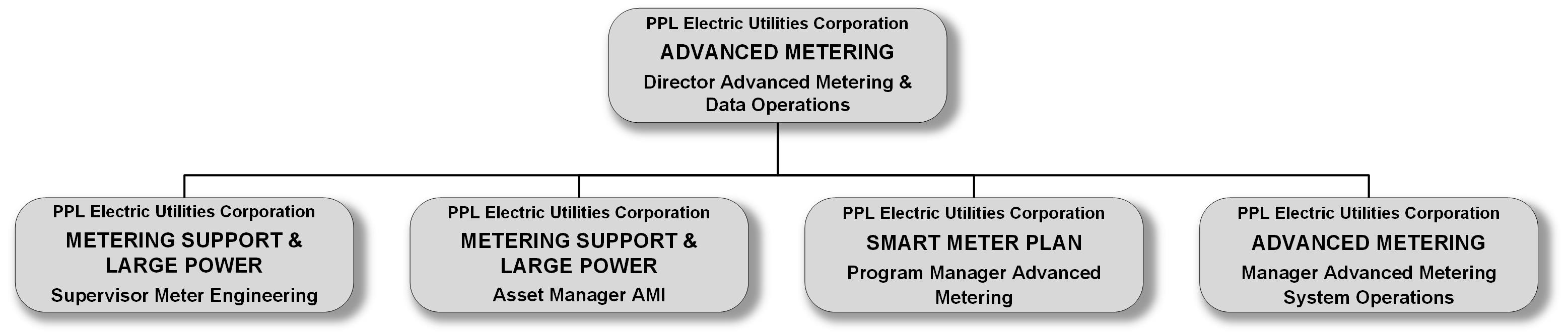
Customer Services should increase management attention and resources to drive down the number of Justified Complaints to approach zero. The largest reason for Justified Complaints in 2015 were Dispute Process Errors made by Customer Service staff and those errors are controllable and should be corrected.

## advanced metering and data operations

background

The Advanced Metering and Data Operations organization structure is shown below:

Exhibit ‑  
Advanced Metering and Data Operations Organization



Source: DN 01-071

The Metering Engineering Supervisor is responsible for meter installation drawings, designing customer meter panel installations, customizing meter programs for unique service installations, and investigating power quality issues.

The Asset Manager-AMI is responsible for the meter testing lab and meter asset management.

The Advanced Metering – Program Manager is the project manager for the new PUC-approved Smart Meter Plan, referred to as the MeterVision 20/20 Project.

The Advanced Metering System Operations Manager is responsible for large power customer MV-90 (software for interval data collection) metering and data communication and analysis, the existing Power Line Carrier (PLC) metering system, the Meter Data Management System (MDMS), and supporting the MeterVision 20/20 Project.

Existing Metering System

PPL EU’s current automated metering infrastructure (AMI) system utilizes Power Line Carrier (PLC) technology for reading meters. With PLC technology, data from customers’ meters are transmitted through the power lines to PPL EU’s back office Information Technology (IT) systems where it is validated and then used to determine customers’ bills. However, as the PUC determined and PPL EU agreed, the current AMI system does not fully meet the requirements of Act 129 and the SMP Implementation Order. PPL EU received approval from the PUC on September 3, 2015 for its Smart Meter Technology Procurement and Installation Plan.

The primary deficiency of the PPL EU current system is the inability to provide customers with direct access to price and usage information through a Home Area Network (HAN). PPL EU also indicated that its PLC system is limited in its ability to provide 15-minute interval data, as well as other near real-time information. In addition, approximately 1.2 million, or 86%, of its current electro-mechanical meters will need to be replaced with new, solid state electronic meters in order to provide remote disconnect/reconnect functionality, meet industry on-board meter storage standards, have the ability to be upgraded with technology advancements, have the ability to be remotely programmed, and to support net metering. PPL EU has been experiencing increasingly higher meter failure rates over the past several years and its AMI communications hardware, which is the same age as the meter population, is also approaching the end of its useful life.

Planned Metering System

PPL EU will replace its existing PLC metering technology with a Radio Frequency (RF) Mesh metering system. The installation of the RF Mesh system will require the replacement of existing electromechanical and solid state meters, as well as the replacement and/or installation of additional IT systems, including the head-end system which collects data from the meters and field devices and can send out commands to these devices.

Act 129 requires that smart meter technology include the following six capabilities: (1) Bidirectional data communications; (2) Record usage data on at least an hourly basis; (3) Provide customers with direct access to, and use of, price and consumption information; (4) Provide customers with information on their hourly consumption; (5) Enable time‑of‑use rates and real‑time price programs; and (6) Effectively support the automatic control of the customer’s electric consumption by the customer, the electric distribution company (EDC), or a third‑party, at the customer’s request.

The PUC added additional capability requirements: (1) Remotely disconnect and reconnect; (2) Provide 15‑minute or shorter interval data to customers, electric generation suppliers (EGSs), third‑parties, and a regional transmission organization (RTO) on a daily basis, consistent with the data availability, transfer, and security standards adopted by the RTO; (3) On‑board meter storage of meter data that complies with nationally recognized non‑proprietary standards such as ANSI C12.19 and C12.22 tables; (4) Open standards and protocols that comply with nationally recognized non‑proprietary standards, such as IEEE 802.15.4; (5) Upgrade these minimum capabilities as technology advances and becomes economically feasible; (6) Monitor voltage at each meter and report data in a manner that allows an EDC to react to the information; (7) Remotely reprogram the meter; (8) Communicate outages and restorations; and (9) Support net metering of customer‑generators.

PPL EU also intends to implement the following additional upgrades to support its proposed RF Mesh system: (1) Install a new Meter Data Management System (MDMS), which will provide for storage of data from smart meters, including interval meter reads, and processing raw meter data for billing purposes; (2) Upgrade the existing Energy Analyzer Customer Portal System, which provides customers with access to view and analyze their energy usage; (3) Establish a Network Operating Center (NOC) to manage the operations of the meters and network equipment; and (4) Upgrade the Meter Asset Management (MAM) System, which tracks the meter and field devices, capturing testing results, as well as installation, maintenance, and retirement information.

PPL EU will be permitted to implement voluntaryremote connection/disconnection, but must seek stakeholder input and file for PUC approval before implementing involuntary remote termination. PPL EU formally filed the remote switch involuntary termination proposal with the PUC in January 2016. The plan is to use the remote switch capability to disconnect and reconnect power for residential and small commercial customers, starting in April 2017. The benefits include: (1) Capability to expand the hours of operation for the reconnects (e.g. preliminary plan was 6:00 AM to 10:00 PM), (2) Reconnects can be completed quicker after the customer satisfies payments requirements, (3) Reduction of meter removals will provide less wear and tear on the customer’s meter base, (4) Improved safety since the service tech is not required to remove the meter, and (5) Automated reconnects will not require truck rolls for the cut-In process which will allow for other field work to be scheduled and completed and reduce meter tampering.

Cost Savings

PPL EU is required to investigate and track all sources of potential cost savings relating to the implementation of its proposed RF Mesh smart meter system that can be specifically identified and quantified, including but not limited to (a) meter reading, (b) meter services, (c) back-office, (d) contact center, (e) theft reduction, (f) revenue enhancement, (g) avoided capital costs, and (h) distribution operations, as discussed in the Pennsylvania PUC’s Opinion and Order at docket number M-2014-2430781. PPL EU must reflect those cost savings as an offset to the costs included in the calculation of its Smart Meter Rider mechanism.

PPL EU identified additional benefits that are difficult to quantify: (1) Reduction in the number of physical visits to customers’ premises, (2) More timely responses to customer requests relating to the ability to remotely connect and disconnect service, (3) Increased power quality, (4) Enhanced ability to detect distribution problems, (5) Faster location of outages, and (6) Improved tracking of unaccounted-for energy.

Cost Recovery

Cost recovery is planned via an accelerated Smart Meter Rider (SMR), similar to the Distribution System Improvement Charge (DSIC) recovery mechanism. Bill charges for the new meters would be phased in over time beginning in 2015. Charges would then decrease after the installation period. The average residential customer will pay about $2.79 per month over the time the meters are in service.

In summary, PPL EU is moving forward to implement the new smart meter program at a cost of about $471 million (including the addition of the Fiber Backhaul project) through 2020, in compliance with the PUC Order and legislative mandates. Because PPL EU had previously implemented its AMI PLC metering system, it was able to eliminate the significant costs associated with manual meter reading, and so the economic benefits generally associated with automated meter reading systems have already been achieved. PPL EU has recognized that those cost savings are not available to offset and justify the costs of the new mandated smart meter program. PPL EU is implementing the smart meter program in compliance with legislative and regulatory mandates; it is not intended as a cost savings program and it is not justified on an economic basis alone.

MeterVision 20/20 Implementation

PPL EU intends to deploy its upgraded metering system from 2015 through 2021. From 2015 through 2017, PPL EU will build the IT systems necessary to support the new system. Deployment of meters will begin with a “Solution Validation” phase in late 2016 through early 2017 and will include deployment of up to 50,000 meters. PPL EU will then begin full deployment of meters in 2017 and continue through 2019. Following the completion of deployment in 2019, the system will enter a two-year stabilization period, which will continue the process of fine-tuning the RF Mesh network and back office systems. This time period will also be used to deploy any final system enhancements or upgrades prior to full operation in 2022.

Meter installations are expected to occur at the rate of approximately 2,000 exchanges a day. In order to facilitate Same Day Cutover of meters from PLC reading to RF reading, network equipment is installed in an area prior to any meter deployment. Therefore, when the new RF meter is installed, the meter should connect to the network immediately and pass the required security keys to enable the meter to connect with the Routers and Collectors on the RF network.

A Meter Operating Center (MOC) is setup to provide monitoring of the deployment. Every day the MOC monitors the system to ensure that meters that were installed that day have successfully joined the network and are in an active status. The MOC is staffed with both Operational staff and Project Deployment Staff that includes the installation vendor.

Meters are given 48 hours to connect to the network. For any meter that is installed and does not connect to the PPL EU network within 48 hours, PPL EU will ask the Deployment Vendor to investigate. The Deployment Vendor has 48 hours to troubleshoot and resolve the connectivity issue. If the problem is not resolved within 48 hours, which is 96 hours after the initial meter installation, the Deployment Vendor will be required to provide a manual read of each register (and associated intervals) of the meter every day until the meter connects to the network and can provide over the air reading.

Meter Asset Management

A vendor is providing the new Meter Asset Management (MAM) system and test boards that will be used to test and track meters and network devices. MAM key functionality areas include: Device Procurement, Device Forecasting and Reporting, Inventory Management, Device Lifecycle Management, Measurement and Functional Testing, Condition Based Monitoring, Meter Firmware Management, Device Management Reporting, Device Commissioning, and Meter Configuration Management.

Meter Data Management System

Key functional areas that the MDMS system will support include: Validation Estimation Editing (VEE); Billing Determinants; Complex Billing Determinants; Load Forecasting and Settlement (Wholesale and Retail); Load Research/Load Profile; Multiple Head End Data Receiver; Meter/Customer/Account/Transformer Data Aggregation; Functional Data Storage; Historical Data Archiving; Rate Ready, Bill Ready and Usage Exception Detection; Performance Monitoring; and Reporting, Device Commissioning, and Meter Configuration Management.

finding

1. The MeterVision 20/20 project has the necessary project management performance measures.

The Customer Services Monthly Performance Indicators Report currently tracks two MeterVision 20/20 measures: the actual capital spending compared to the budget and the actual expense spending compared to the budget.

The October 2015 Report shows that the capital spending variances compared to the straight-line budget slope relate to timing of expenditures, such as IT purchases and lower than anticipated project management organization common costs. The end-of-year 2015 Actual Capital was $24.9 million and Working Budget was $24.88 million. Actual Expense was $ 2.6 million and Working Budget was $3.0 million.

Customer Services has been establishing project performance indicators, typically associated with the three primary project management metrics: cost, schedule, and earned value. Customer Services has established work sequences and deliverables with timelines, using a Release Roadmap approach, referred to as Release 1, Release 2, etc. through the end of the project implementation. Cost controls are built into the vendor contracts, including fixed fees and “at-risk” payments tied to critical milestones, deliverables, accuracy fees, and other performance driven payouts. The contracts include service level agreements. Metrics are reviewed periodically with the project leadership team. The earned value metric is defined as a series of project milestone trackers, each with target and actual completion dates, status, and commentary and notes.

Recommendations

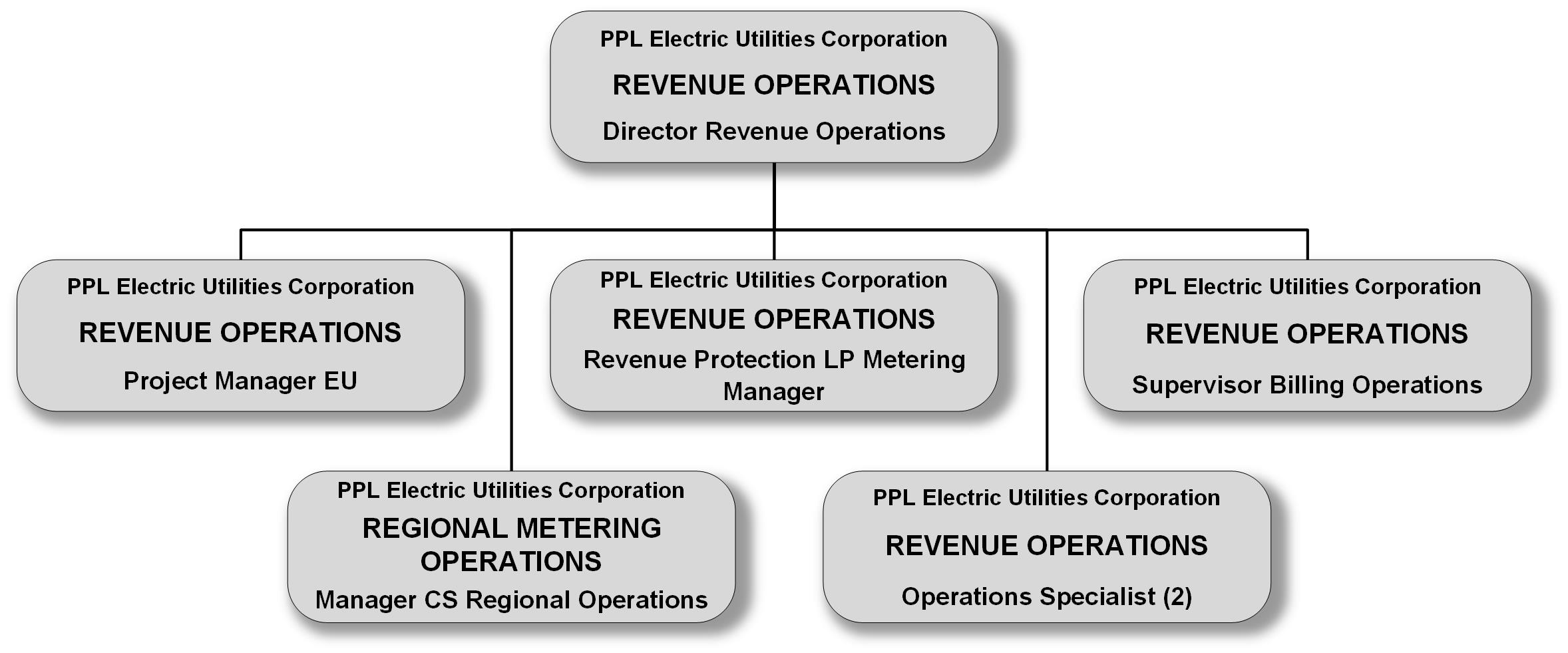
None

## revenue operations

background

During the Audit, four Customer Services groups were reassigned and consolidated within a unit referred to as Revenue Operations. Four groups report to the Revenue Operations Director, as shown on the following organization chart:

Exhibit ‑  
Revenue Operations Organization



Source DN 01-071

Each group is discussed below.

Metering Operations

The Metering Operations group’s core process is to work on existing meters in the field. It generally does not include meter installation as part of the new service process. Typical work orders include meter turn-ons, meter turn-offs, meter/billing investigations, disconnects for non-payment and associated reconnects, delivery of credit/disconnect notices, and change-outs of meters due to regulatory requirements (sample testing), failure, or for routine age-related replacements.

The Manager of Regional Metering Operations has about 85 employees and reports to the Director of Revenue Operations. In January 2015, the six Metering Services Supervisors were reduced to three and Service Techs were redistributed among the remaining three Supervisors. The three Supervisors each have geographic-specific responsibilities: Lancaster and Harrisburg, Lehigh and the Northeast Region, and Central and Susquehanna areas. Each has between 24 and 29 employees. The 66 Service Techs perform fieldwork and report to six service centers. The 15 Customer Representatives do office functions, including supporting the field teams and large power meter work.

Metering Operations’ primary objective is to improve productivity and efficiency, and thereby reduce FTEs through attrition to meet future reduced workload that will occur as the Meter 20/20 (Smart Meter) program is implemented. The new features and remote capabilities of the MeterVision 20/20 smart meter system will reduce the need for field visits for cuts (shut-offs) for non-payment, etc. If employee attrition by PPL EU Region does not correlate with the MeterVision 20/20 implementation over the next several years, Metering Operations has the capability to reassign the techs to different regions and service centers.

Metering Operations has been experiencing productivity gains, especially in increased productive time in the field. For example, the Customer Services Monthly Performance Indicators Report for October 2015 noted that in-route times, or the time duration for employees departing the service center and arriving at the job site, had stabilized at 8:16 am - 46 minutes past the start time of 7:30 am. On average, technicians continue to complete more work this year compared to last with the average tech completing 2,983 orders YTD. October 2015 saw 2% more orders completed compared to last year.”

Residential shut-offs, a key Metering Operations work load activity indicator, has been consistently tracked for five years, and shows increases in work volumes. The data below depicts annual shut-offs for nonpayment:

Exhibit ‑  
Residential Shut-offs for Non-Payment

| **Shut-Offs** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Actual shut-offs | 33,940 | 41,359 | 52,882 | 59,338 | 54,385 |
| Sources: DN 04-177/197; PPL EU edits | | | | | |

Residential shut-offs are a significant work driver for Metering Operations with contractors used to perform a significant part of the work. The above graph shows an increase of about 75% from 2011 through 2014 and then a decrease of 8% in 2015. Shutoffs were down in 2015, even though field visits were comparable to 2014. Jobs were being completed without blocking the meter.

Metering Operations achieved the increase in shutoffs through 2014 with the use of contractors and increased employee productivity. There are a number of explanations, (some of which are discussed in other findings):

* “Minutes to En-route from Start Time” has improved. The Manager now sets expectations and has increased service center departure times.
* “Schedule integrity” has improved. Jobs are now printed out on a priority basis and given to each tech, and the techs can plan their routes based on the priorities.
* There is a new focus on “controllable time-off." The Manager and Supervisors more closely manage requests from techs for time off; and constrain it based on availability of other techs to cover the work requirements.
* At the end of the day, the techs now clean their vehicles, remove old meters, and get new materials for the following day.
* A new MOMs platform was introduced in March 2015 that adds quality metrics to existing quantity metrics.

Revenue Protection

Revenue Protection was relocated from the Metering Operations group to Revenue Operations during the Audit.

The Revenue Protection Group does meter damage investigation and repairs, investigates theft and fraud, and performs shut-offs for non-payment.

The Revenue Protection function has four Revenue Protection Specialists who perform theft of service investigations and loss of revenue investigations due to metering malfunctions. They also supervise 13 Customer Contact Representatives (CCRs). The CCRs are dispersed across the PPL EU territory. They act as the liaison between the customer and PPL EU for PUC informal complaints. They perform high bill investigations, property damage investigation, mixed meters, and 30-day compliance response/investigations for PUC informal complaints. Mixed meters are situations where there are both meters for each tenant and for a landlord for common area electricity usage, so that the landlord can identify and allocate the common electric costs to the rental charge.

The Large Power Metering for commercial and industrial (C&I) meters function includes new service meter installation, wiring secondary circuits, metering-related failure investigations, and meter replacement. For new services, the important metric is the “in-service date” for the customer. These new service jobs can span four to five months. The following is a description and sequence of the new service activities: (1) Customer contacts the Business Accounts team requesting new service and they create a work order, (2) The work order is transmitted to the Distribution Design Group who interfaces with the customer to design the service, (3) Distribution Design assigns tasks to the respective field groups, including Large Power, (4) Large Power contacts the customer to review the Rules for Electric Meter and Service Installation (REMSI) Standards and arrange for equipment to be picked up and schedules a day to complete the metering installation, (5) Large Power completes the meter installation and provides installation paperwork to Customer Representative A, (6) Customer Representative A creates the account within CSS, (7) An installation check task is automatically created and Large Power completes the installation check, and (8) Installation check results are sent to Customer Representative A who files them.

For the Large Power C&I function, there are two Supervisors: C&I Metering Services who are electrical engineers, one each in Lehigh and Harrisburg. Both positions require PE-E degrees. The Lehigh Supervisor has four Meter Technicians and Meter Installers and the Harrisburg Supervisor has six.

One of the CCRs' responsibilities is to investigate theft and fraud. They use the PLC automated meter reading system to perform 12 queries monthly. The data from the queries are “scrubbed,” resulting in 130 to 140 leads per person for follow-up; about 14,000 anomalies were identified in 2014 that resulted in 6,000 field visits. They concentrate on the 52,000 large power accounts and search for large drops in usage. Zero usage usually implies a metering equipment problem. For residential and small commercial, the CCRs identify gaps in usage, implying theft. If there are no patterns, then the problem is typically equipment related (e.g., electronic metering transponder module).

For certain theft situations, such as customers illegally growing cannabis, Revenue Protection uses check meters at or near the transformer to measure and document usage to determine theft.

Revenue Protection differentiates between a “collection issue” and a “meter bypass issue.” When theft of service is confirmed, Revenue Protection will file criminal charges, file testimony, and monitor the process until restitution is made. Unrecovered amounts are forwarded to the Credit and Collections group for collection recovery.

With the pending approval and installation of AMI, Revenue Protection anticipates an increase in theft of service investigations due to the additional and improved data capture.

Billing Operations

Billing Operations is responsible for the management of the billing process from the meter reading date through issuing bills and payment processing as follows:

* There is a four-day window to obtain a meter reading. On “download day,” the CSS/AMR sends a ping for monthly reads. On the 1st missed day (i.e., the meter does not respond to the download day ping), Billing prepares an estimate that is used in the event that a read cannot be obtained on days 2, 3, and 4.
* The Meter Data Management (MDM) system transmits meter readings to the CSS Billing system.
* CSS runs a pre-bill with edits and controls for Work Flow Managements (WFMs). There are 150 types of WFMs, including high/low checks, KWh and demand anomalies, and high bill checks.
* The CSS initiates “batch runs.” CSS applies billing components and CSS history is updated.
* Bills are then generated via one of three billing paths: (1) Electronic Data Interface (EDI) for supplier customers, (2) Paperless (online), and (3) Printed.
* The print files are sent to a contractor in Connecticut who prints, stuffs in envelopes, and then trucks to Lehigh to deliver to the U.S. Postal Service which distributes throughout the PPL EU territory.
* Payments are processed and posted to customer accounts by the Cash Information Management System and files are sent to CSS for updates.
* There are about 200,000 bills per month paid online and cash operations are handled at the PPL EU’s Ninth Street office in Allentown.

The Supervisor of Billing Operations has ten employees and reports to the Director of Revenue Operations. Changes were made during the Management Audit that expanded the Billing Operations’ responsibilities. The Supplier Coordination group was transferred to Billing Operations from Finance in August 2015, and handles inquiries from the electric suppliers and government agencies and assists CSRs in the CCCs in responding to shopping customers. Three people handle electric generation supplier (EGS or supplier) inquiries. Another individual interacts with the Customer Contact Center (CCC) agents who may receive inquiries from EGS customers, government agencies, etc. Billing Operations was also assigned five CCC CSRs who handle large power account billing, LIHEAP, and other programs.

Billing Operations handles “no bills,” accounts that haven’t been billed. These include bills that were incorrectly billed, such as an incorrectly named party on the account/bills. These require “data repairs” and Billing Operations works with CCC and IT to fix these problems.

Printing and mailing of PPL EU bills and letters were outsourced. The vendor provides daily reports of total bills received, printed, and mailed, broken out by PPL affiliate. Date and time of all mail submitted to the U.S. Postal Service are reported on a daily basis. The Services Level Agreement (SLA) specifies average daily volumes, number of monthly images, input data file deadline, and turnaround times. The quality error rate of accuracy must not exceed 0.2% of the mailed statements in any month, and is named Quality Error Service Level. There are a number of requirements associated with turnaround times. PPL EU has averaged about $2 million per year in payments to the vendor, not including postage payments, between 2012 and 2015.

PPL EU has a disaster recovery arrangement for payment processing. The formal document is a Master Services Agreement between PPL Services Corporation and another vendor, dated February 26, 2014. PPL EU also uses this vendor to process 10% of its monthly remittances. The Agreement describes the available services, including:

* Remittance processing with a USPS lock box arrangement
* Image capture, storage, and retrieval
* Bank deposit services
* Deposits and confirmations
* Electronic payment services
* Transaction and image web portal services
* Disaster recovery services

The Agreement includes provisions for performance standards described as “minimum performance levels,” data collection and error reporting, a monthly performance report, and performance incentives. For disaster recovery services, the Agreement has provisions for a maintenance and surcharge fee.

Internal Service Organization Controls audits, required by the Sarbanes-Oxley Act, are run every day. There is a quarterly Work Flow Management (WFM) audit based on a random selection of transactions that are processed by CSRs. There are about 50 random account audits per month for large power accounts and there is an annual audit walk-through with Ernst & Young.

Customers are increasingly using the web for bill payments. The data below portrays variations in bill payment methods over the last several years:

Exhibit ‑  
Bill Payment Methods

| **Method** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| EDI | $557,225,508 | $562,119,507 | $515,612,083 | $571,764,318 | $631,931,618 | $660,060,990 |
| EFT | $269,845,288 | $268,424,144 | $245,285,774 | $263,760,714 | $303,805,168 | $321,293,426 |
| IVR | $53,121,958 | $68,644,107 | $74,909,991 | $88,675,865 | $110,984,673 | $135,658,792 |
| Mail Payment | $1,460,060,399 | $1,404,095,828 | $1,225,242,766 | $1,243,219,844 | $1,284,757,725 | $1,207,887,103 |
| PO Box | $417,621,334 | $339,258,558 | $320,709,103 | $331,384,364 | $354,105,387 | $336,802,691 |
| Web | $239,302,511 | $295,532,182 | $305,352,031 | $349,484,083 | $423,112,638 | $487,663,556 |
| Other | $227,998,558 | $229,022,292 | $188,309,653 | $198,322,409 | $255,886,021 | $325,060,272 |
| Total | $3,225,175,556 | $3,167,096,618 | $2,875,421,401 | $3,046,611,597 | $3,364,583,230 | $3,474,426,830 |
| Sources: DN 04-170; PPL EU edits | | | | | | |

As shown above, mail payments are accounting for fewer dollars and web payments and electronic funds transfer (EFT) payment methods are representing increased dollars. Between 2010 and 2015, revenues from mail payments decreased by 17%, revenues from web payments doubled (104%), and revenues from EFT increased by 19%. While the increases for web and EFT payments are significant, the 2015 dollars from those methods remain relatively small, about 23% of total revenue collected, compared to 35% for mail payment.

Customer Services has established aggressive goals to increase paperless billing and has been experiencing steady growth. Customer Services began tracking Paperless Billing account growth in 2012, as shown here:

Exhibit ‑  
Paperless Billing Accounts

| **Paperless Billing** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Paperless Billing | NA | NA | 99,283 | 134,128 | 163,396 | 191,078 |
| Sources: 04-177/191; PPL EU edits | | | | | | |

The measure or metric is the number of paperless billing net of opt outs. The metric increased by about 17% from 2014 to 2015.

Customer Services has been promoting the conversion by its customers to paperless billing. For example, in 2013 PPL EU offered a free LED light bulb to customers who signed up for paperless billing. At the time of the V&A Audit, Customer Services was in the process of finalizing a paperless billing initiative proposal to increase paperless billing enrollments to 30% within the next three years. The initiative will include customer giveaways and other incentives to switch to paperless billing, as well as a marketing campaign through e-mail, the PPL EU website, newsletters, and bill inserts.

Credit and Collections

The Credit and Collections (C&C) group consists of three individuals who report directly to the Revenue Operations Director, a Project Manager and two Operations Specialists.

The core work processes for C&C include: (1) Setting effective credit and collection policy in compliance with PUC regulations, including payment agreements and the final bill collection process; (2) Managing the day-to-day operation of the collection function within PPL EU; (3) Managing third-party collection contractors to ensure maximum recovery of dollars against written-off accounts; (4) Balancing credit and collection practices with the joint goal of reducing overdue accounts receivable while managing budgetary goals against write-off and reserve; and (5) Performing data collection, reporting, and analysis in order to ensure policies are effective within budgetary constraints.

C&C uses contractors for specific supplemental work:

* Credit scoring services are provided pursuant to a contract dated December 21, 2011, with a vendor, and continuing annually unless terminated by either party. The vendor provides A-B-C-D credit scoring with numeric scoring and balances owed, but the CSS displays only the letter score. The vendor provides software that calculates credit scores using algorithms and assigns risk segments according to agreed-upon settings. The contract describes the scope of work as the purchase of the use of software that performs regression analysis to risk scoring and to segment customers into risk categories. PPL EU has been paying about $26,000 for an annual maintenance fee and about $13,000 yearly for monthly processing.
* A second vendor is used for new connection credit checks. Fees are about $8,000 per month. The contract describes the credit-related services and identifies transactions assumed to be between 201,000 and 400,000 per year with unit transaction prices. Billings are between $80,000 and $100,000 per year. The pricing agreement was modified in 2008.
* A third vendor is used for skip tracing to try to locate and contact customers for non-payment. The monthly fees are minimal.
* A fourth vendor is being used for outbound calling to customers with arrears (in addition to 24/7 call handling and other CCC functions mentioned previously). Fifteen call agents were retained to perform live-agent outbound calling to customers who are overdue. The vendor will execute reminder call campaigns to customers with high balances, customers who have partially suspended dollar amounts, and friendly reminders to customers who have missed two consecutive monthly bill payments. These 15 agents will work 40 hours per week, at a cost of $900,000 per year.

The following describes the final bill collection process:

* Ten days after the due date of the final bill, if the bill remains unpaid, a reminder notice is mailed to the mailing address provided by the customer.
* Twelve days after the due date of the final bill, if the bill remains unpaid, a reminder phone call is made to the most recent phone number provided by the customer.
* If the final bill remains unpaid ten days after the reminder notice was mailed, the account is referred to one of two primary collection agencies.
* The primary collection agencies receive the customer file and send the debtor a dispute rights letter, informing the customer of his/her rights under the Fair Debt Collection Practices Act. No collection action takes place during the 30-day period following the mailing of this letter.
* Once the 30-day dispute period has expired, the agencies will begin a call/letter series to the debtor, reminding the customer of the overdue debt, and offering payment terms to resolve the debt.
* If the account remains unpaid ten months after the initial referral, the account is moved from the primary agencies to a secondary collection agency.
* Upon referral to the secondary agency, that agency will give the debtor a 30-day dispute period, informing him of his rights under the Fair Debt Collection Practices Act. No collection action takes place during the 30-day period following the mailing of this letter.
* The secondary agency will begin a call/letter series to the debtor, reminding him of the overdue debt and offering payment terms. The secondary agency reports the overdue debtor account information to consumer credit reporting.

In 2014, PPL EU placed a link on its web site allowing customers to pay arrearages. Currently, there is a $250 arrearage threshold that will trigger service termination. Last year, the average bill was $115, so two months of non-payment will trigger a shut-off. Unlike a number of other utilities, C&C is not using legal collection law firms, but rather is relying on collection agencies. Previous experience showed that the recoveries with legal collection law firms were not worth the fees/costs.

Customer Services developed a Customer Transition Program (CTP) in 2009 that provides the user interface for payment agreements. The CTP replaces the component of CSS that had required multiple windows to determine dispute and assistance program eligibility and payment agreement requirements. The CTP provides a script that can be read by the CSR to establish the payment agreement, and enables the CSR to void termination orders and issue referrals to customer programs such as CAP, LIHEAP, and Operation HELP. These referrals are automatically completed and documented on the customer’s account. Less time is spent manually maneuvering between various CSS windows, reducing call handle time. The CSR has the information that determines the various eligibility requirements, freeing up the CSR to work with the customer. The CTP provides transition of the payment assistance functions to the Web site and IVR, providing consistency between the self-service and CSR functions. The CTP benefits included improved PUC compliance, reduced call handle time, better customer satisfaction, and reduced training time for new CSRs.

findings

1. The reduction in Metering Operations Supervisors has increased the challenges of managing the field employees.

The number of field Supervisors was reduced from six to three. The increased span of control and the transfer of the Work Management Planner/Scheduler has reduced the Supervisor’s available time for direct field supervision.

To address the increased span of control, the Supervisors have been directed to focus their oversight on their approximately 20 direct reports in the field with less oversight provided to the office support staff. The objective is to have the Supervisors spend an hour at the beginning and end of each day in the office, and the remainder of the day in their vehicles traveling through their geographic areas. Although there are more travel-related time and costs in proportion to the direct field supervisory time, Metering Operations believes that the benefits of direct field supervision outweigh the reduced office supervision.

The Metering Operations Field Supervisors picked up some of the work management functions, reducing their time spent in the field. Change Meter Orders (CMOs) are not being efficiently and effectively prioritized for the Supervisors and their field people.

Metering Operations has been pursuing opportunities to increase the time that Supervisors spend in the field and has been achieving 70% field time (out of office) for the Supervisors with a goal of reaching 80%. One consequence has been some increase in office backlog work.

1. Revenue Protection does not consistently report work management performance metrics, targets, and unit costs.

Revenue Protection currently tracks and reports the following metrics:

* Investigations Completed: The November 2015 report shows that Revenue Protection completed nearly 100% of the leads that were investigated within 50 days of notice, compared to a target of 97%. An investigation includes review of account information and field visits; by the end of November, 11,831 leads were completed for 2015. Revenue Protection had said that it has reduced the 50-day investigation standard to 45 days, but the 45-day standard was not incorporated into the November report.
* Communications Completed: The November 2015 report shows that 100% of the completed investigations were communicated within 30 days, compared to a target of 97%. Revenue Protection has separately said the goal is to communicate the findings and billing impact to the relevant customers within 12 days of verifying the problem.
* Large Power Meter Anomaly – Average Cycle Time: The November 2015 report shows that the objective is to reduce the cycle time, defined as the time of meter failure to the time of discovery. The goal is 12 months year-end, the stretch goal is 10 months, and the YTD was 8.9 months.

These three metrics were included in the Customer Services Monthly Performance Indicators report until the end of 2013 and then were dropped from the report, although data has been tracked and reported within Revenue Protection, as discussed above.

Revenue Protection also tracks “In-service Date” for large power projects, “Number of Accounts Touched,” and “Response to Each Case” (aka “day counts”), but no reports were available showing the performance.

None of these metrics are associated with the costs to perform the work to calculate unit costs.

1. Revenue Protection processing of Large Power metering installations is paper-intensive and has led to billing problems and lost revenues.

There have been cases where meters have been installed and are functioning for new C&I services but bills are not issued. According to PPL EU's description: "Large Power completes the meter installation and provides installation paperwork to Customer Representative A," who then "creates the account for the customer and completes the Large Power Task." Mishandling of paperwork and lack of appropriate CSS data entry has been identified as a cause. Large C&I customers with multiple accounts and meters at a number of locations may not realize that they are not being billed for usage at one of their meters.

1. Revenue Protection has neither revenue losses nor revenue recovery performance metrics associated with theft of service and other non-billed losses.

Revenue Protection focuses on ensuring accurate meter readings and accurate billing, not necessarily finding and recovering dollars. Revenue Protection seeks to discover equipment failures and meter anomalies as soon as possible in order to reduce the time or cycle of meter failure to the time of discovery. As noted elsewhere, these non-revenue related goals have been in effect for five years.

Revenue Protection estimates that delays in discovering meter failures are causing losses of $18,000 per month. Revenue Protection asserts that: “We recover less money because less money is being lost.” While this may be anecdotally true, there are no metrics to support the assertion. Revenue Protection expressed an informal goal to recover $1 million per year. There is no information to assess performance against that goal.

1. The reporting and presentation of billing performance metrics have not improved over the last three years and do not adequately focus on errors.

Nearly 17 million bills are issued each year. The data below depicts billing performance, as reported in the Customer Services Monthly Performance Indicators reports:

Exhibit ‑  
Bills Issued Timely and Accurately

| **Metric** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Bills Issued Timely (Target 99.9%) | 99.94% | 99.89% | 99.89% | 99.90% | 99.90% | 99.91% |
| Bills Issued Accurately (Target 99.7%) | NA | NA | NA | 99.70% | 99.70% | 99.70% |
| Sources: DN 04-177/197; PPL EU edits | | | | | | |

As shown above, the Bills Issued Timely and the Bills Issues Accurately metrics have leveled off for the the last three years.

The October 2015 report notes that in October, the percentage of accounts billed timely remained relatively the same. The number of bills issued accurately met the target of 99.7%. A larger number of adjustments (4,218) were performed during the month of October compared to 3,646 adjustments in September. Phone answering reduced the time availability of CSRs to perform back office work to identify and correct billing errors.

Customer Services has focused on improvement opportunities, including key items having a direct impact to the “no bills.” Prioritization is given by large dollar valued accounts followed by GS3 accounts (Large General Service – Time of Day Rates), followed by oldest aged accounts.

Redefining the metrics to focus, instead, on error or exception rates is a better measurement practice. By tracking Bills Not Issued Timely and Adjusted Bills (not issued accurately), the data would appear as follows:

Exhibit ‑  
Bills Not Issued Timely and Bills Adjusted Performance

| **Category** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Bills Not Issued Timely | 0.06% | 0.11% | 0.11% | 0.10% | 0.10% | 0.11% |
| Adjusted Bills Issued | 0.35% | 0.38% | 0.25% | 0.20% | 0.26% | 0.28% |
| Sources: DN 04-177/197; PPL EU edits | | | | | | |

Given that about 17 million bills are issued each year, a relatively small 0.01 percentage point change in Bills Not Issued Timely or Adjusted Bills represents 1,700 bills. As reported in the October 2015 Customer Services Monthly Performance Indicators report, 4,218 billing adjustments were required for that month. The visual contrast of the error rate scale draws attention to the month-to-month variances and offers a more compelling incentive to identify improvement opportunities.

1. The paper bill delivery and mailing process is cumbersome and not as efficient as it could be.

The print files are sent electronically to a contractor in Connecticut who prints the bills, inserts them in envelopes, applies postage, and then trucks the letters to Lehigh for transfer to the U.S. Postal Service which distributes the bills throughout the PPL EU territory. The transfer of the bills from Connecticut to Pennsylvania increases cost and is inefficient, including weather-related and other delays. Although PPL EU has reduced its mail costs due to sorting and reduction in postage costs with this vendor, more efficiencies should be achieved.

1. The contracts with two credit vendors do not include performance metrics.

The contract for Vendor A (for credit scoring services) contains a non-specific reference to “acceptance criteria” and does not have a service level agreement (SLA) or specific performance standards and metrics. The contract for Vendor B (for new connection credit checks) was effective May 15, 2005, and amended in July 2011 and September 2013. The term is three years with automatic renewal for one-year periods unless terminated by either party. The contract does not have a defined SLA or performance metrics.

1. C&C manages the performance of its collections agencies using comprehensive and detailed metrics.

Performance of the two primary collection agencies is tracked by C&C in a monthly report. One important metric is the recovery rate, as shown below:

Exhibit ‑  
Collection Agency Recovery Rate per Placement  
Cumulative 12 Months

| **Collection Agency** | **Recovery Rate** |
| --- | --- |
| Residential Recovery Rate (Agency 1) | 2.09% |
| Residential Recovery Rate (Agency 2) | 1.99% |
| Non-Residential Recovery Rate (Agency 2) | 8.96% |
| Secondary Recovery Rate (Agency 3) | 0.69% |
| Source: DN 04-190 | |

The above data is cumulative for 12 months, but C&C tracks monthly recovery rates for each of the agencies, the average balances placed and recovered per account, the amounts collected by agencies net of fees, and monthly write-offs.

1. Over a multi-year period, net write-offs have grown significantly.

The data below depict Net-Write-Offs for nine years:

Exhibit ‑  
Net Write-Offs

| **Factor** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Net Write-Offs (millions) | $22.93 | $26.11 | $26.85 | $25.00 | $29.72 | $29.34 | $32.92 | $34.27 | $36.70 |
| Sources: DN 04-177; 04-197; PPL EU edits | | | | | | | | | |

The Net Write-Offs increased by 60% between 2007 through 2015.

1. Credit and Collections-related performance indicators show that actions are being taken to reduce accounts receivable and drive more dollars to be written off, but do not address the mitigation of the significant increases in net write-offs.

The October 2015 Customer Services Monthly Performance Indicators report contains three Department Level C&C-related metrics:

* Customer Services defines the "Net Write-Offs" performance indicator as net write-offs budgeted less purchase of receivables budgeted (supplier discount) plus cumulative reserve adjustments. The objective is to manage net write-offs to ensure expenses are minimized and cash flow maximized. The associated commentary essentially addresses managing to the forecasted budget target. There is no focused commentary on short and long-term initiatives to control the rise in Net Write-Offs.
* Customer Services also tracks and reports "Residential Active 60+ Day Overdue Accounts Receivable" (which excludes OnTrack accounts receivable) and "Cumulative Accounts Receivable Reduction." The objective is to implement C&C initiatives that reduce customers’ overdue bills. The commentary discusses variances in meeting forecasted targets, including a decrease in overdue accounts receivable. There is no explicit discussion of specific short and long-term initiatives to drive down overdue accounts receivable.

The October 2015 Report also has two C&C-specific indicators: "Residential Overdue to a Rolling 12-month Revenue Ratio (Accounts Receivable)" and the "Rolling 12-Month Write-Off to Rolling 12-Month Revenue Ratio." The objective of these indicators are to actively manage balances going forward, which will drive more accounts to be written-off.” There is no commentary that describes short and long-term initiatives that relate to controlling the growth in Net Write-Offs.

Despite PPL EU's use of risk scoring, managed payment plans, live-agent outbound calling, and field productivity improvements which are aimed at reducing overdue accounts receivable, Net Write-Offs continued to increase.

recommendations

1. Merge the Metering Operations and Revenue Protection functions to improve performance and reduce O&M costs. (See Findings 1, 2 ,3, and 4)

Both groups have metering responsibilities that require metering knowledge and regional fieldwork. Metering Operations staffing requirements will be reduced as the MeterVision 20/20 Project is implemented and the existing meters, data communication systems, and the MDM system are replaced. Reduced metering errors and anomalies, improved revenue loss detection, and more efficient meter and account turn-on and turn-offs will change the nature and requirements of field work and the resulting FTE requirements. Cross-training and other work force management techniques will help eliminate duplicative and unnecessary work and will help optimize FTE staffing. Workforce management will be better at tracking performance, identifying performance improvement opportunities, and fine tuning forecasting models. O&M costs can be reduced and measured with appropriate performance indicators to ensure work quality, work productivity, and meeting internal stakeholder and external customer needs.

PPL EU estimates that a reduction of two Metering Operations and Revenue Protection FTEs would result in a savings of $250,000 per year.

1. Modify billing metrics to focus attention on error rates instead of billing achievement rates. (See Finding 5)

Customer Services should replace the existing Bills Issued Timely and the Bills Issued Accurately metrics to Bills Not Issued Timely and Adjusted Bills. The current metrics are well above 99%. Given that about 17 million bills are issued each year, a relatively small 0.01 percentage point change in Bills Not Issued Timely or Adjusted Bills represents 1,700 bills. As reported in the October 2015 Customer Services Monthly Performance Indicators Report, 4,218 billing adjustments were required for that month.

Exception or error reporting focuses attention on the magnitude of problems and more readily facilitates analysis of correction and improvement opportunities. Error reporting, coupled with identifying the cost per error unit can lead to a more thorough analysis of the cost to correct errors versus the benefits derived.

The contract for the billing function that is outsourced to the billing service vendor is governed by a service level agreement (SLA) that is mostly defined by error rates. To whatever extent the billing error metrics are affected by the performance of the billing service vendor, Customer Services would more easily identify cause and effect.

1. Analyze the bill printing practices for opportunities to improve efficiencies and reduce costs. (See Finding 6)

The meter data print files are sent electronically to the bill-printing contractor located in Connecticut. The contractor then prints, stuffs the envelopes, and trucks the bills to a U.S. Postal Service location in Lehigh, Pennsylvania. This practice is inefficient and subject to weather, or other types of delays. Customer Services should improve this bill delivery process. Improvement alternatives may include mailing the bills directly from the bill-printing contractor to customers or locating the bill printing function near a central PPL EU territory location.

Improvement alternatives that involve bringing the printing in-house or using a new bill printing contractor are facilitated by the fact the existing contract expired in February 2013 and apparently has not been formally extended. The time may be opportune to issue a RFP or renegotiate the contract, including requirements for more efficient billing preparation and delivery practices.

1. Amend, update, or renegotiate the contracts with the two credit contractors to include service level agreements and performance metrics. (See Finding 7)

Customer Services should establish performance standards and metrics for the contracts, with a focus on error rates, unit costs, and exception reporting. Customer Services should then develop a tracking and reporting process to ensure adequate performance. Customer Services should also consider developing unit costs that correlate to the performance metrics so that value received per unit cost of services can be analyzed. The resulting data can be used for defining the requirements for future contract RFPs.

Please see related information in Section C: Customer Services Operations Recommendation 1.

1. Take actions to reduce the growth in net write-offs. (Findings 9 and 10)

Customer Services should explicitly identify initiatives that are designed to reduce the growth in Net Write-Offs. The initiatives should be linked with performance indicators so that the effectiveness of the initiatives can be measured in the short and long-term. These performance indicators should be included in the Customer Services Monthly Performance Indicators Report, with the visibility and priority that are needed to focus management's attention.

As discussed in greater detail in the Customer Assistance Programs Chapter, the OnTrack program should be viewed as a tool to reduce Net Write-Offs. Two of PPL EU's four OnTrack program objectives are to decrease uncollectible balances for program participants and to determine overall impact on PPL EU's overdue accounts receivable. Both of these objectives, if achieved, should contribute to mitigating the growth in Net Write-Offs. None of Customer Services' five performance indicators reported in the Customer Services Monthly Performance Indicators Report establish a relationship between the OnTrack program performance with Net Write-Offs. That relationship should also be made clear.

PPL EU estimates that holding the net write-offs at the 2014 level will save $2,430,000 per year.

# Customer Assistance programs

The Customer Assistance Program (CAP) in Pennsylvania derives from the 1997 Competition Act for the purpose of providing affordability of electricity rates. The Act requires the Pennsylvania Public Utility Commission (PUC) to ensure that universal service and energy conservation services are appropriately funded and available in each electric distribution territory. The PUC adopted its CAP Policy Statement to provide guidance on affordable payments to balance the interests of the customers who benefit from the CAP affordability programs with the interests of the customers who pay for the programs. The PPL Electric Utilities Corporation (PPL EU) program that complies with the CAP requirements is named OnTrack.

The PUC request for proposals (RFP) specifies that the Audit will:

… review and assess the effectiveness of PPL Electric Utilities’ customer assistance program(s) (CAP), particularly outsourcing activities with its CAP Agencies. This evaluation is to include, but not be limited to, an assessment of the following:

A review of the coordination, communication, and information flow between the Company and CAP agencies including how the CAP agencies respond to CAP customer billing complaints and updates to household or income situations.

The reasonableness of CAP agency staffing levels and customer service performance levels with respect to telephone coverage, callback timeframes, application/recertification processing timeframes, etc.

Review and assess the appropriateness of the training provided to CAP agency staff and evaluate the effectiveness of training in preparing staff to handle customers’ complaints or situational changes.

This chapter is organized with the following topic areas:

A. OnTrack Program Overview

B. OnTrack Program Processes

C. PPL EU OnTrack Organization, Staffing, and Functions

D. OnTrack Agency Staffing and Functions

E. OnTrack Agency Contracting and Contract Management

F. Performance Management

Relevant background information, findings, and recommendations are included in each section after the Program Overview.

## ontrack program overview

Background

OnTrack Program Objectives

The PPL EU objectives for its OnTrack program are to:

* Improve customers’ bill payment habits and attitudes
* Stabilize or reduce customers’ energy usage
* Decrease uncollectible balances for program participants
* Determine overall impact on PPL EU’s overdue accounts receivable

OnTrack Program Description

OnTrack is a special payment plan for PPL EU customers with limited incomes who are struggling to pay the full cost of their electric service. The program offers a special reduced monthly payment based on family size, income, and electric use and a chance to erase any pre-program arrears. For eligible customers who complete the application process and are enrolled, the OnTrack program will:

* Provide a reduced monthly payment, based on the household’s ability to pay
* Waive late payment charges
* Cancel a portion of any pre-program arrears (“arrearage forgiveness”) every month while in the program (with complete pre-program arrearage forgiveness after making 18 months of OnTrack Payments)
* Protect from termination procedures
* Provide energy education and weatherization services
* Provide referrals to other community programs and services

**Program Organization Structure.** PPL EU’s OnTrack program enrollment process was originally outsourced to ten regional community-based organizations that also provide other non-PPL EU related services to lower income households. As of May 2016, the number was reduced to eight. These organizations are referred to as CAP agencies or OnTrack agencies. PPL EU’s Regulatory Programs group, part of the Customer Services organization, uses Regulatory Program Specialists (RPSs) to oversee the program and the agencies. The PPL EU, PPLSolutions, and an unaffiliated contractor’s call centers have program-related responsibilities.

Eligibility Requirements

Customers who are being considered for OnTrack must meet a number of requirements.

* The customer must have a verifiable source of household income at or below 150% of the federally defined poverty level. Customers do not have to provide proof of income if they previously received Low-Income Home Energy Assistance Program (LIHEAP) funds within the prior LIHEAP year. For people already enrolled and going through recertification, and if the customer is on SSI (fixed) income, PPL EU does an auto-recertification at the recertification point. The OnTrack agencies will reject program applications if the customer provides insufficient documentation of annual household income. Customers with no household income are ineligible to participate in OnTrack. Payment-troubled customers whose verified household income is not more than the following maximums may be eligible:

Exhibit ‑  
OnTrack Household Income Criteria

| **2015 Income Limit** | |
| --- | --- |
| **Household Size** | **Gross Annual Household Income** |
| 1 person | $17,655 |
| 2 persons | $23,895 |
| 3 persons | $30,135 |
| 4 persons | $36,375 |
| 5 persons | $42,615 |
| 6 persons | $48,855 |
| Each additional person | $6,240 |
| Source: DN 14-107 | |

* The customer must be payment-troubled, which is defined as having one or more payment agreements with PPL EU in the prior 12 months.
* The customer must participate in the Winter Relief Assistance Program (WRAP) program, if eligible. WRAP provides a free energy efficiency and conservation assessment of a customer’s premises. If customers do not follow the post-enrollment instructions to participate in WRAP, PPL EU has a process to identify newly enrolled OnTrack customers and feed them into the WRAP program. The OnTrack customer does not receive automatic preference over other WRAP customers that are in the pipeline. However, if there is a need to move an OnTrack customer up in the process due to a special situation, e.g., high usage, PPL EU will escalate that customer through the WRAP process.

Arrearage Forgiveness and CAP Credits

The two main benefits of the OnTrack program that are reflected in the bills of eligible customers are arrearage forgiveness and CAP credits. Arrearage forgiveness is accomplished by forgiving 1/18th of pre-program arrears for each month that the customer makes a full and timely payment. The customer pays a budget or installment amount each month. The CAP (or OnTrack) credit represents an amount that offsets the customer’s actual usage versus OnTrack payments during the customer’s participation in the program. The customer’s OnTrack payments are calculated based on the customer’s ability to pay (determined by the gross annual household income limits and number of people in the household, as shown above) with CAP credits covering the remainder of the actual usage bill. The total CAP credit (maximum) amount is based on whether the customer has a heating or non-heating account. At the beginning of 2016, the 18-month CAP credit limit was set at $3,328 for electric heat customers and $1,310 for non-electric heat customers. If the customer does not adequately control the household usage, the credits may be exhausted before the end of the program and result in a “shortfall removal” from the program. Effective December 21, 2015, OnTrack customers who exceed their maximum credit amount are automatically shifted to their normal budget billing adjustable amount but remain active in the program.

Payment Plans

PPL EU provides guidelines that allow OnTrack agencies the flexibility to choose a payment plan to best meet the needs of customers. PPL EU’s Customer Service System (CSS) calculates two OnTrack payment options at the time of enrollment and a third option is at the discretion of the enrolling case worker. The payment options are:

* Minimum Payment: This payment is equal to the estimated monthly budget amount minus the maximum monthly CAP credit ($185/month for electric heat and $73/month for non-electric heat) plus $60 annual arrearage co-payment divided by 12 months.
* Percent of Bill Payment: This payment is the estimated annual bill times the percent of bill amount plus $60 annual arrearage co-payment divided by 12 months. The percent of bill varies by poverty level.
* Agency Selected: This custom amount is set by the agency caseworker if the payment options that are calculated do not fit the customer’s ability to pay, there are extenuating circumstances, or the caseworker believes that the customer will not be successful in making on-time payments with one of the calculated options.

With regard to the Agency Selected option, most caseworkers reported that they only choose a payment type other than that recommended by PPL EU’s system in a minority of cases.

Electric shopping (commodity purchased from a competitive supplier) choices made by OnTrack customers in the Percent of Bill Payment and Minimum Payment plan options will automatically be taken into account by the PPL EU system in calculating the OnTrack payment amount that is set at application and recertification. For customers in the Agency Selected plans, the plan amounts are automatically adjusted based on prior shopping decisions and those shopping decisions will get worked into the plan amount. The plan amount is an amount less than the Percent of Bill amount.

Each of the above payment options would also include a CAP Plus amount, which is a charge added to OnTrack customer’s bills as the result of the settlement agreement in PPL EU’s 2010 distribution rate case at docket number D-2010-2161694. A formula is used to calculated the CAP Plus charge annually, which is intended to help offset the CAP program expenses paid by all residential customers responsible for funding the OnTrack program through the Universal Service Rider.

Program Funding

The Universal Service Rider (USR) included in the rates applied to customer bills funds the OnTrack program, and the consequences of cost performance management eventually flow back through to the Rider as an offset. The USR is designed to recover the three main components of the program: OnTrack Revenue Shortfall, Arrearage Forgiveness, and Agency Administration. The fourth (and by far the smallest component at less than one percent) is the cost of Regulatory Programs staff that is allocated to the program and recovered through base rates.

The USR provides for recovery of the associated costs with OnTrack and Winter Relief Assistance Program (WRAP) (except internal administrative costs), provided by PPL EU to residential customers. The USR rate includes estimated expenses for the projected year plus any over/under collection from the prior period. The rate that is set is based on data for the December through November time period.

The total 2015 OnTrack budget, recoverable through the USR, was $79,005,395. The three components are defined as:

1. **OnTrack Revenue Shortfall**: The difference between the actual bill and the OnTrack installment amount. For example, if a customer is set up on an installment amount of $85 and receives an actual bill of $125, the revenue shortfall is $40 ($125 – $85 = $40). Revenue shortfall is also referred to as CAP or OnTrack credits. The 2015 budget for revenue shortfall was $53,881,619.
2. **OnTrack Arrearage Forgiveness**: The amount of pre-program overdue money that is forgiven over time. For example, if a customer is enrolled in the program with an overdue balance of $1,400, that overdue amount is essentially “frozen” at that point in time. Assuming the customer makes on-time payments and remains in the program for 18 months, the monthly forgiveness amount would be approximately $78 ($1,400/18 months = $78), beginning in the first month of enrollment. The 2015 budget for arrears forgiveness was $22,393,304.
3. **OnTrack Agency Administration**: Costs paid to the OnTrack agencies related to the administration of the program. For example, the agencies complete specific work tasks associated with the enrollment/screening process. The 2015 budget for agency administration was $2,730,472.

Program Costs

The following graph shows annual costs for each of the four components:

Exhibit ‑  
OnTrack Annual Costs by Component

| **Component** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Revenue Shortfall | $34,199,730 | $36,405,855 | $27,957,550 | $36,408,445 | $49,890,388 | $54,358,922 |
| Arrearage Forgiveness | $10,340,863 | $14,881,769 | $16,906,808 | $16,473,194 | $19,643,249 | $26,878,833 |
| Agency Administration | $2,114,798 | $1,860,043 | $2,241,857 | $2,341,380 | $2,483,220 | $2,376,716 |
| PPL EU Administrative | NA | $285,075 | $410,989 | $557,030 | $565,996 | $421,877 |
| Total | $46,655,391 | $53,432,742 | $47,517,204 | $55,780,049 | $72,582,853 | $83,614,893 |
| Source: DN 14-171 | | | | | | |

The total program costs have been rising over the last several years, being driven by the two largest cost components: Revenue Shortfall and Arrearage Forgiveness. These costs have risen as enrollments have increased. Total costs increased by 79%, while Revenue Shortfall and Arrearage Forgiveness increased by 59% and 160%, respectively. The following pie chart shows the 2014 cost components as a percent of the total program costs:

Exhibit ‑  
OnTrack Component Costs by Percent for 2014

Revenue Shortfall (68.7%) and Arrearage Forgiveness (27.1%) represent the largest components.

Agencies

The existing eight OnTrack agencies and the counties they serve are listed below:

Exhibit ‑  
PPL EU OnTrack Agencies

| **OnTrack Agency** | **Counties Served** |
| --- | --- |
| Community Action Committee of the Lehigh Valley (CACLV) | Lehigh, Northampton, Bucks, Montgomery |
| Community Action Commission of the Capital Region (CAC) | Dauphin, Juniata, Perry, Cumberland, York |
| Schuylkill Community Action (SCA) | Schuylkill, Columbia, Montour |
| TREHAB, Inc. | Susquehanna, Pike, Wayne, Wyoming, Lackawanna, Monroe |
| Community Action Program of Lancaster County (LANCAP) | Lancaster, Lebanon, Berks, Chester, York |
| STEP, Inc. | Clinton, Lycoming |
| Union-Snyder Community Action Agency (UNION) | Union, Snyder, Northumberland |
| Commission on Economic Opportunity (CEO) | Luzerne, Carbon |
| Sources: DN 14-103; PPL EU edits | |

Two agencies, Montour County Department of Human Services (MCDHS) and Columbia County Department of Human Services (CCDHS), were eliminated in 2015 and 2016 and the counties they served were re-assigned to the remaining eight agencies, as shown above.

Agency Compensation

The agencies are third-party contractors that are compensated by PPL EU for the hours expended for their work in the OnTrack program. The work definitions and the hourly rates are described in each of the agency contracts. The agencies are compensated for total monthly hours worked and billed, but the work includes tasks such as referral processing and income verification that does not necessarily result in enrollments. The amounts paid to the agencies over the last several years are shown above in the “OnTrack Annual Costs by Component” chart and agency contract management issues are discussed later in this chapter.

Previous Assessment of Meeting Program Objectives

In 2006, PPL EU worked with an independent consultant to evaluate the payment behaviors of low-income customers who participated in OnTrack. The purpose of the study was to look at customers’ payment behaviors before enrollment, after enrollment, and post-enrollment. The evaluation included approximately 10,000 customers who enrolled in OnTrack between January 2002 and October 2005.

The study showed that providing CAP credits and pre-program arrearage forgiveness for OnTrack participants helped to reduce PPL EU’s aged accounts receivable and, ultimately, its future write-offs. The evaluation also concluded that OnTrack administrative expenses directly offset collection expenses that otherwise would have been incurred if customers were not enrolled in the program.

Customers’ payment frequency went from 43.7% (pre-enrollment) to 70.9% (post-enrollment) – an increase of 62.2%. Similarly, billed/paid amounts went from 48.0% (pre-enrollment) to 90.5% (post-enrollment) – an increase of 88.5%. Once enrolled in OnTrack, customers paid more frequently and paid a higher proportion of their billed amount. However, the evaluation also showed that before enrolling in OnTrack, customers had paid 17.7% more than after their enrollment in the program.

The study also examined what happened to customers’ payment behaviors after they left OnTrack, either through graduation or for other reasons. PPL EU typically “graduates” customers from OnTrack if their pre-program arrearages are at zero and they are paying within 10% of their normal budget billing amounts. For OnTrack graduates, their frequency of paying was 57.4% prior to enrolling in the program and increased to 76.5% after they left the program. Surprisingly, there were similar results for customers who left OnTrack for other reasons. Their pre-program payment frequency was 38.6% and increased to 56.5% after they left OnTrack. There were similar increases regarding billed/paid amounts. For graduates, their billed/paid amounts went from 60.7% (before OnTrack) to 87.5% (after OnTrack). For customers who left the program for other reasons, their percentages went from 42.8% (before OnTrack) to 78.3% (after OnTrack).

PPL EU believes there are other benefits as well to customers’ participation in OnTrack. As noted above, participation in OnTrack helps to lower accounts receivable and future write-offs. The Universal Service Rider allows for more timely and accurate recovery of program expenses. OnTrack also reduces collection costs and encourages better payment behaviors. PPL EU also believes that OnTrack reduces PUC complaints (mediations and informal complaints) and enhances customer satisfaction by providing customers with affordable bills, by eliminating collection activities and by providing them access to other assistance programs (e.g., WRAP).

The consultant’s report conclusions about costs and benefits included:

* OnTrack program costs are not incremental expenses but, rather, reclassifications of what would otherwise be included in aged receivables, write-offs, and collection expenses. Therefore, the costs and benefits of OnTrack are better gauged by the amount and frequency of customer payments.
* Struggling payers get the help they need and pay very well while in the program.
* OnTrack graduates pay like the regular population of non-OnTrack customers once they leave the program.
* Even non-graduates, who leave the program, pay better than they paid prior to participation.
* Participation increases payment performance dramatically: 44% for graduates and 84% for non-graduates.
* Customers pay 17.7% less after enrolling when compared to an equal time period prior to participation.

## OnTrack program processes

background

PPL EU Referrals to OnTrack Agencies

Most referrals from PPL EU to the OnTrack agencies for enrollment come from customers who call PPL EU to discuss overdue balances and/or to set up payment agreements. The PPL EU customer service representatives (CSRs) attempt to obtain full payment of the balances or to establish payment agreements. When establishing payment agreements, the CSRs ask customers about their annual level of household income and the number of household occupants. Their level of incomes helps determine the amount of the payment agreement.

During this process, the CSRs explain the OnTrack program and ask customers if they are interested. PPL EU’s CSS is automatically checking in the background (for previous payment arrangements) to determine if the customer is eligible to enroll in OnTrack based on household income and other criteria and if there is already an existing referral to the program.

If the customer is eligible for a referral, the PPL EU CSR alerts the customer that an application is being sent and the system electronically sends the referral application packet to the customer. The packet includes a cover letter, the OnTrack application form, and a postage-paid return envelope. The return envelope is pre-addressed to one of the OnTrack agencies, depending upon the customer’s location. At the same time, the system automatically issues a work order to that OnTrack agency to follow up with the customer. In 2014, PPL EU issued an average of nearly 16,000 referrals monthly to the OnTrack program. In 2015, the monthly average was nearly 19,000 referrals.

Household Income Verification

To qualify for OnTrack, applicants must meet the annual household income guidelines of 150% of the federal poverty level and must have a payment agreement with PPL EU. Applicants must send proof of annual household income to their OnTrack administering agency. Proof of income may include federal income tax returns, pay stubs, copies of governmental assistance payments stubs (e.g., Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), and child support). The OnTrack agencies will reject program applications if the customer provides insufficient documentation of annual household income. Customers with no household income are ineligible to participate in PPL EU’s OnTrack.

Post-Referral Follow-up by the OnTrack Agencies

If the customer does not return the application to the agency, PPL EU sends the customer a reminder letter. The agency has access to the PPL EU Work Flow Management (WFM) system that tracks the referral date and enables the caseworker to follow up. If the application is received, but is incomplete or does not include the required income documentation, the agency caseworker will contact the customer. If the application is not received within ten days after the contact, the agency closes the referral as “no response.”

Caseworkers use a variety of measures if income verification is missing from the application, including:

* Returning the application by mail with a letter detailing what is needed and a return envelope.
* Calling the customer directly and then sending a follow-up letter.
* Using LIHEAP-related income information if available to process the application.

If the heat source listed does not reflect the usage or is inconsistent with the PPL EU database information, caseworkers create a WFM work item for investigation. All agencies reported that they follow up by both phone and mail. Mail is preferred by most agencies as a more effective way of receiving all the information that is needed.

Completing Enrollment

Prior to completing the enrollment, the agency must log on to PPL EU’s CSS and complete the following steps:

* Verify that the customer is income-eligible for the program.
* Verify the customer’s payment-troubled status. The customer must have had at least one payment arrangement in the past twelve months.
* Update the customer’s financial statement.
* Request budget billing removal if applicable – this must be done before the customer is enrolled.
* Request a security deposit waiver if applicable – if there is a security deposit on file, it will be returned to the customer.
* Remove from bill extender if applicable. There may be a bill extender on the customer’s account if the customer had previously asked to make a payment a couple of days late.
* Offer the due date change option to the customer if the customer has a bill extender on the account.
* Cancel active payment agreements or collection arrangements if applicable, including PUC payment agreements.
* Check for PUC Informal or Formal complaints and any payment agreements. Payment agreements must be removed before the customer can be enrolled in OnTrack.

After these tasks have been completed, the agency can enroll the customer in OnTrack. The enrollment process includes the following steps:

* The agency caseworker enters the OnTrack payment amount directly into the CSS.
* The agency creates a contact in the CSS that informs the PPL EU collections center that the customer has been enrolled in OnTrack.
* The agency must create a file with the customer’s OnTrack application, proof of income, and a copy of the customer agreement.

Customers receive the OnTrack bill with the next bill cycle after enrollment.

OnTrack Post-Enrollment Mailing

After a customer is enrolled in OnTrack, the agency sends a post-enrollment package to the customer. This package contains a one-page customer agreement form and a short brochure. The customer agreement form shows the installment amount, the maximum credit amount, how much PPL EU will forgive every month, and other information. The brochure explains the program benefits and how the program works. Included within the brochure is “Who to Call” information. The customer is instructed to call the assigned caseworker if there are changes within the household (income or household size). For all other matters, including payment and billing issues, the customer is instructed to call PPL EU.

Household Income Updates

During the 18-month-long program, customers are encouraged to update their income with documentation, but the process is essentially voluntary self-reporting. The caseworkers, however, may have intelligence about customers gleaned from other community and low-income programs and can use that information to update the CSS records. The CSS system will calculate or re-calculate possible OnTrack payment amounts based on the most recent financial and household information.

PPL EU has started an informal effort to match OnTrack customers with PPL EU employee lists to confirm income accuracy for those employees who are also OnTrack customers.

Post-Enrollment Customer Communications

To help facilitate awareness and education regarding a customer’s CAP credit usage level, the PPL EU’s system automatically sends letters to OnTrack customers at specific points in time. The first letter is sent when an OnTrack customer reaches 50% of his or her CAP credit maximum. A second letter is sent when the customer reaches 80% of his or her CAP credit maximum. Until December 20, 2015, a third letter had been sent to the customer if the account reached the CAP credit maximum, informing the customer of removal from the program. After that date, this 100% warning letter was eliminated and PPL EU transitioned the customer to OnTrack budget billing. The OnTrack budget billing status in the program is still beneficial because the customer receives debt forgiveness and OnTrack credits (if applicable), but the customer’s fixed monthly payment amount is increased from the normal OnTrack amount to the budget billing amount.

As of August 17, 2015, a new pilot process was initiated for all customers who are actively enrolled in OnTrack and have identified via the interactive voice response (IVR) process that they have pay assist questions (the active OnTrack status is “authenticated” and the system has confirmed ownership of the account). The calls are now routed to the PPLSolutions call center, located in Hazle Township, PA. Previously, the calls were routed to a PPL EU call center. If an active OnTrack customer calls PPL EU and the customer or system fails to authenticate, the call will go to a PPL EU CSR and, as soon as the CSR confirms that the customer is in the OnTrack program, the call is manually transferred to a PPLSolutions CSR. OnTrack-related inbound calls to PPL EU are not routed to the OnTrack agencies.

If the OnTrack customer calls about something other than pay assist, like start/stop service or energy education, the call will be routed in a normal manner to either a PPL EU CSR or a call center contractor CSR with that skillset. The IVR is designed to route the call based on the options selected within the IVR flow.

OnTrack Re-Certification

The recertification timeline is 18 months for all OnTrack customers. OnTrack agreements are reviewed for recertification twice (first at month 17 and again at month 18). Auto-recertification kicks in if the customer received LIHEAP funds within the past 16 months or the customer is on fixed income. An OnTrack account is not permitted to auto-recertify two times in a row.

The system reviews agreements for auto-recertification at month 17. If the customer is not eligible for auto-recertification, a work order in the Work Flow Management (WFM) system for manual recertification is created and sent to the agency caseworker. If the customer is eligible for auto-recertification, neither a work order nor auto-recertification will occur at month 17. In month 18, the agreement will review for auto-recertification again. If the agreement is still eligible for auto-recertification, the OnTrack agreement will be automatically recertified. If the agreement is no longer eligible (for example, the LIHEAP payment is no longer within the valid range), the work order for manual recertification is created and sent to the agency caseworker.

When manually recertifying customers for OnTrack, the agency caseworker is required to take the following steps:

* Verify household income.
* Review collection status. If the customer is in a collections status, the overdue amount must be satisfied before the customer can be recertified.
* Review kilowatt hour (kWh) use and determine if there was an increase after initial enrollment, as this can lead to a change in customer payment (credit) amounts, depending upon the reasons.
* Update the customer’s financial statement.
* Determine if customer is eligible to graduate (for example, the customer’s income has improved - see below for discussion).
* Enter the new OnTrack payment agreement into PPL EU’s system.
* Send the customer the Post-Enrollment package, which includes the payment agreement and the OnTrack booklet.

When determining the customer’s payment amount at the time of re-certification, agency caseworkers are instructed to consider the following: income, usage history, payment history, expenses, electric bill, household composition, and extenuating circumstances.

Conditions which can lead to more significant increases in customer payment levels include: increases in customer energy usage and increases in the customer’s income or circumstances that would allow them to better afford their bill.

Participants are encouraged to maintain or reduce their pre-program energy usage. Failure to maintain pre-program kWh consumption can lead to dismissal from the program. Exceptions apply when there are extenuating circumstances, such as:

* Addition of a family member
* Serious illness or medical condition
* kWh consumption increase beyond control of customer
* Severe weather conditions
* Structural damage to home

At re-certification time, customers may be graduated if their OnTrack payment is within ten percent of their budget billing and all of their arrearages have been forgiven. Other considerations include that the customer is not on fixed income and the customer’s income is sufficient enough to cover all expenses. The caseworker talks to the customer first to determine if OnTrack removal will cause a hardship. The caseworker then makes the determination of whether to graduate the customer from OnTrack. Customers that graduate from OnTrack are often returned to budget billing, because they have been paying their OnTrack amount that is close to a budgeting billing amount.

Some customers may remain in the program beyond the point where all of their arrearages have been forgiven, based on ability to pay the full budget amount. PPL EU refers to these customers as “OnTrack current bill.” If a customer has graduated from OnTrack and then has another broken payment arrangement, the customer may return to the program.

If the customer is not ready to graduate at the time of recertification, the agency caseworker must determine the customer’s OnTrack payment for the next year. The caseworker reviews the payment options and selects a plan based on the customer’s circumstances. In most cases, the new plan will be more than the prior plan amount. The idea is to bridge the gap between their OnTrack payment and the budget bill amount.

Follow-up and Removal from the Program

Customers must meet the following requirements to remain active OnTrack participants:

* Make timely OnTrack monthly payments. If one payment is missed, the customer will receive an automated letter that payment was not received. There is a five-day account review process after the due date. If the payment is received before that review is completed, the bill's "Pay This Amount" will be satisfied and no collection activity will initiate. If the payment is not received during this five-day "grace" period, the customer will enter the collections process. After the second consecutive missed payment, the customer is removed from OnTrack. If the customer does not make these payments, the customer can enter a collection payment agreement. After the winter moratorium, the customer can be shut off.
* Remain within the CAP credit limit. If a customer exceeds the CAP credit limit prior to 18 months, the customer is automatically transitioned to the OnTrack Budget Billing (OTBB) status. When this occurs, the OTBB activation letter is sent to the customer and it explains this change in status. The letter tells the customer that the OnTrack installment amount is being changed to what would be the current budget billing amount, referred to as the OTBB amount. The OTBB amount will remain fixed for the remainder of the 18-month program period. The OTBB activation letter explains that the customer will continue to receive program benefits, such as arrearage forgiveness and revenue shortfall. The letter also informs the customer that PPL EU will automatically send a program application for recertification, 18 months from the original enrollment date.
* Provide access to electric meters.
* Verify household income (at enrollment and recertification). The exception is for customers who receive LIHEAP or SSI. Customers who do not respond to the recertification application will be removed from OnTrack and sent a letter that states the reason for removal. Customers can be reinstated when they send in their application and documentation.
* Report changes in the household income or number of household members that occur at any point after enrollment.
* Participate in the Winter Relief Assistance Program (WRAP) program if eligible. WRAP provides a free energy efficiency and conservation assessment of a customer’s premises. An OnTrack customer may be removed for failure to comply with the WRAP assessment and will remain ineligible for OnTrack until the WRAP process is completed.

Customers will automatically be reinstated in OnTrack, have late payment charges reversed, and have all past credits applied when they make up all of their missed payments within six months after missing their second consecutive payment.

Customer Complaint Handling Process

Regulatory Programs receives PUC informal complaints, including ones related to the OnTrack program. When an OnTrack complaint is received, the assigned RPS follows up with the specific OnTrack agency.

Agency caseworkers do not have the same knowledge level or understanding as PPL EU or contractor CSRs with the necessary skill sets, and the OnTrack agencies are instructed to refer the customer to PPL EU if contacted about any information not directly pertaining to the OnTrack program. Account maintenance questions related to billing, payment, and usage are handled by PPL EU CSRs. According to PPL EU, there may be a small number of occurrences throughout the year where agency caseworkers come face-to-face with OnTrack customers or are on the phone with an OnTrack customer who “demands” some type of explanation. During those instances, the caseworker will attempt to provide an explanation or information to the customer, based on his/her limited knowledge about PPL EU’s billing and payment processes. But the caseworker is instructed to tell the customer to contact PPL EU for answers to these types of questions.

Based on the PUC’s regulations, PPL EU must respond to PUC informal complaints within 30 calendar days. A complaint remains open until the PUC issues a final decision. The PUC typically issues decisions 120 to 150 days after the customer has filed the complaint. If required, Customer Services will take action based on the PUC’s decision.

findings

1. PPL EU, unlike some other Pennsylvania utilities with a CAP, does not take OnTrack phone applications.

PPL EU does not have the capability to initiate an application for enrollment via the phone. By the third quarter of 2016, PPL EU will complete an IT order of magnitude estimate on what it would take in terms of system changes to have PPL EU CSRs enroll customers in OnTrack. PPL EU would target customers who had received LIHEAP energy assistance because the Pennsylvania Department of Human Services would have already confirmed their household income. To enroll in OnTrack, customers must provide verification of their household income. The household income guidelines for LIHEAP and OnTrack are both at 150% of the federal poverty level.

Regulatory Programs is also thinking about developing an online self-service screening/enrollment system as the preferred system and US Mail as a secondary option.

PPL EU plans to identify and evaluate the required regulatory policy and process changes needed to implement any new enrollment process initiative.

1. The validation of pre-enrollment, post-enrollment, and recertification of income eligibility is labor intensive, often cumbersome, and there is a potential for fraud.

There are a number of steps that the agency caseworkers must take that require accurate and verifiable information provided by the customer as part of the eligibility process. One of the more crucial steps is income verification for enrollment and recertification. If the customer has less than the minimum income amount or no income at all, the customer is not eligible because the program is premised on an expectation that the customer will be able to pay the monthly OnTrack billed (reduced) amount of their electric bill. The OnTrack agencies need to rely on customer communications and customer-supplied income evidence that may not be accurate, not easily verifiable, and, in any case, not audited. The potential for customer fraud exists at each of the above steps.

Customers are instructed to contact the agency to provide changes to income level or number of household members during the 18-month program. Unless customers choose to report changes, they are not easily discoverable.

1. Changes in post-enrollment energy consumption could affect eligibility but the reasons for the changes are difficult to discover and analyze.

One of the objectives of the OnTrack program is that customers will “stabilize or reduce” energy usage (e.g., with the help of WRAP). Some type of energy/usage review will occur if the customer receives WRAP services. As previously discussed, WRAP may or may not occur for some customers based on previous WRAP services, landlord consent, etc.

There is no requirement to have an energy assessment completed at the recertification point. However, at the recertification point, prior consumption and shopping decisions are taken into consideration when the new OnTrack installment amount is calculated. If a customer is with a lower-priced Electric Generation Supplier (EGS), the resulting Ontrack installment amount will be lower, as compared to being paired with a higher-priced EGS. Consumption will follow similar logic. If consumption is high or out-of-control over the last year, the system will take that into account when a new OnTrack installment amount is presented.

Changes that could affect energy consumption are “not easy to operationalize.” Even if customers have acted on energy conservation recommendations from a WRAP assessment, usage could increase if they add electric appliances, increase usage of existing appliances, or increase usage because of changes in the number of household members. Usage could decrease without conservation measures, for example, reduced number of household members. Caseworkers are not typically able to identify the reasons for changes in usage.

1. Regulatory Programs has been examining two OnTrack process improvement options, one “low tech” and the other “high tech.”

Under the “low tech” option, the existing Work Assignment Tracking Tool (WATT) system would be used during the enrollment/screening process and would include the following steps: (1) OnTrack referral is created via the existing payment process, (2) Customer receives the OnTrack cover letter and application, (3) customer submits the completed paperwork to PPL EU, (4) paperwork is immediately scanned into the WATT system, (5) the agency work managers and/or administrative staff organize, sort, and assign the paperwork to the caseworker, (6) the caseworker completes the enrollment/screening steps, and (7) the customer’s paperwork is saved/stored online and available for all users to view.

The “high tech” option would mirror the existing Low-Income Energy Assistance Programs (LEAP) system. LEAP provides a total view of all WRAP cases planned, underway, and completed. The LEAP system allows all authorized employees and contractors to view the status of a case and make updates. One of the main benefits of a LEAP-type system is the transparency it would provide. In addition, this option would allow PPL EU to incorporate “push-pull” data features from other existing systems, such as the Customer Service System (CSS). This system would also provide a richer data set for OnTrack, leading to better analytics and reporting capabilities.

recommendations

1. Accelerate the evaluation of the system changes and other implementation requirements that are needed to have phone agents enroll customers in OnTrack. (See Finding 1)

In addition to the systems examination currently planned, PPL EU should conduct a more comprehensive costs and benefits analysis to have phone agents enroll customers in OnTrack. The existing program is paper-intensive and should be streamlined through system automation. The costs of systems changes and employee assignment and training could be mitigated or exceeded by the benefits that include the potential for increased enrollments, improved customer payment behavior, better customer experience and service, and mitigation of uncollectible expenses and write-offs.

PPL EU estimates that eliminating $.40 postage on approximately half of the 222,000 referrals per year results in savings of approximately $44,000 per year.

1. Continue to explore methods to streamline and reduce fraud risk from the OnTrack household income validation process and then expedite implementation of the improvements. (See Finding 2)

The Regulatory Programs team has discussed methods to streamline enrollment, such as allowing and encouraging customers to email photographed or scanned income documentation/pay stubs to the caseworker. There are no formal plans in place to implement these ideas. This or other approaches would shorten the enrollment cycle for the customer. Fraud risk may never be zero, but fraud can be mitigated through process improvements and by implementation of standardized and more rigorous auditing of the agencies’ performance, as recommended later in this Chapter.

1. Implement improvements that will enable PPL EU and its OnTrack agencies to simplify the electricity usage criterion for the eligibility and re-certification processes. (See Finding 3)

Although energy conservation is one of the program’s four objectives, eligibility requirements related to electricity usage are difficult and often impossible for the agency caseworker to evaluate. Regulatory Programs should seek a more, effective, simplified, and consistently applied approach. If the energy conservation objective to “stabilize or reduce” energy usage is measurable, a metric should be established. If it is not measurable, PPL EU should reconsider this objective.

1. Implement a Low-Income Energy Assistance Programs (LEAP)-type system to streamline the OnTrack referral and enrollment processes. (See Finding 4)

The LEAP system has streamlined the Winter Relief Assistance Program (WRAP) and could serve as a model for a similar system for OnTrack. Combining the system with a Web portal would give authorized employees and contractors access to useful information and which will allow for better analytics and reporting capabilities.

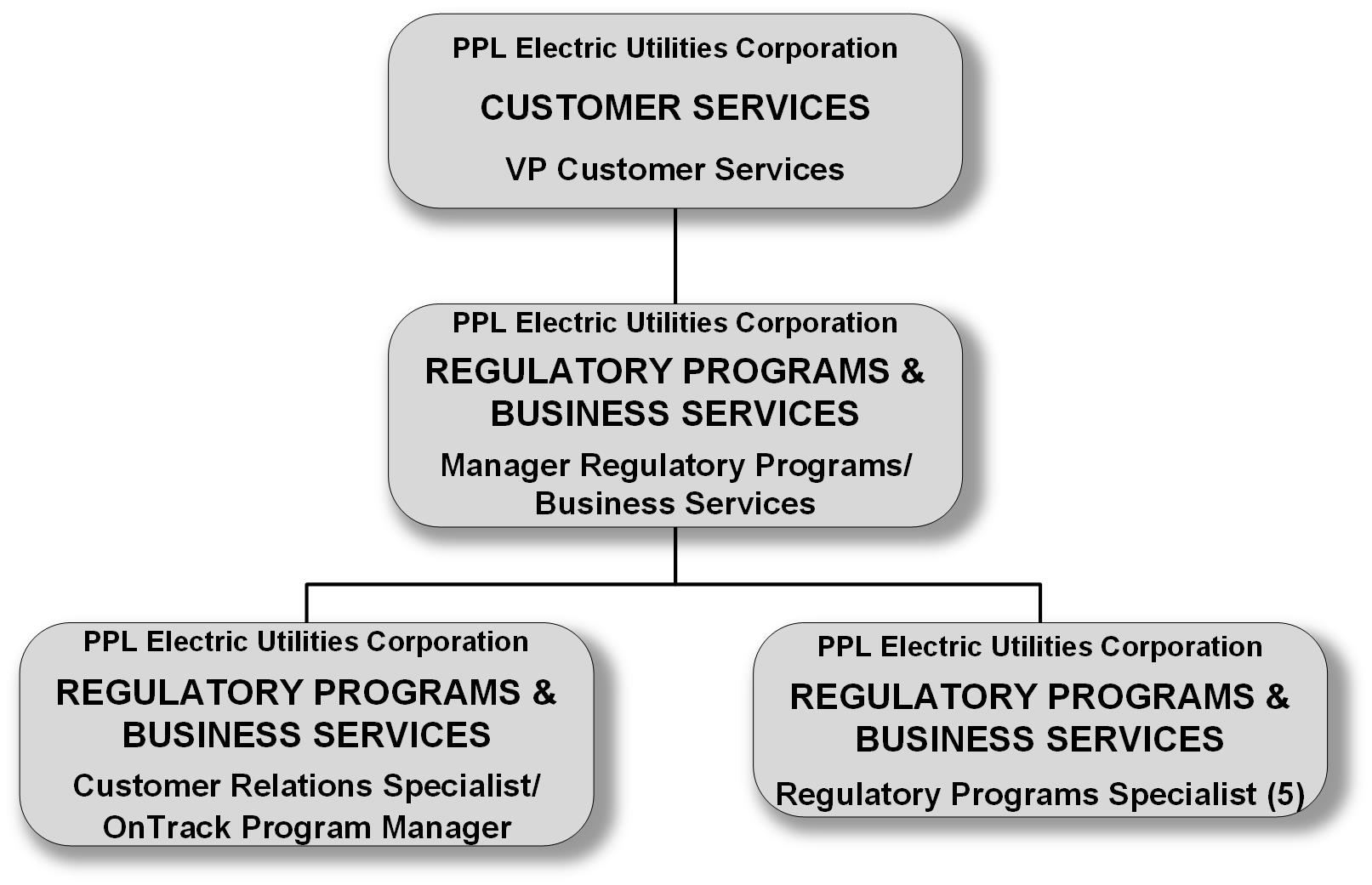
## PPL EU ontrack organization, staffing, and functions

background

Organization

Regulatory Programs, part of the Customer Services organization, is responsible for several PUC-required programs, including OnTrack. (Please see the Customer Services chapter of this report for discussion of non-OnTrack programs). The OnTrack Program Manager and the five Regulatory Programs Specialists (RPSs) have oversight responsibilities for the OnTrack program, including the outsourced OnTrack enrollment work done by the OnTrack agencies. The RPSs are assisted by the Universal Service Representatives. The following organization chart depicts the staffing associated with OnTrack responsibilities:

Exhibit ‑  
PPL EU Staff with OnTrack Responsibilities



Source: DN 01-071

The staff with OnTrack responsibilities is shown above. The OnTrack Program Manager has the official title of Customer Relations Specialist, as shown above. Although this person is not shown as a direct line supervisor of the RPSs, this matrix arrangement establishes this person as having coordinating, planning, and analytic responsibilities for the part-time OnTrack work performed by the RPSs.

Staffing

The Regulatory Programs unit, under the direction of a Manager, has a total staff of 21 employees. The OnTrack Program Manager coordinates the OnTrack-related work of the five RPSs who are located throughout the PPL EU territory with regional responsibilities. The RPSs also handle other program work, including WRAP, LIHEAP, Operation HELP (not an acronym), Grants (emergency bill-payment aid for customers with financial hardships), and Customer Assistance and Referral Services (CARES).

The OnTrack program full-time equivalent (FTE) employees staffing is as follows:

Exhibit ‑  
OnTrack Program PPL EU Staff

| **Job Title** | **Number** | **OnTrack % of Time** | **OnTrack FTEs** |
| --- | --- | --- | --- |
| Regulatory Program Specialist | 5 | 30% | 1.50 |
| Customer Relations Specialist | 1 | 100% | 1.00 |
| Universal Service Representative | 10 | 5% | 0.50 |
| Manager | 1 | 15% | 0.15 |
| **Total** | **17** | **-** | **3.15** |
| Source: DN 14-148 | | |  |

The five RPSs are assigned to coordinate one or more of the ten CAP agencies within their region. The Customer Relations Specialist title shown in the above table is the OnTrack Program Manager. The Universal Service Representatives provide administrative and clerical support to the five RPS and the Program Manager. The last title is the Manager of the Regulatory Programs group. The remaining FTEs (out of the total 21) charge their time to PUC regulatory matters, including responding to PUC informal complaints.

The percent of time and FTEs columns represent an administrative accounting allocation. The actual percent of total time for OnTrack work for the RPSs is likely between 10% and 20%. Much of the remaining time is associated with WRAP work, primarily managing WRAP contractors. The OnTrack day-to-day work done by the RPSs is therefore overstated and less than 1.5 FTEs as shown in the table, and likely closer to 1.0 FTE.

Functions

The OnTrack Program Manager is responsible for:

* Overseeing the annual OnTrack budget
* Resolving day-to-day problems, both internally and externally
* Writing policies and procedures for the program
* Writing the three-year plan for the program
* Generating and reviewing monthly program reports
* Providing program information to agencies and the PPL EU call center
* Ensuring eligible participants are referred to WRAP
* Working with PPL EU’s IT Department on program enhancements

The RPSs are responsible for overseeing the OnTrack agencies within their regions. Their responsibilities include:

* Agency contract negotiations
* Review of agency invoices
* The annual audit of agency OnTrack administration
* Resolving day-to-day problems with the agencies
* Resolving customer issues

The Regulatory Programs Manager and the OnTrack Program Manager prepare the OnTrack segment of the PPL EU tri-annual Universal Service and Energy Conservation Plan submitted to the PUC. The existing Plan runs from 2014 through 2016. Regulatory Programs is beginning to prepare the next plan that will run from 2017 through 2019. An update to the existing plan was filed in April 2015 which described the status of program changes and improvements. The update identified three projects requiring IT work that enable PPL EU to comply with recent PUC-mandated changes:

* Remain in Program on Budget Billing after Exceeding Credit Limit (project #15294). This will increase program retention by allowing households to remain in the program after exceeding the 18-month OnTrack credit limit, thus modifying the program, as described earlier. Under the 2014–2016 Plan, those credit limits are $3,240 for homes with electric heat and $1,275 for non-electric heat. This project is now referred to as OnTrack Budget Billing and was implemented in December 2015.
* Remain in Program after Relocating within PPL EU’s Service Territory (project #15295). This will increase program retention and customer satisfaction by enabling the program to “follow” the participant as the person moves within PPL EU’s service territory. Currently, when a customer moves from one location to another, the customer must re-apply to the program. The project is now referred to as the OnTrack Seamless Move and was implemented in December 2015.
* Application of Excess OnTrack Payments (project #15298). This program change will re-define how the system applies excess payments to OnTrack accounts. The project is now referred to as OnTrack Overpayment Credit and was implemented in December 2015. If the account balance drops to below $0 and an overpayment is received, the system creates a credit and applies it to future scheduled payments.

finding

1. Regulatory Programs does not have sufficient staff resources to effectively and efficiently manage the OnTrack program.

The OnTrack FTE levels appear to be inadequate, in view of the importance of OnTrack to customers in need of payment assistance, the magnitude of the $80 million budget and its impact on ratepayer bills, and the efforts needed to appropriately manage the OnTrack agencies.

The Regulatory Programs staff oversees the OnTrack agencies for contract performance, auditing the hours that are billed, ensuring enrollment targets are achieved, resolving process problems, assessing the quality of the customer experience, taking corrective actions, assisting in training of caseworkers as needed, and identifying performance improvement opportunities. The five RPSs that have direct contact with the agencies also have other non-OnTrack responsibilities, and devote a small portion of their time on average to their OnTrack responsibilities. Only the Program Manager is essentially full-time (1.0 FTE) and the total Regulatory Programs resources are optimistically at 3.15 FTEs; however, given the other responsibilities performed by the RPSs, total Regulatory Program resources are more likely at 2.65 FTEs. The following table presents the scope and scale of Regulatory Programs staff responsibilities, on a per FTE basis in 2015.

Exhibit ‑  
Regulatory Programs Responsibilities per OnTrack FTE

| **Program** | **Total FTEs** | **Total Annual Program Costs (Note)** | **Number of Agencies** | **Agency Caseworkers** | **Agency Annual Admin Dollars** | **New Annual Enrollments** | **Average Monthly Participants** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Total OnTrack Program | 3.15 | $81,237,755 | 8 | 51 | $2,736,716 | 38,024 | 45,801 |
| Per FTE Calculation | 1.00 | $25,789,763 | 2.5 | $868,799 | $868,799 | 12,071 | 14,540 |
| Source: PPL EU edits; Note: Excludes Agency Admin Dollars | | | | | | | |

These FTE ratios suggest that the Regulatory Programs staff individuals are overly leveraged given the scale and scope of their OnTrack work responsibilities.

Additionally, the OnTrack program lacks dedicated support staff with analytic and performance measurement skills. There are no OnTrack staff with Analyst titles who are familiar with the program and who are trained and experienced in data analysis to support the program. During the Audit, a Measurement & Data Analytics work unit was created within Customer Services Operations, another Customer Services group, and was tasked with providing analytical support to all of Customer Services. It was undemonstrated how this newly consolidated function would assist Regulatory Programs and the OnTrack program.

recommendation

1. Re-evaluate the staff resources that are dedicated to and support the OnTrack program. (See Finding 1)

OnTrack is an important program for customers, Pennsylvania’s Universal Service objectives, and for PPL EU as an integral part of its customer experience goals. Staff resources should be re-evaluated, in conjunction with other V&A recommendations for program re-assessment, process improvements, contract management, and performance management. Customer Service should ensure that there are adequate staff with data analysis skills available to Regulatory Programs as necessary to support on-going work and changes that are needed to enhance the program.

## OnTrack agency staffing and functions

background

OnTrack Agency Functions

The OnTrack agencies are responsible for working with customers in program enrollment, follow-up, recertification, removal, and graduation. As part of the OnTrack program processes described above, the functions of the agencies and their caseworkers are included. A short list of the functions includes the following:

* Processing referrals
* Screening and enrolling customers
* Setting up the customer’s OnTrack payment plan
* Communicating program responsibilities and guidelines to the customer
* Recertifying and graduating customers
* Documenting changes in household circumstances and updating the OnTrack payment when impacted by those changes

The agencies have different multi-lingual capabilities. About half of the agencies have one to five staff members who could communicate in Spanish. Additionally, one agency had a staff member able to provide services in American Sign Language and another in German.

OnTrack Agency Staffing Levels

The agencies have the responsibility to evaluate, hire, train, and supervise the OnTrack caseworkers. PPL EU is not involved in the hiring of the individual caseworkers who manage the enrollment process.

PPL EU provides historical and targeted enrollment workload as one of the inputs for how staffing levels could be set by agency managers. When establishing enrollment goals for the agencies, PPL EU considers the following factors:

* Historical numbers of referrals to and enrollment in OnTrack
* Trend in the number of overdue residential customers
* Credit and collection objectives
* The capacity of the OnTrack agencies to process timely additional referrals to the program.

The agencies consider the following to determine the appropriate levels of staffing to review and process OnTrack applications: (1) historic pattern of customer referrals to their agencies and (2) annual OnTrack enrollment targets established by PPL EU.

OnTrack Agency Training

As discussed below, the agencies are mainly responsible for caseworker training. The PPL EU Regulatory Programs Specialists (RPSs) are responsible for providing training to new agencies, identifying additional or one-on-one training needs, and assessing the quality of the agencies’ work that may require additional training. These responsibilities are primarily achieved through the daily or weekly interaction the RPSs have with the agency supervisors or the caseworkers. Case files are reviewed and emails and telephone calls are primarily used to provide non-quantifiable feedback on the quality of the agencies’ work in general and individual caseworkers, as necessary. The RPSs will also periodically spot check OnTrack accounts and/or review larger lists of accounts to subjectively (non-quantifiably) identify training needs.

It is the responsibility of the agency to train new caseworkers and to improve the performance of existing caseworkers. New caseworker training includes: information about the purpose and objectives of the program, the type of work tasks (e.g., enrollment and re-certification), and the process for completing the required duties. A new caseworker learns how to use PPL EU’s CSS in order to analyze an applicant’s status/eligibility (e.g., payment history and energy usage) and to establish an OnTrack payment agreement. Agency caseworkers have access to a PPL EU SharePoint site that includes background information about OnTrack, procedural updates, and other announcements about the program.

Regulatory Programs has supplied procedures, process flowcharts, and instructions for using the PPL EU CSS to guide the caseworkers in performing their OnTrack responsibilities. The number of new agency caseworkers in a calendar year is typically very limited, and PPL EU has not required formalized training procedures.

The RPSs and agency caseworkers coordinate weekly to identify issues and shortcomings that may require additional training. This feedback loop also identifies what is running smoothly in the program. This communications and coordination process, as well as customer feedback and situational changes, will identify any need for corrective actions.

The Regulatory Programs management team also holds more formal status meetings, which are typically every two weeks. It is at these meetings where the team identifies best practices among the agencies and resolves specific or widespread customer issues. Regulatory Programs periodically holds an OnTrack Forum where the entire agency network is invited. These forums review existing policies, recent changes, and changes on the horizon.

OnTrack Agency Management

Agency supervisors monitor the performance of caseworkers. The Regulatory Programs management team plays a supporting role in this area. The agency caseworkers have very specific tasks, so interaction with the OnTrack customer is limited to, at most, the enrollment/screening process, the recertification process, graduation from the program, and/or a change in income or household situation. OnTrack customers who call PPL EU with questions about their accounts are directed via the IVR to the PPLSolutions call center, if the customer has provided info via the IVR that authenticates that the customer is an On-Track participant. If not, the call is routed to a contractor call center. All other non-OnTrack customer inquiries or requests are routed in a normal manner by the IVR to the appropriate PPL EU or contractor CSR.

Most of the time, the points in the program process where the agency is involved are completed without any verbal interaction between the agency caseworker and the customer. For example, the caseworker may receive information from the customer, such as a completed application and income documentation, based on material that was mailed to the customer. The caseworker will complete the enrollment steps and send the customer a post enrollment package of information.

The agency supervisors manage telephone coverage and callback timeframes (including follow-up calls to customers for securing eligibility documentation). PPL EU does not provide an exact number of days or hours in which a customer will be called back. However, according to PPL EU, agencies place a high priority on following up with customer inquiries during the processes described above. Application and recertification processing turnaround times vary throughout the season, based on the number of referrals being generated. In general, the turnaround time will be longer during the beginning of the winter moratorium period and the start of cut season. PPL EU has given the agency a turnaround time target of approximately two weeks. Agency supervisors communicate with the RPSs regarding this turnaround time and if a backlog develops (or appears to be growing), the two parties will work together to minimize the backlog. According to PPL EU, possible solutions for reducing the backlog include hiring additional agency staff (temporary or permanent), working overtime, and/or shifting work to an agency that has excess capacity to handle additional work.

Most of the OnTrack agencies exceeded their targets for new enrollments in 2014. The table and graph below show new enrollments for each agency in 2014:

Exhibit ‑  
New Enrollments by Agency for 2014

| **Agency** | **Actual New** | **Target New** | **% Over Target** |
| --- | --- | --- | --- |
| CACLV | 8845 | 7342 | 17% |
| CAC | 6647 | 6168 | 7% |
| CAPLANC | 5235 | 5316 | -2% |
| CEO | 3806 | 3789 | 0% |
| TREHAB | 3992 | 3671 | 8% |
| SCA | 2712 | 2224 | 18% |
| STEP Inc. | 2547 | 2125 | 17% |
| USCAA | 1383 | 1762 | -27% |
| CCDHS | 926 | 781 | 16% |
| MCDHS | 102 | 96 | 6% |
| Source: DN 14-115 | | | |

As shown above, 8 of the 10 agencies exceeded their targets during 2014, one by as much as 18%. One agency missed its target by 2% and another by 27%.

findings

1. Payments to OnTrack agencies have increased while the number of caseworkers has decreased, causing a significant rise in cost per caseworker.

The chart and table below show payments, the number of caseworkers, and cost per caseworker over five years:

Exhibit ‑  
Average Cost per OnTrack Agency Caseworker

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Agency Costs | $2,114,798 | $1,860,420 | $2,241,857 | $2,341,380 | $2,483,220 | $2,376,716 |
| Caseworkers | 52.5 | 48.5 | 48.5 | 44.5 | 44.5 | 46.0 |
| Cost per Caseworker | $40,282 | $38,359 | $46,224 | $52,615 | $55,802 | $51,668 |
| Sources: DN 14-104, PPL EU edits, and V&A calculations | | | | | | |

The average cost per caseworker has been generally increasing, by 28% between 2010 and 2015. PPL EU explained the decrease in 2011 by noting that: "active [OnTrack participants] in the program is usually not the primary driver for work/billable hours" by the agency" that "the drop in cost is not correlated with a direct work decrease of any significance," and suggested that "the overall cost decrease could be attributed to efficiencies gains in processing time."

Agency costs have averaged 3.8% of total OnTrack costs, which Regulatory Programs believes is very low relative to the size and scope of the program and how the program has grown. Nevertheless, it is not evident why the cost per caseworker has grown by 28%, which suggests that additional metrics are needed to understand the value received for the costs incurred.

1. The productivity of OnTrack agency caseworkers has been improving.

The graph below shows changes in caseworker productivity:

Exhibit ‑  
OnTrack Agency Caseworker Productivity

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| New Enrollments | 19,760 | 20,321 | 17,934 | 22,043 | 22,520 | 38,024 |
| Agency Caseworkers | 52.5 | 48.5 | 48.5 | 44.5 | 44.5 | 46.0 |
| Enrollments per Caseworker | 376 | 419 | 370 | 495 | 506 | 827 |
| Sources: DN 14-117; DN 14-119; PPL EU edits; V&A calculation | | | | | | |

Caseworker enrollment productivity increased by about 63% in 2015 over 2014. The large increase in new enrollments was driven by a corresponding large increase in referrals (discussed later in this chapter). Although the productivity performance appears good, it should be noted that these productivity measures do not reflect quality metrics, such as the quality or nature of the referrals or compliance or consistency with enrollment requirements, or the likelihood that the enrolled customers will be able to successfully complete the OnTrack program (also discussed later in this chapter).

1. The OnTrack enrollment metrics do not accurately capture related costs or reflect agency performance.

OnTrack agencies bill for hours worked including hours that do not result in enrollments and, to that extent, an agency’s unit cost to enroll customers would be overstated. OnTrack enrollments are a count of the number of actual enrollments of eligible customers. However, the hours worked by the OnTrack agencies that do not result in enrollments are also billed at the hourly rate to PPL EU under the contract terms. The Cost Per Low Income Served metric, therefore, overstates the actual administrative costs that result in an enrollment. As noted elsewhere, unit costs are a valuable tool for performance management, but in the case of this metric it would need to be appropriately defined and separated so that the hours billed that lead to an enrollment can be compared to the hours billed that do not result in an enrollment.

There are other metrics that are not tracked. Even after a customer is enrolled, there are other costs to process and maintain the enrolled customer that are not identified and tracked.

1. The number of potentially eligible customers for OnTrack varies significantly depending on the estimation approach.

The PUC Report on 2014 Universal Service Programs and Collections Performance shows that PPL EU had 171,171 Confirmed Low Income Customers (14% of total customers) and 322,500 of Estimated Low-Income Customers (26% of total).

PPL EU defines “confirmed” low-income customers as follows: “The term confirmed low-income technically refers to an indicator on the PPL EU Customer Service System (CSS) financial statement screen. The indicator label in CSS is verified income/expense. This indicator, or check box, is either checked or unchecked for each customer who has a financial statement completed. A checked box means the financial statement was completed based on income documentation submitted by the customer. An unchecked box indicates the financial information is based on a verbal conversation with the customer, but no proof (i.e. pay stubs) was provided.”

“PPL EU CSRs and the OnTrack agencies complete financial statements for customers that flow through PPL EU’s pay assist/payment arrangement process. The financial statement is a detailed view of the customer’s income, expenses, household size, and age ranges for household members. Customers may have one or multiple financial statements over time.”

Separately, PPL EU calculated the number of customers who may be eligible for (and not currently enrolled in) OnTrack as follows: “The current number of active residential accounts for PPL EU is 1,227,651. As of October 31, 2015, there are 48,704 active households in the OnTrack program. The estimated pool of households who may be eligible for OnTrack is approximately 73,400. This total includes low-income accounts with overdue balances that are not on a payment agreement. The estimate comes from household financial information that PPL EU has in its CSS.”

Adding the 48,704 active households to the estimate of 73,400 eligible customers yields a total of 122,104 of the universe of eligible customers. Although this number is based on a different time period than used in the Report on 2014 Universal Service Programs and Collections Performance, the 122,104 varies significantly from both the 171,171 Confirmed Low-Income and the 322,500 Estimated Low-Income customers.

“There are likely other active accounts that may benefit from OnTrack, but have not contacted PPL EU to establish a payment agreement. From the estimated pool of 73,400 customers, some may not participate in OnTrack for a variety of reasons (failure to respond to outreach efforts, language barrier, other more pressing personal problems, etc.).”

Regulatory Programs has said that as it is preparing the latest Universal Service and Energy Conservation Plan (USECP), the group is re-examining the estimated potential pool based on updated eligibility criteria. This analysis is not complete but will continue as the USECP filing activities continue in 2016.

Using the universe of potential eligible customers is not useful for setting specific enrollment targets.

1. Despite decreases in agency staffing levels and increasing enrollment workload, it is not evident that each agency is optimizing staffing levels to meet OnTrack objectives or that PPL EU is receiving cost-effective performance.

The ten OnTrack agencies employ caseworkers who were assigned to the OnTrack enrollment process, except for the smallest agency that averaged 1.0 FTEs. The six-year history of agency staffing levels is shown below:

Exhibit ‑  
OnTrack Agency FTE Staffing Levels

| **Agency** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| CACLV | 8 | 8 | 8 | 7 | 6 | 7 |
| CAC | 7 | 7 | 7 | 7 | 7 | 6 |
| LANCAP | 10 | 6 | 6 | 4 | 5 | 6 |
| CEO | 5 | 5 | 5 | 5 | 5 | 5 |
| TREHAB | 3 | 4 | 4 | 4 | 4 | 4 |
| SCA | 6 | 5 | 5 | 5 | 5 | 7 |
| STEP | 6 | 6 | 6 | 5 | 5 | 4 |
| Union-Snyder | 5 | 5 | 5 | 5 | 5 | 6 |
| Columbia County | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 0 |
| Montour | 1 | 1 | 1 | 1 | 1 | 0 |
| Total | 52.5 | 48.5 | 48.5 | 44.5 | 44.5 | 46.0 |
| Sources: DN 14-119; PPL EU edits | | | | | | |

Aggregate OnTrack agency staffing levels generally have decreased through 2015. Agency staffing levels are changing throughout the year and PPL EU does not have a system that captures the monthly number of caseworkers. The end-of-year number does not necessarily represent an average for the year, but a snapshot.

The information below shows the enrollment workload at each of the ten agencies over a multi-year period:

Exhibit ‑  
OnTrack Enrollments for Each Agency

| **Agency** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- |
| CACLV | 6,061 | 6,992 | 8,845 | 7,089 |
| CAC | 4,832 | 5,874 | 6,647 | 7,575 |
| LANCAP | 4,325 | 5,063 | 5,235 | 6,047 |
| CEO | 2,920 | 3,609 | 3,806 | 4,236 |
| TREHAB | 2,707 | 3,496 | 3,992 | 4,638 |
| SCA | 1,975 | 2,118 | 2712 | 3,054 |
| STEP | 1,869 | 2,024 | 2,547 | 2,714 |
| Union-Snyder | 1,557 | 1,678 | 1,383 | 1,730 |
| Columbia County | 743 | 758 | 926 | 806 |
| Montour | 89 | 91 | 102 | 135 |
| Total | 27,078 | 31,703 | 36,195 | 38,024 |
| Sources: DN 14-115; PPL EU edits | | | | |

Total enrollments have increased for all agencies since 2012. Information was not tracked prior to 2012. Two agencies, Montour and Columbia County, were discontinued in late December 2015 through early 2016. Those agencies' totals, therefore, reflect a reduction from 2014 to 2015. The geographic coverage was redistributed to the remaining eight agencies.

PPL EU does not control OnTrack agency staffing levels nor does it assess the reasonableness of those levels. The Regulatory Programs team does not provide specific directions, instructions, procedures, or methodologies to the agencies regarding how to link forecasted or actual workload to agency staffing levels. The agencies determine their own staffing levels.

It should be noted that PPL EU provides some guidance, including volume (referral/enrollment) projections and communicates those projections to the agencies. In addition, a fairly new metric has been developed and is still in the early implementation stages – turnaround time. The expectation of determining eligibility within five days has been communicated to the agencies as the performance standard. The reasonableness of the agency staffing level is discussed between the PPL EU team and the agency lead, but PPL EU is primarily concerned with having a staffing level that is ready to handle the projected enrollment workload.

As noted elsewhere in this chapter, aggregate agency productivity (new enrollments per caseworker) has improved. Without additional performance metrics, however, caseworker levels and productivity are not by themselves useful metrics. Additional metrics are needed, such as the “quality” of the referrals and the number of enrolled customers who complete the program, to better understand how to optimize staffing levels. From a contract management and performance perspective, it would be better to convert the contracts to a unit price basis and require that the agency/contractor provide “quality” performance metrics, and thus eliminate the issue of agency staffing levels.

1. OnTrack enrollments are Customer Services’ primary metric for assessing program and agency performance and, by themselves, are inadequate.

The enrollment target setting process starts with a review of past performance and results. During this review, the Regulatory Programs team completes a goal review and discussion for the upcoming year and sets the enrollment increase (or growth) based primarily on historical performance. Other factors that are considered include current and planned staffing levels and the capability of certain agencies to take on additional work, if needed.

The enrollment projection correlates closely to the overall program growth. Overall program growth is another important metric measured by active households in the program. Other factors, such as removal for exceeding the CAP credit amount or missing payments (among others) will contribute to a net gain or loss of active members.

The enrollment metric has only been collected at the agency level since 2012. Regulatory Programs began providing agency level enrollment targets (by month) in 2013. This was driven by the increased efforts to grow the program. The actual monthly enrollments are tracked against the monthly target. The following graph and table show total target and actual new enrollments for all ten agencies.

Exhibit ‑  
OnTrack New Enrollments Compared to the Target

| **Enrollments** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- |
| Target | NA | 31,140 | 33,273 | 35,602 |
| Actual | 27,078 | 31,703 | 36,195 | 38,024 |
| Source: DN 14-115; PPL EU edits | | | | |

Customer Services defines OnTrack agency performance as the ability to achieve or do better than the target. The graph above shows an increase in actual new OnTrack enrollments from 2012 through 2015, exceeding the targets in each of the last the years. Customer Services set a 7% target increase for both 2014 and 2015.

Meeting or exceeding the target for new enrollments as a goal, by itself, does not take into account a number of factors that diminish the value of the metric as the primary performance indicator. For example, merely taking steps to increase referrals will not necessarily lead to a corresponding increase in eligibility and enrollments. The “quality” of the referral (prescreening) may be a more relevant driver of successful enrollments. Retention (fewer defaults) of enrolled participants is another important factor. The graduation rate can be improved through targeted customer education and other actions. The graduation rate is also important for the overall success of the program.

1. PPL EU relies on too many community-based agencies to administer its OnTrack program.

According to a 2013 employee survey report, PPL EU staff agreed that agencies were generally working toward timeline and turnaround expectations, with some exceptions. Some RPS staff indicated that ten OnTrack agencies were more than necessary. In addition, the RPSs observed that there were several agencies that require a greater amount of guidance and supervision than others, creating an opportunity to eliminate smaller or under-performing agencies.

Five of the ten agencies accounted for 79% of the total annual new enrollment target in 2015. The pie chart below illustrates the target enrollments by agency:

Exhibit ‑  
New Enrollment Targets by Agency in 2015

| **Agency** | **Percentage of New Enrollments** | **Number of New Enrollments** |
| --- | --- | --- |
| CACLV | 22.1% | 7,856 |
| CAC | 18.5% | 6,599 |
| CAPLANC | 16.0% | 5,688 |
| CEO | 11.4% | 4,055 |
| TREHAB | 11.0% | 3,928 |
| SCA | 6.7% | 2,380 |
| STEP Inc. | 6.4% | 2,274 |
| USCAA | 5.3% | 1,885 |
| CCDHS | 2.3% | 835 |
| MCDHS | 0.3% | 102 |
| Total | 100.0% | 35,602 |
| Source: DN 14-115 | | |

All the agencies are generally located in relatively high population concentration areas, and the five agencies with the highest enrollments are located in the densest population areas. Their locations were not planned with the idea of achieving a balanced workload among the agencies. OnTrack customers are most densely concentrated in urban areas, with a widespread distribution throughout rural areas.

As noted previously, PPL EU discontinued the contractual relationships with two agencies in late 2015 and early 2016. Since the agencies process nearly all OnTrack enrollments through the U.S. Mail, this change should not result in any significant issues for low-income customers in the area previously served by the two discontinued agencies. Further reductions and consolidation of responsibilities among agencies will likely improve administrative and contractual performance oversight and possibly a reduction in unit costs for processing and enrolling OnTrack customers, with little or no downside for customers.

1. PPL EU has given too much discretion and flexibility to the OnTrack agencies in handling the program.

With ten different agencies, discretion and flexibility that best fits the local culture and agency operational style represents a valid operational approach. Some practices that work well for some agencies may not work well for others. At the same time, some practices that work well at one agency are shared and adopted by other agencies. But the problem with this sort of variation in work practices is that it is difficult, if not impossible, to have standardized metrics that track performance within each agency over time and among agencies over time.

The following represents variations among the agencies’ work practices and processes:

* Union Snyder, STEP, Harrisburg CAC, and Lancaster CAP agencies use an internal tracking system to log detailed information about the case. These systems provide the caseworkers with good information for matching the customer with other programs and services as well as track the status of the OnTrack work.
* Some agencies assign client cases alphabetically by last name to their caseworkers and others take a more dynamic approach by balancing the caseworker’s assigned work with the overall workload at that moment in time.
* To follow-up with customers to obtain missing paperwork and/or income documentation, some caseworkers prefer a phone call (or multiple calls), others use letters, and some may email the customer (once or multiple times).
* The Regulatory Programs team provides specific instructions on the need to document CSS with relevant information. However, some caseworkers provide richer information and/or comments that are more detailed after handling a customer who has an extenuating circumstance.
* Some caseworkers naturally have a more direct and hands-on communication style and are happy to pick up the phone or email these Customer Contact Centers (CCCs) to resolve customer issues. Others are more comfortable working through the Regulatory Program Specialist and/or Program Manager to resolve issues.
* Sometimes the agency staff will provide training to newly hired caseworkers. At other times, the RPS will be more involved in this training, or will handle follow-up questions or conduct a post training “check-up” with the caseworker. It depends on the need and level of experience of the caseworker.

recommendations

1. Set OnTrack enrollment targets for the agencies that are based on a more rigorous and analytical estimation process of the universe of eligible customers. (See Findings 4 and 6)

Setting OnTrack enrollment targets for the agencies is appropriate, and maximizing or overly stretching the targets will certainly result in more enrollments, especially if referrals are increased. But meeting the enrollment targets does not necessarily result in customers completing the program (graduating) or in developing better payment behaviors. Development of the targets should be based on a more analytical understanding of the referral quality, reflecting the probability of receiving an application, probability of meeting eligibility requirements, and the probability for graduation of enrolled customers. Please see recommendations later in this chapter.

1. Reduce the number of existing OnTrack agencies to improve cost effectiveness and performance management of the enrollment and recertification process. (See Finding 7)

Five agencies accounted for 79% of enrollments. Ten agencies were not optimal and Customer Services eliminated in 2015 the agency with the lowest number of enrollments. Further reductions are needed. Customer Services should retain the agencies with the best performance, using the recommended performance indicators discussed later in this chapter and convert the remaining contracts to unit pricing, also discussed in this chapter.

1. Establish standard work processes and practices, ensure adequate supervisory performance, and require standardized training standards. (See Finding 8)

To the extent that PPL EU continues to use multiple agencies/contractors to perform the same OnTrack work, there should be standardized requirements for the agencies. Good contract management and performance management require standardization of work definitions, processes, and practices. With this approach change, caseworker supervisors can assess caseworker performance and identify training and coaching needs. With standard training requirements, post-training performance can be more easily identified. These actions will make agency operations more transparent and comparable and will give Regulatory Programs a strong basis for improving contract compliance and program performance.

## Ontrack agency contracting and contract management

background

In December of 1993, in response to the PUC, PPL EU began the OnTrack program. The program pilot was offered to 2,000 customers who met the program criteria. PPL EU outsourced the enrollment process to community-based social service agencies. After favorable evaluation of the pilot, PPL EU expanded OnTrack to all qualified customers.

PPL EU selected the ten OnTrack agencies after evaluating their reputation and standing in the community, leadership and staff, and the services they provide. At the time that the program was expanded throughout the PPL EU service territory, PPL EU had contracts with the ten OnTrack agencies covering all the counties. These contracts were originally five-year term agreements, but most of the current contracts (through 2015) have two-year terms. Most of the contracts were amended to reflect increases in not-to-exceed prices and to reflect new hourly rates.

As discussed earlier in this chapter, PPL EU has increased the role of the PPLSolutions call center in handling OnTrack inbound calls. Effective August 17, 2015, PPL EU started using PPLSolutions to conduct an outbound calling pilot program to offer OnTrack enrollment to potentially eligible customers. The tasks include application processing, eligibility confirmation, and enrollment. Regulatory Programs used internal PPL EU data to create lists of customers who may be eligible for the OnTrack program. These “leads lists” of potential OnTrack customers were developed using analytics to determine if the customers are a “good fit” for the program. The lists are manually sent as referrals to the PPLSolutions call center and represent about 5% of the total referrals. The remainder are sent to the OnTrack agencies.

findings

1. PPL EU allowed two of its agency contracts to expire without a plan for extension, renegotiation, or initiation of a bidding process.

Eight of the ten contracts had expiration dates of December 31, 2015 or dates in 2016. The two agencies with earlier expiration dates were Montour (end-date December 31, 2011) and Union-Snyder (end-date December 31, 2012). PPL EU had decided to terminate the agreement with Montour by the end of 2015. Any copy of the Union-Snyder contract amendment/extension was not provided during the Audit. Good contract management requires that contract termination dates be part of a plan to extend, renegotiate or re-bid the contract prior to the termination date.

1. PPL EU has not comprehensively reassessed its decision to outsource its OnTrack program to the original community-based agencies.

OnTrack is an $88 million program in 2015 with goals to maximize enrollments and meet budget objectives. PPL EU selected the agencies in the early 1990s after evaluating their reputation and standing in the community, leadership and staff, and the services they provide. However, there has been no periodic re-evaluation of the agencies and this outsourcing decision. A retrospective assessment of the existing outsourcing model should include regulatory compliance, accounting and financial validation, and cost effectiveness with the assessment results shared with the PUC’s Bureau of Consumer Services.

Customer Services has not examined the costs and benefits of changing its current model of outsourcing the OnTrack program. PPL EU has made an incremental change by eliminating one of the agencies and is running a pilot program to use PPLSolutions to enroll OnTrack customers. These incremental efforts are appropriate but insufficient.

1. A PPL EU consultant previously identified a number of benefits by bringing the OnTrack program administration in house.

PPL EU worked with a consulting firm in 2013 and discussed some of the benefits and drawbacks of outsourcing certain work tasks versus keeping them in-house. A number of RPS staff were interviewed or surveyed for their opinions about the performance of the CAP agencies and their caseworkers.

The consulting firm reported a number of strengths that the agencies bring to the OnTrack program, such as the agencies having close connections with their local communities and the cost effectiveness of the agencies compared to PPL EU call center associates (but not quantified).

The RPS staff also noted a number of benefits to bringing the program in-house, including:

* Increased administrative and operational control of executing the program
* Streamlined and improved consistency, communication, and coordination, with fewer people and companies involved in executing the program and serving customers
* Increased ability to track key metrics. There is currently no way of measuring how long it takes an agency to work a referral, what is done with the referral, and what the result is.

1. The audits of OnTrack agencies’ monthly reports that are conducted by the assigned RPSs are inconsistent and often lack important follow-up actions such as corrective actions or performance improvements.

Each OnTrack agency submits monthly reports to their assigned PPL EU RPS. Some of the reports that are submitted have detailed data about each individual customer, OnTrack program elements, and helpful summary data. Some of the RPSs’ written responses have specific corrective actions that the OnTrack agency needs to take. However, many other agency reports are merely a listing of enrollment data. In many cases the RPSs respond by emails, phone calls, and on-site visits to the agencies to follow up on an as-needed basis. It is not clear how effective each RPS is in auditing or reviewing the agency report. Accuracy and verification is not evident and, in any case, is very difficult or impossible given the paper-intensive enrollment process and the frequent use of phone communications. There are no consistently used metrics that would enable the RPS to assess the effectiveness and efficiency of an agency’s OnTrack enrollments or value received for the compensation paid.

recommendations

1. Improve OnTrack outsourcing processes and decisions. (See Findings 1, 2 and 3)

Customer Services should improve its outsourcing policies with respect to its past decision to outsource the OnTrack program to the community-based agencies. The options that should be included are: (1) Engaging one contractor to perform the OnTrack functions (as has been done by other Pennsylvania utilities), (2) Bringing the functions in-house, (3) Overhauling the contractual relationships, price structures, scope of work, and performance requirements with the OnTrack agencies, and (4) Further reducing the number of existing agencies and consolidating the regional responsibilities into a few of the most capable agencies.

Moving to a single professional call center contractor with experience in handling Pennsylvania’s Customer Assistance Programs should be PPL EU’s longer term goal. Decision criteria should include: (1) Meeting the PPL EU OnTrack program objectives, (2) Improving the customer experience (including reaching the customers who need the program and reducing OnTrack-related complaints), (3) Reducing or stabilizing total costs to serve OnTrack customers, and (4) Reducing unit cost performance metrics.

1. Develop a more coordinated, structured, and consistent strategy for ongoing and future OnTrack contracting practices and contract and performance management. (See Findings 1 and 2)

The relationship of Regulatory Programs with the OnTrack agencies appears to be more of an extension of its staff and less like a third party contractor. A more rigorous approach is needed. Although this recommendation flows from the findings in this chapter that are related specifically to the PPL EU contracting practices for the OnTrack program, contracting practices and contract management need to be improved for other functions in the Customer Services organization. (Please see the Customer Services Chapter for a recommendation for a consolidated and centralized approach.) This recommendation for the OnTrack program is included here to underscore its importance and to encourage PPL EU to move forward on this recommendation on a separate track if appropriate.

1. Perform standardized monthly auditing by Regulatory Programs of the OnTrack agencies’ monthly reports. (See Finding 4)

The Regulatory Programs should require standardized monthly reports by the agencies and the RPSs should review those reports, conduct a sampling of enrollments and other transactions to detect anomalies and fraud, and submit a summary of each monthly review to the OnTrack Program Manager and the Regulatory Programs Manager. Significant problems should be brought to the PPL EU internal audit unit for possible follow up.

## performance management

background

As discussed in greater detail in the Customer Services Chapter, the Customer Services Monthly Performance Indicators Report is the primary performance management tool used by Customer Services. There are three metrics that are tracked in this report that relate to the OnTrack program: OnTrack Enrollment, OnTrack Expenditures, and OnTrack Costs by Budget Category.

For the OnTrack program, performance management encompasses the outsourced work done by the OnTrack agencies and the oversight of the agencies done by the Regulatory Programs team, which is the OnTrack Program Manager and the five Regulatory Program Specialists.

Findings

1. The three performance indicators used by Customer Services for the OnTrack program are accompanied by useful and detailed commentary explaining variances and the actions that are underway to improve performance.

The Customer Services Monthly Performance Indicators Report for October 2015 had three performance indicators related to the OnTrack program:

* OnTrack Enrollment – This is one of the twelve Department Level performance indicators. The measure is the number of active OnTrack accounts. The objective was to “Increase new customer enrollment numbers by seven percent.”
* Monthly Expenditures and Enrollments – The measure is funds expended and active households in the program. The objective was to “Expend approximately $79 million in accordance with PUC regulations and the approved three-year plan and to achieve average monthly membership of 40,300 households by year-end.”
* Year-to-Date Program Costs (by budget category) – The measure is monthly YTD funds expended compared to the YTD budget (by budget category). The objective was to: “Expend approximately $79 million in accordance with PUC regulations and the approved three-year plan. Achieve average monthly membership of 40,300 households by year-end.”

For all indicators, the commentary provided comparisons of actuals to the targets, the drivers for the variances, and actions being taken and programs underway to address the variances.

1. The existing Customer Services OnTrack performance indicators, while useful, do not support PPL EU’s objectives for the program.

PPL EU’s objectives for its OnTrack program are to: improve customers’ bill payment habits and attitudes, stabilize or reduce customers’ energy usage, decrease uncollectible balances for program participants, and determine overall impact on PPL EU’s overdue accounts receivable. The three performance indicators that are reviewed each month (Enrollment, Monthly Expenditures, and YTD Program Costs) do not explicitly link performance to the objectives.

1. The rising OnTrack program costs are impacting customers’ bills.

The following graph shows annual costs per customer subject to the Universal Service Rider (USR):

Exhibit ‑  
OnTrack Annual Cost per Customer

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| OnTrack USR Annual Costs | $44,638,055 | $51,429,876 | $45,853,137 | $53,329,562 | $69,031,676 | $81,327,755 |
| Total Customers | 1,212,020 | 1,213,953 | 1,215,950 | 1,218,734 | 1,221,960 | 1,239,806 |
| OnTrack Monthly Cost per Customer | $3.07 | $3.53 | $3.14 | $3.65 | $4.71 | $5.46 |
| Sources: DN 14-175; PPL EU edits | | | | | | |

The OnTrack Monthly Cost per Customer was calculated by dividing the OnTrack USR Annual Costs by Total Customers and then dividing the result by 12. The Monthly Cost per Customer as shown above has increased by about 78% from 2010 through 2015.

PPL EU recovers the OnTrack-related costs (OnTrack credits or revenue shortfall, pre-program arrearage forgiveness, and agency administrative costs) via the Universal Service Rider, in all cases dollar for dollar. The bill impact of the OnTrack Program in 2014 was about $5.11 per residential customer per month. In addition, PPL EU said that administration costs related to the OnTrack program were $565,996 in 2014, or about $0.04 per residential customer per month.

1. Regulatory Programs is appropriately exploring the use of unit costs and unit performance metrics with the OnTrack agencies.

In October 2015, Regulatory Programs began discussions with the OnTrack agencies about developing new performance metrics. The unit cost project included meetings to review the scope, purpose, and timing. During these meetings and subsequent emails and phone calls with the agency leads, the following definitions were communicated regarding the types of unit costs:

* Enrollment – This includes work associated with reviewing recently referred customers. The caseworker is responsible for completing screening steps such as: reviewing the account and prior accounts for payment troubled history, reviewing income documentation that was submitted, enrolling the account in the program, and documenting the account.
* Recertification – This generally includes similar or the same work tasks as performed during enrollment, except this work happens at the seventeenth or eighteenth month point. The caseworker reviews households that are currently enrolled in the program and makes the decision to keep the household active or not.
* Graduation – This includes work activities by the caseworker in order to decide if the household should or should not be graduated from the program, meaning the household is no longer active in the program. The graduation decision point occurs after eighteen months in the program; it coincides with the recertification point. The general guidelines that are followed in order to graduate a customer are: (1) The account has reached a zero overdue balance, (2) The account has displayed a good standing in the program/good payment habits, and (3) The current actual bills are generally close (plus or minus 10%) to a budgeted bill amount.
* Ineligible – This includes similar or the same work tasks as performed during enrollment, except the review/screening process results in an ineligible determination. The customer is not enrolled in the program.
* Change in Situation – This includes work tasks associated with updating the customer’s household situation in order to communicate a new OnTrack installment amount. There are times when the customer notifies PPL EU about a change in income or household size. For these situations, the caseworker works through new income proof documents and/or communications and revises the OnTrack installment amount.
* Account Maintenance – This could also be referred to as the “Other” category. This work classification includes special requests from PPL management and employees, or contractors. This could include items such as sending a letter informing the customer about a special situation or work activities associated with special projects the PPL EU team is implementing.

This approach to developing standard definitions for work practices and processes is a major step towards establishing standardized performance metrics, determining comparable unit costs across agencies, and converting to unit price contracts.

PPL EU will continue this analysis of using a unit price enrollment approach for the OnTrack agencies during the first quarter of 2016. It will also review how other electric and gas utilities in Pennsylvania pay for CAP services – an hourly rate or a flat rate per job task (e.g., enrollment and re-certification). A decision is not expected until early 2017.

1. Increased numbers of OnTrack referrals and new enrollments are not translating into a corresponding increase in active members.

The graph and table below show the growth of referrals to OnTrack agencies compared to the resulting enrollments and active members:

Exhibit ‑  
OnTrack Referrals Compared to New Enrollments and Active Members

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Annual Referrals | 108,285 | 120,987 | 124,245 | 180,543 | 189,412 | 221,998 |
| New Annual Enrollments | 19,760 | 20,321 | 17,934 | 22,043 | 22,520 | 38,024 |
| Active Members  (year-end) | 32,446 | 34,308 | 31,657 | 37,204 | 41,288 | 46,936 |
| Enrollment to Referral Ratio | 18.2% | 16.8% | 14.4% | 12.2% | 11.9% | 17.1% |
| Sources: DN 14-117; PPL EU edits | | | | | | |

Annual Referrals have more than doubled, increasing by 105%, and New Annual Enrollments have increased by 92%. By contrast, the number of Active Members at year-end has increased by less than half of that rate, about 45%, suggesting that more referrals and enrollments are not leading to sustainability of OnTrack participants to successfully complete the program. The Enrollment to Referral Ratio exhibits no particular trend.

1. Regulatory Programs is seeking to improve the quality of OnTrack referrals so that a higher percentage of referrals result in successful enrollments and sustained participation.

There are a number of customers who do not act on the referral and do not mail applications to the agency. Existing systems will refer the same customer multiple times if the initial referral does not result in an enrollment and, to that extent, the ratio of referrals to enrollments may be overstated. Also, the number of referrals has been increasing because of expanded efforts to encourage customers to consider OnTrack. In 2014, PPL EU issued an average of nearly 16,000 referrals monthly to the OnTrack program. In 2015, the monthly average has been nearly 19,000 referrals.

The Regulatory Programs team has been identifying potentially eligible customers. As part of a pilot program, beginning in 2015, PPL EU has been doing analytical work using existing customer data and attributes to find and refer customers who appear to be a good fit for the program. Internally, this is referred to as “leads list” work. This additional practice is implemented with the use of the PPLSolutions call center to contact customers.

Regulatory Programs is considering developing a new, more intelligent, point-based referral system. Under this model, the potential referral would build points based on attributes such as: payment history/number of payments, household income, household size, credit history/credit score, LIHEAP recipient, overdue balance amount, collection history, and number of calls to PPL EU. A weighted average could be developed to provide relative value of these types of attributes in order to build up a total point score for the would-be referral. PPL EU would have the ability to set the referral “point threshold” (or quality of the referral) based on the time of the year, the regulatory environment, and/or the need for more or less referrals to the program.

Regulatory Programs thinks the point system will drive to a higher quality and higher confidence referral. Conceivably, this type of intelligent referral system would lower the referral to enrollment ratio over time and increasing the penetration rate of eligible customers, reflecting more enrollments, and presumably lower program costs per enrollee. PPL EU acknowledges that there are no definitive timelines, funding, or project plans, but the team will continue to investigate this project because the benefits appear to be strong.

1. Portraying ratios for cost per enrollment is inconclusive and requires further analysis.

The graph and table below show that the annual unit cost ratios of agency enrollments:

Exhibit ‑  
OnTrack Agency Cost Per New Enrollment

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Agency Admin Costs | $2,114,798 | $1,860,419 | $2,241,857 | $2,341,380 | $2,483,220 | $2,376,716 |
| New Enrollments | 19,760 | 20,321 | 17,934 | 22,043 | 22,520 | 38,024 |
| Cost per Enrollment | $107.02 | $91.55 | $125.01 | $106.22 | $110.27 | $62.51 |
| Sources: DN 14-117; PPL EU edits | | | | | | |

The unit costs of enrollments have remained relatively flat through 2014 and then decreased by 43% in 2015. The agencies processed and completed a 69% increase of enrollments in 2015 over 2014, at about 4% lower costs.

Processing enrollments is a significant portion of the billings, but is not the only task that the agencies perform. The Cost per Enrollment ratios are therefore unit cost proxies meant to illustrate the costs trends. Possible conclusions are that the agencies have become more efficient or the increased numbers of referrals were not creating more workload for the agencies, which seems contradictory. Also, it is possible that the agencies are focused on just processing referrals (as they are paid by the hours worked, not based on customers enrolled) and not focused on the number of enrollments, i.e., quantity over quality. In other words, they can process more referrals in the same time, and thus for about the same cost, but the time isn’t being spent focusing on enrollments. In any case, further analysis by PPL EU is needed.

1. Graduation rates, one measure of program performance, have decreased since 2012.

Customers are graduated from OnTrack if their pre-program arrearages are at zero and they are paying within ten percent of their normal budget billing amounts. The average graduation rates per year are shown below:

Exhibit ‑  
OnTrack Average Graduation Rates

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Average Monthly Graduates | 23 | 27 | 107 | 49 | 54 | 49 |
| Average Monthly Members | 31,138 | 33,735 | 34,462 | 35,197 | 38,373 | 45,801 |
| Average Monthly Graduation Rate | 0.07% | 0.08% | 0.31% | 0.14% | 0.14% | 0.11% |
| Sources: DN 14-184A; PPL EU edits | | | | | | |

The graduation rates shown above have been decreasing since 2012. Graduation rates are one measure of the OnTrack program's ability to improve customer payment behaviors.

1. OnTrack customer payment behavior is improving.

OnTrack installments billed compared to payments received are shown in the following data:

Exhibit ‑  
Percentage of OnTrack Installments Billed That Are Received

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| OT Installments Billed | 28,854,679 | 32,723,343 | 33,442,888 | 33,380,598 | 38,315,479 | 46,687,996 |
| OT Payments Received | 22,737,463 | 27,375,363 | 30,755,992 | 30,699,658 | 34,632,313 | 43,971,254 |
| Percent Received | 79% | 84% | 92% | 92% | 90% | 94% |
| Source: DN 14-182 | | | | | | |

OnTrack customer payment behaviors are improving, based on the amounts of dollars that were billed compared to dollars received. The Percent Received increased significantly from 79% to 94% between 2010 through 2015.

PPL EU was unable to provide comparable data for non-OnTrack payment agreements for the same period. The non-OnTrack billed versus received is not routinely tracked, and PPL EU would need to build a report that looks at every bill and show if it corresponded with a payment agreement installment amount over a five-year period. Comparing OnTrack and non-OnTrack payment experience would be very useful in understanding how the program is changing payment behaviors, one of the program’s objectives.

1. Regulatory Programs does not track PUC informal complaints by individual OnTrack agencies.

Regulatory Programs expects the OnTrack agencies to address complaints in a timely manner, and Regulatory Programs follows up with the agencies for corrective actions, training, etc. as necessary. PPL EU’s Complaint system did not have a specific field to identify the specific agency related to the complaint. Regulatory Programs, therefore, does not have a formal tracking mechanism, by agency, that could be used to identify problems and trends at specific agencies.

1. PUC informal complaints related to OnTrack have been growing, but at a rate slower than the growth of OnTrack customers.

The graph and table below show the total OnTrack complaints by year:

Exhibit ‑  
OnTrack PUC Informal Complaints

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Complaints | 185 | 198 | 187 | 211 | 200 | 232 |
| Source: DN 14-177; PPL EU edits | | | | | | |

The number of complaints have varied year-to-year, are generally growing.

By plotting the ratio of OnTrack complaints per 1,000 average monthly OnTrack customers, the information shows that complaints are growing at a rate less than the increase in the number of OnTrack customers, as shown below:

Exhibit ‑  
OnTrack Complaints Per 1,000 OnTrack Customers

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Complaints per 1,000 Customers | 5.94 | 5.87 | 5.43 | 5.99 | 5.21 | 5.07 |
| PUC Informal Complaints | 185 | 198 | 187 | 211 | 200 | 232 |
| Average Monthly Customers | 31,138 | 33,735 | 34,462 | 35,197 | 38,373 | 45,801 |
| Source: DN 14-184A; 14-177; PPL EU edits | | | | | | |

The rate of growth of PUC informal OnTrack complaints per thousand OnTrack customers has decreased from 5.94 in 2010 to 5.07 in 2015, about a 15% decrease.

1. Application delays resulting from enrollment backlogs were a major source of customer dissatisfaction and of PUC informal complaints that were related to the OnTrack program.

The types of OnTrack informal complaints filed with the PUC in 2015 are shown in the table below:

Exhibit ‑  
OnTrack PUC Informal Complaints by Type for 2015

| **Type of Complaint** | **Number** | **Percent** |
| --- | --- | --- |
| Application delay | 68 | 31% |
| Reinstatement amount | 23 | 11% |
| Not eligible | 27 | 12% |
| Shortfall removal | 77 | 35% |
| Payment increase | 8 | 4% |
| Unwanted collection calls | 1 | 0% |
| OnTrack programming error | 1 | 0% |
| Moved | 7 | 3% |
| Payment needed to stop termination | 2 | 1% |
| Customer wanted overpayment refunded | 2 | 1% |
| Unable to reach OnTrack agency | 2 | 1% |
| PPL EU had no record of OnTrack application | 1 | 0% |
| Source: DN 14-177 and V&A calculation | | |

The four largest complaint types (Application Delay, Reinstatement Amount, Not Eligible, and Shortfall Removal) account for 89% of total PUC informal OnTrack complaints. The largest type (35%), Shortfall Removal, is a function of the OnTrack continuing eligibility requirements, and does not represent an actionable improvement or correction opportunity for PPL EU.

The second largest (31%), “Application Delay,” is most susceptible to improvement. Application delays, to the extent that they are a consequence of enrollment backlogs, are the most controllable type of complaint by actions that could be taken by PPL EU.

Enrollment backlog information is not tracked by the Customer Services Monthly Performance Indicators Report, but significant enrollment backlogs have occurred that trigger more than the typical number of complaints. One notable and significant example happened in late 2014 that caused an increase in complaints to the PUC from the Harrisburg area. PPL EU had introduced a new computer server for all of the OnTrack agencies. However, the OnTrack agency in Harrisburg had difficulty in maintaining connectivity with the server.

To handle the backlog of applications in the Harrisburg area, PPL EU re-distributed the work to other agencies. The OnTrack agency in Lancaster processed about 600 applications and the agency in Selinsgrove handled about 175 applications. This effort helped to mitigate delays in the processing of OnTrack applications. PPL EU worked with the Harrisburg agency and eventually discovered and corrected the connectivity problem.

1. Neither the internal audit function nor the external auditor has performed a comprehensive operational or compliance audit of the OnTrack program.

The PPL SC internal audit function has not audited any aspect of the OnTrack program. Also, the external auditor has said that:

We did not perform audit procedures to test your OnTrack program’s compliance with all PUC guidelines. We requested data related to OnTrack customers as a part of our accounts receivable and regulatory asset/liability account balance and internal control testing procedures for PPL Electric Utilities as a whole because transactions with OnTrack customers impact these account balances in the Company’s financial statements and revenue processes. These audit procedures were performed as a part of our financial statement and internal control of financial reporting audit engagements for PPL Corp.

1. Customer Services does not explicitly measure the shorter- and longer-term net effects of the OnTrack program on customer payment behaviors and the incremental effects on total accounts receivable, uncollectible expenses, and write-offs.

When asked if PPL EU measures the impact of OnTrack on uncollectible expenses, its response supplied the following:

Exhibit ‑  
Past-Due Accounts Receivable Recovered for OnTrack Participants

| **Factor** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- | --- |
| Arrearage Forgiveness | $10,340,863 | $14,881,769 | $16,906,808 | $16,473,194 | $19,643,249 | $26,878,833 |
| Sources: DN 14-149; PPL EU edits | | | | | | |

The facts show the amount of past due balances that PPL EU pulled from traditional accounts receivable and recovered through the Universal Service Rider for OnTrack participants. The facts merely show that OnTrack expenditures, recovered through the Universal Service Rider, have increased over the years. The facts do not show that the OnTrack program has improved customer payment behaviors and the incremental effects on total accounts receivable, uncollectible expenses, and write-offs.

Customer Services reports several monthly measures that relate to past due accounts receivable, but does not show the impact of the OnTrack program on past due receivables, as needed to measure and support the OnTrack program objective of “determine overall impact on PPL EU’s overdue accounts receivables.”

1. The APPRISE Final Evaluation Report of PPL EU’s Universal Service Programs includes the OnTrack program but is an incomplete assessment of OnTrack.

The Applied Public Policy Research Institute for Study and Evaluation (APPRISE) Final Evaluation Report of PPL EU’s Universal Service Programs (USP), dated October 2014, is a comprehensive study of the USP programs. The findings for OnTrack are a compilation of interviews with sample customers, agency caseworkers, and Regulatory Programs staff, as well as program statistics. The report is a valuable tool but does not address the more fundamental issues of quantifying OnTrack’s longer term effects on the program’s objectives to improve customers’ bill payment habits and attitudes, stabilize or reduce customers’ energy usage, decrease uncollectible balances for program participants, and determine overall impact on PPL EU’s overdue accounts receivable.

Recommendations

1. Establish metrics that will measure the success in meeting the four key and overarching objectives of the OnTrack program. (See Findings 2, 14, and 15)

The PPL EU objectives for its OnTrack program are to: (1) improve customers’ bill payment habits and attitudes, (2) stabilize or reduce customers’ energy usage, (3) decrease uncollectible balances for program participants, and (4) determine overall impact on PPL EU’s overdue accounts receivables. These are appropriate objectives, were established at the start of the program, and presumably continue to meet legislative and PUC requirements. The existing Customer Services OnTrack performance indicators, while useful, do not support these objectives.

The first objective, "improve customers’ bill payment habits and attitudes" (or payment behaviors) can be measured by:

* Customer payment frequency (percent), pre- and post-enrollment
* Customer billed versus paid amounts (percent received), pre- and post-enrollment
* Graduated customer payment frequency (percent), pre- and post-program
* Non-graduated (post-program) payment frequency (percent), pre- and post-program
* Graduated customer billed versus paid amounts (percent received), pre- and post-program
* Non-graduated customer billed versus paid amounts (percent received), pre- and post-program

Quantification is needed to assess whether the second objective, "stabilize or reduce customers’ energy usage," is being achieved. Assessing the impact of OnTrack on customers' energy usage will require that Customer Services develop a data base that captures specific information about household electric appliances, housing types, seasonal variation in usage, and algorithms that can infer/predict pre-program, program, and post program consumption. Comparing this to non-OnTrack customers who are on payment agreements will add to the understanding of OnTrack impacts on energy usage. Neither the PUC CAP policy statement nor PPL EU's current USECP requires the program to implement specific usage control features or reporting requirements around usage/consumption. However, without some consistently applied and quantified assessment, achievement of the second objective is unknown.

The third objective, "decrease uncollectible balances for program participants," requires, among other things, a comparison of how OnTrack customers and non-OnTrack customers perform with respect to the OnTrack and non-OnTrack payment agreements. Customer Services should develop queries and extract data for the last five years and track the same data on a current and on-going basis for:

* OnTrack, showing billed installment dollars and dollars paid
* Payment Agreements/Arrangements (excluding OnTrack dollars), showing dollars billed and dollars paid

Customer Services will need to build a report that would look at every bill and if it corresponded with a payment agreement installment amount. Non-OnTrack payment agreements performance, net of the costs, should be compared to OnTrack program customer payments, net of the costs, over the short and longer term.

With regard to the fourth objective, "determine overall impact on PPL EU’s overdue accounts receivables," Customer Services should measure the decrease in uncollectible balances for program participants and determine the overall impact on PPL EU’s overdue accounts receivables.

Customer Services should compare the past-due accounts receivable that are recovered for OnTrack participants via the Universal Service Rider with non-OnTrack past-due accounts receivable that are recovered through rates. Both of those data sets should be compared to bad debt and write-offs. Information should be reported that shows customer payments that would not have been made, if not for the OnTrack program.

These metrics will enable PPL EU to better understand its performance in meeting the four key OnTrack objectives.

1. Accelerate analysis of actual historical unit costs with the OnTrack agencies and consider changing the contract pricing structure to a unit price per task completed. (See Finding 4 and 7)

There is currently no way of measuring how long it takes an agency to work a referral, what is done with the referral, and what the result is. PPL EU has not developed metrics related to the number of program enrollments per agency caseworker. PPL EU cannot determine the value it receives for the hourly fees it pays to agencies.

A unit price approach, using a flat fee per enrollment and other tasks completed, would provide several important benefits: PPL EU will be able to assess the value received from each of the agencies, will provide an incentive to the agencies to improve their enrollment performance, and will have a basis to compare performance among agencies.

Given the importance of the OnTrack program to assist troubled payment customers, the costs of the program that are borne by other customers, and the benefits to reduce uncollectible expenses and write-offs, PPL EU should place a priority on its unit cost analysis that should be used for performance and contract management and to modify its existing contracts from an hourly rate to unit pricing.

1. Develop new performance indicators and other metrics that will improve month-to-month management of the OnTrack program and identify changes to the design and eligibility requirements that will improve PPL EU’s ability to meet OnTrack objectives. (See Findings 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, and 15)

In addition to the metrics needed to address the four overarching objectives, Customer Services should develop metrics for tracking and measuring shorter term performance, including cost management, contract management, and cost effectiveness:

1. Establish cost-to-serve metrics that are reported monthly. The existing Customer Services Monthly Performance Indicators Report shows Year-to-Date Program Costs (by budget category). Although the budget spend per category is useful as a budget management tool, it does not serve as a performance indicator that leads to trend analysis and actionable improvements in processes, practices, and policies. Customer Services should create unit cost metrics and other ratio measures, including:

* CAP credits per OnTrack customer and per all customers who are subject to the Universal Service Rider
* Arrearage forgiveness per OnTrack customer and per all customers who are subject to the Universal Service Rider
* Agency administration costs per OnTrack customer and per all customers who are subject to the Universal Service Rider (the agency unit costs should be further sub-categorized (cost per referral processed, cost per new enrollment, etc.) as recommended elsewhere)
* PPL EU O&M (non-agency) and any capital costs per OnTrack customer and per all customers who are subject to the Universal Service Rider
* PPL EU FTEs dedicated or allocated to the OnTrack program

1. Establish metrics that measure “quality” of the referrals. Some percentage of referrals never lead to enrollments and some enrolled participants prematurely end the program. Customer services should identify characteristics of household/customer referrals that are most likely to result in a successful enrollment. Conversely, characteristics of referrals should be identified that are least likely to result in an enrollment. This sort of intelligence will help prioritize the referrals that are likely to result in an application and applications that are likely to result in new enrollments. The prioritization will help agencies/contractors manage the referral and application workload and backlog and will optimize agency/contractor, PPL EU staff, and other resources. This will lead to meeting existing and new measurable program objectives, increase the number of new enrollments, and increase the probability that participants will remain in the program and graduate.
2. To the extent that PPL EU continues to use multiple agency/contractors, metrics should be used to track individual agency performance, assemble aggregate metrics for all agencies/contractors, and compare performance among the individual agency/contractors. PPL EU should require that each agency/contractor use the same metrics to track individual and aggregate caseworker performance for the purposes of identifying the need for training, coaching, etc. These metrics should also be used to develop unit cost contracts and contract and performance management. They include:

* Hours and related costs expended to process referrals that result in applications (cost per received application)
* Hours and related costs to process referrals that do not result in applications (cost per non-received application)
* Hours and related costs that result in a successful enrollment (cost per enrollment)
* Hours and related costs that do not result in enrollments (cost per non-enrollment)
* Enrollments completed per caseworker per month
* Applications processed per caseworker per month
* Hours, related costs and number of days from date of referral to date of enrollment (processing cost and duration per enrollment)
* Hours and related costs expended per completed re-certification (cost per re-certification)
* Re-certifications completed per caseworker per month
* Hours and related costs expended per graduation (cost per graduation)
* Graduations per caseworker per month
* Hours and related costs expended to determine ineligibility (cost per ineligible determination)
* Ineligible determinations per caseworker per month
* Backlog aging

1. OnTrack-related PUC informal complaints should be tracked and reported that relate to each agency/contractor, by complaint type, so that root cause analyses, corrective actions, and improvements can be targeted to each agency/contractor as needed.

Additionally, Customer Services should identify program design changes that meet the OnTrack objectives, for the purposes of improving the customer experience, streamlining and simplifying work processes, and reducing program administrative costs. Opportunities may be discovered that would require adjustments to the eligibility requirements and other OnTrack program elements. Consideration should be given to changing the income eligibility requirements that expands the universe of customers to include low income households that routinely pay their electric bills (may not have had previous payment agreements, etc.) but who may be sacrificing other basic needs, such as health care. These and other “hard to reach” customers may not have had a reason to contact PPL EU and thereby learn about OnTrack and WRAP.

1. Establish periodic operational and compliance audits by the PPL SC internal auditors. (See Finding 13)

Regulatory Programs should request periodic audits by the internal auditors for operational and other auditing objectives. This standardized and formalized approach will also help with contract and performance management of the agencies/contractors.

# Information technology and systems

## background

This chapter addresses how information technology (IT) services are provided to the PPL Electric Utilities Corporation (PPL EU). The field work for this task report was conducted in July, August, and September of 2015, when the IT function was in the midst of significant structural change. As a result, some information contained later in this report, primarily in Chapters XV, Staffing Planning Process and XVI, Merger Synergy Opportunities, in which field work was completed in April 2016 may not correspond with (and ultimately supersede) some information contained throughout this chapter.

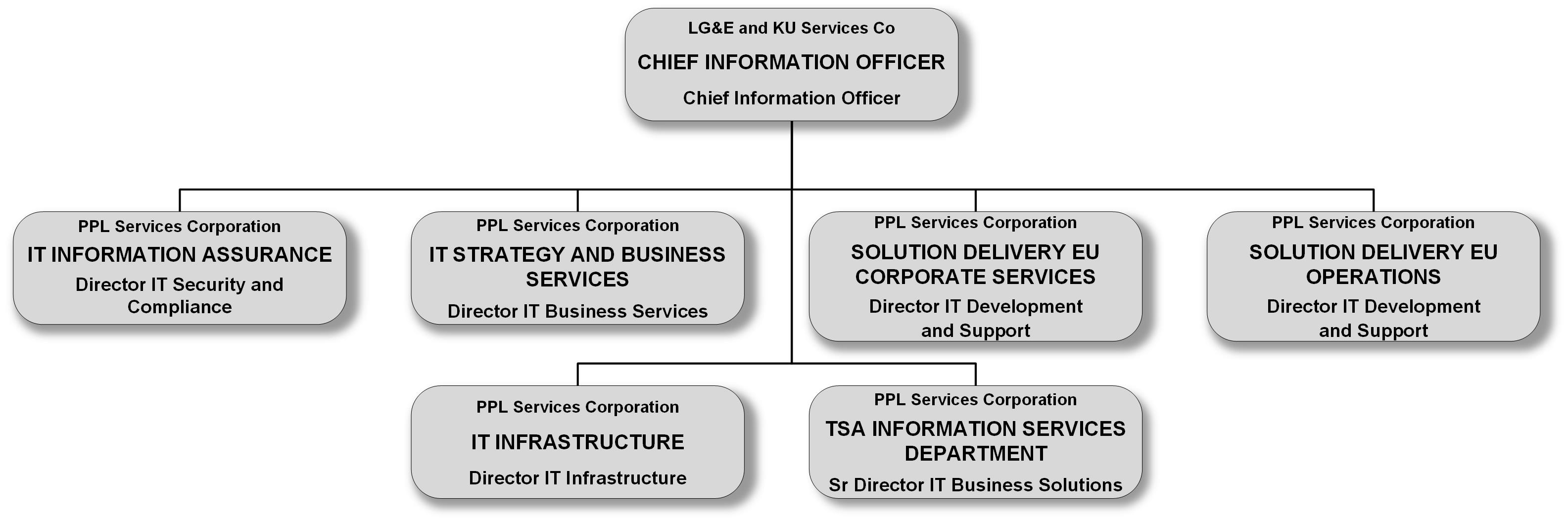
ORGANIZATION STRUCTURE, staffing, mission, AND FUNCTIONS

Structure

There is a single Chief Information Officer (CIO) for PPL Corporation in the United States. This position reports to the Chief Financial Officer of Louisville Gas and Electric and Kentucky Utilities Services Company (LKE SC), as well as to the President of PPL EU. The CIO is an employee of LKE SC, although he serves a dual role as the CIO of both PPL Services Corporation (PPL SC) and LKE Services. The incumbent has been the CIO of both the Kentucky and Pennsylvania operations since mid-2014. To enhance consistency and coordination, much work has been done in recent years to standardize the job titles and job duties of the Kentucky and Pennsylvania IT operations.

As depicted in the organizational chart below, within PPL SC, there are six direct reports to the CIO.

Exhibit ‑  
PPL SC Information Technology Organization Chart



Source: DN 01-009

Staffing

The head count for Pennsylvania IT operations reporting to the CIO, associated with the organization chart presented above, is about 235. Those numbers are exclusive of contractors.

Within personnel providing services to Pennsylvania, this management audit identified two small groups of IT personnel who do not report to the CIO. In PPLSolutions, LLC, the Supervisor of Information Systems directs ten developers and one business analyst. These personnel are focused on back office services, such as billing, for competitive energy suppliers. Likewise, in a different branch of the PPL SC, reporting through the Human Resources and Services chain of command, the Director of Operations has five business analysts as direct reports.

Mission

The mission of IT is to plan, deliver, and support IT functionality for PPL Corporation, PPL EU, PPL Electric Utility Services (PPL EUS), PPL SC, PPLSolutions, and other Pennsylvania based PPL Corporation subsidiaries. There is an overlap of this mission with the PPL Corporation subsidiaries operating in Kentucky and synergies are actively being investigated through joint committees of Kentucky and Pennsylvania employees. Commonality and overlap with PPL Corporation operations in the United Kingdom are not addressed in this report.

Functions

The IT organization chart displayed above, reflecting direct reports in Pennsylvania to the CIO, identifies six major functions; however, the IT Department addresses the Talen Transition Services Agreement provided as part of the Talen spinoff and is not in the scope of this audit. Moving from left to right across the chart, the remaining five functions are discussed below.

**IT Information Assurance** (IAG) has four key responsibilities: 1) protect information, 2) protect confidentiality, 3) availability, and 4) integrity. Cyber security is one of the core assignments overlaying these four responsibilities.

**IT Strategy and Business Services** leads and facilitates the IT planning process and has a major role in monitoring performance to plan. This section also governs change management and manages incident response. There is heavy collaboration not only within IT, but also with PPL EUS, PPL EU, and with contractors.

**Solution Delivery – PPL EU and Corporate Services** is responsible for implementing and maintaining commercial software, internally-developed software, and interfaces between systems. The emphasis is on back-office areas such as finance, human resources, and legal.

**Solution Delivery – PPL EU Operations** is responsible for implementing and maintaining commercial software, internally-developed software, and interfaces between systems. The emphasis is on areas such as transmission, distribution, and customer service.

**IT Infrastructure** is responsible for purchasing, installing, and maintaining data center and hardware and software. These same responsibilities extend to the network and communication links. The IT Infrastructure group “owns” the platforms for the operating systems and the databases, while the business user owns the data.

All personnel reporting to the CIO in Pennsylvania are currently employees of PPL SC. During 2016, the Pennsylvania PPL SC IT group is scheduled to be transferred to PPL EUS. The PPL SC CIO currently reports to the PPL EU President.

CONTRACTOR USE

Contractors are heavily involved in IT activities, such as help desk, cyber security monitoring, and large development projects. All commercially developed applications, external interfacing applications, and development work performed by external vendors are subject to the same cyber security standards and tests as internally developed applications.

Contract monitoring is accomplished from five different levels or perspectives:

* The IT Planning and Supplier Management group
* The IT Service Management group
* The Project Management Office
* The Corporate financial group
* The IT business relationship managers, who have an electric utility/customer perspective

Examples of major contracted arenas include the Help Desk function as well as on-site services such as desktop deployment, staff augmentation, multifunction printer management, system administration, and integration. The Top 12 contract agreements put in place during the five-year period of 2010 - 2014 are presented in the table below. The start dates range from January 1, 2010 through May 31, 2014. The end dates range from December 31, 2014 to June 30, 2018.

Exhibit ‑  
Top 12 IT Contract Agreements Awarded 2010–2014

| **Contract Title** | **Contract Amount** |
| --- | --- |
| Business Intelligence Infrastructure Investments | $6,512,368 |
| Level 1 Services | $5,017,102 |
| Managed Print Services - Distributed Fleet And Output Center | $4,114,557 |
| Software And Maintenance Support 5/14 - 5/15 | $4,078,865 |
| DMS System | $3,692,360 |
| Customer Interaction Center (CIC) Solution | $3,201,604 |
| MS Server And Cloud Enrollment | $2,684,766 |
| ETL (Extract, Transform, Load) And Data Integration Tool Subscription & Support | $2,301,582 |
| DMS System | $1,970,500 |
| Managed Maintenance For PPLSolutions | $1,647,145 |
| Enterprise Work & Asset Management System | $1,541,703 |
| SMO Management/Telecom Management | $1,203,607 |
| Source: DN 01-048 | |

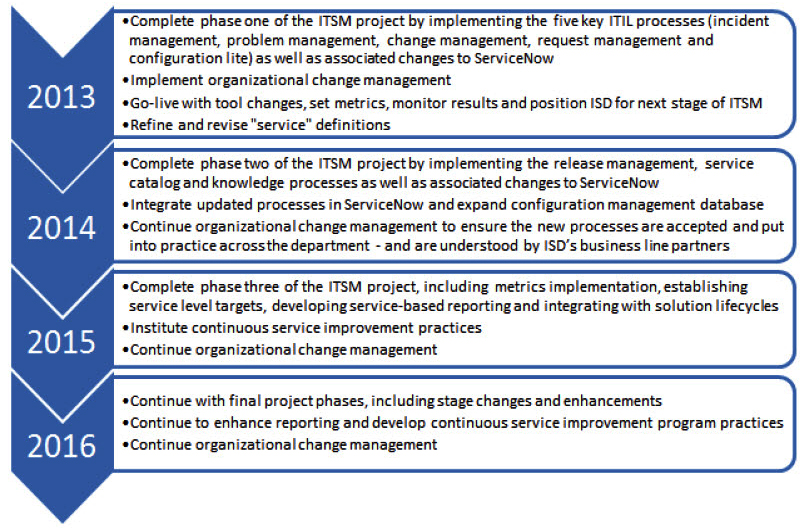
Transformation in Progress

PPL SC is in the midst of over-arching changes that are transforming the way IT functionality is delivered. These changes are impacting the way IT services are defined, interaction with the user communities, IT-specific software tools, and the organization structure.

**IT Service Management**

Like many other large complex enterprises, PPL has been migrating IT management from technology-oriented approaches to an IT Service Management (ITSM) approach. ITSM focuses on services that meet the needs of customers (both internal and external), as compared to traditional IT management approaches that focus on networks or systems. Migration to ITSM can be characterized as a paradigm shift. The change takes multiple years and requires evolution in IT staff thinking patterns. This journey was first initiated in the Kentucky operations, and was adopted for Pennsylvania use in early 2012. The overall PPL SC schedule for the ITSM migration is displayed in the exhibit that follows:

Exhibit ‑  
PPL ITSM Project Schedule



Source: DN 09-008b

In the opening descriptive sentence to the exhibit above, there are references to “ITIL” and “ServiceNow.” ITIL is described immediately below and ServiceNow is discussed in the succeeding section.

Information Technology Infrastructure Library

The ITSM model is high level, and thus requires an underlying framework to realize the benefits. The ITSM framework adopted by PPL SC is Information Technology Infrastructure Library (ITIL). ITIL is a best practice framework, originally developed within the government in the United Kingdom, and has been available for public use. While ITIL has been in existence for over twenty years, the global adoption of ITIL has increased significantly in recent years. Even though other frameworks exist for ITSM purposes, ITIL is now often equated with ITSM. ITIL is now marketed and managed by Axelos, under license from the United Kingdom.

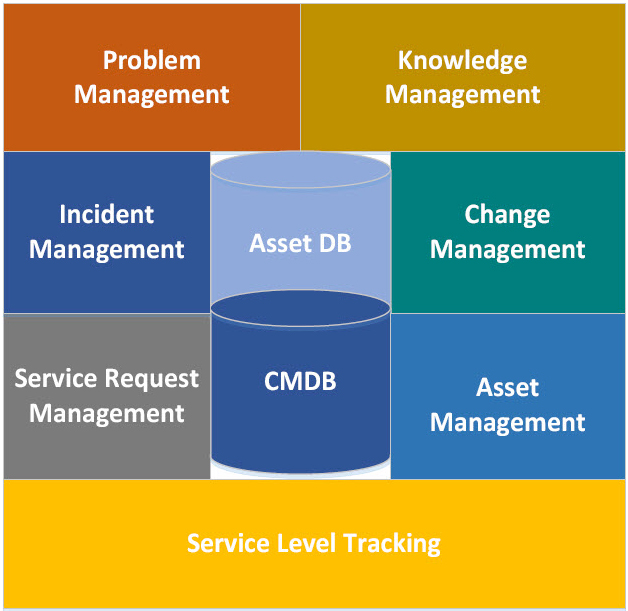
The ITIL framework contains five parts: Strategy, Design, Transition, Operations, and Continual Service Improvement. Underlying these parts, the ITIL best practice framework specifies a set of key processes to promote integration of the IT activities with the organization's business strategy. These processes are not detailed or organization specific. Rather, each entity defines its own procedures, tasks, and checklists. ITIL allows the organization to establish a baseline from which it can plan, implement, and measure. Accordingly, the ITIL framework can also be used to demonstrate compliance and to measure improvement.

At the point of adoption, most organizations focus on “righting the ship” activities in Transition and Operations, and in later phases more fully address Strategy, Design, and Continual Service Improvement. The ITSM Project Schedule for PPL SC IT generally adheres to this common practice.

ServiceNow – Major Toolset to Support the Mission

To support the IT Department’s mission and to actively promote ITSM and ITIL processes, the IT Department licensed ServiceNow, a comprehensive IT software toolset based on ITIL principles. A basic diagram of ServiceNow is presented below.

Exhibit ‑  
Vendor Depicted ServiceNow Base Diagram



Source: <http://media.corporate-ir.net/media_files/IROL/25/251291/ServiceNow%20Financial%20Analyst%20Day%202015%20..pdf>

The center blocks of the diagram are the Asset Data Base (Asset DB) and the Configuration Management Data Base (CMDB). These two databases are the repositories for the IT assets (or components), the way in which those components are configured, and the party responsible for each asset. Other than the Service Level Tracking block (at the bottom) the other surrounding blocks represent the processes for installing and maintaining the assets and for registering and tracking requests, incidents, and problems.

In a Gartner “Magic Quadrant” study released in August 2012, ServiceNow was compared to ten similar software platforms. The platform scored very well on the “ability to execute” and “completeness of vision” factors in the evaluation. The study noted ServiceNow had become publicly listed in June 2012, and further stated ServiceNow was the fastest growing of the 11 companies in the comparison.

To implement ServiceNow, the IT Department took a phased, “first right the ship,” approach. Incident Management and Problem Management (through the Help Desk) have been up and running in the IT Department since 2012. All of the modules in the ServiceNow Base Image have since been implemented, though CMDB and Change Management are in partial status. The status of these two modules will be revisited as the organization evaluates a consolidated service management system for the Pennsylvania and Kentucky business segments (further discussed in the paragraph which follows). The Service Catalog and Service Portfolio Management Modules, not represented in the diagram above, have also been implemented. Additionally, an effort is underway to further develop Knowledge Management (which offers notes and helpful hints on incidents and problems) by strengthening contextual search.

While Pennsylvania utilizes ServiceNow, Kentucky is using Remedy, a competing software platform. The presently installed version of Remedy in Kentucky is considered to be reaching end-of-life. ServiceNow is more expensive than Remedy, and Kentucky IT is concerned about the cost differential. Pennsylvania IT is concerned that the newest version of Remedy does not contain as much functionality as ServiceNow, and hence would not meet Pennsylvania IT needs. ServiceNow licenses, currently non-deployed due to the Talen spin-off, could possibly be redeployed for Kentucky’s use. The licensing rights would need to be sold to the Kentucky operation. Another possibility is that the two IT operations could select a completely different ITSM platform. This could lead to a partial financial write-down of the ServiceNow software license value.

Other Critical Technical Applications

Like any commercial software package, ServiceNow cannot fully meet the needs of all clients. Large organizations typically have internal applications which contain specialized, feature specific functionality. Three IT in-house technical applications are unlikely to be completely replaced by ServiceNow (or a competing product) in the foreseeable future. The three in-house applications are Development Interface System Console (DISCO), IT Environment and Application Management (iTEAM), and Security Request System (SRS).

DISCO is used for controlled promotion of new/updated code into production. iTEAM is a configuration management tool which contains electric-industry specific data on electric assets. The SRS software tightly controls access to applications, with major links to iTEAM and Active Directory. All three of these applications incorporate industry-specific requirements (becoming more stringent each day to meet Critical Infrastructure Protection (CIP) 5 and other standards), and are not likely to be included in the generic commercial software packages.

Service Oriented Architecture

As the IT Department gains experience with ServiceNow and ITIL maturity advances, it will become increasingly able to pursue Service Oriented Architecture (SOA). The goal of SOA is to produce “services,” discrete pieces of code with a specific functionality, that are reusable, more flexible, and less application dependent.

The goal of SOA is to build a service once, in a manner that allows a single code set to be leveraged by multiple programs. Hence a SOA-oriented program will typically be comprised of many previously written discrete services. The value is straight forward: a business requirement can be promulgated to many different programs by making a single coding change. Contrast this with traditional programming, where virtually identical coding is replicated on a stand-alone basis in multiple programs and a business requirement change necessitates each program to be individually updated.

Constructing a SOA platform is a long-term effort. It requires well-conceived planning and clear standards to encapsulate services for utilization by a variety of programs. There is considerable upfront investment before benefits begin to be realized. This is due to the fact that encapsulating a service “kernel” for seamless use by multiple programs takes more effort than traditional application-specific programming.

Commercial software vendors have recognized the benefits and challenges of SOA. Middleware (also known as a bus or broker) is offered by many commercial software vendors to handle computer communications steps that can be excluded from the SOA kernel. This enables the developer to focus on the internal contents of the service, instead of having to account for the intricacies of multiple communication protocols. PPL SC has utilized WebMethods (Software AG) thus far as the integration and middleware platform in early SOA efforts. WebMethods was ranked in the “Leaders Quadrant” in a 2013 Gartner evaluation of similar products.

As a foundation to SOA efforts, IT has made progress in standardizing SOA development, as evidenced by the SOA Guidelines and other internally generated guides. The first PPL IT effort in SOA was for HR applications starting in 2012. Since that initial effort, progress has slowed but multiple IT personnel indicated the desire to resume the SOA effort in HR. Another SOA effort, currently in the design phase, is the 360 View for customer service representatives. The 360 View project will present a single view of information that originates in multiple applications, thus allowing the customer service representative to be more efficient and responsive.

ITIL Maturity Level

In 2012, early in the ITSM/ITIL implementation, PPL SC engaged Fruition Partners to conduct an ITIL Process Maturity Assessment. The overall maturity level was assessed using a scale of 0–5:

* Level 0 – Non-existent (total lack of processes)
* Level 1 – Initial (the organization recognizes issues exist)
* Level 2 – Awareness (processes developing, individuals assigned, but ad hoc)
* Level 3 – Controlled (process is consistent, operating for at least a quarter)
* Level 4 – Integrated (good practices and constant improvement in place)
* Level 5 – Optimized (quality data and sound processes, including audited results)

For the 22 process areas underlying the five parts of the ITIL framework (Strategy, Design, Transition, Operations, and Continual Service Improvement), the average PPL SC score was 2.11. Three processes received a rating of 3.0. Two processes received a rating of 1.0. The remaining processes received ratings from 1.5 to 2.5.

The Director-IT Business Services estimated the average maturity rating has progressed about one point since the Fruition Partners assessment. If this informal estimate is reasonably close, the average rating is now slightly above Level 3, meaning processes are becoming more consistent and repeatable.

Work ProcessES

The IT work processes reflect an evolving integration of the ITIL framework, ServiceNow functionality, and the major functions within the organization.

Capital Planning and Portfolios

The IT capital planning process is an iterative, multi-year process that strategically blends technological and industry trends within a process that strives to balance business priorities with monetary realities. The major functions fall into one of three major portfolios. The organization’s IT governance activities, including budgeting and prioritization, are centered on these portfolios:

* PPL EU Operations (e.g., Transmission, Distribution, and Customer Service)
* PPL Corporate (e.g., Finance, Human Resources, and Legal)
* IT Foundation (technical applications, including ServiceNow and cyber security).

To promote effective, consistent communications, when a service is created in ServiceNow, it is assigned to one of these three portfolios. These three portfolios are also reflected in the organizational structure in that the Development and Support sections, the IT business relationship managers, and the IT services managers are assigned to portfolios. This structure promotes frequent and consistent dialogue between the user communities and the supporting IT personnel.

Overarching portfolio management is cyber security. Processes and standards are in place to ensure cyber security is integrated into proposed new IT applications and IT modifications across all three of the major portfolios.

Process Managers

Overlaying all IT services are the processes for addressing the five parts of the ITIL framework. Examples of these structured processes are design requirements, programming standards, testing, updating hardware inventory, change management, incident management, and updating the knowledge base. To properly support these processes, the IT Service Management section has four dedicated process managers:

* Configuration and Asset Management
* Change Management and Release of Applications
* Request for Work (user requests) and Knowledge Management
* Incident and Problem Management

The responsibilities of these four process managers are not tied to any specific portfolio. Rather, as the name implies, these individuals have oversight for defined processes to overlay the services, portfolios, and projects.

Project Management

Project management is multi-faceted and portfolio oriented. All projects are entered into ServiceNow’s Project and Portfolio Management (PPM) module before the vetting and estimating process is initiated. For consistency, one basic workflow is utilized. The project manager in ServiceNow is typically the technical project owner from the relatively new Project Management Office and a business sponsor is separately identified.

Project management at PPL goes beyond meeting budgets and target dates. A theme expressed repeatedly in IT interviews was the desire to meet or exceed user expectations. One mechanism to measure user satisfaction is the project card, which the user completes after each project. Overall, about 85% of projects are delivered on time with a 90% user satisfaction rate. Additionally, every two years an internal customer satisfaction survey is conducted. In the survey completed by an independent firm in October, 2015, user satisfaction was rated at 4.40 on a scale ranging from 1=low to 5=high. These results are solidly within the top 10% of vendor’s database.

IT GOVERNANCE

There are a number of standing and ad hoc committees involved with IT governance. The first four listed below, which prioritize capital projects and approve budgets, constitute an integrated hierarchy.

Information Technology Council

The Information Technology Council evaluates IT matters spanning both the Pennsylvania and the Kentucky operations. The council is comprised of senior managers and executives from both Kentucky and Pennsylvania operations. IT synergies between the Pennsylvania and Kentucky operations will be pursued through the Joint Initiative and its related four committees (discussed later in this section).

Technology Portfolio Management Committee

The Technology Portfolio Management Committee (TPMC) provides strategic direction and approves major projects (over $1 million) for the Pennsylvania operation. The first meeting of the TPMC was held in July 2015. This group replaced the former IT Steering Committee. Six vice presidents and nine directors are on the committee. The committee includes representatives of PPL EU, PPL SC, and LG&E and KU Services Company.

Portfolio Governance Councils

There are three Portfolio Governance Councils (PGCs) that review, approve, and reprioritize projects in accordance with the three major portfolios discussed above:

* Operations
* Corporate
* IT Foundation

The budgets for 2015 for these Councils are approximately $27 million, $3 million, and $37 million, respectively.

Business Line IT Prioritization Groups

The Business Line IT Prioritization groups are the first to consider suggestions from either user or technical personnel. User requests typically enter the governance process at this level. Requests approved at this level will be submitted to the appropriate portfolio governance council for budgetary consideration. Identified IT prioritization groups include:

* Distribution Operations
* Customer Service
* Rates and Regulatory
* Service
* Transmission
* Information Technology
* Human Resources
* Financial
* Cross Function Challenge (ad hoc sessions as needed)

Joint Initiative Committees

Four teams are now being established as a “Joint Initiative” that will look for synergies between the Kentucky and Pennsylvania operations. These are 1) Finance and Supply Chain, 2) Operations, 3) Human Resources, and 4) IT. The teams will be cross functional and sponsored by TPMC.

Change Advisory Board

The change advisory board ensures that IT changes are introduced into the production environment in a tightly controlled manner. The board is chaired by the IT Services Manager in charge of the change management process and meets as necessary; daily if required. This committee is moving in the direction of risk- and value-based decision making, and eventually may meet only weekly. External factors, such as NERC standards, at times require involvement by the business units.

External Industry Committees

To stay abreast of industry trends and developments, IT staff members participate in a number of external committees or forums. Example organizations include NERC, PJM Interconnection, L.L.C., and the National Transmission Forum.

Cyber Security

As mentioned above, the Information Assurance Group (IAG) has corporate-wide responsibility for cyber security. IAG maintains the PPL Cybersecurity Plan, a five page governing document which directs the user to detailed policies, standards, procedures, risk assessment, business continuity, disaster recovery plans, and other topics.

Industry Cyber Security Trends

The IT Department of PPL SC is working toward NERC’s Critical Infrastructure Protection 5 (CIP 5) Reliability Standards. The new standards must be in place by April 1, 2016. Compared to existing CIP standards, the CIP 5 version of standards CIP-002 through CIP-009 have been significantly revised, and two new standards, CIP-010 and CIP-011, have been added. One important revision is the requirement for all responsible entities to implement a process that classifies each component of the Bulk Electric System (BES) as high, medium, or low impact. A new term—BES Cyber System—is used to define assets subject to CIP 5 protections. This new risk-based concept is applied to CIP-010 and CIP-011. CIP-010 requires identifying, assessing, and correcting deficiencies in configuration change management and vulnerability assessment for high and medium BES Cyber Systems. CIP-011 requires identifying, assessing, and correcting deficiencies in information protection programs for high and medium BES Cyber Systems.

The scope of CIP 5 has been broadened due to looking at smaller (and considerably more) components. PPL’s assets have been categorized as high, medium, or low impact but much work remains in identifying, assessing, and correcting deficiencies.

IT will participate in the Cyber Security Risk Information Sharing Plan (CRISP), whereby PPL voluntarily places devices in the network to capture packet data, with that data shared for analysis by Electricity Information Sharing and Analysis Center. The CIO closely monitored proposed legislation in both the House and Senate regarding liability issues in CRISP, and recently decided to move forward with the CRISP program. Following final approval by NERC and the Department of Energy, the devices became operational and began passing data in August 2015.

Current Cyber Security Processes and Policies

PPL cyber security is being managed from a risk-based assessment approach, complemented by “Defense in Depth” layers of protection. These include:

* Intrusion detection and prevention
* Virus scanning
* Malware scanning
* Firewalls
* True positive identification

Desktop antivirus software is updated three times daily; only certified patches are applied; and they are applied as soon as approved. The web proxy server, which inspects both incoming and outgoing traffic, offers another layer of virus protection. The web proxy server also performs Uniform Resource Locator (URL) filtering and behavioral detection. Third parties perform penetration testing to identify defensive gaps. IAG considers each of these defense layers for any proposed new application. When new applications or major upgrades are tested and placed in production, appropriate cyber security audits are included.

The IAG leverages multiple sources to keep abreast of emerging cyber security developments, including IT-oriented, electric industry, federal, and state forums and entities.

The IT Safety Net Process is the umbrella for monitoring and ensuring security compliance in daily activities. These include:

* Ongoing cyber security awareness training to employees
* Phishing campaigns (sending fake harmful emails). This originally started with targeted groups. The campaigns are now run on a monthly basis, with day of the month and recipients rotated randomly.
* Secure work space. Supervisors perform random after-hour checks of employees work areas for items such as password notes and insecure laptops. A form is used so that the process is standardized and disciplined. An insecure laptop (not connected to a cable lockbox mechanism) will likely be confiscated.
* Password changes are prompted every 90 days.
* Security system reports are reviewed for unusual patterns.
* Any access into a CIP-designated asset requires hard token access. IT also uses hard token access in other critical areas.

The systems development process includes a diagram for each phase, which links to templates for security requirements. The process ensures that all NERC, Federal Energy Regulatory Commission (FERC), and Sarbanes-Oxley (SOX) requirements are considered early in the project. This culminates with the 5059 Pre-production Signoff form, which verifies that all security requirements have been met.

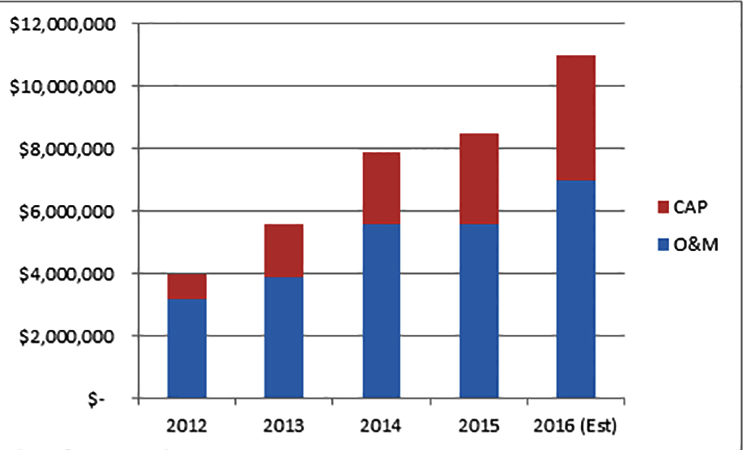
Personal Devices

PPL-issued smart phones are password protected. PPL uses commercial software to segregate personal and corporate information. The corporate information can be cleansed if the device is stolen or misplaced. The same software is installed on non-corporate smart phones, but passwords are not required. PPL does not utilize burn (prepaid) phones. iPads are not allowed on the corporate network, as the technology does not exist for adequate protection.

Cyber Security Cost and Upcoming Improvements

The cost of cyber security has grown significantly, from approximately $4 million in 2012 to an estimated $11 million in 2016.

Exhibit ‑  
Five Year Trend in Cyber Security Spending



Source: DN 09-103

Continuous improvement is the underlying driver for these increasing costs as IT moves toward adaptive identification. A new cutting edge security application will review a user’s behavior patterns; and the more unusual the activity (such as trying to gain access from a non-recognized IP address), the more and tougher gates that will need to be passed. IAG began rolling out this security application in September and initially expected to have it fully functional by year end 2015, but subsequently determined a slight delay into first quarter 2016 was appropriate.

Another important new application is designed for improved management of privileged user’s rights (such as administrator rights on desktops). The system will also provide a full audit trail.

Overall, there is an emphasis on making application access more role-based, which will make administration simpler as well as promote understanding by the user.

DATA CENTER PHYSICAL SECURITY

A physical review of the PPL SC data center was conducted. The data center was constructed to PPL requirements during 2012 and 2013. A structured checklist was utilized for the interview. Key features of the data center include:

* Steel frame, concrete floor and concrete block hardened
* Not in a flood plain
* Uninterruptible power supply/battery configurations, complemented by redundant electric power feeds
* Smoke and fire detection and suppression
* Multiple layers of access control, complemented by surveillance cameras and 24x7 monitoring by a security command center
* Certification by an outside party for compliance with NERC and CIP standards.

Summarizing, the data center reflects best practices in construction, security, and operational reliability.

Other relevant information on the security of the data center includes:

* 176 people work in and have authorized access to the building.
* PPL has familiarized local police and fire agencies via tours and reviews so that appropriate emergency response can be provided.
* The cleaning crew is escorted by security when in any sensitive areas. Visitors are escorted through the entire building.
* Equipment for the data center is first received in a room with exterior rolling door access. After inspection and unpacking, it is moved into another room for preparation and testing. It then can be taken into the production environment.

TRAINING

By PPL SC HR policy, individual development plans are documented for each employee. Training and development initiatives can be structured such as classrooms and videos, or can be on-the-job experiential. Development plans are updated annually, with a review at mid-year and end-of-year. IT training requirements are influenced by the professional background of employees. For recent college graduates, the process of on-boarding is becoming increasingly formal, with all required to attend formal classes that provide a background on electric utility functions. Rotating among different functions on a short-term basis, typically two to three months, is also required. For more experienced personnel, training is much more on-the-job in nature, with process training a frequent activity. North American Electric Reliability Corporation (NERC) and Critical Infrastructure Protection (CIP) training are also common. Training credentials are tracked in the HR system. The average cost per employee is roughly $1,000 annually.

PERFORMANCE METRICS, TARGETS, AND PERFORMANCE REPORTING

From transmission line personnel to customer service representatives to accounts payable associates, PPL personnel are dependent on robust and reliable IT support. When issues arise, such as slow response times, unavailable applications, or failing desktops, the user needs to be able to submit an incident report or request that can be handled properly and timely. It is a best practice in IT management to track performance metrics, preferably as memorialized expectations. PPL’s IT function tracks over 50 Service Level Agreement (SLA) metrics. Each metric has an SLA target, a business owner, and a responsible IT director. There are two major paths of SLA development: 1) discussion with the business and 2) reviewing past performance. The general goal is for the SLA’s to get tighter over time. The SLA’s are reviewed and confirmed annually. SLA’s are integral to the compensation structure at the corporate level. Each employee has documented specific actions, milestones, and SLA’s (such as a project being delivered on time) that tie to compensation.

An excerpt of the SLA report, which is updated monthly, appears below.

Exhibit ‑  
Excerpt on SLA Tracking



Source: DN 09-053a

There is a high level of awareness of SLA targets, with an emphasis on monitoring in the current year and for the recently completed year. However, trend analysis over five year periods seems to be lacking. Some of the focus on only the most recent results is attributable to added data elements and data element definition changes in ServiceNow. Those changes were implemented during a Fruition Partners engagement in 2012.

## Findings

1. IT is making a beneficial conversion from a technology and applications focus to a business need and service focus.

IT is in the midst of a paradigm shift in providing IT services. Instead of focusing on technologies and software applications, the organization is emphasizing business needs, and increasingly speaks of IT “services” in business terminology rather than in software application terminology. By approaching IT in this manner, the end users are better able to express requirements to IT that in turn can more easily be mapped to the underlying technologies. This approach supports effective communication between technical and non-technical personnel, minimizes programming reworks, and contributes to delivering on-target capabilities.

1. IT has adopted the highly regarded ITIL framework and has made progress in developing the related processes, but has room for improvement.

As discussed above, the IT function has adopted the Information Technology Infrastructure Library (ITIL) methodology for managing the IT function. In 2012, shortly after the implementation of the ITIL framework, an external consultant assessed the maturity of PPL’s ITIL process areas and found room for improvement. IT staff consistently opined there has since been improvement, but there has been no structured evaluation of ITIL maturity since 2012.

1. In support of the ITIL initiative, IT has made solid progress implementing the ServiceNow integrated IT toolset; however, ServiceNow has not been fully utilized.

The early implementation of ServiceNow focused on “right the ship” modules with Incident Management as one of the first modules implemented. ServiceNow automatically tracks incident opening and closing dates, which are used later in metric reporting. With this software, incidents are now managed principally by database instead of by the previous practice of unstructured email and telephone communications. Incident management is now much more informative with more overall IT awareness. Incident management is also now more efficient, responders are interrupted far less frequently and multiple people are no longer attacking the same problem.

Another module where implementation progress has been made is Service Request Management, which contains a hierarchy of Services and Service Offerings. The Services and Service Offerings are predominantly defined with user terminology, which promotes communication between technical and non-technical personnel. One example of a Service defined by PPL IT is Financial Management, with underlying Service Offerings such as financial reporting, treasury operations, and cash management. Another example of a Service is Client Hosting, with underlying Service Offerings such as work station peripherals, on-site repair, workstation, and non-standard PC. There are over 100 Service Offerings in ServiceNow.

Nonetheless, ServiceNow is not yet being fully utilized. The IT Business Plan 2015–2017 identified three focus areas for continued ServiceNow implementation. Those three areas were Release Management, Configuration Management, and Change Management. These three areas were frequently mentioned by IT employees, during independent interviews, as needing additional attention.

1. The continued use of ServiceNow is uncertain.

As discussed earlier in this chapter, while Pennsylvania utilizes ServiceNow, Kentucky is using Remedy, a competing software product. Standardizing from ServiceNow to Remedy, or to a completely different ITSM platform, is under consideration.

Changing from ServiceNow would likely have a significant impact on Pennsylvania IT staff. First, there would be significant retraining, data conversions, interface rewriting, and other common software conversion challenges. Additionally, there would likely be a negative impact on personnel, as a common theme expressed in interviews can be paraphrased as, “ServiceNow is a very solid tool, we will continue to make strides in its use, and will be better able to serve.” Summarizing, discontinuation of this platform would disrupt the momentum of meaningful improvements made in recent years.

1. Some internally developed applications will remain critically important, and therefore will require on-going investment.

Three IT in-house technical applications unlikely to be completely replaced by commercial software in the foreseeable future are the Development Interface System Console (DISCO), IT Environment and Application Management (iTEAM), and Security Request System (SRS). These applications will require on-going investment due to continued evolution in underlying IT infrastructure, changes in the commercial applications to which they are interfaced, and increasingly demanding electric utility cyber security requirements.

1. IT has taken some positive steps in using Service Oriented Architecture to become a more responsive IT function, but progress has slowed in recent years.

As discussed above in greater detail, Service Oriented Architecture (SOA) offers the promise of IT services that are reusable, more flexible, and less application dependent. The encapsulation of discrete services allows other applications to easily call and utilize that piece of service, making it possible to [reuse](https://en.wikipedia.org/wiki/Code_reuse) the service in different ways across a variety of applications. At the same time, it is widely acknowledged that building and populating a meaningful SOA registry (foundation) takes considerable effort.

Since the first SOA initiative for human resources applications in 2012, limited SOA programming has been accomplished. Multiple interviewees expressed the desire to make further progress in SOA programming. IT staff stated emerging needs in HR will be expected to conform with SOA where applicable, and SOA is expected to be central to the planned 360 View for customer service representatives.

1. The IT staff and IT committee structures are organized to appropriately integrate with the user-defined service portfolios, ITIL principles, and software nomenclature.

As discussed in IT Governance, IT recognizes the three portfolios of Operations, Corporate, and IT Foundational. The budgeting process (see next finding) also incorporates this portfolio definition. When a service is created in ServiceNow, it is assigned to one of these three portfolios. These three portfolios are also reflected in the organizational structure, in that the Development and Support sections, the IT Business Relationship Managers, and the IT Services Managers are assigned to portfolios. This structure promotes frequent and consistent dialogue between the user communities and the supporting IT personnel. Summarizing, it appears the organization is doing a commendable job of aligning organizational structure with the adopted IT management model and the core IT management software.

1. PPL has a rigorous IT project planning, budgeting, and monitoring process in place but long-term effectiveness is not monitored.

The IT capital program planning process is an iterative, multi-year process that strategically blends technological and industry trends, and strives to balance business priorities with monetary realities. The beginning point is the IT Roadmap, a strategically oriented document that contains no dollar estimates. Produced and updated annually, this forward-looking document provides a common format for communicating IT strategy over the next five years.

Building upon the foundation of the IT Roadmap, four committees and councils are in place for vetting initial cost estimates, approving or rejecting projects, and funding projects. Once a project is approved, the project management office (PMO) is involved. This group is relatively new, created as a result of the Talen spin off. The PMO is staffed principally by certified project managers. Certified project manager best practices include knowledge transfer, risk management, and ensuring projects are aligned with organizational strategy.

Project controls appear to be solid with business cases prepared on the front end of the approval process. Additionally, there are “charge numbers” for each project. Employees utilize exception time reporting to charge hours to the project they are working on. Project managers receive reports of personnel time charged to their projects, and are responsible for assuring that time entries are justified. The project manager also has vendor oversight responsibility.

On a monthly basis, the project managers and IT supervisors update the progress and estimated remaining costs of each project. Projects are monitored not only for expenditures, but also for meeting target dates and requirements.

From one perspective, projects are not monitored for long-term effectiveness. That is, once an asset is placed in production there is no formal tracking by IT on the financial impact of early retirements or write-offs. Based on an ad hoc analysis requested for this management audit, early software retirements totaled just over $580,000 over the past five years. A best practice would be to monitor trends in this arena.

1. The IT Business Plan is well documented and communicated.

The IT Business Plan for 2015–2017 addresses the IT business model and strategy, the operational excellence program, goal alignment, IT workforce plan, and other areas. Key projects and the estimated costs are identified. Services and Service Offerings (see Finding 3) are listed as well and expectations regarding the Talen spin-off are articulated. A copy is distributed to all IT personnel.

1. The IT Infrastructure Group has achieved cost savings by taking advantage of server virtualization software.

The IT organization has roughly three virtual servers for every one physical server. Virtualization permits multiple operating systems on a single server, enabling a single physical server to act as two or more virtual servers. Among the benefits of virtualization are energy savings, load balancing, smaller data center footprints, and faster server provisioning.

1. Convergence of IT and Operations Technology appears to be progressing efficiently.

As penetration of modern computerized capabilities into electric delivery continues, PPL EU Operations and IT appear to be aligning the right skill sets and responsibilities with the continuously evolving technological platforms.

As of December 2015, the Director of IT Infrastructure is responsible for the servers on which supervisory control and data acquisition (SCADA) systems reside. Hence, refresh cycles, operating system updates, and other typical IT responsibilities are handled by IT personnel trained in and immersed in the required support activities for the SCADA system.

Programming staff under the Director of IT Development and Support, in the PPL EU Solution Delivery Department, support the SCADA systems. Some of that staff is co-located at the Windsor Operations Center (Fogelsville) with EU Operations. IT staff housed at Windsor coordinate with EU Operations on implementing and maintaining SCADA software, and thoroughly model electric grid changes before they are implemented.

Additionally, this convergence extends to cyber security, as the Information Assurance Group (IAG) in IT is responsible for cyber security enterprise wide. PPL EU coordinates with IT to segment the SCADA network with separate fiber assignments. Processes are in place, stipulated by IAG, to confirm fiber assignments are correct.

1. PPL appears to have a sound cyber security program.

Cyber security is being managed from a risk-based assessment approach. It is supported by “Defense in Depth” layers of protection such as firewalls, anti-virus protection, intrusion detection monitoring by external vendors, and employee education. The PPL Cybersecurity Plan contains detailed policies, standards, procedures, risk assessment, business continuity, disaster recovery plans, and other areas.

IT has cyber security incident response teams which the IAG Director characterized as having a “chronic sense of uneasiness” to avoid complacency. Regional and National NERC and FERC audits were conducted in 2011 and 2012, with no major findings.

Summarizing, while the organization has sound practices in place, there is no apparent over confidence in cyber security protection. The CIO and IAG managers conveyed a sense of urgency in enforcing policies, implementing new standards, implementing new technology, constantly analyzing threats, and response preparedness to minimize the impact of inevitable breaches.

1. The data center is modern and physically secure.

The Windsor data center was evaluated with a 13-point checklist, covering aspects such as

* Structural design
* Rain, flood, and fire protection
* Access control and surveillance
* Environmental control and utility redundancy

The data center was built during 2012 and 2013, with both modern IT data center and electric industry protection and security requirements ingrained in the building requirements.

1. IT has sound processes for measuring internal customer satisfaction with projects.

The Project Management Office has the lead user complete a project scorecard after each project. Overall, about 85% of projects are delivered on time with a 90% user satisfaction rate. Additionally, every two years an internal customer satisfaction survey is conducted.

1. IT has a well-developed Service Level Agreement (SLA) and metric tracking program in place for a wide variety of areas, but typically limits reviews to the last year or two. Five-year trending is done on an ad hoc basis at best.

IT tracks over 50 SLA metrics in a single spreadsheet. These metrics cover the availability of specific user applications, as well as underlying components such as servers. Each SLA has a performance target, the business owner, the responsible IT director, and other information. SLA’s are associated with corporate incentives, and the general goal is for SLA’s to get tighter over time. The results are published on a monthly basis, and include year-to-date results.

At the same time, review of metrics over five-year periods appears to be an exception in the IT culture. This lack of long-term measurement may be rooted in the gradual implementation of ServiceNow, where new metrics were added and others had definitional changes in the initial years of implementation. Metric definitional change is normal with new systems; but an unintended consequence appears to be that performance is scrutinized only in the present year and the past year.

1. The relationship of IT legal entities is complex and evolving.

Today there are three utility service companies, PPL SC, PPL EUS, and LKE Services in the United States. As noted before, the vast majority of IT personnel in Pennsylvania are employees of PPL SC, while the CIO is an employee of LKE Services who reports to the PPL EU President in Pennsylvania.

In the past two years, Kentucky and Pennsylvania IT job titles and descriptions have become increasingly standardized. Additionally, the backup site for the Windsor data center is in Kentucky and the Joint IT Initiative seeks further IT synergies. Hence, the LKE Services and PPL SC are increasingly intertwined. At the same time, the present plan calls for all Pennsylvania IT personnel in PPL SC Company to be transferred to PPL EUS.

## Recommendations

1. Continue the current IT integrated path of improvement. (See Findings 1–3 and 6–8)

IT should continue the synergistic, well-coordinated integration of a) focusing on business needs and terminology, b) applying the ITIL framework, c) leveraging the ServiceNow application, d) adopting service oriented architecture, and e) planning in a structured manner. This five-pronged approach appears to be gaining traction, and should yield benefits such as better alignment of IT with organizational strategy, minimizing dual data entry, faster response times, and ultimately to improved value in IT expenditures.

1. Conduct regular ITIL Process Maturity Assessments to identify areas requiring more attention. (See Finding 2)

IT should systematically assess the maturity of the IT management processes and address the weakest processes. This could be done informally within the department approximately every two years, supplemented by an external assessment every five years.

It should be noted the ITIL framework continues to evolve and the most current standard contains 26 processes, as compared to 22 in 2012. If assessments are performed on the recommended schedule, changes in the ITIL model could be reflected on a timely basis. In addition to incorporating recent improvements in the ITIL model, the assessment process would be a periodic reminder to remain diligent in applying best practices.

Given that the last assessment occurred in 2012, it is recommended the next assessment be conducted in 2016.

1. Continue development and implementation of underutilized modules in ServiceNow. (See Findings 3 and 4)

Release Management, Configuration Management, and Change Management, the three focus areas in the IT Business Plan 2015–2017, were frequently mentioned during the interviews as areas needing additional attention. While configuration management is fairly mature in associating applications, databases, and servers, association with network assets was regarded as immature. In combination with ServiceNow’s diagramming capabilities, a stronger configuration database could provide help not only with release and change management, but also with incident and problem management. Expected benefits include reduction in the number of incidents, reduction in incident response time, and improved application availability which will promote satisfaction among internal and external customers.

1. Evaluate the implications of moving away from ServiceNow. (See Finding 4)

As recognized by the vendor, ServiceNow implementation is an extensive, multi-year process. There would be significant employee retraining, data conversions, interface rewriting, and other common software conversion challenges in implementing a similar yet different integrated IT platform. There would likely be a financial write-down of licensing fees. Additionally, the synergies described in Recommendation 1 would be compromised for at least several years. That said, the largest negative impact might be on morale: staff enthusiasm for this software tool is quite strong. The benefits of continuing with ServiceNow would appear to significantly outweigh the impact of discontinuing its use.

1. Continue building the Service Oriented Architecture platform. (See Finding 6)

It is typically much more expedient to construct single use point-to-point program interfaces. But it is widely acknowledged that a meaningful SOA registry (foundation), though construction of it takes considerable effort, is a better long term value. As discussed elsewhere in this task report, relatively recent enhancements in vendor middleware software offer increasingly better economics to SOA development.

The organization should make a concerted effort to follow through on the human resource and 360 View projects on a timely basis, in the interest of reaching critical mass in the SOA registry. Expected benefits of continued SOA investment include improved responsiveness to user needs, leveraging common code sets by multiple programs, and lower program maintenance costs.

1. Evaluate the long-term effectiveness of IT projects, including trending hardware and software write-offs in the financial system. (See Finding 8)

There is a rigorous IT project planning, budgeting, and monitoring process in place which appears to be properly aligning IT initiatives with business needs and promoting effective project management. Surveys conducted by an outside party provide objective assessment of user satisfaction with project results. However, projects are not monitored for long-term effectiveness from a financial perspective. That is, once an asset is placed in production there is no formal mechanism for monitoring the financial impact of early retirements or write-offs (abandoned projects). It would be a sound management practice to monitor this trend on an annual basis. The benefit would be annual financial feedback on the long-term efficacy of IT capital investments.

1. Implement five-year period trending in performance metric evaluations. (See Finding 15)

New metrics have been added and others had definitional changes over the last few years. This type of change is normal with the implementation of new management models and new systems. However, an unintended consequence appears to be that performance is scrutinized only in the present year and the past year. Review of metrics over multi-year periods should be institutionalized in the near future and analysis over five-year periods should be implemented as the data becomes available. Some accommodation for evolving definitions, resulting from ITIL model evolution and ServiceNow upgrades, are to be expected.

1. Scrutinize the three service company approach for IT. (See Finding 17)

Given the increasing collaboration between Kentucky and Pennsylvania IT operations, PPL should consider whether the transfer of all Pennsylvania IT personnel from PPL SC to PPL EUS will bring additional value.

Today there are three utility service companies, PPL SC, PPL EUS, and LKE Services. As noted before, efforts have been made and are underway to pursue personnel and systems synergies between Kentucky and Pennsylvania IT. Consideration should be given to extending this to the legal entity perspective, with all IT personnel assigned to one corporate-wide service company, at least for US operations.

# HUMAN RESOURCES

## background

This chapter addresses the delivery of human resources services to PPL Electric Utilities Corporation (PPL EU).

OVERVIEW

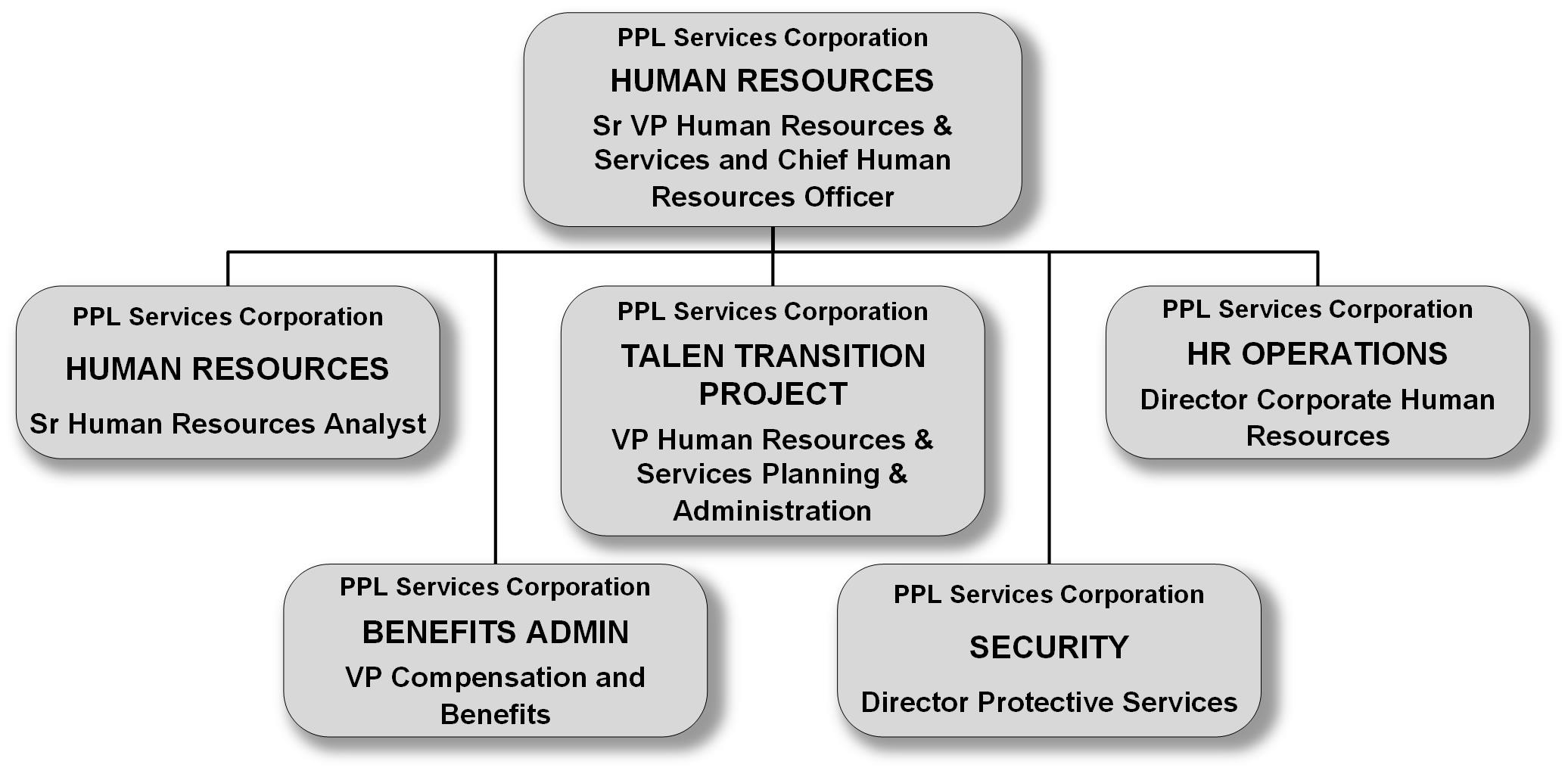
Human resources services are provided to PPL EU by two separate affiliated service companies. The PPL Services Corporation (PPL SC) Human Resources (HR) group provides centralized human resources services to most PPL subsidiaries, including PPL EU. The PPL Electric Utilities Services Corporation (PPL EUS) Human Resources (HR) group also provides HR services to PPL EU. PPL SC HR and PPL EUS HR are discussed in separate sections below.

PPL Services Corporation Human Resources

Organization Structure

The PPL SC HR organization is headed by a Senior Vice President and Chief Human Resources Officer who reports to the PPL SC Chief Executive Officer. The PPL SC HR staff is responsible for all HR functions for PPL SC and PPL Corporation Pennsylvania subsidiaries including: talent acquisition, talent development, compensation and benefits, employee and labor relations, and physical security. The PPL SC HR group also includes personnel providing human resources support associated with the spinoff of Talen Energy Corporation (Talen). The chart below depicts the PPL SC HR organizational structure.

Exhibit ‑  
PPL SC HR Organization Structure



Source: DN 01-072

The PPL SC HR Senior Vice President has four organizational units reporting to him and one individual contributor that are discussed below.

PPL SC HR Analyst

The HR Analyst is an individual contributor. The Analyst provides support that includes managing PPL SC HR’s use of SharePoint (document and workflow management), scheduling, meeting follow-up, and developing department communications (e.g., HR Newsflash [internal communication], standup meetings, department general communications, and HR SharePoint site messages) to provide information regarding corporate status, business updates, announcements and reminders of deadlines, kudos and recognition, introduction of new employees, etc. In addition to providing administrative support within PPL SC HR, the Analyst manages the employee relocation and tuition reimbursement programs. The HR Analyst also plans and organizes all Corporate Governance and Nominating Committee (CGNC) pre-meeting requirements, and assists with drafting and preparation of CGNC and Board meeting materials, including management of communication with Committee members.

PPL SC HR Talen Transition Project

The HR Talen Transition Project unit is headed by a HR Planning and Administration Vice President and is supporting the spinoff of PPL Corporation’s former generation and related assets to form an unaffiliated company, Talen Energy. It includes seven staff members in the unit itself as well as eight employees temporarily assigned from other PPL SC HR units and the PPL SC HR Labor and Employment Vice President who is an individual contributor. PPL SC HR employees assigned to the Talen Transition Project are expected to be separated from PPL SC once the Talen transition activities are completed.

PPL SC HR Operations

The HR Operations unit is headed by the Director, Corporate Human Resources who is responsible for three functional areas: (1) Human Resources; (2) Payroll, Administration, and Planning and Controls; and (3) Human Resources Systems.

**Human Resources.** This group includes talent acquisition, talent development, and employee and labor relations. Talent acquisition includes recruitment (for both PPL SC and PPL EU), orientation and onboarding, internship/academic relations, diversity, compliance, and strategic workforce planning. Talent development includes training and development, performance management, and succession planning. Employee and labor relations is focused on communication and coordination of employee and labor matters. It also includes internal investigations emanating from the Employee Concerns Program. Additionally, HR Corporate Services performs Equal Employment Opportunity (EEO) and Veterans Employment and Training Service (VETS) reporting. These functions are explained in more detail below.

Talent Acquisition. The talent acquisition function provided by PPL SC’s HR team, includes recruitment of a diverse labor pool, screening and selection for Corporate and Executive positions, and preliminary screening for non-executive EU positions. The services include ensuring accuracy of the job description prior to posting, outsourcing search services, ensuring candidates meet minimum qualifications, and distributing the qualified applicant list to the hiring manager. In addition, interview guides are created, interviews scheduled, and support is provided to hiring managers in making formal offers of employment. After hiring, onboarding activities and orientation training are conducted.

Strategic workforce planning is conducted as part of the talent acquisition function. In addition to the metrics of time to hire and turnover, PPL EU uses a five-year projection of turnover to forecast labor needs by job family. During the timeframe of 2014 through 2018, the turnover projected for PPL EU is 785 employees or approximately 33% of the workforce. Workforce and Engagement Readiness reports are also used to analyze monthly staffing patterns, internal workflow, staffing objectives, training readiness, and staffing budgets.

Talent Development. Talent development for non-technical competencies is centrally provided as a core service offering from PPL SC HR and consists of a non-technical training offering, a performance management system, and succession planning. Non-technical training is any training not associated with transmission and distribution operation related technical skills and includes items such as supervisory and leadership skills and annual refresher training for topics such as harassment and policy/procedure updates. Technical training is provided by the PPL EU Technical Development and Improvement organization.

The non-technical training programs provide developmental opportunities for individual contributors as well as those who are preparing to enter supervisory, manager, or leadership roles. The non-technical training consists of the following four components.

1. Individual Contributor. Currently, 42 different professional development topics for individual contributors are offered. Participants can elect, with supervisory approval, to enroll. Courses range from half day to three full days of classroom instruction.
2. Supervisor Essentials. This program is required for newly promoted supervisors or those hired into supervisory roles. This program is a four-day course intended to introduce participants to supervisory skills.

3. Managing People and Processes (MPP). The MPP program is an 11-day program which takes place over four months. Prior to starting the MPP program, participants go through a 360 degree feedback process whereby their supervisors and peers provide job performance feedback outlining strengths and areas needing improvement. The MPP program is focused on 12 different managerial practice areas. PPL SC and PPL EU Executives are scheduled to speak to participants as part of this training program.

4. Leading People and Processes (LPP). The LPP program is a six-day program scheduled over a three month time period which is intended to strengthen manager and director-level positions. Prior to attending the program, participants go through a 360 degree feedback process whereby their supervisors and peers provide job performance feedback outlining strengths and areas needing improvement utilizing the PPL HR Leadership Challenge LPI 360 Assessment. The participant’s manager is provided with an overview of the program, what will be learned, and how to support implementation of newly acquired skills.

In addition, an executive development program is currently being designed for high potential candidates for executive positions beginning in 2016.

Participation in these programs by PPL EU employees during 2014 is noted in the table below.

Exhibit ‑  
PPL EU Professional Development Participation – 2014

| **Program** | **Participation** |
| --- | --- |
| Individual Contributor and Supervisory Essentials | 473 |
| Managing People and Processes (MPP) | 24 |
| Leading People and Processes (LPP) | 11 |
| **Total** | **508** |
| Source: DN17-112 | |

Individuals are selected for participation in the MPP and LPP programs through a multi-tier nomination process that is intended to identify emerging, promotional, and senior level talent. The nomination process begins with an employee’s supervisor/manager completing a nomination form. This form is then passed on to a group consisting of HR representatives and the leadership team. Nominees that pass the first tier evaluation are then reviewed by the President and his direct reports and a final group is identified that will go through the MPP or LPP programs. Adverse impact analyses are performed at each stage of the nomination process to ensure diversity of participants.

PPL HR uses a performance management software system to administer the employee performance management and compensation programs throughout PPL Corporation and its Pennsylvania subsidiaries. The performance management system was first used in 2010 for executive and salaried employees and, in 2014, the entire bargaining unit employee group was brought into the system.

The performance management system is used to manage employee job performance and compensation programs linked to the Corporate Goal Framework. The Corporate Goal Framework is created annually by senior management and approved by PPL Corporate Board of Directors. Through the performance management system, the Corporate Goals are cascaded down through the organization to a mid-level where managers and supervisors are then responsible for translating the goals to the individual employee or job level and measuring employee performance against these individual goals, which have been set to drive achievement of the Corporate Goals.

The SVP of HR at PPL SC has responsibility for the succession plan that covers the United Kingdom, Kentucky, PPL EU, and PPL SC. An example of the Executive Succession Planning Report to the CGNC dated December 19, 2013 demonstrates how succession planning is conducted and reported to the Board of Directors. The Report covered several areas including:

* Talent and Succession Planning Model
* Succession Planning Highlights and Summary
* Leadership and Development Activities
* Next Steps

The talent and succession planning model focuses on three areas: succession planning, strengthening the pipeline, and promotion of a development culture that fosters diversity and inclusion. The succession plan covers executive roles as well as pivotal roles. Pivotal roles are defined as those positions that PPL SC executives believe have a direct impact on strategy that affects business success, positions that require a specialized competency or high end managerial/business expertise, or a management pipeline position whose vacancy could impact the success of the business.

Employee and Labor Relations. Employee and Labor Relations functions include activities such as policy and procedure administration, diversity initiatives, and complaint resolution. The PPL SC HR Employee and Labor Relations staff works to maintain and enhance relationships with employees through both the employee relations and labor relations functions. The focus of the employee relations function is to develop, maintain, and improve relationships between the organization and its employees while the focus of the labor relations function is to develop, maintain, and improve relationships between the organization and its employees covered by the collective bargaining agreement.

PPL SC HR has oversight of employee complaints that come in through an anonymous employee reporting hotline or through the various complaint mechanisms established through policy, such as direct supervisory report, grievance procedure reporting, or direct contact with HR. All complaints that come in are reviewed and assigned for investigation to one of three work groups, Human Resources, Corporate Audit and Business Ethics, or the Office of General Counsel in accordance with the pre-established responsibilities contained in policy document, “Clarification of Workgroup Responsibility to Handle Requests for Investigations.” Completed investigation reports are monitored and reviewed and ultimately findings are submitted to the Corporate Audit and Business Ethics Department who then reports investigation findings up through the Board of Director’s Corporate Compliance Committee and Audit Committee. The Guidelines for Referral of Allegations indicate a process for confidential and timely processing of employee complaints.

Approximately 1,500 of the 2,500 employees in PPL EU and PPL SC are members of Local 1600, IBEW. IBEW Local 1600 has organized one bargaining unit across both entities. Positions within this single bargaining unit vary widely from call center staff, steno clerks, technical field services staff, entry level engineering technology, and facilities staff. Terms and conditions of employment for bargaining unit members are governed by the current collective bargaining agreement.

**Payroll, Administration, Planning and Controls.** This unit includes an HR business function, HR financial planning and controls, and payroll. The HR business function supports the functional side of various technology platforms utilized by the HR function. This includes the day-to-day HR systems configuration, employee help desks for HR systems and payroll, and human resources regulatory reporting. The HR financial planning and controls includes the HR budget, compliance, and employee expense management. Payroll includes standard payroll functions.

**Human Resources Systems.** This unit oversees the various technology platforms that support the HR functions. These HR technologies are seamlessly engineered for internal PPL SC HR and PPL EUS HR users. These technologies are supported by written procedures and are Sarbanes-Oxley Act (SOX) compliant. Currently, PPL SC HR Systems has a staff of six dedicated to HR information technology, three of whom are supporting the Talen transition. Once the Talen transition is complete, the PPL SC HR Systems staff will be reduced to three.

The key HR technologies in use are:

* **HRPR** – Houses all core HR data including employee changes and life cycle data, HR reporting, time and labor, compliance reporting, compensation, workers compensation, grievance management, employee and manager self service
* **Brass Ring** – Recruiting and onboarding
* **PeopleFluent** – Performance management, compensation annual planning
* **CAAMS** – Affirmative Action/Diversity data, AAP and OFCCP (internal to HR only)
* **Concur** – Employee expense management
* **Market Pay** – Market pricing and salary survey data (internal to HR only)
* **Everbridge** – Emergency Notification System for employees
* **Fusion** – Disaster recovery and business continuity plans
* **Asurint** – Background checks (internal to HR only)

Four enterprise systems also support HR functions. These include:

* **Portal** – Part of the corporate landing page; provides employees with access to various HR information and applications
* **Filenet** – Records retention application
* **SharePoint** – Houses enterprise policies and procedures, information sites, and workflow
* **HP Quality Center** – Tool for tracking IT application testing (internal to HR only)

PPL SC HR Benefits Administration

The Benefits Administration unit is headed by a Compensation and Benefits Vice President and includes compensation planning for bargaining unit negotiations as well as setting compensation for salaried and executive employees. Benefits include health and welfare benefits, retirement savings, and executive perquisites. Following is an overview of compensation and benefit practices for bargaining unit, salaried, and executive employees. See Chapter XIII Executive Compensation for an assessment of executive compensation and benefits.

**Bargaining Unit Compensation.** PPL SC HR provides support to PPL EUS HR for labor negotiations by gathering market data for bargaining unit positions prior to contract negotiations.

**Salaried Employee Compensation.** Compensation for salaried employees is outlined in the PPL Manager's Guide 2015 Annual Compensation Planning and the Managerial Compensation Guidebook. The Manager’s Guide 2015 Annual Compensation Planning, updated annually, is designed to assist managers in making compensation decisions regarding base salary, cash incentives, and equity awards after employee performance assessments have been completed through the performance management system.

The Managerial Compensation Guidebook is a resource for managers responsible for managing PPL’s salaried employee compensation program. This program applies to all salaried, non-bargaining unit, and non-executive jobs within PPL Corporation Pennsylvania subsidiaries. This Guidebook provides information related to the following programs and processes:

* Total Compensation Strategy and Guiding Principles
* Your Role as a Manager
* Defining Jobs
* Competitive Market Analysis
* Managing Employee Compensation
* Annual Total Direct Compensation Planning
* Employee Recognition Awards
* Employee Classification: Exempt/Non-Exempt
* Salaried Employee Compensation: Extra Hours Compensation
* Administrative Roles and Responsibilities

HR provides support to the rest of the PPL organization during the compensation planning process through the HR Help Desk, HR Business Partners, and the PPL Compensation Team.

**Executive Compensation.** Compensation for executives is governed by the 2015 Executive Compensation Policy. PPL SC HR regularly participates in market surveys to ensure achievement of the goal to provide market competitive total compensation.

**Health and Welfare Benefits.** The health and welfare programs offered by PPL consist of medical, dental, vision, prescription, life insurance, flexible spending account (FSA), health savings account (HSA), and an Employee Assistance Program (EAP). PPL is self-insured for medical, prescription, and dental programs although third party contractors are retained to administer the programs.

Health and welfare benefits are administered through PPL SC HR. In 2014, PPL SC HR administered benefits for approximately 3,000 employees and, approximately 17,000 total individuals (“lives”) in PPL SC, PPLSolutions, PPL EUS, PPL EU, PPL Global, and PPL Strategic Development. The number of covered lives will continue to include former retirees from the PPL Corporation entities which were spun off to form Talen Energy; even after the spinoff is complete. The term “total lives” includes active employees, retirees, and eligible dependents; currently approximately 50% of the total lives are attributable to active employees and approximately 50% are attributable to retirees. PPL SC HR benchmarked its health and welfare benefits in 2015 with a benefits benchmarking survey conducted by a large recognized benefits consulting firm. PPL SC’s programs were on par with those contained in the survey for both utilities and on a national basis.

**Pension and Retirement Savings Benefits.** An outsourced vendor managed by PPL SC HR provides administration services for retirement savings plans. Currently, 13,480 individuals (“lives”) are enrolled in the 401k and Pension plans and approximately 42% are active employees and 58% are retirees. Defined benefit plans were closed to non-bargaining unit employees in 2012 and closed to all employees in 2014. In 2015, PPL SC participated in a benchmarking study again conducted by a large recognized benefits consulting firm regarding the prevalence of pension plans in the utility sector. The study indicated that as of 2015, on a utility industry-wide basis, less than 50% of utilities offer pension plans to employees. By contrast, in 2005, over 90% of utilities surveyed offered such plans.

**Health Services – Out-Time Benefits.** Absence management for sick time, short-term disability, long-term disability, Family and Medical Leave Act (FMLA), and workers’ compensation are managed through the Health Services function. Three vendors are utilized for absence management: the first for long-term disability; the second for FMLA, sick, and short-term disability; and the third is used for workers’ compensation. The Occupational Health Nurse and a Senior HR Consultant within PPL EUS HR work with these vendors to provide services to employees as it relates to absence management.

**Executive Perquisites.** Executive perquisites such as financial planning, estate planning, tax preparation, and executive physicals are provided. PPL SC HR manages vendor relationships with vendors to provide these perquisites.

PPL SC HR Security

The Security unit is headed by the Director of Protective Services and includes activities such as emergency management, business continuity planning, employee access to facilities and equipment, and specified employee background screening and support.

Security is a functional area within PPL SC HR with a staff of eight. In addition, approximately 43 contracted security personnel are also utilized in this area. The Director of Protective Services is responsible for providing leadership, strategy planning, policy development, and oversight. In addition, HR Security coordinates business continuity exercises; ensures new hires are oriented on issues related to identification badges, emergency response, and evacuation procedures; and ensures employees receive mandated computer-based training on security related topics.

The Director of Protective Services is actively involved in the HR function, attending all HR staff meetings and providing input on security related topics. In addition, the Director of Protective Services provides consultative services to HR regarding the interpretation of background check information. Security also performs North American Electric Reliability Corporation/Critical Infrastructure Protection (NERC/CIP) background checks. See Chapter VII Emergency Response for a detailed discussion of PPL SC HR Security’s role in emergency management.

PPL SC HR Staffing

The HR function of PPL SC is currently staffed with two distinct groups of employees; those who provide HR services to the several PPL subsidiaries and those assigned to the Talen transition team. PPL SC HR is staffed as outlined in the table below.

Exhibit ‑  
PPL SC HR Staffing Levels

| **Category** | **Employees** |
| --- | --- |
| Regular Staff | 31 |
| Transition Team Members | 17 |
| Current Total HR Staff | 48 |
| Source: DN 01-009a | |

The PPL SC HR staff provides direct HR support for approximately 300 employees within PPL SC (250 employees) and PPLSolutions (50 employees). The PPL SC HR staff also provides ancillary HR services to PPL EU, PPL EUS, and other PPL Corporation subsidiaries by providing centralized human resource services including talent acquisition, talent development, compensation and benefits, employee and labor relations, security, and HR technology systems.

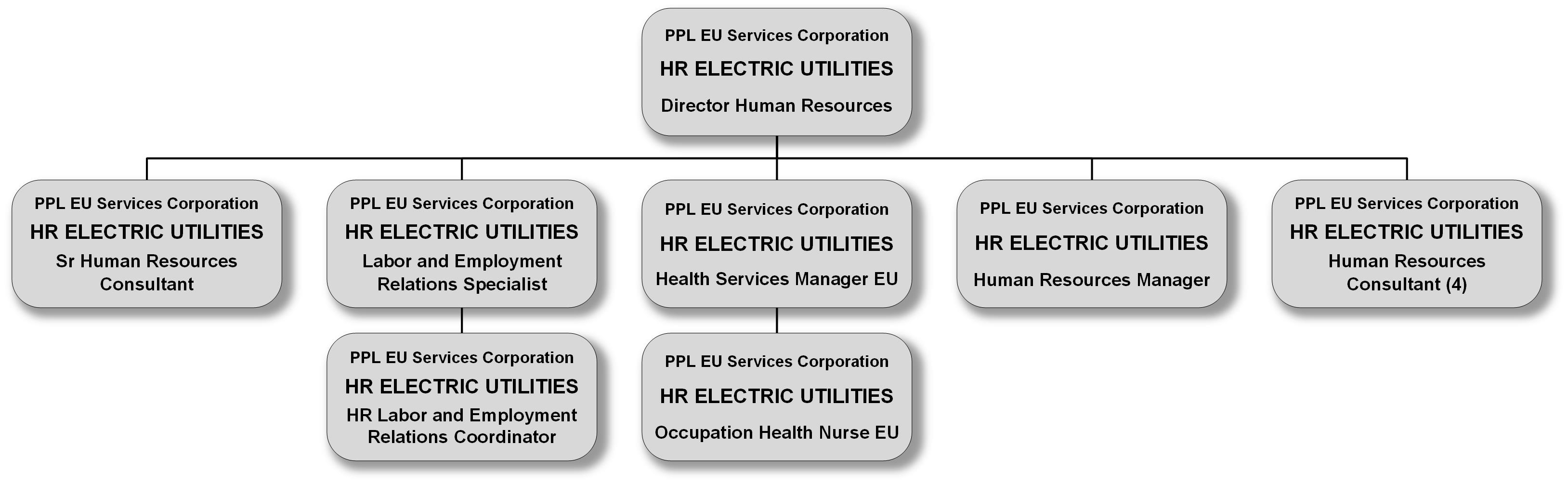
PPL EUS Human Resources

PPL EUS primarily delivers human resources services to PPL EU. Although it is part of a separate service company, the head of PPL EUS HR reports directly to the PPL EU President. PPL EUS HR is responsible for overseeing the same HR functions as PPL SC for PPL EU with the exception of compensation and benefits, payroll, employee expenses, talent management, academic relations, performance management, diversity, compliance and regulatory reporting, business analysis, and configuration and reporting for HR systems, all of which are exclusively provided by PPL SC HR for all PPL Corporation, including PPL EU. PPL EUS HR is focused directly on PPL EU human resources matters, whereas PPL SC HR has a broader, strategic perspective. PPL EUS HR’s mission is, “To be the best in class provider of human resource management solutions that help shape business strategy, strengthen organizational capabilities, maximize business impact, and help create a positive work environment and culture of inclusion.”

Organization Structure

The PPL EUS HR group is staffed with a total of ten employees and supports approximately 2,500 employees within PPL EU. The group is led by the Director, Human Resources who reports to the President of PPL EU. The following chart depicts the PPL EUS HR organization structure.

Exhibit ‑  
PPL EUS HR Organization Structure



Source: DN 01-071

The Director has eight direct reports that include a Human Resources Manager, a Senior Human Resource Consultant, four Human Resources Consultants, a Labor and Employment Relations Specialist, and a Health Services Manager. Each is discussed below.

Human Resources Manager, Sr. Human Resources Consultant, and Human Resources Consultants

These employees provide HR services to PPL EU field operations. Specific functions include performance management, recruitment, documentation of Individual Development Plans (IDP’s) and Performance Improvement Plans (PIP’s), employee relations, compensation administration, and day-to-day labor relations issues. Talent acquisition includes recruitment of a diverse labor pool, screening, and selection. Workforce engagement and readiness benchmarking performance indicators in both talent acquisition and talent development functions are used for strategic workforce planning.

Although compensation and benefits are not a function of PPL EUS HR, the group utilizes compensation information from PPL SC HR to plan for administering compensation for salaried and executive employees as well as labor negotiations. Benefits set by PPL SC HR include health and welfare benefits, retirement savings, health services, and executive perquisites.

Labor and Employee Relations Specialist

The Labor and Employee Relations Specialist serves as the liaison for the PPL EUS HR generalists and the two PPL EU business lines for labor relations issues. Labor and Employee Relations includes activities such as policy and procedure administration, diversity initiatives, labor agreement administration, complaint resolution, processing grievances through the grievance procedure outlined in the collective bargaining agreement, and labor negotiations. Labor negotiations includes assisting with the application of contractual language, grievances, and discipline as well as interfacing with union representatives of Local 1600 of the IBEW. Labor relations services are provided to PPL SC and PPLSolutions by PPL EUS HR as well.

The Labor and Employee Relations Specialist is the primary administrator of the internal grievance process, discipline process, and drug and alcohol process that fall under the collective bargaining agreement.

Additionally, the Labor and Employee Relations Specialist is responsible for developing the strategy that will be utilized going into the 2017 labor negotiations. The strategy was in the development phase at the time of the audit. The subject of the 2018 excise tax (also known as the “Cadillac tax”) under the Affordable Care Act (ACA) had also been discussed with the union. The 2018 ACA excise tax will have an impact on funds available for general wage increases and therefore both management and labor are proactively discussing strategies to prepare for upcoming negotiations.

Health Services Manager

The Health Services Manager is responsible for Health Services, which consists of out-time management for sick time, short-term disability, long-term disability, Family and Medical Leave Act (FMLA), and workers’ compensation for approximately 3,000 employees in PPL SC, PPLSolutions, and PPL EU. This position provides vendors with information to ensure eligibility requirements are met for claims and to provide responsive customer service to employees.

PPL EUS HR Direction

Although PPL EUS, and by extension, PPL EUS HR are separate entities from PPL EU, they are managed as units of PPL EU, with direct reporting relationships to the PPL EU President. PPL EU strives to achieve first quartile performance in each of its major functional areas and those of its affiliated service companies (PPL EUS and PPL SC), including the HR function. In addition, PPL EU is “embedding a constructive culture” into the organization that is characterized by respect, employee engagement, accountability, teamwork, excellence in execution and open dialogue and involves eliminating insular employee perspectives and the passive/defensive culture that may exist in the organization. Further, the PPL SC SVP HR reported that PPL SC shares the common goal of first quartile performance across the entire organization. Likewise, PPL SC and PPL EU share common core values of safety and health, customer focus, employee commitment and diversity, integrity and openness, performance excellence and corporate citizenship across affiliates, and support the constructive culture being embedded into PPL EU. PPU EUS HR is expanding its use of HR metrics to further enhance its performance. Metrics such as time to hire and turnover, measuring diversity through typical analysis contained within the diversity, and affirmative action programs as well as recruiting metrics to measure quality of hire are being adopted.

joint PPL SC HR and EUS HR INITIAtives

Joint PPL SC HR and PPL EUS HR initiatives include benchmarking, alignment, employee engagement, and metrics. Formal benchmarking in the areas of compensation and benefits, HR staffing formal workforce readiness and engagement benchmarking are conducted by PPL SC HR. Alignment activities are performed jointly, the two most significant of which are the performance management and compensation programs. Both organizations are pursuing employee engagement activities with a shared focus on the key employee engagement elements of retention, effort, advocacy, and passion. The need for greater use of metrics among both PPL SC HR and PPL EUS HR to enhance the effectiveness and efficiency of the HR functions has led to the joint recognition of the benefits and increased effort to improve in this area.

## Findings

1. There is duplication of services between PPL SC HR and PPL EUS HR.

PPL SC HR and PPL EUS HR are both actively involved in recruitment and selection, onboarding, training, workforce planning, diversity outreach efforts, performance management, and employee and labor relations. In addition, some overlap also exists in the area of compensation planning. This duplication can result in inconsistent human resource policy application and inefficiency due to redundant work efforts. The Phase III audit report will provide additional information relating to this apparent redundancy of effort.

1. In some circumstances, PPL EUS HR is driving innovative changes for PPL SC HR.

Some examples of the innovative practices being utilized and/or introduced by PPL EUS HR include the EUS Professional Development and Leadership Development Training Program, tracking and analyzing time to hire and turnover metrics, utilizing recruiting metrics for measuring quality of hire and conducting exit interviews with individuals who voluntarily separate to understand the reasons for separating. These represent beneficial practices found in well-managed human resources organizations.

1. The process for talent acquisition is streamlined.

Process maps guide PPL EUS HR activities with respect to the entire talent acquisition process. In addition, the use of a recruiting software package provides a central tracking mechanism to monitor and report on talent acquisition efforts and allows PPL EUS HR staff easy access to talent acquisition data. Anecdotal evidence suggests that time-to-fill trends are improving but actual measurements are not yet available.

1. HR technical benchmarking is routinely utilized; however, neither PPL SC HR nor PPL EUS HR have recently participated in comprehensive HR function benchmarking studies.

Benchmarking entails comparing an organization to its peers and can be effectively used in all functional areas of HR. It is primarily used to gauge an organization’s competitiveness with peers. Formal benchmarking in the areas of compensation, benefits, and HR staffing and formal workforce readiness and engagement is conducted by PPL SC HR. All other benchmarking reported by PPL SC HR and PPL EUS HR is of an informal nature, such as the comparison of the number of grievances with peer organizations during Edison Electric Institute meetings.

An international consulting firm has developed a Benchmarking Study and Report to which PPL SC HR subscribed in 2013. This report includes 46 HR metrics that can be used to establish baseline measurements and targets to improve the effectiveness and efficiency of an HR department. Specific HR staffing related metrics outlined in the Report include costs per employee, HR revenue percent, HR expense percent, and HR labor cost per full-time employee (FTE). The Benchmarking Report further breaks down all areas of HR to assist in evaluating the effectiveness of the function; for example, the report includes metrics related specifically to the compensation and benefits functions.

Unfortunately, the Benchmarking Report is of less value to PPL SC HR or PPL EUS HR since neither group collects and compiles data of the type and in the format needed to make useful comparisons between themselves and the metrics in the Report.

1. The corporate performance management system demonstrates good alignment with the corporate goal framework.

It is clear from reviewing the performance management tools provided that the individual employee goals are well aligned with PPL’s Corporate Goal Framework. In addition, the Managerial Compensation Guidebook supports and provides direct linkage to the Corporate Goal Framework.

For example, the sample employee performance appraisal tool includes a goal to achieve work management metrics to optimize work planning and execution. This goal is linked to the Corporate Goal Framework in the area of Operational Excellence. Points of alignment with the organization’s goals include the customer satisfaction rating and the targeted System Average Interruption Frequency Index (SAIFI) reliability metric. In addition, Safety and Health is a value outlined in the Corporate Goal Framework and is linked to the employee performance appraisal tool with two goals: one for no human accidents or motor vehicle accidents and another for complete Human Performance Initiatives. The alignment measures ensure compliance with all applicable safety and health policies, procedures, and targets.

The effectiveness of the performance management system is monitored through the use of percentage of performance appraisals completed and distribution of ratings. While there are slight differences between the performance appraisal tools used for non-bargaining unit employees as compared to the one used for bargaining employees, both tools clearly are structured around the Corporate Goal Framework and corporate values.

Career development planning is used to support the performance management process. Career development planning is highly encouraged and PPL SC HR provides training on completion of career development planning activities. In every performance evaluation there is a line item for supervisors to discuss development with employees.

1. Human resource metrics are utilized by PPL SC HR and PPL EUS HR to manage some human resource activities, but are not sufficient to effectively and efficiently manage the full range of human resource functions.

In PPL SC HR and PPL EUS HR, a variety of metrics exist, some of which are best used to monitor and track HR activities, while others are best used to measure effectiveness and efficiency of the function according to HR industry standards. The HR metrics of absence rate, time to hire, turnover, number of applicants, and labor forecasts have been introduced by PPL SC HR and PPL EUS HR but sufficient data has not yet been accumulated for useful trending purposes. PPL EUS HR is also taking steps to begin measuring quality of hire.

Otherwise, the metrics that are currently in place are activity monitoring tools (e.g., number of hires and number of grievances) as opposed to metrics that can be utilized to measure the effectiveness and efficiency of human resource functions.

The following table shows typical metrics used by HR departments.

Exhibit ‑  
Typical HR Metrics

| Metric | Formula |
| --- | --- |
| Absence Rate\* | Number Days Absent In Month ÷ (Average Number Of Employees During A Month X  Number Of Workdays) |
| Benefit Or Program Costs Per Employee | Total Cost Of Employee Benefit/Program ÷ Total Number Of Employees |
| Benefits As A Percent Of Salary | Annual Benefits Cost ÷ Annual Salary |
| Compensation As A Percent Of Total Compensation | Annual Salary ÷ Total Compensation (Salary + Benefits + Additional Compensation) |
| Compensation Or Benefit Revenue Ratio | Compensation Or Benefit Cost ÷ Revenue |
| Cost Per Hire | (Advertising + Agency Fees + Employee Referrals + Travel Cost Of Applicants And Staff + Relocation Costs + Recruiter Pay And Benefits) ÷ Number Of Hires |
| Engagement Or Satisfaction Rating | Percent Of Employees Engaged Or Satisfied Overall Or With A Given Aspect Of The Workplace |
| Health Care Costs Per Employee | Total Cost Of Health Care ÷ Total Employees |
| HR Expense Factor | HR Expense ÷ Total Operating Expense |
| Human Capital ROI | Revenue - (Operating Expense - [Compensation Cost + Benefit Cost]) ÷ (Compensation Cost + Benefit Cost) |
| Human Capital Value Added | Revenue - (Operating Expense - [Compensation Cost + Benefit Cost]) ÷ Total Number Of FTE |
| Percent Of Performance Goals Met Or Exceeded | Number Of Performance Goals Met Or Exceeded ÷ Total Number Of Performance Goals |
| Percent Receiving Performance Rating\* | Number Of Employees Rated Under A Given Score Or Rating On Their Performance Evaluation ÷ Total Number Of Employees |
| Prorating Merit Increases | Number Of Months Actually Worked ÷ Number Of Months Under The Current Increase Policy X Increase Percentage The Person Would Otherwise Be Entitled To |
| Return On Investment (ROI) | (Total Benefit - Total Costs) X 100 |
| Revenue Factor | Revenue ÷ Total Number Of FTE |
| Revenue Per Employee | Revenue ÷ Total Number Of Employees |
| Tenure | Average Number Of Years Of Service At The Organization Across All Employees |
| Time To Fill\* | Total Days Elapsed To Fill Requisitions ÷ Number Hired |
| Training (ROI) | Total Benefit - Total Costs X 100 |
| Training Investment Factor | Total Training Cost ÷ Headcount |
| Training/Development Hours | Sum Of Total Training Hours ÷ Total Number Of Employees |
| Turnover (Annual)\* | Number Of Employees Exiting The Job During 12 Month Period ÷ Average Actual Number Of Employees During The Same Period |
| Turnover Costs | Total Of The Costs Of Separation + Vacancy + Replacement + Training |
| Utilization Percent | Total Number Of Employees Utilizing A Program/Service/Benefit  ÷ Total Number Of Employees Eligible To Utilize A Program/Service/Benefit |
| Vacancy Costs | Total Of The Costs Of Temporary Workers + Independent Contractors + Other Outsourcing + Overtime - Wages And Benefits Not Paid To Vacant Position(S) |
| Vacancy Rate | Total Number Of Vacant Positions As Of Today ÷ Total Number Of Positions As Of Today X 100 |
| Workers' Compensation Cost Per Employee | Total Workers Compensation Cost For Year ÷ Average Number Of Employees |
| Workers' Compensation Incident Rate\* | (Number Of Injuries and/or Illnesses Per 100 FTE ∕ Total Hours Worked By All Employees During The Calendar Year) x 200,000 |
| Workers' Compensation Severity Rate | (The Number Of Days Away From Work Per 100 FTE∕ Total Hours Worked By All Employees During The Calendar Year) x 200,000 |
| Yield Ratio | Percentage Of Applicants From A Recruitment Source That Make It To The Next Stage Of The Selection Process. (i.e. 100 Resumes Received, 50 Found Acceptable = 50% Yield.) |
| \* Metric presently in use | |
| Source: Society for Human Resources Management Metrics Toolkit | |

1. The HR performance management and compensation programs contribute to organizational alignment and support achievement of Corporate Goals.

Alignment can be defined as HR activities that support the achievement of the overall goals of an organization. For example, employees being measured on performance that supports achievement of goals would be considered an alignment activity.

Two specific HR activities were reviewed during the audit to assess alignment: performance management and compensation programs. With respect to the performance management system, both PPL SC HR and PPL EUS HR use a performance management software system to manage employee job performance and compensation programs linked to the Corporate Goal Framework. The Corporate Goal Framework is created annually, approved by PPL Corporate Board of Directors, and is then cascaded throughout the organization using the performance management system. This direct alignment allows employee performance to be measured in relation to the goals and values of the organization. In addition, the performance management system drives the allocation of compensation increases for all salaried, non-bargaining unit employees.

With respect to the compensation system, a short-term incentive is available based on the level of goal attainment as measured through the performance management system which is linked to the Corporate Goal Framework. Goals are approved by the Compensation Committee in March and, in January of the following year, the Compensation Committee approves measured attainment of those goals before incentive payout can be made. For example, if the formula is to payout 10% of base salary when goal attainment is 100%, then an employee earning $60,000 per year would be paid a short term incentive of $6,000 if 100% of the goal is attained. The linkage of goal setting and achievement with compensation contributes substantially to overall organizational alignment.

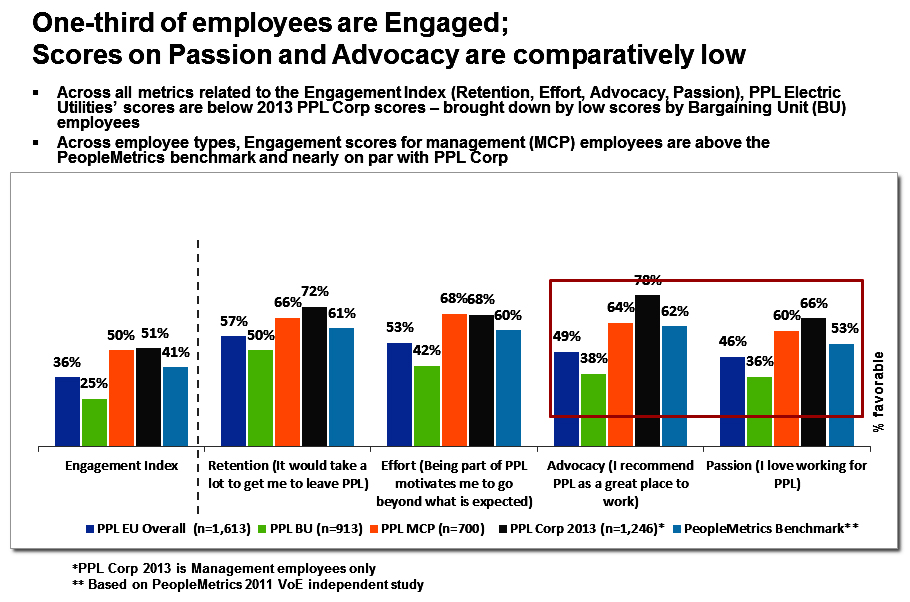
Overall, PPL SC HR and PPL EUS HR are guided by the Corporate Goal Framework for 2015 in the same fashion as other functional areas of the business. The specific PPL SC HR and PPL EUS HR goals for 2015 are to optimize workforce engagement and readiness.

1. PPL EUS HR measurement of employee engagement on a regular basis is a good practice and the areas revealing opportunities for improvement are being appropriately addressed.

Employee engagement is a measurement of an employee’s willingness to expend maximum effort on behalf of an organization. Employee engagement has been linked to superior financial performance and is therefore of significance in the HR function.

A contractor was retained to develop and conduct an employee engagement survey for PPL EU in 2013. The engagement survey measured results in four key areas: (1) Retention measured by an employee’s intention to leave PPL EU; (2) Effort as measured by an employee’s motivation to go above and beyond what is expected at PPL EU; (3) Advocacy as measured by an employee’s willingness to recommend PPL EU as a great place to work; and (4) Passion as measured by an employee’s love for working at PPL EU. The results of the 2013 engagement survey for bargaining unit, management employees, and corporate employees are shown in the following chart:

Exhibit ‑  
2013 Employee Engagement Survey Results



Source: DN 05-071, pg. 11

PPL EU engagement scores generally rank similarly to the normative database with the bargaining unit falling below normative engagement scores. Results indicate that areas of strength are safety, diversity, and teamwork while areas of opportunity are fun, recognition, and career opportunities. Action plans have been developed to address those areas where the results fall below the normative database. In addition, the Director of HR for PPL EUS and the PPL EU President are meeting with employees to explain the meaning of the engagement survey and its importance to the organization as well as reviewing the engagement scores.

1. Although PPL SC and PPL EUS HR staffs have education and experience appropriate for their positions, few possess professional certifications related to the HR profession.

Each professional staff member within PPL SC HR possesses at least a Bachelor’s Degree in a HR or related field. Likewise, the majority of PPL EUS HR staff members interviewed possess at least a Bachelor’s Degree in a HR or related field. However, only a few PPL SC and PPL EUS HR personnel hold professional certifications related to their specific discipline within HR, such as Senior Professional in Human Resources (SPHR), and Certified Employee Benefits Specialist (CEBS).

The terms “benchmarking,” “metrics,” “alignment,” and “employee engagement” are defined and used differently throughout PPL SC HR and PPL EUS HR. This may be due to the overall lack of professional HR certification throughout PPL SC and PPL EUS HR and the consistency of terminology and general HR subject matter understanding that certification engenders.

1. There is broad satisfaction with the PPL Professional and Leadership Development Training Program.

PPL SC HR has measured satisfaction with the Individual Contributor, Supervisory Essentials, MPP, and LPP training programs. Satisfaction Survey results indicate a satisfaction rating with all four programs to be above 90%. In addition to the satisfaction survey results, success stories of participants in the MPP and LPP programs are told during the graduation process in relationship to new work processes that were implemented resulting in departmental cost savings and new behaviors that resulted in improvements in employee morale.

1. Learning index increase and return on investment are not being measured as they relate to the non-technical training programs.

Although a high level of employee satisfaction exists with the non-technical training programs, they do not fully measure the program’s effectiveness.

According to widely recognized industry expert Donald Kirkpatrick, Professor Emeritus at the University of Wisconsin and past president of the American Society for Training and Development (ASTD), training must minimally be evaluated at the following four levels to determine its effectiveness.

* Level 1, Reaction – learner’s satisfaction with the presenter, learning environment, and training materials presented.
* Level 2, Learning – measuring the learning index increase before and after the training.
* Level 3, Behavior – the transfer of learning that occurs from the classroom to the job.
* Level 4, Results – changes or outcomes that result from implementation of what was learned in the classroom that may include cost savings, innovation, and return on investment.

While PPL HR does measure training effectiveness at Level 1, there are additional opportunities to more fully determine the effectiveness of the non-technical training that is being provided.

1. The most recent succession plan has several positive features; however, due to the Talen spinoff, there is no current succession plan in place.

The 2013 succession plan is the most recent plan and covers the United Kingdom, LKE, PPL Electric Utilities, and corporate services organizations. The plan focuses on executive positions as well as other “pivotal” roles. Pivotal roles are defined as those positions that PPL believes have direct impact on strategy effecting business success, positions that require a specialized competency or high end managerial/business expertise or a management pipeline position whose vacancy could impact the success of the business. A formal succession plan was not developed for 2015 due to the Talen spinoff. However, the 2013 plan remained in place and was utilized in establishing the Talen organization and during the restructure of the PPL organization. A verbal update was provided to the CGNC in December of 2014.

Some key highlights from the 2013 succession plan include covering 100% of executive roles with succession candidates, reducing external hires from 42% to 20%, and increasing the diverse succession candidates from 21 to 32. In addition, the succession plan identifies candidates who are ready for promotion now as well as those who will be ready in three to five years for executive and pivotal roles.

89% of candidates for succession had completed development activities of some kind in the past year, including many development activities completed by executives during this timeframe.

The 2013 succession plan envisions moving ahead with implementing executive development programs across the PPL enterprise, continuing to strengthen the talent review process, and focusing on integration of diversity in development planning activities.

During audit field work, business unit leaders were in the process of reviewing the current succession plan and, as a group, were preparing to develop a succession plan for reporting to the Board of Directors in December of 2015. PPL SC HR leadership reports that after the Energy Supply spin, the 2015/2016 succession plan was reset and presented to the CGNC in December of 2015.

1. PPL EU appears to be in compliance with employment laws.

Upon review of documentation submitted and completion of interviews there was no indication that employment law compliance issues are a concern. For example, very few discriminatory claims were open and no wage and hour claims were reported.

1. Compensation and health and welfare benefits are competitive with the market.

The external benchmarking reports were reviewed for competiveness across industries and PPL SC, PPL EUS, and PPL EU were competitive in both compensation and health and welfare benefit offerings.

1. PPL EUS HR has implemented several good practices necessary to build strong labor-management relationships and labor negotiations are approached proactively and with a defined strategy.

Many venues for communication with the union exist and are utilized regularly, such as:

* The President of PPL EU and the Human Resource Director of PPL EUS are traveling throughout the organization and speaking with bargaining unit members regarding the results of the employee engagement survey.
* Quarterly union meetings held at the union hall with union leadership and the Labor and Employee Relations Specialist from PPL EUS, Director of Human Resources at PPL EUS, and Vice President of Distribution Operations at PPL EU. These quarterly meetings are used to discuss the status of labor relations, Responsible Behavior Program (RBP) discipline, and basic discussions regarding the background and reasoning behind management decisions.
* The Labor and Employee Relations Specialist at PPL EUS HR and each of three field managers meet frequently with local union stewards and chief stewards from their respective regions.
* The Labor and Employee Relations Specialist at PPL EUS HR is in daily contact with union representatives and follows through with his commitment to notify union representatives in advance of issuing disciplinary action or any management decision that will impact union members.
* Management and labor are proactively discussing strategies to prepare for the imposition of the 2018 ACA excise tax and its impact on funds available for general wage increases.

1. The number of grievances filed by represented employees declined substantially from 2013 to 2014 and appears to be maintaining this improved performance in 2015.

The table below outlines the numbers of grievances from 2012 to June 2015:

Exhibit ‑  
PPL EU Number of Grievances for 2012 through June 19, 2015

| **Category of Grievance** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- |
| Accident on the Job | 1 |  |  | 1 |
| Callout | 39 | 49 | 15 | 4 |
| Contracting Work | 15 | 46 | 30 | 8 |
| Displacement Procedure |  | 1 |  | 1 |
| Drug/Alcohol |  | 1 |  |  |
| Expenses | 1 | 1 |  | 2 |
| Grievance Procedure/Policy Implementation | 2 | 13 | 1 | 1 |
| Harassment | 1 | 1 |  |  |
| Holiday | 1 | 1 |  | 1 |
| Inclement Weather |  |  |  | 1 |
| Job Description | 10 | 3 | 5 | 2 |
| Job - Salary Progression | 1 |  | 1 |  |
| Job Vacancy – Not Filled | 2 | 6 | 8 | 2 |
| Medical | 4 | 5 | 4 |  |
| Past Practice – Paycheck | 2 | 3 |  |  |
| Performance Rating | 19 | 18 | 15 | 22 |
| Progression Line | 5 | 25 | 4 | 4 |
| RBP | 21 | 15 | 21 | 10 |
| Sick Pay | 1 | 4 | 1 |  |
| SPV Doing Non-SPV Work | 27 | 8 | 3 | 2 |
| Suspension/Termination | 12 | 3 | 9 |  |
| Testing | 4 | 1 | 1 |  |
| Time Off | 8 | 2 | 6 | 2 |
| Training | 2 | 1 | 7 |  |
| Working OT – By Passed |  | 1 | 3 | 2 |
| Working OT – Denied | 5 |  |  | 3 |
| Working – Distribution of Work | 4 |  |  |  |
| Working – Modified Duty Denied | 2 |  |  |  |
| Working – Out of Job Class | 16 | 3 | 1 |  |
| Working – Schedule Change | 7 |  | 2 | 1 |
| Working – Area Assignment | 4 | 1 | 2 | 1 |
| **Totals** | **216** | **212** | **139** | **70** |
| Source: DN 05-078 | | | | |

The table shows significant reduction in the total number of grievances over the time period. The reduction is at least partially attributable to the positive practices identified in Finding 15 being taken to build strong labor-management relationships.

1. Security measures related to employee safety and protection, employee information, and controlled access to technology systems appear to be sound.

Policies and procedures are in place to safeguard employee information and access to technology systems. In addition, policies and procedures are in place to safeguard employees during emergency situations.

1. The HR information system self-service portal is cumbersome and inconvenient.

There are approximately eight major HR applications and three major Security applications within PPL SC and PPL EUS HR. While many of these technologies are well integrated, the end user experience for both the employee and the PPL SC and PPL EUS HR user is sometimes cumbersome and inefficient. For example, when HR employees use self-service through the HR system, they are required to leave the HR system self-service portal and visit each of the individual third party benefit provider websites (e.g., health insurance and retirement programs) to perform benefit related transactions rather than being able to access all of this information through one portal. Similarly, when an employee accesses these technologies as an end user, there is no single point of entry. For example, the end user must go to separate web pages to obtain or enter information for retirement savings and benefits.

## Recommendations

1. Reassign the PPL EUS HR personnel to the appropriate PPL SC HR functional counterpart organization units. (See Finding 1)

This recommendation will improve the consistency of personnel policy application, reduce redundancies between PPL SC and PPL EUS HR staff, increase the likelihood of appropriate staffing levels for PPL SC HR, and will encourage the full utilization of PPL SC HR staff. The PPL EUS HR personnel can stay physically deployed to the PPL EU office area and continue to work closely with their PPL EU clients. However, they should report directly to their PPL SC functional counterparts. For example, the talent acquisition personnel for PPL EUS should be a part of the PPL SC HR talent acquisition function. The staff physically deployed with PPL EU would report indirectly to their primary client, PPL EU.

1. PPL SC HR should participate in an appropriate HR comprehensive benchmarking study. (See Finding 4)

Active participation in a credible benchmarking study will require establishing the measurements utilized by the benchmarking program. The benchmark comparisons to other peers will identify improvement areas, help to set performance targets, and ultimately lead to improvement in the effectiveness and efficiency of the HR department.

1. Select and implement HR metrics for each functional area that will measure the effectiveness and efficiency of the function. (See Finding 6)

In conjunction with implementing a HR staffing benchmarking program (Recommendation 2), a comprehensive set of HR metrics should be selected and implemented. Recognizing that implementation of a comprehensive set of HR metrics is a formidable task; the following are suggested as initial HR metrics in the program.

* Benefit or Program Costs Per Employee
* Benefits As A Percent Of Salary
* Cost Per Hire
* Engagement or Satisfaction Rating
* HR Expense Factor
* Revenue per Employee
* Tenure
* Training (ROI)
* Training Investment Factor
* Training/Development Hours
* Turnover Costs
* Vacancy Rate
* Workers' Compensation Cost per Employee

HR processes and investments must be directly linked to critical business outcomes(e.g., reliability, productivity, and customer satisfaction) to understand their impact and how they drive those outcomes. By quantifying the relationship between HR processes and critical business outcomes in the past (lagging indicators), algorithms can be created to predict future impact of HR investments(leading indicators). HR must look holistically at all HR processes and potential investments to understand their HR priorities and make investment decisions like other lines of business/functions.

1. Provide opportunities and encouragement for more employees within PPL SC HR to obtain relevant professional HR certifications. (See Finding 9)

The benefits of attaining relevant professional HR certifications include expanding the capabilities of the HR staff; enhanced understanding of effective HR practices, processes, and technologies; and staff use of standardized HR terminology. Certification and recertification could be encouraged through the use of existing tuition reimbursement programs.

There are several nationally recognized organizations that serve as certifying bodies for various functional areas of human resources. Outlined below are several examples:

* The Human Resource Certification Institute (HRCI) offers two nationally recognized credentials including the Professional in Human Resources (PHR) and the Senior Professional in Human Resources (SPHR) certifications.
* The Society for Human Resource Management (SHRM) offers two nationally recognized credentials including the Society for Human Resource Professional Certified Professional (SHRM-CP) and Senior Certified Professional (SHRM-SCP).
* WorldatWork offers four relevant nationally recognized certifications including the Certified Compensation Professional (CCP) and Certified Benefits Professional (CBP) certifications, Certified Executive Compensation Professional (CECP) and the Work-Life Certified Professional (WLCP).
* The Association for Talent Development (ATD) also provides various talent development certifications.

1. Measure all four levels of training effectiveness according to the Kirkpatrick model. (See Finding 11)

Merely measuring satisfaction with non-technical training is not sufficient to understand and manage the effectiveness of the training delivered. Measuring training effectiveness at all four levels described by the Kirkpatrick model will enhance management’s ability to make program adjustments to assure training effectiveness and resource efficiency.

1. Update the PPL SC and PPL EU succession plan. (See Finding 12)

Incorporate the positive features of the 2013 succession plan in an updated plan that supports the present succession planning needs of the organizations.

1. Improve the HR system self-service portal. (See Finding 18)

Partner with PPL SC Information Technology to conduct an assessment of PPL HR SC end user and employee requirements and identify a HR technology solution that would address the identified needs and include a better and more user-friendly employee and manager self-service portal.

# Executive Compensation

## BACKGround

This chapter addresses executive compensation practices relevant to PPL Corporation and PPL Electric Utilities Corporation (PPL EU). The PPL Services Corporation (PPL SC) Human Resources (HR) department provides broad-based compensation services to PPL Corporation and PPL EU. PPL Corporation’s Named Executive Officers (NEOs) and PPL EU’s top four highly compensated executives are specifically evaluated as a focus of the executive compensation chapter.

PPL Corporation’s executive compensation program must comply with enacted regulations of the Securities Exchange Act of 1934 (Exchange Act), including all amendments; the Sarbanes-Oxley Act (SOX) of 2002; the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act); the New York Stock Exchange (NYSE) and the Internal Revenue Code.

Securities and exchange commission

With the Exchange Act, Congress created the Securities and Exchange Commission (SEC). The Exchange Act empowers the SEC with broad enforcement authority over all aspects of the securities industry. This includes the power to register, regulate, and oversee various securities exchanges, such as the New York Stock Exchange (NYSE) and the NASDAQ Stock Market. The Exchange Act also identifies and prohibits certain types of conduct in the markets and provides the SEC with disciplinary powers over regulated entities and persons associated with them. The Exchange Act also empowers the SEC to require periodic reporting of information by companies with publicly traded securities. PPL Corporation shares of common stock are traded on the NYSE.

SEC requirements mandate transparency of compensation analysis methodologies and public reporting of all elements of executive compensation, some of which must be in prescribed table formats. Other important requirements include the use of independent compensation committees with formal written charters as part of publicly traded corporations’ regulatory obligations.

sarbanes-oxley act of 2002

The Sarbanes-Oxley Act of 2002 requires executive officer verification and validation of the publicly submitted financial reports, and introduced executive compensation forfeiture and repayment of compensation due to financial restatement if financial reporting errors occur.

dodd-frank act

The Dodd-Frank Act extended the SOX executive compensation forfeiture and repayment from twelve months to three years, and extended requirements for shareholder advisory vote of NEO compensation at least once every three years. The Dodd-Frank Act also required heightened scrutiny of compensation committees’ independence.

internal revenue code

Section 162(m) of the Internal Revenue Code (IRC) defines covered executives as Chief Executive Officers (CEOs) and the top four most highly compensated executives in publicly held corporations. The IRC establishes allowable salary level limits for covered executives’ federal income tax deductions, defines excluded executive types of compensation, and requires shareholder approval of most equity compensation plans.

governance

Each legal standard and regulatory enhancement has placed an increased level of responsibility on PPL Corporation’s Board of Directors (BOD); the Compensation, Governance, and Nominating Committee (CGNC); and PPL SC HR’s executive compensation staff performing functions related to executive compensation. These regulatory frameworks form the primary requirements of PPL Corporation’s executive compensation practices and they provide guidance to ensure executive compensation practices are reasonable; ensure expenses are prudently incurred; protect the interests of ratepayers, shareholders, and employees; and are competitive within the industry. Likewise, the executive compensation plans are to be structured in a way that promotes operational effectiveness and efficiency.

evaluation

Our review evaluated PPL’s Tier I and Tier II executives (defined below in the Executive Compensation Functional Overview section) to include NEOs and executive compensation practices relevant to PPL EU. This evaluation includes an assessment of the following:

* A review of the compensation for PPL’s NEOs and PPL EU executives including base salary, incentive pay, equity, and benefits.
* A review of the role of the PPL BOD and the CGNC related to the setting of executive compensation levels and the development of any incentive pay structure.
* A review of the frequency and scope of compensation studies, for NEOs and PPL EU executives, as well as PPL’s practices of comparison to industry peers.
* The effectiveness of the compensation structure in incentivizing and supporting the operational goals and performance of PPL EU and the overall strategy of PPL Corporation.

The structure and specific executive compensation services performed by PPL’s BOD, CGNC, and PPL SC HR’s compensation and benefits function are organized in this section as follows:

* Executive Compensation Function Overview
* Executive Compensation Philosophy and Objectives
* Role of the Board of Directors
* Review of Market Competiveness Analysis: Total Executive Cash, Benefits, and Equity Compensation Program

EXECUTIVE cOMPENSATION FUNCTION OVERVIEW

The PPL SC HR Compensation and Benefits unit provides executive compensation services, retirement plan administration, executive perquisites coordination, and health and welfare plan administration including vendor management for 34 Tier I and Tier II executives of PPL Corporation and its subsidiaries. Tier I executives include those officers who are "deemed" to be executive officers for the purposes of Section 16 of the Exchange Act and include titles such as Chief Executive Officer, Chief Financial Officer, Controller, and Treasurer and also include non-Section 16 officers in business units and functional units of the corporation and its subsidiaries that have key responsibilities.

PPL EU’s top three highly compensated employees are Tier I executives including the job titles of President, Vice President-Distribution Operations, and Vice President-Transmission and Substations. The Customer Services Vice President is a Tier II executive and is not an elected officer of PPL EU. Tier II executives are defined as non-business leader functional heads and report to Tier I executives. For example, the PPL SC HR Senior Vice President (SVP) / Chief Human Resource Officer (CHRO) is a Tier I executive even though the position is not a Section 16 officer defined by the SEC. The Compensation and Benefits Vice President (VP) reports to the PPL SC HR SVP/CHRO and is a Tier II executive. A list of Tier I and Tier II executives is shown in the table below.

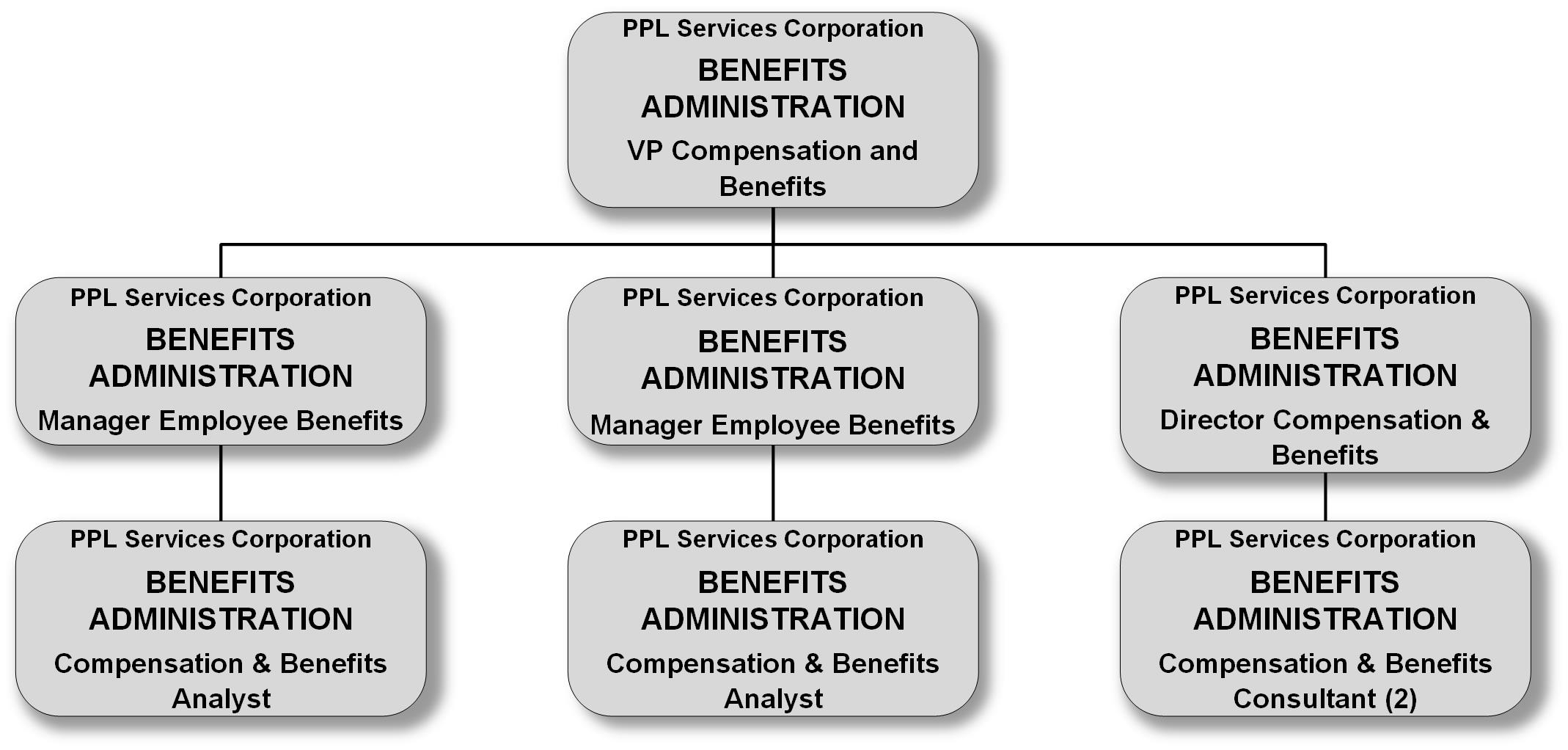
Exhibit ‑  
PPL Corporation Tier I and Tier II Executive Job Titles

| **Org** | **Job Title** | **Tier Level** |
| --- | --- | --- |
| SC | Chairman, President and CEO | Tier I |
| LKS | Chairman, CEO & President | Tier I |
| LKS | Chief Operating Officer | Tier I |
| PPL EU | President | Tier I |
| PPL EU | VP-Distribution Operations | Tier I |
| PPL EU | VP-Transmission & Substations | Tier I |
| PPL EU | Customer Services VP | Tier II |
| SC | EVP & Chief Legal Officer | Tier I |
| SC | Senior VP & CFO | Tier I |
| SC | Global Chief Compliance Officer | Tier I |
| SC | SVP, General Counsel & Corporate Secretary | Tier I |
| SC | SVP-HR&S and Chief HR Officer | Tier I |
| SC | VP, Treasurer & Chief Risk Officer | Tier I |
| SC | VP & Controller | Tier I |
| SC | VP-Investor Relations & Fin Planning | Tier I |
| WPD Midlands | Chief Executive | Tier I |
| WPD Midlands | Finance Director | Tier I |
| WPD Midlands | Operations Director | Tier II |
| LKS | SVP-Human Resources | Tier II |
| LKS | Chief Financial Officer | Tier II |
| LKS | Chief Information Officer | Tier II |
| LKS | General Counsel, Chief Compliance Officer and Corporate Secretary | Tier II |
| LKS | VP-Energy Supply & Analysis | Tier II |
| LKS | VP-Power Production | Tier II |
| LKS | VP-Transmission | Tier II |
| SOL | President | Tier II |
| SC | Deputy General Counsel & VP | Tier II |
| SC | Tax Vice President | Tier II |
| SC | Public Affairs Vice President | Tier II |
| SC | Compensation & Benefits VP | Tier II |
| SC | HR&S Planning & Administration VP | Tier II |
| SC | Federal Government Relations VP | Tier II |
| SC | Corporate Audit & Business Ethics VP | Tier II |
| WPD Midlands | Resources & External Affairs Director | Tier II |
| Highlighted positions are being eliminated and not replaced | | |
| Source: DN 15-144 | | |

The table above identifies 34 executives of PPL Corporation and its subsidiaries categorized as either Tier I or Tier II executives. In addition, the above table identifies the highlighted positions that will be eliminated as part of PPL Corporation’s current restructuring to reduce PPL SC HR’s service costs to PPL EU and all other subsidiaries. The duties performed by the individuals leaving the highlighted positions will be absorbed by other executives and one internal staff promotion, reducing Tier I and Tier II executives to a total of 30.

PPL SC HR Compensation and Benefits staff provide executive compensation services to PPL Corporation’s BOD and CGNC, and regularly interface with the CGNC's independent external executive compensation consultant. PPL SC HR’s SVP/CHRO is management’s liaison to PPL’s CGNC. The Compensation and Benefits organization structure is illustrated in the organizational chart below.

Exhibit ‑  
PPL SC HR Compensation and Benefits Structure



Source: DN 01-072

The Compensation and Benefits department consists of a Vice President and a staff of seven, with four personnel working directly with benefits and two with compensation. The current Compensation and Benefits VP will be leaving in June 2016 and will be replaced by the Director of Compensation, reducing the department to a staff of seven total personnel. The Director position will not be backfilled. The most recent decision to promote the Director of Compensation to replace the current VP of Compensation and Benefits was part of PPL’s SC HR Department’s restructuring plans at the time of our Audit fieldwork. The department serves approximately 3,000 employees including 34 executives.

The Director of Compensation and Benefits currently oversees broad-based and executive compensation (Tier I and Tier II), as well as benefits for Company personnel including PPL EU’s top four executives, salaried personnel, and market data analysis for bargaining unit positions. The two staff members dedicated to compensation provide administration of broad-based compensation including base pay, annual short-term cash incentives, performance units and performance-contingent restricted stock units, executive perquisites, and vendor management.

Tier I and Tier II executives are eligible for performance units and performance-contingent restricted stock units, which are equity–based, long-term incentives. Performance units are awarded based on the performance of PPL Corporation stock, relative to the Philadelphia Stock Exchange Utility Index (UTY) and total shareowner return including stock price appreciation and reinvested dividends over a three-year period. Conversely, performance-contingent restricted stock units are awarded based on the average of PPL Corporation’s earnings per share from ongoing operations for the previous three years and vest over an additional three-year period. Although stock options were discontinued in 2013, the PPL SC HR Compensation and Benefits Consultant, continues to monitor and report on stock options through 2023 when the stock option exercise period ends.

PPL SC HR engaged a consultant to assist with preparation of a Request for Proposal to procure the services of an external executive compensation consultant to work with the BOD and the CGNC in 2014. As reported in PPL Corporation’s 2015 Proxy statement, Frederic W. Cook & Co., Inc., a compensation specialist firm, was retained by the CGNC effective July 1, 2014 as the independent external executive compensation consultant to replace the prior firm and the independent external executive compensation consultant selection process is followed each year and reported in the annual proxy statements.

eXECUTIVE COMPENSATION Philosophy and Objectives

PPL’s executive compensation philosophy is to provide balanced and competitive compensation programs that attract, retain, and motivate high-performing executives who will achieve the corporation’s short and long-term business objectives and further support the corporation’s sustainability efforts. The primary mission of the compensation and benefits function is to pay executives at competitive market rates. A plus or minus 15% difference from the median is considered market competitive.

The objectives of the executive compensation programs are to support a high performance work culture and to ensure continued industry leadership consistent with PPL Corporation’s and PPL EU’s overall corporate goal to achieve first quartile performance. In addition, executives are compensated and recognized for demonstrating responsible and exceptional performance that will lead to long-term shareowner value and that proves to be cost-effective for the business and competitive and accountable within the industry. Executive compensation is guided by the PPL Corporation’s pay for performance process operationalized by the Employee Performance and Compensation System (EMPACS) and the Corporate Strategic Framework, as described in Chapter XII, Human Resources. LKE and WPD Midlands executives, however, are not included in the EMPACS system. Further, the performance review for the PPL Corporation CEO is completed separately by the CGNC, outside of the EMPACS system.

Role of the Board of Directors

Compensation, Governance, and Nominating Committee

Section 10C of the Exchange Act defines the requirement for a publicly held company to have a compensation committee consisting of independent directors responsible for a range of executive compensation-related duties. The NYSE requires each compensation committee to have a written committee charter that is reviewed at least annually. PPL’s CGNC has a written committee charter, with the most recent revision of the charter approved by the BOD on January 22, 2016.

To be considered an independent director for purposes of CGNC membership, members must be non-employees, free of any material business relationship other than stock ownership, and free from employee or material business relationships for at least three years. Independent directors must also meet all of the restrictions related to immediate family members, satisfy Rule 16b-3 of the Exchange Act, and satisfy the requirements of an outside director for Section 162(m) of the IRC. According to PPL’s Proxy Statements for 2011 through 2015, all members of the CGNC were entirely independent directors.

PPL Corporation’s CGNC reviews and approves annual executive compensation structure, including base salary, short and long-term incentives, and benefits for the Company. Additionally, the CGNC ensures a succession plan is in place as outlined in CGNC’s written charter, and it fulfills other principal functions related to BOD selection and compensation.

All executive incentive goals for Section 16 officers are reviewed and approved by the CGNC. In January of each year the CGNC reviews and evaluates the performance of the CEO and the executive officers covered by Section 16 of the Exchange Act, including all executives named in the Proxy Statements. The executives covered by Section 16 of the Exchange Act are all Tier I Executives as previously defined. The CEO reviews the performance of Section 16 officers, including executive direct reports, Presidents of the business lines, and the Treasurer and Controller and shares the reviews with the CGNC. With input from the CFO and SVP/CHRO, the CEO provides compensation recommendations to the CGNC based on performance goal achievement and other factors related to the strategic significance of various executives. An example of a performance review form for the President of PPL EU was shared with redacted ratings and included measurable, specific, and aligned goals and targets as well as performance feedback.

Competitive Compensation Analysis

Using utility industry comparable executive compensation data, PPL Corporation’s independent external executive compensation consultant provides an annual report to the CGNC on “emerging issues and executive compensation trends in the largest U.S. utilities,” reviews compensation practices for non-employee directors, and performs an executive compensation analysis with compensation market data for the Section 16 officers. The output from the compensation analysis, the reasonableness of executive compensation, and the cost allocation of NEO compensation’s effects on PPL EU expenses will be discussed later in the Market Competitive Analysis section of this chapter for PPL Corporation’s top five NEOs’ and PPL EU’s top four executives’ total direct compensation.

The executive compensation analysis performed by the independent external executive compensation consultant utilizes the energy and general industry sectors as comparators and is provided annually to the CGNC in December. The output of the 50th percentile or market median is used to establish target total direct compensation and to determine the reasonableness and competitiveness of PPL Corporation’s executive compensation practices. These market analyses results are part of the core content of the Compensation, Discussion, and Analysis (CD&A) section in annual Proxy Statements. The Compensation and Benefits department works closely with PPL Corporation’s legal department to prepare the CD&A and other required compensation disclosures.

REview OF MARKET Competiveness Analysis: Total Executive Cash, Benefits, and Equity Compensation Program

The four primary components of PPL Corporation’s (and PPL EU’s) executive compensation program are base pay, short-term or annual cash incentives, benefits, and long-term or performance-contingent restricted stock units or performance units.

Base Pay

Base pay is the fixed element of annual cash based compensation. PPL Corporation’s executive base pay is determined by considering an executive’s level of knowledge, experience, skills and abilities, and how well the executive applies these factors to his or her job over a period of time. A comparative market analysis is performed annually by an external executive compensation consultant hired by the CGNC for Section 16 officers. Additionally, other Tier I and Tier II executives’ base pay is analyzed by the Compensation and Benefits Department every three years using market data. Peer comparators listed in the General Industry and Energy Industry categories are considered when recommending base pay levels for approval by the CGNC for Section 16 officers of PPL and its subsidiaries, including PPL EU.

Short-Term Incentive (STI) Compensation

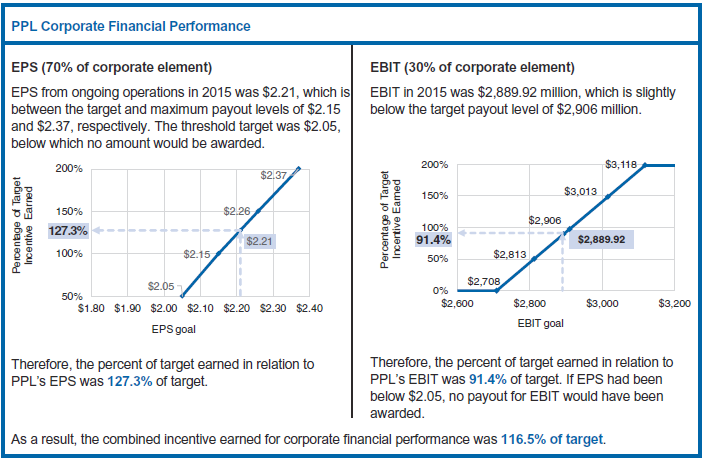
PPL Corporation’s executive short-term cash incentive compensation provides periodic cash awards that are calculated based on a percentage of base pay. Short-term incentive compensation is considered pay “at risk” because incentive compensation is only awarded if predetermined financial, operational, and individual targets are achieved by executives related to their performance obligations towards competitive strategic goals.

PPL Corporation’s executive short-term incentive compensation varies based on the level of the executive’s scope of work and experience, strategic significance to the corporation, and their internal worth or value. The CGNC approves the financial and operational goals and objectives during the first quarter of each year and approves achievement of the established goals in January of the following year for Section 16 officers. The short-term goals established become part of PPL’s Corporate Strategic Framework to ensure executive short-term incentives are part of the EMPACS individual performance review process. Within EMPACS, participating executives are evaluated on the attainment of predetermined goals and objectives and for demonstrating behaviors aligned with PPL corporate values. This is done prior to determining short-term incentive payouts in January of each year.

By incorporating the Corporate Strategic Framework into the executive’s EMPACS, PPL Corporation’s values such as customer focus, safety, integrity and openness, corporate citizenship, performance excellence, and employee commitment and diversity are part of individual executive performance plans. Specific annual corporate and business line financial goals are established.

The executive payout for short-term executive incentive compensation is based on measureable and successful job performance and is based on the formulas established by the CGNC. For example, target awards are established for short-term incentive compensation as a percentage of base salary and target opportunities are based on the goals and objectives established for the annual period of performance. From 2011 through 2015 PPL Corporation, PPL SC HR, and the CGNC (for Section 16 officers) established aligned executive rewards based on business criteria and funding target levels and formulas for annual short-term cash incentives contained within the proxy statements. Corporate financial performance for 2015 is provided in the 2016 Proxy Statement’s table at page 35 as shown below.

Exhibit ‑  
2015 Corporate Financial Performance



Source: PPL Corporation 2016 Proxy Statement

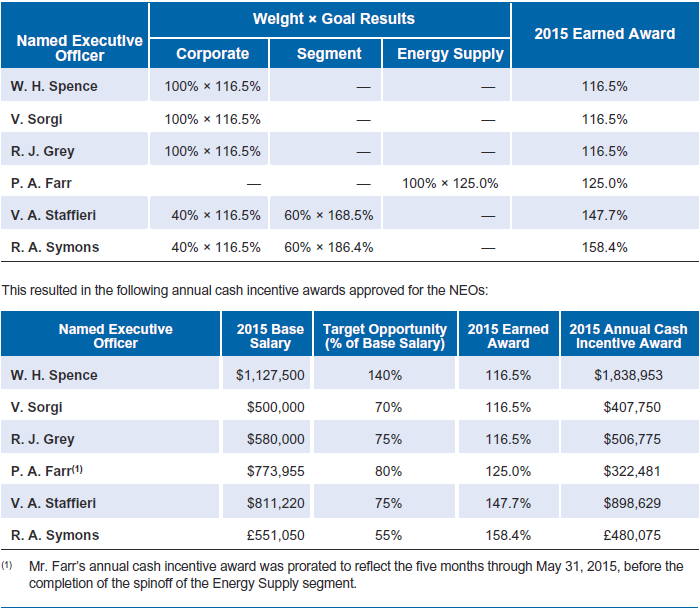
The above table represents the linkage to targeted levels of EPS and EBIT required for eligibility for executive short-term cash awards. In 2015, PPL Corporation achieved $2.21 in EPS resulting in 127.3% goal achievement. In 2015, EBIT achievement was $2,889.92 million resulting in 91.4% goal achievement. The maximum short-term annual cash incentive has a maximum limit of 200% of an executive’s base salary if highest target levels are met.

The CGNC reviewed the performance results in January 2016 and the total calculated annual short-term cash incentives are shown in the table below from page 36 of the PPL Corporation 2016 Proxy Statement.

Individual Annual Cash Incentive Awards for 2015 Performance

The following individual annual cash incentive awards were approved by the CGNC for 2015 performance:

Exhibit ‑  
Individual 2015 Annual Cash Incentive Awards



Source: PPL Corporation Proxy Statement 2016

The above tables depict the base salaries, the target award opportunity based on the Target as a Percentage of Salary, actual goal attainment as a percentage of the Target Award and the resultant cash incentive awards earned by each of the NEOs.

The executive payout for short-term executive incentive compensation for PPL EU executives is based on measureable and successful job performance, and also based on the formulas approved by the CGNC.

Long-term Incentive (LTI) Compensation

The long-term or equity based executive incentive compensation of PPL Corporation consists of two plans. The first plan is the Stock Incentive Plan that started in 2012 and awards performance-contingent restricted stock units (RSUs) based on EPS from ongoing operations achieved during the prior three-year period and performance units based on the corporation’s total shareholder return for the future three years as compared to the UTY and is only available to Section 16 officers. All long-term equity awards for Section 16 officers are approved by the CGNC. The second plan is the Incentive Compensation Plan for Key Employees which awards long-term equity for all levels of managers including all non-Section 16 Tier I and Tier II executives.

Health and Welfare Benefits

A third party benefits consultant is used to administer health and welfare benefits, including open enrollment for Tier I and Tier II executives. Executive health and welfare related benefits were reported to be similar to that of all PPL Corporation salaried employees. Health and welfare related benefits consist of medical, prescription, dental, vision, life insurance, flexible spending account (FSA), health savings account (HSA), and an Employee Assistance Program (EAP). PPL Corporation’s domestic subsidiaries are self-insured for medical, prescription, and dental programs although contractors are utilized to administer these programs. A consultant has been engaged to benchmark the competitiveness of PPL Corporation’s and PPL EU’s healthcare plan offerings as well as the need for healthcare plan redesign and employee premium cost sharing to offset the rising costs of healthcare.

Pension and Retirement Savings Benefits

A vendor provides administration services for retirement savings plans. The PPL SC HR Compensation and Benefits function manages this vendor relationship. PPL SC HR participated in a benchmarking study conducted by an independent consultant in 2015 regarding the prevalence of defined benefit pension plans in the utility sector.

The findings indicated the declining prevalence of defined benefit plan pension offerings due to higher costs and risks associated with defined benefit plans. PPL Corporation closed the defined benefit pension plan to new hires for non-bargaining unit employees in 2012 and closed the defined benefit pension plan to new hires for union employees in 2014. As a result, PPL Corporation has transitioned from defined benefit pension plans to defined contribution plans or a 401(k) for union and non-union employees. The 401(k) previously provided a 3% employer contribution calculated on base salary and a 100% employer contribution of 6% on employee contributions (total possible employer contribution of up to 9%). In 2016 the employer match on employee contributions was reduced to 75% or up to 4.5% for non-union employees’ 401(k) pension contributions (total possible employer contribution of up to 7.5%).

Executive Perquisites

Executive perquisites, such as financial planning, severance packages, estate planning, tax preparation, and executive physicals are provided. PPL SC’s HR Compensation and Benefits function manages vendor relationships to provide these perquisites. Executives may choose between one of two preferred vendors for executive physicals, however, they may choose to use the preferred vendor or any vendor of their choice for financial planning services.

Tier I executives receive severance packages equal to two times their annual salary and Tier II executives receive severance equal to one time their annual salary. The dollar amounts available for financial planning and tax preparation are $11,000 annually for Tier I and $7,500 annually for Tier II executives. Tier I executives are eligible for a one-time estate planning benefit of $5,000. Tier I and Tier II executives have a limit of $5,000 for an executive physical every two years.

PPL Corporation’s Form 10-K reports and Proxy Statements provide total compensation transparency for the NEOs for 2011 through 2015. The Proxy Statements also provided the qualifications of existing CGNC committee members and confirmed the independence of the non-employee Board directors.

The CD&A provides an overview of PPL Corporation’s 2015 executive compensation program; philosophy and objectives for PPL Corporation, including all of its subsidiaries; and aligns with PPL Corporation’s executive compensation program, philosophy, and objectives. In addition, the CD&A explicitly defines recommendations and compensation decisions made that affected the corporation’s NEOs each year.

The six NEOs for 2015 reported in the 2016 Proxy Statement were as follows:

1. William H. Spence, Chairman, President and Chief Executive Officer (CEO)
2. Vincent Sorgi, Senior Vice President and Chief Financial Officer (CFO)
3. Paul A. Farr, former President, PPL Energy Supply, LLC (an indirect, wholly owned subsidiary of PPL until it was spun off to Talen Energy Corporation on June 1, 2015))
4. Robert J. Grey, Executive Vice President and Chief Legal Officer (retired as of January 31, 2016)
5. Victor A. Staffieri, Chairman of the Board, Chief Executive Officer, and President of LG&E and KU Energy LLC (LKE) (a wholly owned subsidiary of PPL Corporation)
6. Robert A. Symons, Chief Executive of Western Power Distribution Midlands Companies (WPD Midlands) (an indirect, wholly owned subsidiary of PPL Corporation)

Item 402 of Regulation S-K requires, “clear, concise and understandable disclosure of all plan and non-plan compensation awarded to, earned by, or paid to the named executive officers and directors.” Item 402 requires PPL Corporation to include the following main tables in each year’s proxy statement:

* Summary Compensation Table
* Grants of Plan-Based Awards
* Outstanding Equity Awards at Fiscal Year-End
* Option Exercises and Stock Vested
* Pension Benefits
* Nonqualified Deferred Compensation
* Director Compensation
* Golden Parachute Compensation

In addition, tables related to Item 403, and Item 404 of Regulation S-K are required if security ownership of certain beneficial owners apply, changes of control occur, and transactions with related persons, promoters, and certain control persons occur.

The following table and notes from the PPL Corporation 2016 Proxy Statement summarize all compensation for PPL Corporation’s six NEOs.

Exhibit ‑  
PPL NEO Total Executive Compensation, Tier I  
Summary Compensation Table 2013–2015  
(Comparison across Years)

| **Name and Principal Position(1)** | **Year** | **Salary(2)** | **Bonus** | **Stock Awards(3)** | **Option Awards(4)** | **Non-Equity Incentive Plan Compensation (5)** | **Changes in Pension Value and Non-qualified Deferred Compensation Earnings(6)** | **All Other Compen-sation(7)** | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| William H. Spence  Chairman, President and Chief Executive Officer | 2015 | $1,127,500 | - | $6,237,307 | $727,355 | $1,838,953 | $2,994,822 | $54,075 | $12,980,012 |
| 2014 | $1,126,760 | - | $6,292,601 | - | $2,134,132 | $3,808,318 | $27,445 | $13,389,256 |
| 2013 | $1,098,846 | - | $4,768,559 | $1,526,000 | $2,519,440 | $2,144,007 | $52,868 | $12,109,720 |
| Vincent Sorgi Senior Vice President and Chief Financial Officer | 2015 | $498,462 | - | $994,921 | $70,635 | $407,750 | $153,159 | $32,318 | $2,157,245 |
| 2014 | $398,404 | - | $613,624 | - | $344,924 | $318,067 | $27,602 | $1,702,621 |
| Robert J. Grey  Executive Vice President and Chief Legal Officer | 2015 | $579,539 | - | $1,146,332 | $235,660 | $506,775 | - | $56,927 | $2,525,233 |
| 2014 | $563,253 | - | $1,056,292 | - | $572,910 | $591,769 | $33,185 | $2,817,409 |
| 2013 | $499,292 | - | $837,779 | $251,463 | $531,806 | - | $30,729 | $2,151,069 |
| Paul A. Farr  Former President of PPL Energy Supply, LLC/Former Executive Vice President and Chief Financial Officer | 2015 | $341,192 | - | $2,446,781 | $494,821 | $322,481 | $203,878 | $36,538 | $3,845,692 |
| 2014 | $736,155 | - | $2,418,196 | - | $883,025 | $1,122,169 | $56,599 | $5,216,144 |
| 2013 | $701,377 | - | $1,796,407 | $593,156 | $861,354 | $28,870 | $40,582 | $4,021,746 |
| Victor A. Staffieri  Chairman of the Board, Chief Executive Officer and President – LG&E and KU Energy LLC | 2015 | $811,220 | - | $1,745,339 | $39,745 | $898,629 | $60,305 | $76,630 | $3,631,868 |
| 2014 | $811,220 | - | $1,843,401 | - | $751,393 | $3,173,983 | $88,862 | $6,668,859 |
| 2013 | $811,220 | $20,000 | $1,597,735 | $479,774 | $923,574 | - | $134,265 | $3,966,568 |
| Robert A. Symons  Chief Executive – WPD Midlands | 2015 | $836,038 | - | $691,919 | $6,569 | $690,156 | $369,842 | $20,288 | $2,614,812 |
| 2014 | $872,710 | - | $775,944 | - | $609,305 | $1,520,212 | $27,115 | $3,805,286 |
| Source: PPL Corporation Proxy Statement 2016 | | | | | | | | | |
| Note: PPL NEO Total Executive Compensation Summary Comparisons for 2011 and 2012 are included in the PPL Corporation Proxy Statement 2013 on p. 52. | | | | | | | | | |

(1) Effective June 1, 2015, concurrent with the spinoff of PPL’s Energy Supply segment, Mr. Farr resigned from PPL. Mr. Symons is based in the United Kingdom and is compensated in Pounds Sterling. We converted his 2015 cash compensation, changes in pension value and personal benefits to U.S. dollars at an exchange rate of $1.5283, which is the average monthly translation rate for 2015, except with respect to the Non Equity Incentive Plan Compensation amount, which was converted to U.S. dollars at an exchange rate of $1.4376, which is the translation rate for February 2, 2016, the date the cash incentive award was paid to Mr. Symons.

(2) Salary includes cash compensation deferred to the PPL Executive Deferred Compensation Plan or, for Mr. Staffieri, to the LG&E and KU Nonqualified Savings Plan. The following NEOs deferred salary in 2015 in the amounts indicated: Mr. Spence ($33,825); Mr. Sorgi ($14,953); Mr. Grey ($17,386); Mr. Farr ($119,417); and Mr. Staffieri ($44,929). These amounts are included in the “Nonqualified Deferred Compensation in 2015” table on page 59 as executive contributions for the last fiscal year.

(3) This column represents the aggregate grant date fair value of restricted stock units and performance units as calculated under ASC Topic 718, without taking into account estimated forfeitures. The grant date fair values of restricted stock units are calculated using the closing price of PPL common stock on the NYSE on the date of grant. The grant date fair values of the performance units reflected in this column are the target payouts based on the probable outcome of the performance condition, determined as of the grant date, and are disclosed in the “Grants of Plan Based Awards During 2015” table on page 48. The maximum potential values as of the grant date of the performance units granted in 2015 assuming the highest level of performance are as follows: Mr. Spence—$6,430,355; Mr. Sorgi—$1,140,852; Mr. Grey—$1,181,592; Mr. Farr— $2,522,287; Mr. Staffieri—$1,799,139; and Mr. Symons—$713,331. For additional information on the assumptions made in the valuation of performance units, refer to Note 10 to the PPL financial statements in the Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as filed with the SEC. Further information regarding the 2015 awards is included in the “Grants of Plan-Based Awards During 2015” and “Outstanding Equity Awards at Fiscal Year-End 2015” tables elsewhere in this proxy statement.

(4) For 2015, amounts represent the incremental fair value under ASC Topic 718 of adjustments to prior year grants made to the NEOs under the anti-dilution provisions of PPL’s equity-based compensation plans as a result of the spinoff of PPL’s Energy Supply segment. No stock options were awarded in 2015. For additional information on the assumptions made in the 46 PPL CORPORATION 2016 Proxy Statement EXECUTIVE COMPENSATION valuation of adjustments to outstanding stock options, refer to Note 10 to the PPL financial statements in the Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as filed with the SEC. A description of the adjustments made in connection with the spinoff is included in the introduction to the “Outstanding Equity Awards at Fiscal Year-End 2015” at page 50.

(5) For 2015, amounts represent cash awards made in January 2016 for performance under the company’s annual cash incentive award program for 2015, which were made under PPL’s Short-term Incentive Plan for all NEOs. These amounts include amounts the NEOs have elected to defer to the PPL Executive Deferred Compensation Plan or, for Mr. Staffieri, to the LG&E and KU Nonqualified Savings Plan. The following NEOs deferred cash awards in the amounts indicated: Mr. Spence ($55,169); Mr. Sorgi ($122,325); and Mr. Staffieri ($53,918). These amounts will be included in the “Nonqualified Deferred Compensation in 2016” table as executive contributions in next year’s proxy statement.

(6) This column represents the sum of the changes in the actuarial present value of accumulated benefit in the PPL Retirement Plan and PPL Supplemental Executive Retirement Plan during 2015 for Messrs. Spence, Sorgi, Grey and Farr, the PPL Subsidiary Retirement Plan for Mr. Farr (as of May 31, 2015), the LG&E and KU Retirement Plan and the LG&E and KU Supplemental Executive Retirement Plan for Mr. Staffieri and the Electricity Supply Pension Scheme in the United Kingdom for Mr. Symons. See the “Pension Benefits in 2015” table beginning on page 56 for additional information. No amounts are shown for 2015 under this column for Mr. Grey as his change in pension value during 2015 was a negative amount. Mr. Grey’s net decrease in pension value for 2015 was ($146,175), composed of a decrease in the value of his accumulated benefit under the PPL SERP of ($203,751), offset by an increase in the value of his accumulated benefit under PPL Retirement Plan of $57,576. No above-market or preferential earnings under the PPL Executive Deferred Compensation Plan are reportable for 2015. As to Mr. Staffieri, no above-market or preferential earnings under the LG&E and KU Nonqualified Savings Plan and LG&E Energy Corp. Nonqualified Savings Plan are reportable for 2015. See the “Nonqualified Deferred Compensation in 2015” table on page 59 for additional information. Mr. Symons does not participate in a deferred compensation plan in the United Kingdom.

(7) The table below reflects the components of this column for 2015, which include the company’s matching contribution for each individual’s planning and tax preparation services, company car, and other personal benefits as noted.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **401(k) Match** | **NQDC Employer Contributions** | **Financial Planning and Tax Preparation** | **Company Car(a)** | **Other** | **Total** |
| W. H. Spence | $7,950 | $30,000 | $11,000 | − | $5,125(b) | $54,075 |
| V. Sorgi | $7,950 | $13.313 | $11,000 | − | $55(c) | $32,318 |
| R. J. Grey | $7,950 | $16,346 | $9,000 | − | $23,631(d) | $56,927 |
| P. A. Farr | $7,950 | $28,588 | − | − | − | $36,538 |
| V. A. Staffieri | $11,130 | $54,500 | $11,000 | − | − | $76,630 |
| R. A. Symons | − | − | − | $17,993 | $2,295(e) | $20,288 |

(a) Car benefits provided to Mr. Symons, including monthly car allowance and reimbursement for fuel. Benefit is capped at £20,000 per year.

(b) Includes $5,000 paid for executive physical and $125 value of a hospitality gift.

(c) Value of a hospitality gift.

(d) Includes $23,576 reimbursed to Mr. Grey for legal fees as set forth in his Retention Agreement described beginning on page 63 and $55 value of a hospitality gift.

(e) Includes $2,240 for cost of private medical insurance plan in the United Kingdom for Mr. Symons, his wife and daughter and $55 value of a hospitality gift.

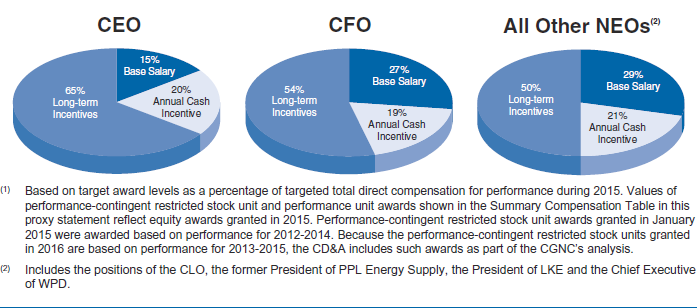
The Summary Compensation Table in the PPL Corporation Proxy Statement filed on April 12, 2016 (2016 Summary Compensation Table), provides the total compensation for the NEOs from 2013 through 2015. The 2016 Summary Compensation Table separates NEO salary, short-term incentives, long-term incentives referred to as stock awards, discontinued stock options, pension, and other compensation to calculate total direct compensation as required by SEC disclosure rules.

The steps taken by the CGNC related to the 2016 Summary Compensation Table are as follows:

* Review executive base salary, short-term incentive compensation, long-term incentive compensation, retirement, and other benefits annually for Section 16 officers
* Review the balanced allocation percentages of base salary and pay “at risk”
* Establish compensation targets for short-term and long-term incentives
* Review annual performance in January to make executive awards
* Review CEO performance and analyze and review executive compensation market data provided by the external executive compensation consultant to ensure compensation philosophy and objectives are met.

From 2011 through 2015, PPL Corporation, PPL SC HR, and the CGNC established aligned executive rewards based on business criteria and funding formulas contained within the proxy statements. For example, the CGNC approved a 2015 compensation allocation percentage of base pay, short-term incentives, and long-term equity as part of total direct compensation based on the market analysis performed by the external independent executive compensation consultant and PPL Corporation and its subsidiaries as shown in the following table.

Exhibit ‑  
Elements of Compensation as a Percentage of  
Targeted Total Direct Compensation – 2015(1)



Source: PPL Corporation Proxy Statement 2016

The table represents the 2015 elements of compensation as a percentage of targeted total direct compensation. PPL Corporation’s philosophy is to allocate the majority of pay “at risk” for NEOs and other Tier I executives to ensure a balanced approach to achieving short and long-term goals. The CEO has 85% of pay “at risk”, the CFO 73% “at risk”, and the other NEOs have 71% of pay “at risk”. The allocation is intended to ensure Tier I and Tier II executives “increase their ownership interest with those of shareholders and encourages retention of high performing executives”. In the PPL Corporation 2015 Proxy Statement, the executive team reported putting in place a business plan the intention of which was the achievement of “compound annual earnings growth of four to six percent through at least 2017.”

PPL NEO Executive Compensation has an impact on PPL EU expenses and utility costs for ratepayers and is allocated to PPL EU as shown in the table below.

Exhibit ‑  
PPL Corporation NEO Allocation to PPL EU

| **Name and Principal Position** | **Year** | **Percent of Base Pay Allocated to PPL EU** |
| --- | --- | --- |
| William H. Spence  Chairman, President and Chief Executive Officer | 2015 | 12% Jan-May, 15% Jun-Dec |
| 2014 | 17% |
| 2013 | 17% |
| 2012 | 19% |
| 2011 | 16% Jan–Apr, 12% May–Dec |
| Vincent Sorgi Senior Vice President and  Chief Financial Officer | 2015 | 28% Jan-May, 52% Jun-Dec |
| 2014 | 27% |
| Robert J. Grey  Executive Vice President and Chief Legal Officer | 2015 | 23% Jan-May, 40% Jun-Dec |
| 2014 | 24% |
| 2013 | 22% |
| 2012 | 22% |
| 2011 | 24% Jan–Apr, 21% May–Dec |
| Paul A. Farr  Former President of PPL Energy Supply, LLC/Former Executive Vice President and  Chief Financial Officer | 2015 | N/A |
| 2014 | 27% |
| 2013 | 27% |
| 2012 | 29% |
| 2011 | 26% Jan–Apr, 21% May–Dec |
| Source: DN 15-152 | | |

The above table represents the percentages of PPL Corporation’s NEO base pay allocated to PPL EU. Additional total direct executive compensation was allocated using the following rates for all individuals, with the exception of Victor A. Staffieri and Robert A. Symons, who have no part of their compensation allocated to PPL EU:

* 2015 - 36% Jan-May, 74% Jun-Dec
* 2014 – 32%
* 2013 – 31%
* 2012 – 34%
* 2011 – 32% Jan-Apr, 31% May-Dec

Considering the percentage of NEO total direct compensation costs allocated to PPL EU, a market analysis reflecting percentage of difference to the energy industry market median for 2015’s base pay, total cash compensation, and total direct compensation is reflected in the three tables below.

Exhibit ‑  
PPL NEO 2015 Base Salary

|  |  |  |
| --- | --- | --- |
| **Name and Position** | **Year** | **Base Salary** |
| William H. Spence, Chairman, President and Chief Executive Officer | 2015 | $1,127,500 |
| Vincent Sorgi, Senior Vice President and Chief Financial Officer | 2015 | $498,462 |
| Robert J. Grey, Executive Vice President and Chief Legal Officer | 2015 | $579,539 |
| Paul A. Farr, Former President of PPL Energy Supply, LLC(¹) | 2015 | $341,192 |
| Victor A. Staffieri, Chairman of the Board, Chief Executive Officer and President – LG&E and KU Energy LLC | 2015 | $811,220 |
| Robert A. Symons  Chief Executive – WPD Midlands (²) | 2015 | $836,038 |
| (¹) Effective June 1, 2015, concurrent with the spinoff of PPL's Energy Supply segment, Mr. Farr resigned from PPL.  (²) Mr. Symons is based in the United Kingdom and is compensated in Pounds Sterling. His 2015 cash compensation has been converted to U.S. dollars at an exchange rate of $1.5283, which is the average monthly translation rate for 2015. | | |
| Source: DN 15-146; PPL Corporation Proxy Statement 2016 | | |

The Chairman of the Board, Chief Executive Officer, and President of LG&E and KU Energy LLC and the Chief Executive of WPD Midlands base salaries are not allocated to PPL EU.

Exhibit ‑  
PPL NEO 2015 Total Cash Compensation

| **Name and Position** | **Year** | **Base Salary** | **Short Term Incentive (3)** | **Total Cash Compensation (TCC)** | |
| --- | --- | --- | --- | --- | --- |
| William H. Spence, Chairman, President and Chief Executive Officer | 2015 | $1,127,500 | $1,838,953 | $2,966,453 | |
| Vincent Sorgi, Senior Vice President and Chief Financial Officer | 2015 | $498,462 | $407,750 | $906,212 | |
| Robert J. Grey, Executive Vice President and Chief Legal Officer | 2015 | $579,539 | $506,775 | $1,086,314 | |
| Paul A. Farr, Former President of PPL Energy Supply, LLC(¹) | 2015 | $341,192 | $322,481 | $663,673 | |
| Victor A. Staffieri, Chairman of the Board, Chief Executive Officer and President – LG&E and KU Energy LLC | 2015 | $811,220 | $898,629 | $1,709,849 | |
| Robert A. Symons  Chief Executive – WPD Midlands (²) | 2015 | $836,038 | $690,156 | $1,526,194 | |
| (¹) Effective June 1, 2015, concurrent with the spinoff of PPL's Energy Supply segment, Mr. Farr resigned from PPL.  (²) Mr. Symons is based in the United Kingdom and is compensated in Pounds Sterling. His 2015 cash compensation has been converted to U.S. dollars at an exchange rate of $1.5283, which is the average monthly translation rate for 2015, except with respect to the short-term incentive amount, which was converted to U.S. dollars at an exchange rate of $1.4376, which is the translation rate for February 2, 2016, the date the cash incentive award was paid to Mr. Symons.  (³) For 2015, amounts represent cash awards made in January 2016 for performance under the company’s annual cash incentive award program for 2015, which were made under PPL’s Short-term Incentive Plan for all NEOs. These amounts include amounts the NEOs have elected to defer to the PPL Executive Deferred Compensation Plan or, for Mr. Staffieri, to the LG&E and KU Nonqualified Savings Plan. The following NEOs deferred cash awards in the amounts indicated: Mr. Spence ($55,169); Mr. Sorgi ($122,325); and Mr. Staffieri ($53,918). These amounts will be included in the “Nonqualified Deferred Compensation in 2016” table as executive contributions in the 2017 proxy statement. | | | | |
| Source: DN 15-146; PPL Corporation Proxy Statement 2016 | | | | |

The total cash compensation represented in the table above includes short-term incentive pay which is considered pay “at risk” and therefore must be earned based upon pre-established targets established annually by the CGNC. The established targets are based on the Strategic Goal Framework and align with PPL Corporation’s goals and values. The purpose of the short-term incentive program is to “advance the interests of PPL Corporation and its shareholders by providing periodic cash awards to motivate executives to attain corporate goals articulated under the annual cash incentive program.”

Exhibit ‑  
PPL NEO 2015 Total Direct Compensation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name and Position** | **Year** | **Base Salary** | **Short Term Incentive(³)** | **Long Term Incentive(⁴)** | **Total Direct Compen-sation (TDC)** |
| William H. Spence, Chairman, President and Chief Executive Officer | 2015 | $1,127,500 | $1,838,953 | $6,964,662 | $9,931,115 |
| Vincent Sorgi, Senior Vice President and Chief Financial Officer | 2015 | $498,462 | $407,750 | $1,065,556 | $1,971,768 |
| Robert J. Grey, Executive Vice President, General Counsel, and Secretary | 2015 | $579,539 | $506,775 | $1,381,992 | $2,468,306 |
| Paul A. Farr, Former Executive Vice President and Chief Financial Officer(¹) | 2015 | $341,192 | $322,481 | $2,941,602 | $3,605,275 |
| Victor A. Staffieri, Chairman of the Board, Chief Executive Officer and President – LG&E and KU Energy LLC | 2015 | $811,220 | $898,629 | $1,785,084 | $3,494,933 |
| Robert A. Symons  Chief Executive Officer – WPD Midlands(²) | 2015 | $836,038 | $690,156 | $698,488 | $2,224,682 |
| (¹) Effective June 1, 2015, concurrent with the spinoff of PPL's Energy Supply segment, Mr. Farr resigned from PPL.  (²) Mr. Symons is based in the United Kingdom and is compensated in Pounds Sterling. His 2015 cash compensation has been converted to U.S. dollars at an exchange rate of $1.5283, which is the average monthly translation rate for 2015, except with respect to the short-term incentive amount, which was converted to U.S. dollars at an exchange rate of $1.4376, which is the translation rate for February 2, 2016, the date the cash incentive award was paid to Mr. Symons.  (³) For 2015, amounts represent cash awards made in January 2016 for performance under the company’s annual cash incentive award program for 2015, which were made under PPL’s Short-term Incentive Plan for all NEOs. These amounts include amounts the NEOs have elected to defer to the PPL Executive Deferred Compensation Plan or, for Mr. Staffieri, to the LG&E and KU Nonqualified Savings Plan. The following NEOs deferred cash awards in the amounts indicated: Mr. Spence ($55,169); Mr. Sorgi ($122,325); and Mr. Staffieri ($53,918). These amounts will be included in the “Nonqualified Deferred Compensation in 2016” table as executive contributions in the 2017 proxy statement.  (⁴) This column includes the aggregate grant date fair value of restricted stock units and performance units as calculated under ASC Topic 718, without taking into account estimated forfeitures. The grant date fair values of restricted stock units are calculated using the closing price of PPL common stock on the NYSE on the date of grant. The grant date fair values of the performance units reflected in this column are the target payouts based on the probable outcome of the performance condition, determined as of the grant date, and are disclosed in the “Grants of Plan-Based Awards During 2015” table on page 48 of the 2016 Proxy Statement. The maximum potential values as of the grant date of the performance units granted in 2015 assuming the highest level of performance are as follows: Mr. Spence—$6,430,355; Mr. Sorgi—$1,140,852; Mr. Grey—$1,181,592; Mr. Farr—$2,522,287; Mr. Staffieri—$1,799,139; and Mr. Symons—$713,331. This column also includes, for stock options, amounts representing the incremental fair value under ASC Topic 718 of adjustments to prior year grants made to the NEOs under the anti-dilution provisions of PPL’s equity-based compensation plans as a result of the spinoff of PPL’s Energy Supply segment. No stock options were awarded in 2015. For additional information on the assumptions made in the valuation of performance units, as well as in the valuation of adjustments to outstanding stock options, refer to Note 10 to the PPL financial statements in the Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as filed with the SEC. Further information regarding the 2015 awards is included in the “Grants of Plan-Based Awards During 2015” and “Outstanding Equity Awards at Fiscal Year-End 2015” tables elsewhere in the 2016 Proxy Statement. A description of the adjustments made in connection with the spinoff is included in the introduction to the “Outstanding Equity Awards at Fiscal Year-End 2015” at page 50 of the 2016 Proxy Statement. | | | | | |
| Source: DN 15-146; PPL Corporation Proxy Statement 2016 | | | | | |

Adding base salary, short-term incentives, and long-term equity reflects PPL Corporation’s NEOs’ total direct compensation. The PPL compensation framework places a heavy emphasis on at-risk performance-based pay through the use of annual and long-term performance-based compensation elements. In 2015, 85% of the CEO’s target compensation opportunity was “at-risk performance-based” pay. For the CFO, this percentage was 73%, and the average for the other NEOs was 71%.” PPL Corporation’s executive compensation objectives are to support high performance, industry leadership, and long-term shareholder value in the energy and utility industry.

Equally important is the reasonableness and market competitiveness of the top four PPL EU executives in relationship to utility costs for ratepayers. The table below provides the 2015 base salaries for PPL EU’s top four executives.

Exhibit ‑  
PPL EU 2015 Base Salary

| **Name and Position** | **Year** | **Base Salary** |
| --- | --- | --- |
| Greg Dudkin, President | 2015 | $488,755 |
| David Bonenberger, VP-Distribution Operations | 2015 | $236,391 |
| Stephanie Raymond,  VP –Transmission and Substations ¹ | 2015 | $227,900 |
| Christopher Cardenas, Customer Services VP ² | 2015 | $223,300 |
| ¹Hired February 7, 2011  ²Hired October 6, 2014 | | |
| Source: DN 15-139; 15-150; 15-151 | | |

Based on a 2015 energy industry market study for PPL EU executives, at the end of 2015, all four executives’ base salaries were market competitive at plus or minus 15% of the market median.

The total cash compensation to the PPL EU officers includes short-term incentive pay which is considered pay “at risk” and therefore must be earned based upon pre-established targets established annually by the CGNC. Aligned goals and targets are established by the President of PPL EU each year. The established targets of PPL EU are based on the Strategic Goal Framework and align with PPL Corporation’s goals and values. The purpose of the short-term incentive program is to “advance the interests of PPL Corporation, its subsidiaries, and shareowners by providing periodic cash awards to motivate executives to attain corporate goals articulated under the annual cash incentive program”. The President and VP-Distribution Operations are market competitive while the VP-Transmission and Substations and Customer Services VP are below the market median. The Customer Services VP was a new hire in October 2014.

Adding base salary, short-term incentives, and long-term equity reflects PPL EU’s top four executives’ total direct compensation. The President, VP–Distribution Operations and VP-Transmission and Substations are competitive with the market. However, the Customer Services VP is below the total direct compensation market median.

PPL Corporation’s executive compensation philosophy is to also allocate the majority of pay “at risk” for business line executives to ensure a balanced approach to achieving short and long-term goals. The top four PPL EU executives’ compensation reflects a high percentage of “at risk” short-term cash incentives consistent with PPL Corporation’s executive compensation philosophy. The short-term cash incentive payout maximum for PPL EU executives is set at 200% of base salary and “70% of 2015 corporate goal for cash incentive purposes will be based on earnings per share from ongoing operations (EPS) and 30% based on earnings from ongoing operations before interest and taxes (EBIT).”

In 2015, the top four PPL EU executives were awarded stock based on the 2014 target percentage and base salary for both performance-contingent restricted stock units (RSU) and performance units (PU).

Review of Market Analysis

Compensation for Tier I and Tier II Executives is governed by the 2015 Executive Compensation Policy. PPL SC HR regularly surveys the market to ensure achievement of its goal to provide market competitive total compensation for all levels of employees. Market data for executives at PPL Corporation, PPL EU, and all subsidiaries is provided by the external compensation consultants, one which is retained by the CGNC for Section 16 officers and another is retained by PPL SC HR for other officers. PPL Corporation utilizes the market median, or 50th percentile, as the measure of central tendency in comparison to industry peers for all Tier I and Tier II PPL Corporation executives’ base salaries, and short and long-term incentives.

PPL Corporation’s executive cash and equity compensation programs are reflective of the pay for performance culture. The compensation philosophy and objectives intend to attract, retain, and motivate high performing executives and to align compensation with short- and long-term shareholder interests. The CGNC believes PPL Corporation has been successful in attracting a very talented and experienced executive team that has produced excellent financial and operating results and has undertaken bold strategic initiatives to increase value for shareholders.” Since 2010, PPL Corporation has successfully completed strategic acquisitions of LKE, and the East Midlands and West Midlands operations at WPD Midlands to diversify their portfolio and increase the financial vitality and long-term sustainability of PPL Corporation. In 2014, PPL Corporation decided to spin off its PPL Energy Supply, LLC business line in order to unlock the value of the energy supply business and, since the spinoff, has undertaken a significant corporate restructuring to reduce service organization costs in the remaining PPL Corporation.

PPL’s Managerial Compensation Guide, the annual compensation review guidelines, and the Executive Compensation Policy are the processes followed for executive compensation planning. PPL SC’s SVP/CHRO and executive compensation staff use the Managerial Compensation Guide to ensure fair, equitable, and consistent processes are followed for compensation planning and compensation management in accordance with PPL Corporation’s Goal Framework. PPL SC’s SVP/CHRO is the management liaison to the CGNC and external executive compensation consultant regarding matters of PPL Corporation’s compensation competitiveness.

The Managerial Compensation Guide and the Executive Compensation Policy demonstrate how the compensation program aligns with the pay for performance process utilizing EMPACS to cascade Corporate goals from the Board of Directors to the CEO and from the CEO to the remainder of PPL Corporation, including PPL EU, to be considered by the CGNC for base salary, incentive compensation, and other remuneration in January of each year. This process aligns not only to executive compensation but for the entire non-bargaining, non-executive, salaried PPL employees.

## FINDINGS

1. Tier I and Tier II executives are not identified clearly in PPL Corporation’s Executive Compensation Policy.

Organizations should annually review compensation policies to ensure they are clearly written, understood by employees, and mitigate employment practice risk. PPL Corporation’s executive compensation policy contains a stated compensation philosophy and objectives and describes the three direct components of total direct compensation including base salary, short-term cash incentive, and long-term equity. The policy, however, does not clearly define the difference between Tier I and Tier II executives with specific guidelines to fully understand the executive compensation process undertaken by PPL Corporation for Tier I and Tier II executives. Likewise, the short-term cash incentive is not clearly defined in the Executive Compensation Policy. For example, in the calculation explanation provided for the VP–Distribution Operations, a weighting on individual performance and goal attainment percentage related to individual performance is not explained in the Executive Compensation Policy.

1. The Compensation and Benefits department is conducting cross-training for every role within the department.

The Compensation and Benefits department is conducting cross-training for every role within the department to improve efficiency and effectiveness of the department’s functionality and quality of service. Upon completion of the cross-training, it is expected that every employee will be able to function as a compensation and benefits analyst regardless of current titles.

Cross-training within and between departments is a best practice and is foundational to operating more effectively and efficiently. The Compensation and Benefits department’s current cross-training model is a positive step towards improving productivity and service quality.

1. The CGNC strictly adheres to pre-established practices, procedures, and policies to assure regulatory and legal compliance.

Executive compensation plans continue to receive heightened public scrutiny and remain an item of key interest to government officials, the general public, the media, employees, ratepayers, and politicians. Since the passage of the Sarbanes-Oxley Act in 2002, partly in response to corporate corruption related to fraudulent executive pay practices, corporations have been required to adhere to increasing legislative and regulatory requirements including greater shareholder activism.

PPL Corporation adheres to related executive compensation requirements as evidenced in its 2011–2016 Proxy Statements. The evidence in the PPL Corporation Proxy Statements included annual shareholder approval of NEO compensation, required proxy tables, appointment of an independent external executive compensation consultant, CGNC committee member independence, written CGNC charter, and NEO compensation in relation to financial performance. Change in control severance agreements were identified and thoroughly explained.

1. All executive performance reviews are not completed.

The number of executives participating in the EMPACS system and the number of executives that fully completed the EMPACS process are shown in the following table. In 2015, two executives did not complete the EMPACS process.

Exhibit ‑  
Number of PPL Corporation Executives Participating in EMPACS  
and Completion Rates According to EMPACS Guidelines

| **Executive** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- |
| Total Participants | 20 | 44 | 39 | 18 |
| Completed | 19 | 32 | 30 | 16 |
| Percent Completed | 95% | 73% | 77% | 89% |
| Source: DN 15-124b | | | | |

1. The PPL Corporation compensation and performance management programs are well integrated.

The performance management and PPL Corporation’s Executive Compensation Programs are linked to business goals through the Corporate Strategic Framework, which is aligned with EMPACS. The Managerial Compensation Guide also supports and is linked to the Corporate Strategic Framework.

PPL SC HR’s Compensation Department performs executive compensation services under the direction of PPL’s Corporate BOD and the CGNC of PPL Corporation. PPL’s Corporate Strategic Framework is utilized to ensure a consistent compensation process is followed that maximizes executive performance and accomplishes the goals of increasing shareholder value, achieving operational excellence, and optimizing workforce readiness and engagement.

Additionally, PPL Corporation’s values are included in the goal setting process and are part of the EMPACS system. Every year the BOD sets goals for and evaluates the CEO’s performance based on the achievement of corporate goals, and compensates the CEO accordingly. Likewise, the CEO completes performance reviews for all direct reporting executives. The performance planning process is linked to the CGNC’s recommendations for base pay increases, with business related criteria objectively defined and formulas included for awarding short and long-term incentives as identified in the PPL Corporation annual Proxy Statements. The Corporate Strategic Framework, as aligned with EMPACS, deters PPL Corporation’s executives from purely focusing on short-term financial gains at the expense of other core values and objectives tied to long-term sustainability and growth.

It is clear from reviewing the EMPACS tools provided during the audit that the individual employee goals are well aligned with PPL’s Corporate Strategic Framework which is supported by the Managerial Compensation Guidebook.

1. PPL Corporation NEOs and PPL EU’s top four executives have the majority of compensation “at risk”.

Executive compensation that rewards a large percentage of compensation in short-term cash incentives and larger proportions of compensation as long-term equity is a growing best practice. The large percentage of short-term cash incentives helps ensure executives strive to achieve current organizational performance and step goals, which drive current shareholder value and act as prerequisites to the achievement of long-term goals. The large allocation of long-term incentives or equity helps to ensure that executives are increasing their level of ownership based on the same interests as their shareowners. Tier I and Tier II executives maintain a balanced approach in the attainment of short and long-term goals focusing on the long term growth and sustainability of PPL Corporation and PPL EU.

1. Base salaries for PPL EU’s top four executives are market competitive.

The base salaries for the PPL EU President, VP – Distribution Operations, VP –Transmission and Substations, and Customer Service VP are market competitive. And although total direct compensation for these executives lags the market somewhat in certain cases, the PPL Corporation short-term incentives and long-term incentives programs offer considerable total compensation opportunity for them, consistent with performance.

1. The current pension plan is comparable with similar utilities.

PPL Corporation closed the defined benefit plan to new hires for non-unionized workers in 2012 and to new hires for unionized members in 2014. According to the pension analysis by PPL’s outside consultant, PPL Corporation is following best practice trends in pension plan offerings in the utility industry.

The percentage of workers covered by a traditional defined benefit pension plan that pays a lifetime annuity, often based on years of service and final salary, has been steadily declining over the past 30 years due to employers bearing the risks of higher costs/funding requirements related to stock market volatility.

For workers who are ineligible for the defined benefit pension plan, PPL Corporation offers a defined contribution 401(k) pension plan, consistent with industry peers and trends across industries.

## RECOMMENDATIONS

1. Update the PPL Corporation’s Executive Compensation Policy to include accurate definitions of 16 Officers and Tier I and Tier II executives. (See Finding 1)

The Executive Compensation Policy should clearly and accurately define Tier I and Tier II executives. Specific guidelines to fully understand the executive compensation process undertaken by PPL Corporation for Tier I and Tier II executives should be included. Likewise, a clearer definition should be provided with examples for short-term and long-term executive incentive calculations. The new definitions should include examples of short-term incentive linkages to individual performance weighting and individual goal attainment percentages.

1. The BOD and CGNC should ensure all executives actively participate in the EMPACS process and timely complete the annual EMPACS individual performance review. (See Finding 4)

Participation in EMPACS by all executives and completion of performance reviews by all participating executives will assure more effective administration of the executive performance and compensation program.

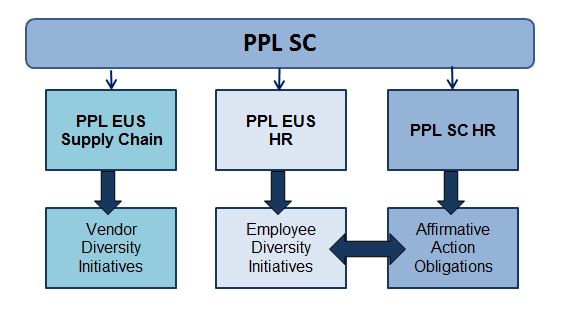
# Diversity and Equal Employment Opportunity

PPL Electric Utilities Corporation (PPL EU) is encouraged by Pennsylvania Public Utility Commission (PUC) Regulations at 52 Pa. Code §69.809 to report on vendor and employee diversity programs. It is also required to comply with federal affirmative action program specifications.

organizational responsibilities

PPL Services Corporation (PPL SC) establishes diversity initiatives that are then implemented in the business line. A combination of PPL Electric Utility Services Corporation (PPL EUS) Supply Chain, PPL EUS Human Resources (HR), and PPL Services Corporation (PPL SC) Human Resources staff carry out responsibilities to ensure compliance with the vendor diversity, employee diversity, and affirmative action requirements. Specific responsibilities for vendor diversity, employee diversity, and affirmative action obligations are depicted below:

Exhibit ‑  
Distribution of Responsibility for Vendor Diversity, Employee Diversity, and Affirmative Action Obligations for PPL EU



Sources: IN C-4; IN C-8; IN C-17; IN C-18; IN C-24

As seen above, within PPL EU, responsibility for compliance with vendor diversity requirements rests with PPL EUS Supply Chain while employee diversity is the responsibility of PPL EUS HR and responsibility for Affirmative Action requirements rests with PPL SC HR. Employee diversity initiatives and affirmative action obligations are intertwined as hiring goals established within the affirmative action plan are shared with the PPL EUS HR diversity team. The organizational charts that follow in the sections below reflect the groups that implement diversity initiatives for PPL EU.

This chapter addresses Diversity and Equal Employment Opportunity (EEO) requirements in separate sections as follow:

A. Vendor Diversity

B. Employee Diversity

C. Affirmative Action

Background information, findings, and recommendations are included in each section.

## Vendor diversity

Background

The PUC encourages major jurisdictional utility companies operating in the Commonwealth, such as PPL EU, to incorporate diversity in their business strategies in connection with the procurement of goods and services. Jurisdictional utilities are encouraged to articulate a policy, establish a diversity program, appoint managers to be responsible for the success of the program, provide training on diversity, and locate qualified vendors. In addition, the utility is encouraged to file an annual report with the PUC describing diversity program activity for the prior year. Specifically, the utility is to focus on providing businesses owned by minorities, women, and persons with disabilities an equal opportunity to compete for the purchase of equipment, supplies, services, fuels, materials, construction, and professional services.

The following definitions of vendors are utilized at PPL in its Vendor Diversity Program.

*Small Disadvantaged Business*

*A small disadvantaged business is a small business that is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock is owned by one or more socially and economically disadvantaged individuals. The U.S. Small Business Administration established that the net worth of an individual claiming economic disadvantage must be less than $750,000.*

*Socially disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and other minorities or individuals found to be disadvantaged by the Small Business Administration pursuant to Section 8(a) of the Small Business Act. The term "Native Americans" includes American Indians, American Eskimos, American Aleuts, and Native Hawaiians. The term "Asian-Pacific Americans" includes United States citizens whose origins are from Japan, China, the Philippines, Viet Nam, Korea, Samoa, Guam, the US Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan. The term "Subcontinent Asian Americans" includes US citizens whose origins are from India, Pakistan, and Bangladesh.*

*HUBZone Certified Small Business*

*A HUBZone certified small business is one that resides in an area designated as a historically underutilized business zone and meets U.S. Small Business administration criteria, including being owned or controlled by one or more U.S. citizens and at least 35% of its employees must reside in a HUBZone.*

*Service Disabled Veteran Owned Small Business*

*A service disabled veteran owned small business (SDVOSB) is a business owned by a veteran with a disability that was incurred, or was aggravated, in the line of active military duty. To qualify the business must meet the following criteria: (1) One or more service-disabled veterans must own at least 51% of the business. If publicly owned, one or more service-disabled veterans must own at least 51% of the stock. (2) One or more service-disabled veterans must control management and daily business operations. In the case of a veteran with a permanent and severe disability, the management and daily business operations are controlled by a spouse or permanent caregiver. (3) The business must meet the size standards as prescribed in government regulations.*

*Woman Owned Small Business*

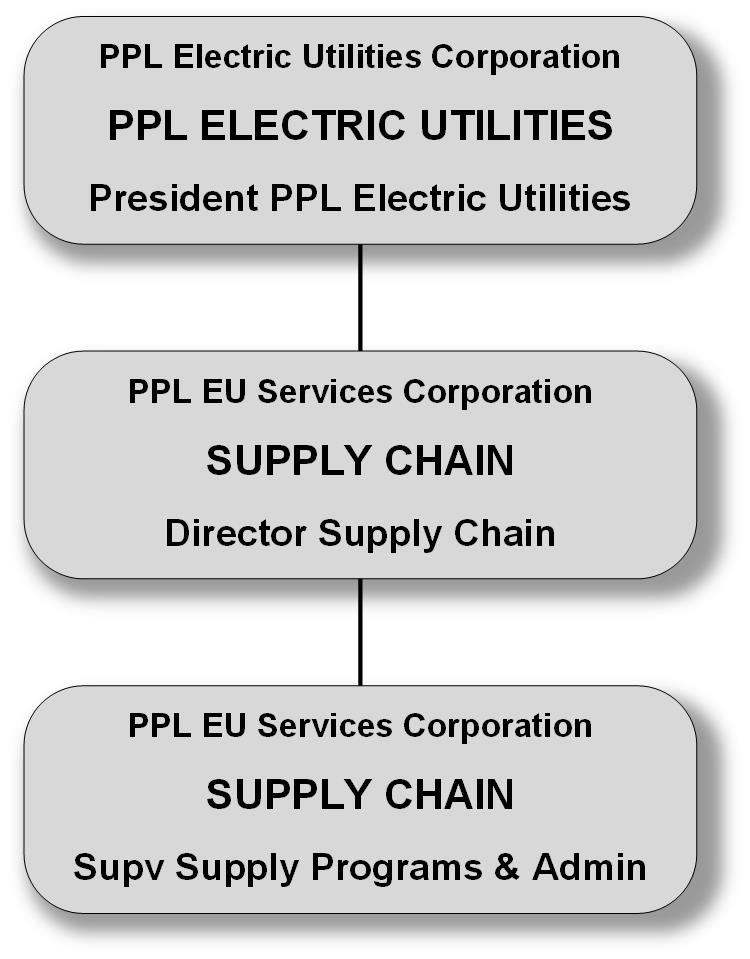
*A women owned small business is a small business concern which is at least 51% owned by one or more women, or, in the case of any publicly owned business, at least 51% of the stock of which is owned by one or more women; and the management and daily business operations are controlled by one or more women.*

*Minority Owned Business*

*A minority owned business is one that is at least 51% owned, controlled, and actively managed by a minority as defined by the U.S. Small Business Association.*

The PPL EUS Supply Chain organizational unit responsible for the PPL EU Vendor Diversity Program is shown below.

Exhibit ‑  
PPL EUS Supply Chain - Vendor Diversity Responsibility



Source: DN 01-071

The PPL EUS Supervisor of Supply Programs and Administration is charged with planning and implementing the PPL EU Vendor Diversity Program. The PPL EU Vendor Diversity Program consists of the following elements: Prime Contractor Vendor Diversity Programs; Small Business Identification; Minority, Women, and Persons with Disability Owned Businesses Outreach; Tracking Diverse Vendors and Contracts Awarded; and Diverse Spending and Goals. Each of these elements is examined in more detail below.

Prime Contractor Vendor Diversity Programs

The Supervisor of Supply Programs and Administration (Supply Programs) is responsible for receiving and reviewing the vendor diversity programs of its prime contractors who have been awarded subcontracts that offer further subcontracting opportunities (Tier II spend) and who are required by PPL terms and conditions to support the diversity supply community. Additionally, the Supply Programs Supervisor is responsible for submitting a formal subcontracting plan under the flow down provisions set forth in FAR 52.219-9(d)(d9). Beginning in 2015, the Supply Programs Supervisor implemented a specific effort to capture and report Tier II diversity supplier spend. The PPL EU Supplier Diversity Program operates in accordance with PPL EU’s subcontracting plan submitted to the U.S. General Services Administration (GSA) to provide electric service to the Federal government and the PUC‘s Utility Annual Vendor Diversity Reporting requirement. Both the GSA and the PUC require companies, such as PPL EU, to develop programs to increase participation of diverse suppliers.

Small Business Identification

PPL EU has implemented and updated a Supplier Diversity policy which establishes guidelines that encourage and sustain opportunities for small businesses seeking participation in PPL EU’s sourcing process. PPL EUS Supply Chain notifies suppliers and subcontractors that have been awarded a contract or order in excess of $650,000 of their obligation to submit and implement a small business subcontracting plan to ensure utilization of small businesses in all subcontract opportunities. PPL EUS Supply Chain also creates and maintains documentation of bid solicitation and award for purchases valued at $100,000 or greater to track how many diverse vendors were solicited, the reason they were not solicited and the reason they were not selected.

Minority, Women, and Disability Owned Businesses Outreach

PPL EUS Supply Chain attempts to locate qualified minority, women, and disability-owned businesses by attending various local and national diversity supplier conferences and match-making events; examples of recently attended events are as follows:

* North Eastern Pennsylvania Alliance (NEPA)
* Mid-Atlantic Alliance
* Eastern Minority Supplier Development Council
* Lehigh Valley – Meet the Buyers Event
* Edison Electric Institute – Supplier Diversity Event

PPL EUS Supply Chain informs potential vendors of the equal opportunity to bid through the corporate website main page where a Supply Chain overview document can be obtained. To increase internal awareness of the vendor diversity program and to encourage all employees to help support the vendor diversity program, , PPL EUS Supply Chain provides training to employees on the vendor diversity program and the Chief Executive Officer has communicated via letter to all employees encouraging their support of the vendor diversity program.

Tracking Diverse Vendors and Contracts Awarded

PPL EUS Supply Chain utilizes a database to track diverse vendors. PPL EUS Supply Chain did not have the ability to track vendors under multiple diversity categories nor to maintain how a supplier’s diversity categorization has changed with time. PPL can only provide a supplier’s current diversity status and suppliers with more than one categorization (e.g., HUB Zone and woman-owned) cannot be tracked under two separate categories but must be categorized using a single hybrid category. PPL does not have the ability to separate diverse vendors between PPL SC and PPL EU but can measure the portion of diversity spend supplied to each business line. Therefore, the data that was reviewed for 2015 reflects vendors for both PPL SC and PPL EU as shown in the table below:

Exhibit ‑  
PPL SC and PPL EU Active Diverse Vendors 2015

| **Vendor Type Description** | **Number of Vendors** |
| --- | --- |
| American-Indian Owned | 5 |
| Disabled Veteran Hubzone Business | 0 |
| Disabled Veteran Owned | 26 |
| Small Disadvantaged Women Owned Business | 21 |
| Foreign Owned | 77 |
| Government | 19 |
| Hubzone Business | 28 |
| Large Business | 3,043 |
| Large Business - Minority Owned | 5 |
| Large Business-Women Owned | 3 |
| Minority Owned | 64 |
| Large Woman-Minority Business | 0 |
| Not For Profit Business | 109 |
| Small Business | 4,281 |
| Small Disadvantaged Business | 24 |
| Small Business - Minority Owned | 42 |
| Small Physically-Disabled | 3 |
| Small Business Women Owned | 160 |
| Veteran Owned - Small Business | 193 |
| Veteran - Small Disadvantaged | 29 |
| Veteran - Women Owned Business | 11 |
| Women Owned | 321 |
| Not Defined | 1,936 |
| **TOTAL:** | **10,400** |
| Source: DN 17-148 | |

Because data is not available prior to April 2015, it is not possible to determine if PPL EUS Supply Chain’s long-term vendor outreach efforts are effective in identifying more diverse vendors by vendor type.

findings

1. PPL EU’s vendor diversity program includes encouraged state and required federal program elements.

The PPL EU vendor diversity program, administered through the PPL EUS Supply Chain organization, includes policies, responsible managers, outreach efforts to locate qualified diverse vendors, goal setting, training of internal staff, and reporting to the PUC and the federal government. The program includes relevant policies and training for those responsible for the program. PPL EUS Supply Chain also undertakes outrea*c*h efforts to locate qualified diverse vendors as evidenced by the match making and diversity supplier events that have been attended as well as communication efforts, most notable of which is the PPL Corporation website.

1. The vendor diversity expenditures report contains errors and does not document persons with disability owned business expenditures.

PPL EUS Supply Chain establishes goals for expenditures with diverse vendors, as a percentage of total expenditures, (expenditures are commonly called “spend”) and tracks it’s spend with diverse vendors. PPL EUS Supply Chain submits diversity spend reports to the PUC and the federal GSA.

Annually, in March, PPL EUS Supply Chain submits a report to the PUC, as required, outlining its spend with diverse vendors. The table below summarizes this spend from 2010 to 2015:

Exhibit ‑  
PPL EU Utility Sourcing Diversity Report 2010–2015

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Actual Diverse Dollar Spend** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| Total Spend | $357,073,018 | $505,693,189 | $572,316,733 | $868,704,419 | $793,008,999 | $922,641,582 |
| Woman Owned | $11,420,506 | $19,359,795 | $14,302,798 | $15,715,101 | $15,407,678 | $10,150,148 |
| Minority Owned | $806,557 | $1,313,723 | $7,002,845 | $114,774,086 | $18,395,724 | $4,551,260 |
| MWBE | $74,238,180 | $113,578,815 | $112,247,334 | $130,907,841 | $18,395,724 | $4,551,260 |
| Sources: DN 17-121a; DN 17-140; DN 17-142 | | | | | | |

It appears there are errors in the diverse spend reported between 2010 and 2014 possibly due to the manner in which vendors are categorized. For example, in 2010, 2011, and 2012 only small minority owned businesses were counted in the category of Minority Owned yet in 2013 and 2014, both small and large minority owned businesses were counted in this category. In addition, the spend reported for Minority Women Business Enterprises (MWBE) in 2014 and 2015 was duplicated for the Minority Owned spend. Errors identified could not be sufficiently explained or corrected by the PPL EUS Supply Chain point of contact.

Additionally, while PPL EUS Supply Chain reports on diversity spend with respect to women owned and minority owned vendors, the data submitted did not reflect data on the diversity spend for disability owned vendors.

52 Pennsylvania Code §69.801 through §69.809 outline diversity requirements for major jurisdictional utilities, specifically, Code §69.809 outlines utilities’ annual PUC diversity filing requirements. These filing requirements were further defined by the PUC’s Affirmative Action Officer during March of 1997. The diversity filing guidelines require public utilities to track and report on diversity spend with respect to women, minorities, and individuals with disabilities owned businesses, while permitting utilities to break these specific categories down further. In instances where a vendor is a member of more than one protected group the hierarchy should be reported as follows: minority, female, and person with disability.

It should be noted that similar findings were reported by the Pennsylvania PUC during its 2009 Focused Management and Operations Audit of PPL Electric Utilities Corporation at docket number D-2009-2102172. It appears that little progress has been made in implementing corrective action plans to address the 2009 PUC Report findings.

1. PPL EUS Supply Chain has not established specific spend goals for Minority, Women, and Disadvantaged Business Enterprises including Minority Owned and Persons with Disability Owned businesses and has not met its diversity spend goal for Women Owned businesses from 2012 through 2015.

PPL EUS Supply Chain establishes goals for expenditures with diverse vendors as a percentage of total expenditures. For 2016, PPL EUS Supply Chain established a goal of increasing year-over-year (YOY) diversity spending by 3%. PPL EUS Supply Chain moved to a YOY spending increase goal from a percent of total spend goal as PPL EUS Supply Chain believes it to be a more realistic and meaningful goal. PPL EUS Supply tracks it’s “spend” with diverse vendors. PPL EUS Supply Chain submits diversity spend reports to the PUC and the federal General Services Administration.

PPL EUS Supply Chain establishes a goal annually for the percentage of total spend to place with Women Owned businesses. The table below shows the established diversity spend goal as well as the categorical diversity spend as a percentage of total spend over the last six years.

Exhibit ‑  
PPL EU Actual Vendor Diversity Spend versus Established Diversity Spend Goals 2010–2015

| **Diverse Spend as a Percentage of Actual Total Spend** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **Compound Growth** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Percent Woman Owned | 3.20% | 3.83% | 2.50% | 1.81% | 1.94% | 1.10% | -19.23% |
| Percent Minority Owned\* | 0.23% | 0.26% | 1.22% | NA | 2.32% | .49% | 16.33% |
| Percent MWBE | 20.79% | 22.46% | 19.61% | 15.07% | 2.32% | .49% | -52.74% |
| **Established Goal Diverse Percent Spend** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |  |
| Percent Woman | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |  |
| Percent Minority Owned | NA | NA | NA | NA | NA | N/A |  |
| Percent MWBE | NA | NA | NA | NA | NA | N/A |  |
| \*The accuracy of the Minority Owned data reported has been called into question due to data errors described in Finding 2.  NA indicates that no goal was set. | | | | | | | |
| Sources: DN 17-121a; DN 17-140; DN 17-142 | | | | | | | |

PPL EU’s actual spend for Woman Owned business has declined below diversity spend goals since 2012 and goals were not established for MWDBE including Minority Owned and Disability Owned businesses.

The root cause of the apparent lack of vendor diversity spend improvement appears to be the level of effectiveness of PPL EUS Supply Chain’s outreach efforts as well as the way in which vendors are classified and counted, however, it should be noted that spend amounts as a percentage can be impacted by many factors including significant increases in capital spending which may be in categories historically underrepresented by diverse vendors in the marketplace. A more in depth analysis is required to determine the root cause.

1. The number of identified diverse vendors as a percentage of total vendors is low.

The table below shows the breakdown of diverse vendors as a percentage of total vendors for 2015.

Exhibit ‑  
PPL SC and PPL EU Diverse Vendors  
as a Percent of Total Vendors in 2015

|  |  |  |  |
| --- | --- | --- | --- |
| **Woman Owned** | **Minority Owned** | **Person with  Disability Owned** | **MWDBE**  **Total** |
| 5.0% | 1.1% | 0.3% | 6.4% |
| Source: DN 17-148 | | | |

Based on this data, PPL EUS Supply Chain has identified few vendors in the Minority Owned and Persons with Disability Owned categories.

1. The number of contracts awarded to Minority-owned and Women-owned vendors has trended positively since 2010. Overall, the number of total contracts awarded to diverse vendors has declined since 2010.

PPL EUS Supply Chain tracks the number of contracts awarded to diverse vendors. The table below shows these numbers over the last five years.

Exhibit ‑  
Count of PPL EU Diverse Vendor Contracts Awarded 2010–2015

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contract Categories** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **Compound Growth** |
| Minority Owned | 7 | 7 | 35 | 189 | 20 | 13 | 13.18% |
| Woman Owned | 25 | 24 | 37 | 34 | 20 | 46 | 12.97% |
| Persons with Disability | 1 | 1 | 0 | 0 | 1 | 1 | 0.0% |
| Other Diverse**\*** | 260 | 188 | 285 | 302 | 366 | 209 | -4.27% |
| **TOTAL:** | **293** | **220** | **357** | **525** | **407** | **269** | **-1.69%** |
| **\*** Includes Small Business, Veteran and HUB contract categories | | | | | | | |
| Source: DN 17-149 | | | | | | | |

The number of contracts awarded to active Minority Owned vendors has declined since 2013 and the number of contracts awarded to Women Owned vendors increased in 2015. There were two years with no Persons with Disability Owned vendors and only one contract was awarded to Persons with Disability Owned vendors in the other four years. It is noteworthy that the overall number of total contracts awarded to diverse vendors has varied considerably over the period but declined since 2010.

Recommendations

1. Identify and correct the cause of inconsistencies and errors in the diversity expenditure report and track Persons with Disability Owned business spend for reporting purposes. (See Finding 2)

PPL EUS Supply Chain should establish a coding methodology that would account for diversity categories that meet the needs of PUC and SGA reporting requirements, specifically including a Persons with Disability Owned category. It is also suggested that PPL EUS Supply Chain work collaboratively with PPL EUS Accounting to ensure consistency in coding and resultant reporting. This coding methodology will need to take into account the fact that some vendors will need to be categorized in multiple categories, e.g. person with disability, minority and female.

1. Analyze the effectiveness of each vendor diversity outreach effort, set appropriate diverse spend goals in each category, and implement initiatives to achieve the goals. (See Findings 3, 4, and 5)

Once vendors have been consistently and accurately categorized, PPL EU Supply Chain can establish a baseline from which to establish appropriate goals and measure future progress. It is recommended that PPL EUS Supply Chain begin tracking its vendor outreach activities to accurately understand the diversity of vendors it is bringing into its system and whether or not diverse vendors exist that provide a particular service or good for which PPL EU has established a need. Once the level of available vendors is accurately determined, goals can be appropriately established for vendor recruitment and vendor spend. In addition, tracking of vendors awarded versus those considered will help determine if efforts are resulting in the achievement of goals.

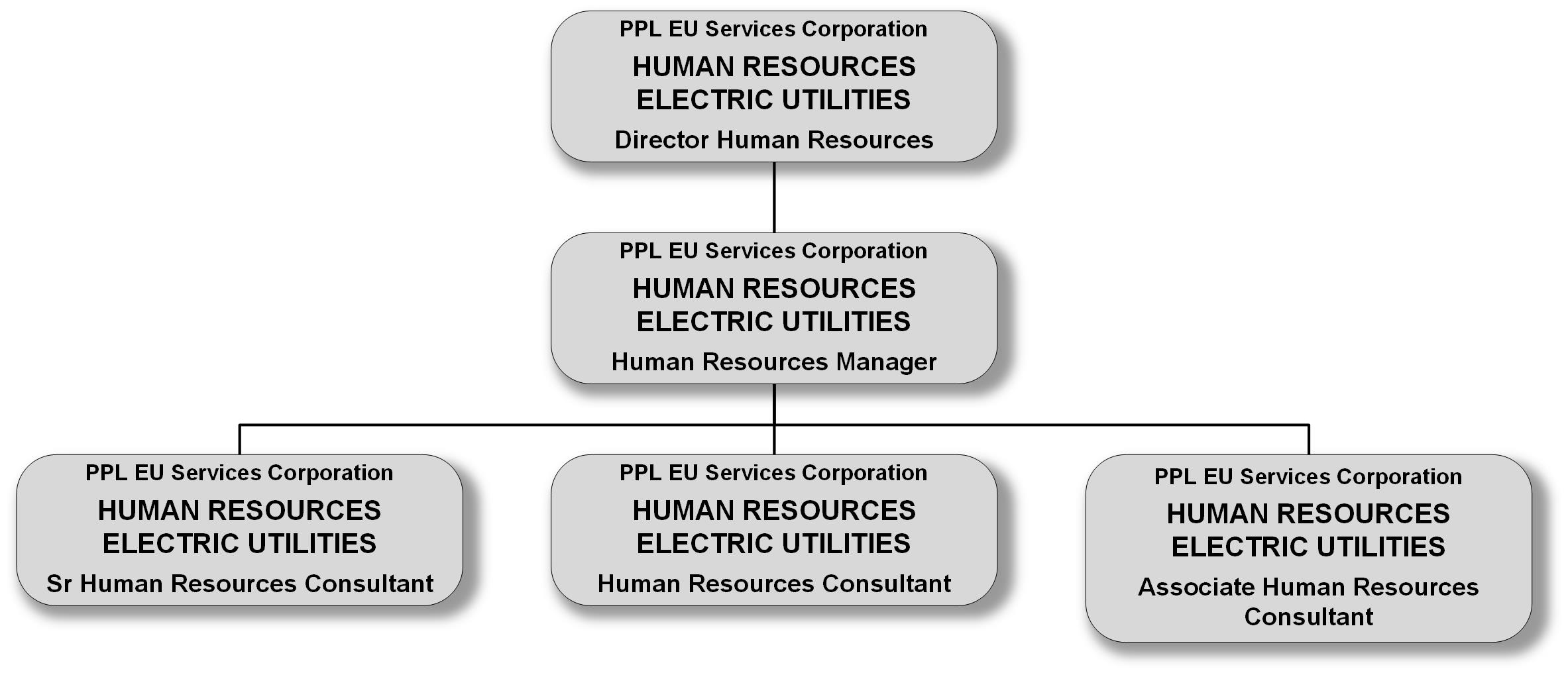
## employee diversity

background

The PUC requires major jurisdictional utility companies operating in the Commonwealth, such as PPL EU, to implement an employee diversity program to improve its level of diversity in the workplace.

The PPL EUS Human Resources (HR) unit responsible for the Employee Diversity Program is shown in the following chart.

Exhibit ‑  
PPL EUS Human Resources – Employee Diversity Responsibility



Source: DN 01-071

A Human Resources Manager and three staff members are responsible for implementation of the employee diversity program for PPL EU.

Employee diversity initiatives are broken into four areas: career awareness and workforce readiness, good faith efforts, employee training, and recruitment.

Career Awareness and Workforce Readiness

In support of PPL’s corporate outreach initiatives PPL EUS HR conducts outreach efforts to strengthen career awareness and workforce readiness for diverse youth. Specifically, PPL EUS HR participated in the following programs during 2014:

1. Co-sponsored the Thaddeus Stevens TechGyrls Summer Camp for middle school girls (grades 4–9) to introduce them to careers in technical fields.
2. Sponsored and presented at the Villanova VIEW program for high school inner city females; sponsored Futuros Empresarios, a community initiative of The Hispanic Chamber of Commerce of the Lehigh Valley; in these programs PPL EU partners with local colleges, universities, businesses, and other private sponsors to deliver educational, comprehensive life skills and entrepreneurial training to high school students of the Lehigh Valley and surrounding areas.
3. Sponsored and supported the Multi-cultural Leadership Conference for 150 diverse high school leaders from three Pennsylvania counties.
4. Sponsored and attended the Noche de Gala event at the local William Allen High School. The Noche de Gala event is held by the Latino Leadership Club at the William Allen High School.
5. Participated in a new Career Pathways Program at Liberty High School and a Career Days presentation for five middle school classes at Parkland Middle School.
6. Introduced new book scholarships for Upward Bound students, conducted a PPL information session, and was the sole corporate sponsor for the 50th Anniversary of the Upward Bound Program at East Stroudsburg University.
7. Sponsored a team to participate in the Da Vinci Ice Cream Wars, a program for area companies to participate in as a way of supporting the Da Vinci Science Center in Allentown, PA.

Good Faith Efforts

PPL EU has adopted the PPL SC core values which include employee commitment and diversity as a driver of its diversity program. To ensure the work environment and workplace practices support diversity, PPL EU has an equal employment opportunity policy that prohibits discrimination in employment decisions on the basis of protected class status. In addition, PPL EU has agreed with the local union to incorporate a non-discrimination clause into its labor agreement which indicates that the Company and union will continue their policy of being an equal employment opportunity employer and non-discriminatory against individuals because of race, gender, national origin, veteran status, disability, and other relevant protected classes.

PPL SC HR has instituted the Business Resource Group (BRG) Leadership Roundtable and BRG Steering Committee to increase diversity awareness throughout PPL. In total, these groups are comprised of 26 employees including nine executives with the President of PPL EU being one of those executives. The BRG Leadership Roundtable and Steering Committee charter nine BRG subgroups whose mission is to support and encourage diversity and inclusion, provide a means for employees with similar interests to work on projects and issues, offer personal and professional development opportunities, and pursue community outreach. The nine BRG subgroups are:

* African American Business Resource Group
* Asian Connection for Employees
* Christian Business Resource Group
* Gay and Lesbian Organization in the Workplace
* Latino Employee Alliance for Diversity
* PPL Tomorrow
* PPL Women’s Network
* PPL VETS
* Reach (Employees with disabilities)

Employee Training

PPL Services HR currently provides Prevention of Harassment and Discrimination training and Diversity Awareness training to all employees on an annual basis. PPL EU is exploring a relationship with a third party training vendor to provide unconscious bias training to build on the prevention of harassment, discrimination, and diversity awareness training that is already offered. Unconscious bias is an implicit bias that people have based on the processing of information to make quick, sometimes flight or fight, decisions. Unconscious bias training allows for people to become more aware of their implicit biases in the hopes that these biases can be more effectively managed in the workplace. The incorporation of the unconscious bias training is intended to assist the organization to advance from awareness to inclusion of a diverse workforce.

Recruitment

Both PPL SC and PPL EUS HR perform recruiting services for PPL EU. All recruitment sources, such as the PPL website, Internet job boards, and newspaper advertisements include a statement explaining PPL’s commitment to Affirmative Action and external recruitment agencies are advised of PPL EU’s interest in creating diverse candidate pools for all positions.

In 2014, HR participated in the following diverse community organizations and events as a means of reaching a diverse minority candidate pool:

* Organizations: Latino Leadership Alliance, NAACP’s American Association of Blacks in Energy, PA Diversity Network (LGBT), Women’s Leadership Initiative, Lehigh Valley (LV) Society of Women Engineers (SWE), Hispanic Center of LV, Valley Youth House, Urban League, and Hispanic American Organization
* Center for Energy Workforce Development (CEWD) Annual Summit – Energy companies partnering on diversity
* National Society of Hispanic MBA (NSHMBA) Conference and Career Expo
* National Society of Black Engineers (NSBE) Conference Career Fair booth
* American Association of Blacks in Energy (AABE) Career Fair and Conference

In 2014, PPL EUS HR undertook the following recruitment activities as a means of reaching a veteran candidate pool:

* Participated in six career fairs and transition assistance program events.
* Attended four Orion military hiring conferences and West Point Military Officer job fair events.
* Supported the Helmets to Hardhats program in which employers and unions agree to utilize the services of the Center for Military Recruitment, Assessment, and Veterans Employment
* Utilized the Career Page military translator which matches military jobs to PPL EU opportunities, thereby assisting veterans’ transition to civilian jobs

In addition to the veteran recruitment activities listed above, PPL EU is one of nine corporate sponsors of “Troops to Energy” and was recognized by GI Jobs Magazine as a Military Friendly Employer in 2014.

Traditionally, PPL EU has sought women and minority students through networking with professional associations such as SWE, the Society of Hispanic Professional Engineers (SHPE), and NSBE. To expand this type of recruitment effort, PPL EUS HR started working with the Urban League of Philadelphia and the Upward Bound Program at East Stroudsburg University in 2014.

PPL EU’s diversity recruitment effort also includes a focus on college and university students through participation in numerous diversity events as well as providing contributions toward scholarships. In addition, the Senior Human Resource Consultant serves on the Bargaining Unit Scholarship Committee for recruiting qualified diverse candidates for Line Technician training positions.

PPL EU supports PPL SC’s Internship Program as evidenced by the internships provided in 2014 and 2015 shown in the table below:

Exhibit ‑  
PPL and PPL EU Internships in 2014 and 2015

| **Organization** | **2014** | | | **2015** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Total Internships** | **Percent Female** | **Percent Minority** | **Total Internships** | **Percent Female** | **Percent Minority** |
| PPL SC | 130 | 33% | 12% | 5 | 20% | 0% |
| PPL EU | 34 | 38% | 6% | 39 | 44% | 28% |
| Source: DN 17-122 | | | | | | |

PPL EU improved the percentage of total internships awarded to minorities and females from 2014 to 2015. Internships are used as a recruiting method and are being utilized to assist with employee diversity within PPE EU and PPL SC.

Findings

1. Employee diversity outreach efforts are numerous with mechanisms in place to create an inclusive environment for employees.

PPL EUS HR has developed diversity outreach efforts to target minorities and females in the relevant labor markets. These efforts reach out to a broad spectrum of minorities and reach youth through adults. The Business Resource Groups exist to build and maintain an inclusive culture within PPL EU which assists with the retention of minorities and females.

1. The mix of PPL EU minority and female employees is comparable to the PPL EU labor market.

A comparison of minority employee diversity compared to PPL EU’s labor market is shown in the table below:

Exhibit ‑  
Comparison of PPL EU Minority Employees  
to the Labor Market 2013

| **Category** | **2013** |
| --- | --- |
| PPL EU Employees Percent Minority | 8% |
| Labor Market Percent Minority | 9% |
| Sources: DN 17-139; DN 17-128; DN 17-144 | |

This comparison demonstrates that minority representation in the workforce is reasonably comparable to the labor market.

1. PPL EU has improved the application rate for minorities and females in 2015 reversing recent decline.

The application rate for minorities and females over the last five years is shown in the table below:

Exhibit ‑  
Application Rates for Minorities and Females 2011–2015

| **Category** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 15.1% | 13.5% | 13.1% | 17.6% | 22.8% |
| Percent Non-Minority | 84.9% | 86.5% | 86.9% | 82.4% | 77.2% |
| Percent Female | 20.9% | 19.5% | 14.7% | 12.7% | 25.5% |
| Percent Male | 79.1% | 80.5% | 85.3% | 87.3% | 74.5% |
| Source: DN 17-133 | | | | | |
| Note: Percentages do not reflect those applicants who chose not to disclose minority or gender status. | | | | | |

The data shows that the application rates for minorities and females have improved in 2015.

1. In 2015, new hire rates for minorities and females have improved, reversing a declining trend since 2012.

PPL EU has experienced the following new hire rates for minorities and females over the last five years as shown in the table below:

Exhibit ‑  
New Hire Rates for Minorities and Females 2011–2015

| **Category** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 10.5% | 13.5% | 13.2% | 10.9% | 23.9% |
| Percent Non-Minority | 89.5% | 86.5% | 86.8% | 89.1% | 76.1% |
| Percent Female | 16.5% | 31.0% | 18.4% | 13.0% | 28.2% |
| Percent Male | 83.5% | 69.0% | 81.6% | 87.0% | 71.8% |
| Source: DN 17-133 | | | | | |

The data show that the new hire rates for minorities and females were in decline since 2012 yet this declining trend was reversed in 2015.

1. Promotion rates for minorities and females have improved in 2015 reversing a declining trend since 2012.

As noted in PPL EU’s AAP information, promotion and retention rates for minorities and females are shown in the table below:

Exhibit ‑  
Promotion Rates for Minorities and Females 2011–2015

| **Category** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 4.7% | 5.5% | 5.3% | 5.0% | 8.9% |
| Percent Non-Minority | 95.3% | 94.5% | 94.7% | 95.0% | 91.1% |
| Percent Female | 15.0% | 15.7% | 13.7% | 7.4% | 36.3% |
| Percent Male | 85.0% | 84.3% | 86.3% | 92.6% | 63.7% |
| Source: DN 17-133 | | | | | |

This data show that the promotion rates for minorities and females have both improved in 2015, reversing a trend of decline since 2012.

1. Involuntary and voluntary termination rates for minorities have declined in 2015 while involuntary and voluntary terminations for females have increased in 2015.

The tables below outline the aggregate termination rates for minorities and females as well as the breakdown of involuntary and voluntary termination rates for minorities and females.

Exhibit ‑  
Aggregate Termination Rates for Minorities and Females  
2011–2015

| **Category** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 7.5% | 7.3% | 12.3% | 8.7% | 8.3% |
| Percent Non-Minority | 92.5% | 92.7% | 87.7% | 91.3% | 91.7% |
| Percent Female | 19.9% | 17.2% | 24.1% | 23.6% | 32.7% |
| Percent Male | 80.1% | 82.8% | 75.9% | 76.4% | 67.3% |
| Source: DN 17-133 | | | | | | |

Exhibit ‑  
Involuntary Termination Rates for Minorities and Females  
2011–2015

| **Category** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 0.0% | 3.2% | 18.2% | 11.3% | 9.7% |
| Percent Non-Minority | 100.0% | 96.8% | 81.8% | 88.7% | 90.3% |
| Percent Female | 22.2% | 29.0% | 33.3% | 20.8% | 36.1% |
| Percent Male | 77.8% | 71.0% | 66.7% | 79.2% | 63.9% |
| Source: DN 17-133 | | | | | |

Exhibit ‑  
Voluntary Termination Rates for Minorities and Females  
2011–2015

| **Category** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 8.6% | 8.3% | 11.1% | 8.0% | 7.6% |
| Percent Non-Minority | 91.4% | 91.7% | 88.9% | 92.0% | 92.4% |
| Percent Female | 19.5% | 14.2% | 22.2% | 24.4% | 31.0% |
| Percent Male | 80.5% | 85.8% | 77.8% | 75.6% | 69.0% |
| Source: DN 17-133 | | | | | |

These tables show that the termination rates for minorities have been decreasing since 2013 yet both the involuntary and voluntary termination rates for females have increased in 2015. Generally, it could be expected that the involuntary termination rates for minorities and females would mirror the minority and female composition of the current workforce. This is the case for minorities. For females, however, the involuntary termination rate in 2015 exceeds the female composition of the workforce by over ten percent.

Recommendations

1. Enhance recruiting efforts to target female applicants. (See Finding 3)

The improvement in 2015 minority and female recruiting, in particular, is recognized. However, PPL EU should identify additional recruiting sources for females including, schools, colleges, government agencies, and community based organizations that help females obtain job skills and employment. The OFCCP maintains a list of such recruiting sources by geographic region. This list can be obtained by contacting the regional office of the OFCCP or visiting the OFCCP website. In addition, these recruiting efforts should be supported by career awareness activities with groups that support young girls such as Girl Scouts and tapping into existing female employees to serve as role models and mentors. A school to career approach is typically most effective and consists of many of the elements that the U.S. Department of Transportation identified in its 2011 Dialogue for Women in Blue Collar Transportation Careers Report.

1. Enhance the hiring rates for females and minorities to maintain the parity of PPL EU employees and the labor market. (See Finding 4)

Again, the improvements in minority and female hiring rates in 2015 are recognized. These efforts should be sustained. Additionally, recruiting efforts should be analyzed based on quality of hire measurements to determine the best sources for qualified females and minorities. Once best sources are located, PPL EU will have a better chance of maintaining parity between the hiring rates for females and minorities with labor market availability. In addition, PPL EU’s diversity efforts will have an impact on the organization over the course of time to foster better working relationships for women and minorities, thus positively impacting retention.

1. Enhance initiatives to improve the female promotion rate. (See Finding 5)

A major improvement in the female promotion rate was achieved in 2015, reversing a declining trend since 2012. The efforts that reversed this trend should be sustained. Additionally, PPL EU should examine the workplace culture to determine if there are barriers to female promotion that may include work/life balance issues. This will guide the development of initiatives to continue improving the female promotion rate. Clear identification of career paths and promotional opportunities and effective communication of these opportunities from the supervisor to the employee are keys to improving promotion rates. As part of the performance appraisal process, supervisors should discuss these issues with employees and ensure that female employees in particular are aware of opportunities and what development may be needed to be eligible for such opportunities. In addition, enhancing existing career development and leadership development activities to include broader programs within the organization will also assist in improving female promotion rates over time.

1. Determine the cause of the increase in involuntary and voluntary female terminations and implement initiatives to reduce these termination rates. (See Finding 6)

PPL EU should study the reasons for the recent increase in involuntary and voluntary termination rates for females to determine trends or patterns. Once the trends have been identified, the BRGs can be utilized to discuss and identify possible courses of action that may include targeted training or pairing of workers with buddies or similar mentoring arrangements.

## Affirmative action

background

PPL EU conducts business with the U.S. Government and therefore is considered a federal government contractor. Executive Order 11246 requires federal government contractors to take affirmative action with respect to employing qualified women and minorities and prohibits discrimination on the basis of minority or female status. In addition, the federal Vietnam Era Veterans Readjustment Assistance Act (VEVRAA) requires federal government contractors to take affirmative action with respect to employing qualified covered veterans, and Section 503 of the Rehabilitation Act (Section 503) requires federal government contractors to take affirmative action with respect to employing qualified individuals with disabilities. Collectively, these statutes require federal government contractors to prevent discrimination in the workplace, gather self-identification information from applicants, analyze workplace data to determine if any adverse impact is occurring, and make efforts to recruit diverse candidate pools. The federal government contractor’s efforts are documented in a formal affirmative action plan.

A Human Resources Manager in PPL SC is responsible for PPL EU’s Affirmative Action program as shown in the following organization chart.

Exhibit ‑  
PPL SC HR – Affirmative Action Program Responsibility



Source: DN 01-072

Affirmative Action Program

The United States Department of Labor, Office of Federal Contract Compliance Programs, has entered into an agreement with PPL Corporation for the purpose of allowing PPL Corporation to develop and implement affirmative action programs (AAPs) that are based on functional or business units. The relevant AAP for this Management Audit is the PPL EU functional program. PPL Corporation has a separate functional AAP for PPL SC.

The AAP for PPL EU consists of three components focused on the areas of minorities and females, protected veterans, and individuals with disabilities. Each of these three components include the establishment of responsibilities, internal and external dissemination, identification of problem areas, accomplishment of prior year goals, development and execution of action-oriented programs, and internal audit and reporting systems.

Affirmative action requirements include a comparison of incumbent employees to availability by category for the purpose of demonstrating utilization of traditionally underrepresented groups and the establishment of placement goals where underutilization is found.

The AAP outlines responsibilities for the Plan for the AAP Administrator, Supervisors, and Managers. The AAP Administrator is identified as the PPL SC HR Manager in the AAP.

Equal Employment Policies and Related Documentation

PPL EU’s Equal Employment Opportunity (EEO) and Affirmative Action statement on PPL EU’s commitment to equal employment opportunity, non-discrimination, and affirmative action with respect to women, minorities, veterans, and individuals with disabilities is posted on company bulletin boards along with required employment posters outlining equal employment opportunity and non-discrimination requirements. In addition, PPL EU addresses harassment in the workplace through its Sexual Harassment and Harassment policies.

Complaint Mechanisms

PPL SC HR has responsibility for coordinating employee complaints that come in through an anonymous employee reporting hotline or through other complaint mechanisms including direct supervisory report, grievance procedure report, or direct contact with PPL SC HR. Complaints that come in are reviewed and assigned for investigation to either Human Resources, Corporate Audit and Business Ethics, or the Office of General Counsel in accordance with pre-established responsibilities. Completed investigation reports are submitted to the Corporate Audit and Business Ethics Department which then reports investigation findings up through the Corporate Compliance Committee and Board of Director’s Audit Committee. The Guidelines for Referral of Allegations indicate a process for confidential and timely processing of employee complaints.

Data Collection, Reporting, and Analysis

PPL SC HR is collecting veteran and disability status both pre-offer and post-offer through the use of voluntary identification forms as is now required by the 2014 regulation changes to Section 503 of the Rehabilitation Act and VEVRAA. In addition, PPL SC HR launched its first survey of its workforce requesting employees voluntarily identify race, gender, veteran, and disability status which meets the survey requirements of Section 503 of the Rehabilitation Act that disability status be surveyed every five years.

Information Technology

PPL SC HR utilizes a software package to track and analyze data as well as prepare affirmative action plans. In addition, PPL SC HR and PPLEUS HR utilize the Employee Performance and Compensation System (EMPACS) system to track the distribution of employee performance ratings. This information is available to each supervisor for viewing based on race, gender, and date of birth. A distribution of ratings in the four EMPACS performance categories (Unsatisfactory, Partially Met, Met, and Exceeded) can be seen for a select employee group in the user’s area of responsibility.

Adverse Treatment Study

PPL SC Services HR conducts an Adverse Treatment Study three times per year to identify any potential adverse impact with respect to base compensation for diverse groups within the PPL Corporation business units. The results of each study are shared with the relevant business unit to address any findings.

Findings

1. PPL EU’s affirmative action plan is generally effective.

The table below shows the percentage of minorities, females, veterans, and persons with disability in PPL EU from 2011 through 2015.

Exhibit ‑  
Percentage of Minority, Female, Veteran, and Persons with Disability  
in the PPL EU Workforce

| **Year \*** | **2011** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- | --- |
| Percent Minority | 8.0% | 8.2% | 8.0% | 7.9% | 8.5% |
| Percent Non-Minority | 92.0% | 91.8% | 92.0% | 92.1% | 91.5% |
| Percent Female | 25.7% | 26.0% | 25.9% | 25.6% | 25.1% |
| Percent Male | 74.3% | 74.0% | 74.1% | 74.4% | 74.9% |
| Percent Veteran | 9.2% | 8.5% | 7.7% | 6.8% | 7.2% |
| Percent Non-Veteran | 90.8% | 91.5% | 92.3% | 93.2% | 92.8% |
| Percent Persons with Disability | 2.2% | 2.2% | 2.2% | 3.6% | 3.8% |
| Percent Non-Persons with Disability | 97.8% | 97.8% | 97.8% | 96.4% | 96.2% |
| Source: DN 17-143 | | | | | |

The data show that the percentages of females and minorities in the workforce have remained consistent while the percentage of veterans has dropped slightly since 2013 and the percentage of individuals with disabilities has increased from 2011.

The table below shows PPL EU’s utilization of minorities during the period of 2012–2015. The data is reported using the Office of Federal Contract Compliance Programs (OFCCP) 80% rule analysis methodology. The 80% rule examines whether the percentage of females and/or minorities currently in a particular job group is less than 80% of the final availability percentage for that particular job group.

Exhibit ‑  
Minority Utilization 2012–2015

| **Job Group** | **2012** | | | | | **2013** | | | | | **2014** | | | | | **2015** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total Employees** | **Utilization** | |  | | **Total Employees** | **Utilization** | |  | | **Total Employees** | **Utilization** | |  | | **Total Employees** | **Utilization** | |  | |
| **#** | **%** | **Availability Percent** | **Number  Under Utilized** | **#** | **%** | **Availability Percent** | **Number  Under Utilized** | **#** | **%** | **Availability Percent** | **Number  Under Utilized** | **#** | **%** | **Availability Percent** | **Number  Under Utilized** |
| 10-Officer & Executive | 4 | 0 | 0.0% | 9.4% | 0 | 4 | 0 | 0.0% | 9.0% | 0 | 4 | 1 | 25.0% | 18.1% | 0 | 3 | 1 | 33.3% | 20.5% | 0 |
| 11-Senior Manager | 25 | 2 | 8.0% | 11.3% | 0 | 20 | 3 | 15.0% | 12.5% | 0 |  |  |  |  |  |  |  |  |  |  |
| 11-Sr Director & Director |  |  |  |  |  |  |  |  |  |  | 20 | 2 | 10.0% | 13.4% | 0 | 22 | 2 | 9.1% | 14.5% | 1 |
| 12-Manger | 84 | 9 | 10.7% | 10.1% | 0 | 79 | 7 | 8.9% | 10.3% | 1 |  |  |  |  |  |  |  |  |  |  |
| 12-Sr Manager & Manager |  |  |  |  |  |  |  |  |  |  | 84 | 7 | 8.3% | 13.1% | 3 | 84 | 11 | 13.1% | 12.3% | 0 |
| 14-Foreman | 98 | 9 | 9.2% | 8.8% | 0 | 92 | 6 | 6.5% | 4.5% | 0 | 82 | 6 | 7.3% | 6.6% | 0 | 72 | 6 | 8.3% | 4.7% | 0 |
| 15-Supervisory | 163 | 9 | 5.5% | 10.1% | 7 | 161 | 7 | 4.3% | 8.7% | 6 | 177 | 12 | 6.8% | 8.8% | 3 | 168 | 11 | 6.5% | 6.5% | 0 |
| 20-IT Professional |  |  |  |  |  |  |  |  |  |  | 1 | 0 | 0.0% | 9.5% | 0 |  |  |  |  |  |
| 22-Senior Professional | 255 | 15 | 5.9% | 12.3% | 016 | 238 | 13 | 5.5% | 9.4% | 9 | 266 | 16 | 6.0% | 8.4% | 6 | 257 | 24 | 9.3% | 10.0% | 1 |
| 23-Accounting & Finance | 9 | 0 | 0.0% | 4.2% | 20 | 6 | 0 | 0.0% | 4.3% | 0 | 10 | 0 | 0.0% | 4.5% | 0 | 16 | 1 | 6.3% | 9.4% | 0 |
| 25-Engineer | 109 | 17 | 15.6% | 18.3% | 02 | 120 | 20 | 16.7% | 16.8% | 0 | 119 | 15 | 12.6% | 15.4% | 3 | 111 | 21 | 18.9% | 18.2% | 0 |
| 29-Professional | 55 | 8 | 14.5% | 14.5% | 0 | 95 | 11 | 11.6% | 9.3% | 0 | 53 | 6 | 11.3% | 13.1% | 0 | 55 | 4 | 7.3% | 15.2% | 4 |
| 31-Drafting | 26 | 1 | 3.8% | 7.3% | 0 | 25 | 1 | 4.0% | 5.5% | 0 | 23 | 1 | 4.3% | 4.3% | 0 | 21 | 1 | 4.8% | 4.8% | 0 |
| 34-Technician BU | 150 | 7 | 4.7% | 3.7% | 0 | 138 | 6 | 4.3% | 5.3% | 1 | 132 | 6 | 4.5% | 5.3% | 1 | 128 | 6 | 4.7% | 5.1% | 0 |
| 52-Senior Admin Support | 3 | 0 | 0.0% | 6.8% | 0 | 5 | 0 | 0.0% | 8.8% | 0 | 3 | 0 | 0.0% | 8.7% | 0 | 2 | 0 | 0.0% | 9.5% | 0 |
| 54-Admin & Clerical |  |  |  |  |  |  |  |  |  |  | 136 | 11 | 8.1% | 9.1% | 1 | 150 | 13 | 8.7% | 9.9% | 1 |
| 54-Admin Support | 163 | 15 | 9.2% | 10.1% | 1 | 146 | 12 | 8.2% | 10.0% | 2 |  |  |  |  |  |  |  |  |  |  |
| 56-Customer Service | 249 | 44 | 17.7% | 16.1% | 0 | 248 | 48 | 19.4% | 17.1% | 0 | 227 | 43 | 18.9% | 16.8% | 0 | 209 | 38 | 18.2% | 17.3% | 0 |
| 63-Skilled |  |  |  |  |  |  |  |  |  |  | 402 | 26 | 6.5% | 3.5% | 0 | 422 | 29 | 6.9% | 5.7% | 0 |
| 64-Skilled-Field | 453 | 30 | 6.8% | 6.2% | 0 | 436 | 25 | 5.7% | 6.7% | 4 | 9 | 2 | 22.2% | 18.8% | 0 |  |  |  |  |  |
| 65-Line Technician | 346 | 14 | 4.0% | 6.3% | 7 | 345 | 15 | 4.3% | 5.3% | 3 | 349 | 13 | 3.7% | 13.3% | 33 | 339 | 10 | 2.9% | 3.3% | 1 |
| 73-SemiSkilled |  |  |  |  |  |  |  |  |  |  | 36 | 1 | 2.8% | 4.4% | 0 | 50 | 2 | 4.0% | 4.4% | 0 |
| 74-SemiSkilled-Field | 46 | 2 | 4.3% | 7.7% | 1 | 40 | 1 | 2.5% | 6.3% | 1 |  |  |  |  |  |  |  |  |  |  |
| 81-Laborer & Helper | 71 | 4 | 5.6% | 10.4% | 3 | 40 | 4 | 10.0% | 14.1% | 1 | 132 | 9 | 6.8% | 11.5% | 6 | 94 | 6 | 6.4% | 12.53% | 5 |
| **TOTALS:** | **2,309** | **186** | **8.1**% | **9.6**% | **37** | **2,238** | **179** | **8.0**% | **9.0**% | **28** | **2,265** | **177** | **7.8**% | **9.8**% | **56** |  | **186** |  |  | **13** |
| Sources: DN 17-101; DN 17-108a; DN 17-128; DN 17-144; DN 17-146 | | | | | | | | | | | | | | | | | | | | |

The table above allows for identification of job groups in which there is a greater availability of minorities than what is represented in the employee compliment. Out of 21 job groups, only eight had potential underutilization in 2014. Goals have been established based on the data outlined in this table for those eight job groups and PPL EU has made progress toward the established goals. This improvement is demonstrated in the fact that in 2015, out of 21 job groups, only six have potential underutilization.

The following table shows PPL EU’s utilization of females during the period of 2012–2015. The data is reported using the 80% rule which is an analysis methodology approved for use by the OFCCP.

Exhibit ‑  
Female Utilization 2012–2015

| **Job Group** | **2012** | | | | | **2013** | | | | | **2014** | | | | | **2015** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total Employees** | **Utilization** | |  | | **Total Employees** | **Utilization** | |  | | **Total Employees** | **Utilization** | |  | | **Total Employees** | **Utilization** | |  | |
| **#** | **%** | **Availability Percent** | **Number  Under Utilized** | **#** | **%** | **Availability Percent** | **Number  Under Utilized** | **#** | **%** | **Availability Percent** | **Number  Under Utilized** | **#** | **%** | **Availability Percent** | **Number  Under Utilized** |
| 10-Officer & Executive | 4 | 1 | 25.0% | 27.4% | 0 | 4 | 1 | 25.0% | 33.2% | 0 | 4 | 1 | 25.0% | 29.5% | 0 | 3 | 1 | 33.3% | 33.0% | 0 |
| 11-Sr Director & Director | 25 | 8 | 32.0% | 26.5% | 0 | 20 | 8 | 40.0% | 32.4% | 0 | 20 | 8 | 40.0% | 33.8% | 0 | 22 | 8 | 36.4% | 31.7% | 0 |
| 12-Sr Manager & Manager | 85 | 15 | 17.9% | 25.2% | 6 | 79 | 23 | 29.1% | 27.1% | 0 | 84 | 20 | 23.8% | 24.7% | 0 | 84 | 22 | 26.2% | 24.5% | 0 |
| 14-Foreman | 98 | 0 | 0.0% | 5.0% | 4 | 92 | 0 | 0.0% | 5.1% | 4 | 82 | 1 | 1.2% | 4.0% | 2 | 72 | 0 | 0.0% | 6.0% | 4 |
| 15-Supervisory | 163 | 51 | 31.3% | 26.8% | 0 | 161 | 43 | 26.7% | 24.1% | 0 | 177 | 47 | 26.6% | 22.3% | 0 | 168 | 47 | 28.0% | 27.9% | 0 |
| 20-IT Professional |  |  |  |  | 0 |  |  |  |  |  | 1 | 0 | 0.0% | 22.1% | 0 |  |  |  |  |  |
| 22-Senior Professional | 255 | 84 | 32.9% | 38.4% | 0 | 238 | 78 | 32.8% | 35.6% | 0 | 266 | 68 | 25.6% | 31.4% | 0 | 257 | 66 | 25.7% | 32.8% | 18 |
| 23-Accounting & Finance | 9 | 2 | 22.2% | 37.5% | 1 | 6 | 2 | 33.3% | 41.8% | 0 | 10 | 6 | 60.0% | 49.7% | 0 | 16 | 3 | 18.8% | 40.8% | 3 |
| 25-Engineer | 109 | 9 | 8.3% | 9.8% | 0 | 120 | 12 | 10.0% | 10.1% | 0 | 119 | 13 | 10.9% | 11.0% | 0 | 111 | 13 | 11.7% | 12.8% | 1 |
| 29-Professional | 55 | 27 | 49.1% | 50.6% | 0 | 95 | 31 | 32.6% | 34.2% | 0 | 53 | 27 | 50.9% | 48.6% | 0 | 55 | 31 | 56.4% | 56.4% | 0 |
| 31-Drafting | 26 | 4 | 15.4% | 25.4% | 2 | 25 | 4 | 16.0% | 14.9% | 0 | 23 | 4 | 17.4% | 17.4% | 0 | 21 | 4 | 19.0% | 19.0% | 0 |
| 34-Technician BU | 150 | 10 | 6.7% | 4.8% | 0 | 138 | 9 | 6.5% | 5.9% | 0 | 132 | 7 | 5.3% | 6.0% | 0 | 128 | 6 | 4.7% | 5.7% | 1 |
| 52-Senior Admin Support | 3 | 3 | 100% | 96.5% | 0 | 5 | 5 | 100% | 93.7% | 0 | 3 | 3 | 100% | 95.3% | 0 | 2 | 2 | 100% | 84.8% | 0 |
| 54-Admin Support | 163 | 145 | 89.0% | 84.1% | 0 | 146 | 132 | 90.4% | 82.6% | 0 | 136 | 124 | 91.2% | 84.0% | 0 | 150 | 120 | 80.0% | 72.6% | 0 |
| 56-Customer Service | 249 | 213 | 85.5% | 78.7% | 0 | 248 | 211 | 85.1% | 77.4% | 0 | 227 | 198 | 87.2% | 77.9% | 0 | 209 | 182 | 87.1% | 82.4% | 0 |
| 63-Skilled |  |  |  |  | 0 |  |  |  |  |  | 402 | 17 | 4.2% | 18.6% | 57 | 422 | 19 | 4.5% | 15.7% | 47 |
| 64-Skilled-Field | 453 | 14 | 3.1% | 4.2% | 5 | 436 | 16 | 3.7% | 3.6% | 0 | 9 | 0 | 0.0% | 2.9% | 0 |  |  |  |  |  |
| 65-Line Technician | 346 | 0 | 0.0% | 2.0% | 6 | 345 | 0 | 0.0% | 2.4% | 8 | 349 | 1 | 0.3% | 0.2% | 0 | 339 | 1 | 0.3% | 0.4% | 0 |
| 73-SemiSkilled |  |  |  |  | 0 |  |  |  |  |  | 36 | 8 | 22.2% | 29.2% | 2 | 50 | 11 | 22.0% | 25.6% | 1 |
| 74-SemiSkilled-Field | 46 | 9 | 19.6% | 16.7% | 0 | 40 | 6 | 15.0% | 8.8% | 0 |  |  |  |  |  |  |  |  |  |  |
| 81-Laborer & Helper | 71 | 4 | 5.6% | 11.1% | 3 | 40 | 1 | 2.5% | 14.4% | 4 | 132 | 17 | 12.9% | 13.8% | 0 | 94 | 14 | 14.9% | 15.6% | 0 |
| **TOTALS:** | **2,309** | **599** | **25.9**% | **26.4**% | **27** | **2,238** | **582** | **26.0**% | **25.3**% | **16** | **2,265** | **570** | **25.2**% | **26.9**% | **61** | **2,203** | **550** |  |  | **75** |
| Sources: DN 17-101; DN 17-108a; DN 17-128; DN 17-144; DN 17-146 | | | | | | | | | | | | | | | | | | | | |

The table above allows for identification of job groups in which there is a greater availability of females than what is represented in the employee compliment. In 2014, only three of 21 job groups had identified potential underutilization. Goals have established based on the data outlined in this table for those three job groups and progress has been made toward these established goals. However, in 2015, seven of 21 job groups have identified potential underutilization. Female utilization will need to continue being an area of focus for goal setting and goal achievement.

It should be noted that PPL EU was only required to determine utilization and set goals for minorities and females through 2015. Beginning in 2016, it would be expected that PPL EU would determine utilization and set goals for individuals with disabilities as well as veterans in accordance with VEVRAA and Section 503 of the Rehabilitation Act.

1. PPL EU complies with Section 503 of the Rehabilitation Act and VEVRAA.

Overall, PPL EU does comply with Section 503 of the Rehabilitation Act and VEVRAA by taking affirmative action with respect to individuals with disabilities and veterans. Such actions include prevention of discrimination in the workplace, gathering self-identification information from applicants, analyzing workplace data to determine if any adverse impact is occurring, and make efforts to recruit diverse candidate pools and utilize individuals with disabilities and veterans at approximately the same rate as those individuals comprise the relevant workforce. Beginning in 2016, placement goals for veterans and individuals with disabilities will need to be established against the national percentage in the civilian labor force as published by the OFCCP on an annual basis.

1. The EEO/AAP tagline on job advertisements is not sufficient.

Recent job advertisements include the following statement supporting PPL EU’s commitment to Affirmative Action and Equal Employment Opportunity: “PPL is an equal opportunity, affirmative action employer dedicated to diversity and the strength it brings to the workplace. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, protected veteran status, or disability status.”

The tagline needs to include the protected classes of sexual orientation and gender identity as required by Executive Order 13672. Executive Order 13672, issued in late 2014, amended Executive Order 11246 by creating the additional protected classes of sexual orientation and gender identity and prohibiting federal government contractors from discriminating against individuals based on these protected characteristics.

1. Job descriptions do not contain mental and physical demands of the job.

Job descriptions for salaried personnel and for bargaining unit positions at PPL EU contain a brief description of the overall purpose of the job and a description of duties and required qualifications but do not contain the mental and physical demands of the job. However, PPL EU has identified physical demands of most bargaining unit positions where such requirements are necessary for the fulfillment of the position. In other jobs, particularly non-bargaining unit jobs, PPL EU has taken the position that it is extremely difficult to identify mental and physical demands and that by not identifying the mental and physical demands of the jobs it is less likely that an individual with a disability would be screened out in the early recruiting/application stages. PPL EU does ask applicants if they will need a reasonable accommodation to perform the job and this issue is discussed with the Recruiter. In addition, PPL EU does periodically review the mental and physical demands of the jobs for which this information has been identified.

Pursuant to Section 503 of the Rehabilitation Act and VEVRAA, federal government contractors are required to periodically review the mental and physical demands of their jobs in order to ensure that they do not screen out qualified disabled veterans or qualified individuals with disabilities. In addition, federal government contractors are required to explore reasonable accommodations for the mental and physical demands of jobs.

1. The process for receiving and resolving employee complaints is robust and appears to be effective.

The process for receiving and resolving employee complaints is widely communicated to employees through policies as well as through the collective bargaining agreement. Employees have many reporting avenues available to them including reporting to a supervisor and a hotline. Roles and responsibilities for receiving and resolving complaints are well defined, and the number of employee concerns received is tracked by PPL. The concerns received historically are listed in the table below:

Exhibit ‑  
PPL EU Employee Concerns, 2012–2015

| **Allegation Type** | **2012** | **2013** | **2014** | **2015** |
| --- | --- | --- | --- | --- |
| Unsubstantiated | 31 | 17 | 20 | 11 |
| Substantiated in Whole or Part | 9 | 5 | 7 | 1 |
| Total Allegations | 40 | 22 | 27 | 12 |
| Percent Substantiated in Whole or Part | 23% | 23% | 26% | 9.1% |
| Source: DN 12-124; DN 17-117 | | | | |

The total number of allegations has dropped significantly since 2012, and PPL EU has seen a significant drop in the percentage of allegations received that have resulted in a substantiated in whole or in part finding in 2015.

During 2015, PPL EU had a total of two cases filed against it at the U.S. Equal Employment Opportunity Commission (EEOC). All prior claims have been resolved and PPL EU currently has no pending claims with the United States Department of Labor or the Pennsylvania Department of Labor.

Recommendations

1. Expand the EEO/AAP tagline on job advertisements to include all requirements. (See Finding 3)

Job advertisements, whether in print or on-line, should include a tagline that includes a statement minimally indicating that individuals will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity or national origin.

1. Consider identifying mental and physical demands of all jobs and communicating them through inclusion on job descriptions. (See Finding 4)

A job description is an employer’s tool to set forth the essential functions of a job that an applicant/employee must be able to perform with or without reasonable accommodation. If an employer identifies the essential functions of a job prior to advertising and recruiting for that job, the employer’s judgment regarding which functions are essential in a job description shall be given consideration by a court in hearing cases under the Americans with Disabilities Act, as amended. While not specifically required by statute or regulation, it is a best practice to identify and communicate the mental and physical demands of jobs along with the essential functions. Communication of the mental and physical demands of a job can provide perimeters around which a discussion of reasonable accommodation can occur or a determination of whether or not an employee returning from Family and Medical Leave or a workers’ compensation injury is able to perform the essential functions of the job given any restrictions. PPL EU can determine the mental and physical demands of jobs by utilizing its internal safety talent for all jobs. Often a checklist is used that subject matter experts in job safety can utilize to identify the mental and physical demands of the job. Alternatively, PPL EU could hire a third party physical therapy vendor who could observe workers in the jobs for the purpose of identifying the physical demands. When describing physical demands, certain words may have a tendency to exclude individuals with disabilities (i.e. “see”, “hear”) so it is better to choose words that convey actual requirements of the job without limiting the physical demands to certain abilities. Examples of physical demands may include “must be able to remain in a stationary position approximately 50% of the time” rather than “stand or sit” or “constantly positions self to maintain computers, including under/behind desks and in the server closet” rather than “stoop, kneel, crawl”.

# Staffing Planning Process

This chapter presents the results of the Management Audit Phase III analysis of the staffing planning process of PPL Electric Utilities (PPL EU) and of PPL EU Services Corporation (PPL EUS) and PPL Services Corporation (PPL SC) as they affect PPL EU. This Phase III analysis resulted from observations in Phase I and II of this management audit that significant changes in the PPL EU, PPL SC, and PPL EUS workforces had taken place due to the Talen Energy (Talen) spinoff and the formation of PPL EUS, and that further workforce changes were planned.

This review was not intended to identify optimal staffing levels but instead to focus on the process used to make staffing level and organizational decisions, including changes in the use of contractors and consultants.

This chapter is organized in the following sections:

A. Overview

B. Transmission and Substations

C. Distribution Operations and Technical Development and Improvement

D. Customer Services

E. Finance, Accounting, and Audit

F. Support Services

G. Enterprise-wide

Findings and recommendations specific to individual functions, such as Transmission and Substations, are presented in the relevant functional section. Findings and recommendations that generally apply to PPL EU, PPL EUS, and PPL SC as a whole are presented in the final Enterprise-wide section.

## overview

recent staffing changes

PPL Corporation had several significant changes affecting staffing in the 2014 to 2015 timeframe:

* The PPL Corporation generation and energy services businesses were spun off to form a new, unaffiliated entity, Talen.
* Most of the PPL Corporation generation and energy services employees were transferred to Talen along with some of the PPL SC support services employees.
* A Transition Services Agreement (TSA) was signed with Talen to provide various types of services while Talen built up its own capabilities.
* With the Talen spinoff and the split of PPL SC employees between PPL Corporation and Talen, PPL SC had to be downsized to avoid increasing the charges to PPL EU and other PPL Corporation affiliates.
* Some PPL SC positions were eliminated to accomplish the downsizing effort; however, some of the employees occupying deleted positions were retained to provide TSA services for the duration of the TSA agreement, at which time they were to leave unless they found open positions in PPL Corporation in the interim.
* PPL EUS was created and staffed by a mixture of PPL SC and PPL EU employee positions.

The following table presents the number of employee positions for PPL EU, PPL EUS, and PPL SC at the end of 2014, the number of positions transferred to Talen, the number of positions transferred to PPL EUS, the net number of positions added and eliminated in 2015, the planned number of positions at the end of 2016, and the positions that will be eliminated after 2016 as the TSA work is completed.

Exhibit ‑  
Employee Position Changes

| Organization Unit | Positions as of Year‑End 2014 | Positions Transferred to Talen | Positions Transferred to PPL EUS | Net Positions Added and Eliminated | Positions as of Year‑End 2015 | Planned Positions at Year-End 2016 | TSA Positions Yet to be Eliminated After 2016 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PPL EU | 2,187 | -11 | -66 | -70 | 2,040 | 1,964 | 0 |
| PPL EUS | 0 | -3 | +319 | -48 | 268 | 275 | 0 |
| PPL SC | 1,099 | -321 | -253 | -45 | 480 | 452 | 4 |
| Sources: DN 18-006-C; DN 18-007-C; DN 18-008-C-a; PPL Report Factual Review; and V&A Calculations | | | | | | | |

The number of employee positions in PPL EU and PPL SC decreased in 2015 and further reductions are planned in 2016. Further, the number of total positions in the two service companies, PPL EUS and PPL SC, decreased from 1,099 to 748, a reduction of 351 positions, through transfers to Talen and net position eliminations.

The following table presents the trends in employee positions for the three entities from 2014 through 2019.

Exhibit ‑  
Employee Position Trend – as of Year End

| Organization Unit | Actual 2014 Positions | Actual 2015 Positions | Planned 2016 Positions | Planned 2017 Positions | Planned 2018 Positions | Planned 2019 Positions |
| --- | --- | --- | --- | --- | --- | --- |
| PPL EU | 2,187 | 2,040 | 1,964 | 1,862 | 1,819 | 1,797 |
| PPL EUS | 0 | 268 | 275 | 272 | 270 | 268 |
| PPL SC | 1,099 | 480 | 452 | 429 | 427 | 426 |
| Sources: DN 18-003-C; PPL Report Factual Review; and V&A Calculations | | | | | | |

The figures for 2016 through 2019 exclude temporary employees. The plans are to reduce the total number of positions in PPL EU and PPL SC each year. PPL EU will go from 2,187 positions in 2014 to 1,797 positions in 2019, a reduction of 390 positions, or 17.8%. The combination of the two service companies, PPL EUS and PPL SC, will go from 748 positions in 2015 (after the Talen spin off) to 694 positions in 2019, a reduction of 54 positions, or 7.2%.

staffing planning and the budgeting process

Annual Budget Process

PPL EU’s annual budget process begins in the April to May timeframe with the dissemination of budget assumptions and the development of work plans. This process ends in the October to December time period as PPL EU’s budget is consolidated with the other PPL Corporation entity budgets for presentation and approval by the PPL Corporation Board of Directors.

All business lines and service groups develop budgets and forecasts for a five year period, with the first two years developed by month, and the last three years on an annual basis. Payroll budgets are prepared at the supplying responsibility center (SRC) level. That is, each work unit housing employees develops its own payroll budget. The budgeting system is used to prepare operating budgets and load them into PPL EU’s general ledger system.

The budgeting information system provides rollups via SRC trees to the Business Line or Service Group level, as appropriate. It requires users to budget labor costs to capital and expense and/or clearing projects and/or activities. The labor budget is used to provide an estimate of the various job classifications and number of full-time and part-time employees required during the budget years, as well as the level of planned overtime. This data is used to automatically calculate the total payroll budget using an electronic interface to the Human Resources Payroll (HRPR) system.

Position Budgeting

Each SRC budgets for its employees. Within each SRC, management, bargaining unit (BU), and other (e.g., temporary and co-operative) employees will be budgeted by headcount and by job code. The budgeting system provides an interface to the HRPR system which populates the budgeting system with actual employee headcounts by SRC and job code as of the date of estimate (DOE). Contractor headcounts are not available for inclusion from the HRPR interface.

Business Lines and Service Groups are required to develop and maintain a forecast headcount on an ongoing basis, at the SRC level. SRCs are responsible for employee headcount accuracy in the budget. This does not include contractors. Staffing levels must meet all corporate guidelines and criteria as defined by Human Resources. All groups are required to budget changes in headcounts in the month they are expected to occur.

Payroll Budgeting

Payroll is budgeted by calendar month. Payroll budgets are based on position budgeting headcounts and average straight time wage rates by job code, calculated for each SRC, as provided through the HRPR interface as of the DOE. Hours worked tables and non-productive loading rates are specific to each business line and service group.

Wage rate increases for management employees and respective Bargaining Unit employees are maintained in the budgeting system. Wage rate increase assumptions are reflected in the average straight time payroll rate by job code for each year, in the appropriate month. The budgeting system applies the tax and benefits, non-productive time, and variable compensation loadings to the base payroll. Other earnings, such as shift differential, per diem allowances, and exceptional contributions are manually included in total payroll as lump sum additional dollars.

Labor Balancing

All employees budgeted via position budgeting must be assigned to a project or activity so that all payroll dollars are balanced and assigned to an expense (O&M Budget), capital (Capital Budget), or clearing account via an average management or BU wage rate within a SRC.

Operations and Maintenance Budget

All work must be budgeted to activities or projects, and a budget item. O&M expenses are budgeted at the SRC level in the period when the work is expected to be performed. Inflation assumptions for the planning horizon are not automatically built into the budgeting system but are used by budget coordinators in preparing non-payroll budgets.

Capital Budgeting

Capital expenditures are budgeted in detail in the period when the work is expected to be performed, and incorporate the results of labor balancing. Data requirements (other than those that will be derived from projects, e.g. Business Unit, Facility, In-Service Dates, or Unit), are as follows:

* Budget by Super Project at a minimum
* Payroll budgeted by the SRC
* Budget item details at major categories

Five Year Staffing Plan

The number of planned positions by type is reflected in each annual SRC budget for the next five years. In addition, the amount of planned contracting is reflected in the budgets for contractors and consultants as dollar values, as many consulting and contractor procurements include materials, equipment, and other non-personnel costs. While each SRC develops its own staffing and contracting projection, it does not follow a PPL Corporation or PPL EU workforce planning process. Each work group has its own staffing and contracting planning process.

## transmission and substations

background

This section discusses staffing in the PPL EU Transmission and Substations (T&S) organization. The section addresses staffing in the T&S organizational units in existence as of the end of 2015:

* T&S Asset Management
* Power Dispatch
* Reliability Compliance
* Transmission Expansion
* Transmission Regulatory and Business Affairs
* T&S Engineering
* Transmission Project Management

Cost Reduction

The Business Analysis and Work Management group has initiated a process to identify means for the organization to achieve first quartile cost performance in operations and maintenance (O&M) expenses by 2017. The goal is to trim O&M spending from the 2015 level of $50.4 million to $32.0 million in 2017. The T&S staffing plan is in alignment with the operations and maintenance (O&M) expense target.

2015 Employee and Contractor Changes and 2016 Forecast

A summary of T&S staffing is presented by SRC number and title from the end of 2014 to the end of 2015 along with the 2016 forecast in the following table.

Exhibit ‑  
T&S Staffing Changes 2014–2015 and 2016 Forecast

| SRC | Organizational Unit | 2014 | 2015 | 2014–2015 Change | Forecast 2016 | Change |
| --- | --- | --- | --- | --- | --- | --- |
| **Administration and Leadership** | | | | | | |
| 605 | Transmission and Substations | 5 | 7 | +2 | 4 | -3 |
| **Reliability Compliance** | | | | |  |  |
| 604 | Reliability Compliance | 3 | 3 | 0 | 4 | +1 |
| **Transmission Regulatory and Business Affairs** | | | | |  |  |
| 602 | Transmission Regulatory and Business Affairs | 6 | 1 | -5 | 0 | -1 |
| **Transmission Expansion** | | | | |  |  |
| 2591 | T&S Permitting | 2 | 1 | -1 | 0 | -1 |
| 2593 | Transmission Real Estate Siting and Permit | 8 | 7 | -1 | 9 | +2 |
| 2594 | Work Management | 7 | 5 | -2 | 7 | +2 |
| 2595 | Transmission Expansion | 6 | 3 | -3 | 0 | -3 |
|  | Subtotal | 23 | 16 | -7 | 16 | 0 |
| **Transmission Project Management** | | | | |  |  |
| 2590 | Transmission Project Management | 17 | 19 | +2 | 26 | +7 |
| 489 | Construction Management | 13 | 16 | +3 | 16 | 0 |
| 2597 | Transmission Project Controls | 4 | 0 | -4 | 0 | 0 |
|  | Subtotal | 34 | 35 | +1 | 42 | +7 |
| **Asset Management** | | | | |  |  |
| 601 | Asset Management | 18 | 26 | +8 | 27 | +1 |
| 607 | Asset Management Operations Analysis | 4 | 3 | -1 | 7 | +4 |
| 876 | T-Portfolio Management | 3 | 1 | -2 | 3 | +2 |
| 878 | Maintenance Engineering | 18 | 17 | -1 | 17 | 0 |
| 880 | Engineering and Maintenance Standards | 8 | 7 | -1 | 7 | 0 |
|  | Subtotal | 51 | 54 | +3 | 61 | +7 |
| **Engineering** | | | | |  |  |
| 881 | Transmission Design | 48 | 23 | -25 | 28 | +5 |
| 883 | Substation Engineering | 12 | 35 | +23 | 43 | +8 |
| 905 | Protection and Control Engineering | 30 | 20 | -10 | 23 | +3 |
|  | Subtotal | 90 | 78 | -12 | 94 | +16 |
| **Operations** | | | | |  |  |
| 661 | Power Dispatch (Operations) | 32 | 30 | -2 | 30 | 0 |
| **Totals** | | **244** | **224** | **-20** | **251** | **+27** |
| Sources: DN 01-071; DN 18-001-C; DN 18-058 | | | | | | |

The number of T&S staff decreased by 20 positions in 2015 but is budgeted to increase by 27 positions in 2016 for a net gain of seven positions from 2014 to 2015.

The most significant staffing adjustments during 2015 included the disbanding of Transmission Regulatory and Business Affairs, absorbing the Transmission Project Controls group into the other Transmission Project Management groups, reductions in the Transmission Expansion group, and a realignment of staffing in the Engineering group.

Transmission Regulatory and Business Affairs engineers, analysts, and Director were either reassigned or the position vacancies were not refilled. The Transmission Expansion group was reduced by seven positions based on process changes due to experience gained from recent projects and projected capital workload. The Engineering group realigned engineers between transmission lines and substations based on project workload. In addition, the staff performing distribution protection and controls was transferred from Engineering to the Distribution Engineering group in Distribution Operations.

A large retirement bubble in T&S occurred around 2011 and 2012 but employee turnover has occurred at a normal rate since then. As of March 2016, T&S was not projecting any employee staffing changes from the forecast 2016 level during the five year horizon. Projected yearend 2016 staffing in T&S is a total of 251, an increase of 27 positions over yearend 2015. Details by organizational elements are discussed below.

**Transmission Regulatory and Business Affairs.** The remaining PJM and Federal Regulatory Policy Manager position was moved to T&S Asset Management in January 2016. Transmission Regulatory and Business Affairs is no longer a separate group.

**Transmission Expansion.** The Transmission Expansion group functions were redistributed in January 2016 with the personnel from Transmission Real Estate Siting and Permit (SRC 2593) transferred to Project Delivery.

**Business Analysis and Work Management.** The new Business Analysis and Work Management group centralizes the business analysts in Transmission and Substations. Two analysts were transferred from SRC 0605. The Data Analytics and Performance group and the T&S Scheduler from Power Dispatch were also transferred to the Business Analysis and Work Management organization.

**Transmission Project Management.** In January 2016, the Construction Management group (SRC 489) was relocated to Project Delivery. The remaining group in Transmission Project Management is Transmission Project Management (SRC 2590).

The Transmission Project Management workload is driven by transmission capital spending which is expected to be relatively constant over the next five years. There are no plans for changes to this unit’s scope of responsibilities or in the mix of employees to contractors.

**Asset Management.** One additional staff has been added to SRC 0601, Asset Management, four to Operations Analysis, and two to Portfolio Management, bringing the total staffing as of March 2016 to 61 positions.

The dollar value of upcoming capital projects is increasing but Asset Management does not expect to fully staff for this work with in-house employees. Contractors will be used to absorb the upswing in work.

The dollar amount of the current five year capital project plan for Asset Management is shown in the table below.

Exhibit ‑  
Five Year Transmission Capital Project Plan 2016–2020

| **Transmission Capital Projects** | **2016** | **2017** | **2018** | **2019** | **2020** |
| --- | --- | --- | --- | --- | --- |
| Capital Project Dollar Value (millions) | $599.7 | $679.0 | $629.5 | $571.3 | $609.1 |
| Source: DN 18-021 | | | | | |

Asset Management is planning to add staff in Transmission Planning to allow for more thorough and detailed analysis of future needs. The Asset Management group is being reformed to increase the focus on reliability.

**Project Delivery (formerly Engineering).** The Engineering organization is now called Project Delivery. Project Delivery has increased the Substation Engineering group by eight positions in 2016 due to recent problems with missing deadlines and attrition. Transmission Design has added five positions in 2016 and Protection and Control Engineering has added three positions to meet the projected workload.

The Transmission Expansion group functions and several components of Transmission Project Management were realigned with Engineering to form the Project Delivery department. These realignments were made based on the experience gained from several recent large projects including the Susquehanna-Roseland and Pocono projects. T&S is projecting a continued high level of capital spending through 2020.

The Construction Management group (SRC 0489) was transferred from Transmission Project Management to Project Delivery in early 2016. The Transmission Real Estate Siting and Permit group (SRC 2593) was also transferred from the former Transmission Expansion department.

**Operations.** The overall workload in Operations is expected to remain fairly constant. It is a 24x7 operation with a constant flow of outage scheduling and switching work to accommodate capital and O&M work performed on the system. Daily monitoring and operating activity is steady.

Continued technological improvements for monitoring and operating the transmission system may reduce some of the daily manual workload and avoid the need to add any staff. Operations is planning to perform system and outage studies beyond the current three month horizon. Staff is also working on improvements to the outage request and coordination application to reduce the amount of time it takes to approve outage requests.

**TransLink.** The separate transmission company, TransLink, which was created in late 2015, has been staffed. Approximately five people were assigned to support TransLink in January 2016. This staff is supplemented by a project development team of four to five people in T&S Project Management that will develop the conceptual plans for TransLink proposals. If a TransLink bid is successful then Project Delivery or contractors may perform the design work. Previously, Project Delivery provided support for the TransLink proposal on the Cascade project and Asset Management may provide some support to future TransLink projects within the PPL EU service area but none are currently underway.

**Staff Augmentation Contractors.** During 2015, T&S reported spending for contractors as follows:

* Staff Augmentation – $6,397,591
* Design/Project Management – $60,899,430
* Construction – $110,646,817

In addition to outsourcing the majority of design work, all T&S construction is outsourced.

Within the above spending, the Engineering Group reported spending on contractors in 2015 as follows:

* Design - $2,448,965
* Siting/Permitting - $102,313
* Construction Management - $574,858

Engineering for programmatic work is performed by off-site contractors. Contractor liaisons and staff augmentation are on-site. In-house T&S staff focuses on the smaller short term projects.

T&S utilizes staff augmentation contractors in many areas. T&S reported levels of support in full-time equivalent employees (FTEs) as of March 31, 2016 are shown in the following table.

Exhibit ‑  
T&S Staff Augmentation Contractor FTEs as of March 31, 2016

| SRC | Organizational Unit | Staff Augmentation FTEs |
| --- | --- | --- |
| 0605 | Transmission and Substations (administration and leadership) | 3 |
| 0604 | Reliability Compliance | 0 |
| 2594 | Work Management | 2 |
| 2590 | Transmission Project Management | 38 |
| 0601 | Asset Management | 5 |
| 0607 | Asset Management Operations Analysis | 0 |
| 0876 | T-Portfolio Management | 2 |
| 0878 | Maintenance Engineering | 2 |
| 0880 | Engineering and Maintenance Standards | 4 |
|  | Subtotal | 56 |
| 0881 | Transmission Design | 2 |
| 0883 | Substation Engineering | 4 |
| 0905 | Protection and Control Engineering | 27 |
| 0489 | Construction Management | 7 |
| 2593 | Transmission Real Estate Siting and Permit | 0 |
| 2595 | Transmission Expansion | 1 |
|  | Subtotal | 41 |
| 0661 | Power Dispatch | 1 |
|  | **Total** | **98** |
| Source: DN 18-059 | | |

High levels of contractors are being utilized in several areas to supplement the in-house staff, most notably in Transmission Project Management, Asset Management, and Project Delivery in which contractors exceed the in-house staff levels.

**Transmission Project Management.** The Project Management staff is augmented by 38 contractors, both on-site and off-site, who serve as associate project managers, providing support to the PPL EU project managers in drafting project plans and other support.

**Asset Management.** Thirteen contractors are augmenting Asset Management staff as of March 2016. Five contractors are currently supporting capital planning in Asset Management. Portfolio Management is supplemented by two contractors, as is Maintenance Engineering, while the staff augmentation for Engineering and Maintenance Standards is currently four positions. Off-site contractors also are supporting specialty analysis on specific systems and equipment.

**Project Delivery.** Project Delivery is supported by 41 staff augmentation contractors. The Transmission Design staff is augmented by two contractors, Substation Engineering by four contractors, and Protection and Control Engineering by 27 contractors. Seven contractors also supplement the field construction supervisor staff in Construction Management, supervising construction work in the field performed by the construction contractors. The Work Management and Transmission Expansion functions are supplemented by three contractors. In addition, design work for specific major capital projects is contracted out.

A number of organizational changes were made in January 2016. Transmission and Substations has been reorganized into six departments: Reliability Compliance, Business Analysis and Work Management, Transmission Project Management, Asset Management, Project Delivery, and Operations.

Employee and Contractor Staffing Planning Criteria and Process

The PPL EU investment in the transmission system has increased the past several years to address aging infrastructure, reliability, system hardening for storm resiliency, and physical or cyber threats. As a result, T&S is using more contractors to supplement in-house staff and for most engineering design work. All transmission line construction and maintenance and most substation construction work is contracted out.

The Vice President of T&S meets annually with the department heads to review the alignment of the organization to best implement the five year capital plan and establish appropriate staffing to support the plan. The primary input into staffing needs is the capital workload based on the capital plan as well as projected levels of emergent work.

The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS

No T&S personnel were identified as transferring to PPL EUS.

The Plans for Adjusting Staffing in PPL EU, PPL SC, and PPL EUS As The Talen TSA Winds Down and Terminates

There is no continuing Talen impact on T&S other than completion of the segregation of facilities at substation interfaces. Project Delivery supported the electric system interface agreements for the split for the Talen divestiture. There is a multi-year effort underway to complete work in substations to segregate the Talen-owned facilities from PPL EU-owned facilities. Contractors are performing this design work.

The Generator Operators were a separate function from Power Dispatch that moved to Talen. Prior to the Talen divestiture, the use of black start facilities and performance of balancing functions for system restoration was supported by the generator operators. The PPL EU Transmission System Operators were trained to perform this function as part of the transition. Additionally, PPL EU Transmission Operations shared use of IT support for systems with the generator operators. IT split these resources as part of the divestiture.

The transmission operator responsibilities under the NERC NUC-001 Nuclear Plant Interface Coordination standard for coordination of service to the Talen nuclear plants remain in place.

finding

1. Most T&S functions have developed and maintain core competencies; however, little internal expertise is being maintained in transmission project design, contracts and interconnection agreements, protection and control engineering, and field construction.

T&S has focused its core competencies in project planning and implementation, system operations, and maintenance programs. All transmission line and major substation construction is contracted out along with quality control and most engineering design work. Multiple design firms are used to prepare designs and provide construction drawings for use in construction contracting and building of the projects.

T&S has established employee core competencies in the areas of planning, project development, system operations, and system maintenance. However, there is significant reliance on contractors for project design work, asset management contracts and interconnection agreements, and field monitoring of projects. T&S has also eliminated in-house capability to construct and maintain the facilities in the field.

Most capital project design work is outsourced on a project by project basis to contractors. T&S currently uses multiple design firms which typically bid on specific design projects. The in-house design staff is largely responsible for unplanned emergent work to address maintenance issues and equipment failures. The absence of large project design opportunities prevents the development of robust skills in the Project Delivery department to apply to projects and continued oversight of contracted design work.

Asset Management has lost some expertise on contracts and interconnection agreements due to retirements and is now focusing on rebuilding these areas of expertise. It is challenging for Asset Management to find qualified transmission planners and contract developers in the market. Other engineering needs in design and maintenance are relatively easy to find in the market.

The Protection and Control Engineering staff is projected to be 23 in 2016. As of March 2016, the staff is augmented by 27 contractors. Protection and controls are critical areas in assuring the reliable operation of the transmission system in compliance with NERC standards. Comprehensive knowledge and understanding of the protection schemes and applications in use is vital to proper coordination of protection systems, protection of equipment, and in analyzing potential misoperations of installed systems.

There are about 15 contract construction supervisors supporting specific programs such as the smart switch installations, lightning arrestor installations, and fiber installations which are comprised of a large number of small jobs. Some programs are also managed directly by the contractor and inspected by the contract quality inspectors.

Construction quality control is provided by six contract quality inspectors, one for each region, who are managed by a Quality Manager in Construction Management. The Quality Manager is a new position created in March 2015. The quality inspectors perform detailed reviews of the constructed facilities as compared to the job plans and construction standards. The results of quality reviews are provided to the Project Manager.

The absence of in-house construction crews also means that T&S is fully reliant on its contractors and mutual assistance for outage and storm restoration work. Maintaining some level of in-house construction capability would offer benefits in the management of contract crews and would provide a more direct line of feedback from the field to project managers and designers on developing issues or opportunities for improvement.

RecommendationS

1. Enhance employee core competencies in transmission project design, contracts and interconnection agreements, protection and control engineering, and field construction. (See Finding 1)

Extended use of contractors in core competency areas can lead to a loss of key internal skills, knowledge, and experience. T&S should develop and maintain employee core competency teams for transmission project design, contracts and interconnection agreements, and protection and control engineering while continuing to contract out the peaks of workload. Maintaining some in-house field construction capability and hands-on employee experience would be valuable in effectively managing contract crews and in providing effective contractor oversight in these areas.

Potentially, two or three transmission crews per super region could perform smaller capital and maintenance work and an occasional larger job to maintain skills. The crews could potentially be managed by Distribution Operations since T&S does not have the management infrastructure in place. These crews would help provide long-term continuity in communication of observed field related issues to the Asset Management and Project Delivery functions for potential improvements to materials, equipment, or construction standards.

1. Establish strategic alliances with no more than three engineering services companies for design work. (See Finding 1)

Consideration should be given to soliciting proposals and entering into longer term agreements with larger design firms. This approach would allow for the contracted firms to gain a more complete understanding of the design considerations, regulations, PPL EU expectations and standards, and resulting system performance. Efficiencies in transferring information and coordinating projects with fewer design firms would also be realized. Larger firms will also have expertise in new and developing technologies and design approaches and have the ability to more readily scale up resources to meet surges in demand.

## Distribution operations and Technical Development and Improvement

background

This section addresses staffing issues in the PPL EU Distribution Operations and Technical Development and Improvement organizations. This section covers the Distribution Operations units and the Technical Development and Improvement unit as organized at the end of 2015:

* Distribution Asset Management
* Vegetation Management
* Project and Construction Management
* Respond to Customer (Operations)
* Lehigh/Northeast Region Operations
* Central/Susquehanna Region Operations
* Harrisburg/Lancaster Region Operations
* Transportation Services
* Distribution Engineering
* Technical Development and Improvement

Staffing Studies

Distribution Operations commissioned a staffing study in December 2015 that was completed in January 2016. The goal is to align staffing with first quartile cost performance. The study included benchmarking with other utilities and development of a road map for Distribution Operations to follow. The study identified opportunities to cut costs in the areas of field productivity, work management processes, spans of control/headcount, sourcing opportunities in contract management, and proper categorization of capital and O&M charges for accounting. The study indicated that Distribution Operations currently is in the second quartile for field staffing and in the third quartile for support functions. Distribution Operations is using the results to develop a plan during 2016 for implementation in the following years to achieve first quartile levels.

During 2015, The Director of Respond to Customer Operations also conducted benchmarking with approximately twelve other utilities, including LG&E and KU, as part of a review of overall staffing needs. Furthermore, Transportation Services uses a fleet consulting and benchmarking company to develop workforce projections. The 2016 projection indicates a need for 48 garage mechanics to support the current PPL EU fleet of 2,561 vehicles.

Project and Construction Management and Technical Development and Improvement have not conducted any staffing studies. However, the Project Construction and Management group plans to benchmark its project management functions and processes with other utilities, including LG&E and KU, in 2016.

2015 Employee and Contractor Changes and 2016 Forecast

Distribution Operations staffing is presented by department and SRC number and title from the end of 2014 to the end of 2015 along with the staffing forecast from the end of 2015 to 2016 in the following table.

Exhibit ‑  
Distribution Operations Staffing Changes 2014–2015 and 2016 Forecast

| **SRC** | **Organizational Unit** | **2014** | **2015** | **2014–2015 Change** | **2016** | **2015–2016 Change** |
| --- | --- | --- | --- | --- | --- | --- |
| **Leadership and Administration** | | | | | | |
| 0400 | Distribution Operations | 9 | 7 | -2 | 6 | -1 |
| 0479 | Vegetation Management | 18 | 18 | 0 | 18 | 0 |
| **Distribution Asset Management** | | | | |  |  |
| 0402 | Distribution Portfolio Management | 10 | 9 | 1 | 9 | 0 |
| 0873 | Distribution Asset Management | 16 | 16 | 0 | 16 | 0 |
|  | Subtotal | 26 | 25 | -1 | 25 | 0 |
| **Distribution Engineering** | | | | |  |  |
| 0665 | Relay Test | 48 | 45 | -3 | 45 | 0 |
| 0872 | System Shops | 39 | 39 | 0 | 36 | -3 |
| 0888 | Distribution Design and Standards | 22 | 29 | +7 | 28 | -1 |
| 0985 | Smart Grid | 1 | 0 | -1 | 0 | 0 |
|  | Subtotal | 110 | 113 | +3 | 109 | -4 |
| **Project and Construction Management** | | | | |  |  |
| 0475 | Project and Construction Management | 21 | 21 | 0 | 19 | -2 |
| 0477 | Contract Management | 4 | 0 | -4 | 0 | 0 |
| 0478 | Attachments & Telecomm Business | 6 | 6 | 0 | 6 | 0 |
|  | Subtotal | 31 | 27 | -4 | 25 | -2 |
| **Respond to Customer (Operations)** | | | | |  |  |
| 0481 | Respond To Customer | 12 | 13 | +1 | 15 | +2 |
| 0482 | Distribution System Operations and Dispatch | 70 | 73 | +3 | 61 | -12 |
| 0483 | Trouble Department | 57 | 57 | 0 | 57 | 0 |
|  | Subtotal | 139 | 143 | +4 | 133 | -10 |
| **Lehigh/Northeast Region Operations** | | | | |  |  |
| 0486 | Lehigh/Northeast Region Operations | 15 | 16 | +1 | 15 | -1 |
| 0445 | Lehigh Region Admin & Support | 17 | 18 | +1 | 16 | -2 |
| 0446 | Lehigh Region Design | 19 | 18 | -1 | 18 | 0 |
| 0448 | Lehigh Region T&D | 77 | 77 | 0 | 78 | +1 |
| 0449 | Lehigh Region M&E | 50 | 50 | 0 | 51 | +1 |
| 0451 | Northeast Region Design | 21 | 21 | 0 | 22 | +1 |
| 0453 | Northeast Region T&D | 74 | 74 | 0 | 72 | -2 |
| 0454 | Northeast Region M&E | 32 | 32 | 0 | 32 | 0 |
| 0470 | Northeast Region Admin & Support | 10 | 10 | 0 | 10 | 0 |
|  | Subtotal | 315 | 316 | +1 | 314 | -2 |
| **Central/Susquehanna Region Operations** | | | | |  |  |
| 0487 | Central/Susquehanna Region Operations | 8 | 8 | 0 | 7 | -1 |
| 0420 | Susquehanna Region Admin & Support | 14 | 14 | 0 | 14 | 0 |
| 0421 | Susquehanna Region Design | 19 | 20 | +1 | 20 | 0 |
| 0423 | Susquehanna Region T&D | 67 | 65 | -2 | 67 | +2 |
| 0424 | Susquehanna Region M&E | 29 | 29 | 0 | 29 | 0 |
| 0455 | Central Region Admin & Support | 13 | 14 | +1 | 13 | -1 |
| 0458 | Central Region T&D | 64 | 64 | 0 | 64 | 0 |
| 0459 | Central Region M&E | 29 | 29 | 0 | 30 | +1 |
| 0466 | Central Region Design | 18 | 18 | 0 | 19 | +1 |
|  | Subtotal | 261 | 261 | 0 | 263 | +2 |
| **Harrisburg/Lancaster Region Operations** | | | | |  |  |
| 0488 | Harrisburg/Lancaster Region Operations | 9 | 7 | -2 | 7 | 0 |
| 0410 | Lancaster Region Admin & Support | 16 | 17 | +1 | 20 | +3 |
| 0411 | Lancaster Region Design | 19 | 19 | 0 | 20 | +1 |
| 0413 | Lancaster Region T&D | 77 | 75 | -2 | 75 | 0 |
| 0414 | Lancaster Region M&E | 45 | 45 | 0 | 44 | -1 |
| 0417 | Lancaster Metering | 0 | 0 | 0 | 0 | 0 |
| 0426 | Harrisburg Region Design | 16 | 16 | 0 | 16 | 0 |
| 0428 | Harrisburg Region T&D | 74 | 75 | +1 | 75 | 0 |
| 0429 | Harrisburg Region M&E | 51 | 52 | +1 | 50 | -2 |
| 0430 | Harrisburg Region Admin & Support | 20 | 20 | 0 | 20 | 0 |
|  | Subtotal | 327 | 326 | -1 | 327 | +1 |
| **Transportation Services** | | | | |  |  |
| 0590 | Transportation Services | 3 | 3 | 0 | 3 | 0 |
| 0591 | Transportation - Lehigh Region | 14 | 12 | -2 | 9 | -3 |
| 0592 | Transportation - Hazleton Region | 9 | 8 | -1 | 6 | -2 |
| 0593 | Transportation - Scranton Region | 11 | 11 | 0 | 9 | -2 |
| 0594 | Transportation - Susquehanna Region | 12 | 9 | -3 | 8 | -1 |
| 0595 | Transportation - Harrisburg Region | 11 | 7 | -4 | 6 | -1 |
| 0596 | Transportation - Lancaster Region | 10 | 8 | -2 | 7 | -1 |
|  | Subtotal | 70 | 58 | -12 | 48 | -10 |
|  | **Totals** | **1,306** | **1294** | **-12** | **1268** | **-26** |
| Source: DN 18-025 | | | | | | |

The number of Distribution Operations staff decreased in 2015 by twelve positions from 1,306 to 1,294. It is projected to decrease by 26 more positions to 1,268 in 2016. The significant changes planned for 2016 are reductions in the System Facility Center, Respond to Customer, and Transportation Services staffing. As more systems and processes are automated, Distribution Operations also projects a reduced need for records specialists and stenographers in the Respond to Customer department and other areas in Distribution Operations.

The 2015 staffing level for Distribution Operations does not include the 44 materials handlers who are listed under Supply Chain but are deployed to Distribution Operations work centers. Daily supervision of the materials handlers was transferred from Supply Chain to the three Region Operations groups in 2015 to enable more direct oversight of these employees located at 27 service centers across the service area. Supply Chain provides direction to the materials handlers on inventory control and inventory management procedures. The headcount remains in Supply Chain to maintain a complete view of staff responsible for materials management.

Details by organizational elements are discussed below.

**Vegetation Management.** The staffing plan is based on the transmission and distribution trim cycles. The new trim cycle is not yet fully implemented for the distribution system. Vegetation Management projects a staff of 15 supporting the annual transmission and distribution trim program in 2020, a reduction of three positions from the current level.

Vegetation Management is replacing ten Line Clearance Inspector (LCI) employee positions with contractors as vacancies occur. The staffing projection shows seven LCI employees in 2020. LCI employees cost approximately $120,000 to $135,000 per year while LCI contractors cost approximately $95,000 to $110,000 per year for a savings of at least $10,000 per position per year. The LCIs are supervised by PPL EU Forester employees.

**Distribution Asset Management.** In the fourth quarter of 2015, the Distribution Operations business analysts were consolidated under the Work and Resource Planning group in Asset Management.

The Supervisor of Project Controls Specialist position was eliminated in mid-2015. The Project Controls Specialists now report directly to the Distribution Asset Management Director. Eight positions were added to the Portfolio Management group to support ongoing implementation of the distribution planned maintenance work.

Five staff will be reduced in 2016 due to process improvements. As fewer funds are available for distribution projects in future years, the group will spend more time on project prioritization and improving overall project and portfolio management.

The group has prepared a staffing realignment project plan to implement the results of the December 2015 staffing study for Distribution Operations. Progress towards this plan is reviewed monthly.

**Distribution Engineering.** The Smart Grid Manager position was eliminated in 2015. One engineer and two technicians from the Relay Test group were moved to Talen in 2015. The Distribution Protection and Control Engineering subgroup, consisting of five technicians formerly within the Transmission Engineering Protection and Controls group, was merged into the Distribution Design and Standards group in 2015.

The Distribution Engineering System Shops group workload is maintenance driven. Doble testing, oil-filling transformers, performing NERC PRC-005 periodic battery testing, and troubleshooting distribution automation schemes are some of the larger responsibilities. The group also commissions new transformers. No staffing changes are currently planned.

Staffing reductions are the result of not filling several vacancies, eliminating a Steno position, and transferring the Training Specialist – System Shops functions to Technical Training and Development.

The Distribution Engineering Relay Test groups have minimal turnover and the workload is steady based on the current testing and maintenance cycle. The current distribution relaying is mostly electro-mechanical which requires more frequent maintenance. As a result, no staffing changes are currently planned in Relay Test although the continued need for in-house staff is reviewed as attrition occurs. Contractors are used to commission new relaying systems.

The Distribution Engineering Distribution Design and Standards group workload is steady in standards development and large project design work.

Both T&S and Distribution Operations support an annual engineering intern program for college level students to work at PPL EU to gain practical experience and learn about careers at PPL EU. Approximately 16 to 20 interns will be hired in 2016. The program allows PPL EU to evaluate the interns’ qualifications for potential future employment.

**Project and Construction Management.** The Contract Management group with four employees in 2014 was moved to Supply Chain in early 2015.

The Distribution Operations capital projects budget will be reduced by about $100 million next year so PPL EU is increasing its flexibility to move crews internally to complete work. As a result, the Project and Construction Management group functions were repositioned in early 2016. The Pole Attachment, Streetlights, and PennDOT functions have been moved to Distribution Asset Management and Construction Management and Project Management functions have been combined into a new functional group that supports all Vegetation Management and Project Management functions as part of the repositioning.

No additional changes are planned in Project and Construction Management staffing in 2016. However, any vacancies that occur in the Construction Manager positions may be not filled immediately. Distribution Operations has a goal in 2016 to improve the overall efficiency of the field force. This initiative should reduce the number of contract crews supplementing in-house crews and result in a need for fewer construction managers.

The workload in the damage prevention, street lighting, attachments, regional projects, and Pennsylvania Department of Transportation related work areas are fairly steady year to year. However, large distribution capital jobs are more variable. The overall distribution capital budget is expected to decrease over the next five years resulting in the need for fewer project managers. Project and Construction Management typically is responsible for about 25% of the distribution capital spending.

**Respond to Customer.** The 2016 two-year staffing plan included a reduction of 13 positions in 2016, and calls for reducing an additional seven positions in 2017. The 2016 staffing plan changes consist of reductions in system operators, records staff, and support personnel.

Implementation of the Distribution Management System (DMS), and increased distribution automation allow for the reduction of one System Operator per team, or seven positions total, by yearend 2016. The group is transitioning to data analysis and data mining to support Operations. The plan is to reduce the Operations support group by two positions by yearend 2016.

Operations general preference is to utilize PPL EU staff for its functions, however contractors are also considered. The primary considerations for determining the most effective long term staffing mix are based on the impacts on effective operation of the system, reliability, and cost. Contracting is also used when the union is not amenable to supporting a new role, such as the second shift line crews.

**Region Operations.** There are no current plans for structural changes to the three Region Operations groups. The staffing of the three Region Operations groups has been relatively stable. Contractors are used for seasonal peak workloads and shorter term surges in capital work.

The Region Operations groups are reducing the employee mechanics that historically have performed civil work such as excavating, concrete foundations, and substation structure installation. This type of work is considered non-core and will be contracted in the future.

The Regional Operations groups coordinate on a regular basis and will loan resources to another region to support big jobs or short-term increases in workload. This flexibility to move crews includes planning for staffing needs along with the projected capital spending and efficiencies gained in deployment of the field crews.

Distribution capital spending is expected to decline over the next five years which would result in a lesser need for contract crews and potentially a reduced staffing need in the Regional Engineering and Regional Work Management groups.

The focus for staff planning is the projected level of planned (program) work and unplanned customer driven work. Program work includes planned maintenance and small capital work related to the Long Term Infrastructure Improvement Plan. Customer driven work involves line extensions and service line connections for new customers. Asset Management provides a capital forecast of program and project work along with information on the worst performing circuits. This data is used to project staffing needs along with estimates of the emergent and customer work.

The workload for the next two years is well defined. Program work is steady. Emergent maintenance work projections are based on a five year history. Project work is projected based on the type of work in the five year capital plan.

An initiative is underway in Distribution Operations to more efficiently utilize the field crews. The crews are engaged in the discussions and sharing of success stories. The current focus is on improving job planning and work assignments to crews.

Line worker needs are coordinated among the three regions to develop a consolidated plan for hiring of apprentices for the four year apprenticeship program. Projections of turnover and workload are used to forecast the desired staffing level.

One potential change currently under review is to reduce the number of Field Managers from three to two in each of the three Region Operations groups.

There is an increase in the number of retirements expected in the Harrisburg/Lancaster Region in the next five years which is factored into the five year staffing plan.

**Transportation Services.** Six mechanics moved to Talen in 2015 and an additional four mechanics and two management personnel were not replaced when the positions were vacated in 2015.

There are four contract mechanics providing service at one garage location. The contract company provides full support to these mechanics including parts. Vendors are also used at all of the garages for routine maintenance and specialized services such as minor preventative maintenance, body work, painting, and transmission and engine rebuilds.

The transportation garage staff has sufficient capacity to absorb future work increases. The preference is to contract out an entire garage location. With current staffing levels, mechanic vacancies are not being filled and transfers have been used to balance staff with workload where necessary.

The fleet size is expected to reduce. There are a number of transmission line tensioner trucks and other transmission specific vehicles that are low use and may be disposed of in the near future.

Transportation Services estimates it will need in the neighborhood of 40 to 45 mechanics and parts handlers to take care of PPL EU’s fleet with a core PPL EU team of five to six managing the contract and overseeing the contract work.

By 2020, Transportation Services projects a total in-house staff of 26 supporting the contract garage operations.

**Technical Development and Improvement.** The TDI staffing by SRC number and title from the end of 2014 to the end of 2015 is shown on the following table.

Exhibit ‑  
PPL EU Technical Development and Improvement Staffing Changes 2014–2015

| **SRC** | **Organizational Unit** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 982 | Technical Development | 58 | 50 | -8 |
| 983 | Technical Development - EU | 0 | 2 | +2 |
|  | **Totals** | **58** | **52** | **-6** |
| Sources: DN 01-071; DN 18-001-C | | | | |

The number of PPL EU Technical Development and Improvement (TDI) staff decreased in 2015 by approximately 10%, from 58 to 52. In July 2013, the TDI staff was around 71 employees. The primary drivers of the reductions are the increased use of technology to deliver training, outsourcing training delivery, and improving the effectiveness and efficiency of existing training programs and activities.

TDI staff is approximately 55 as of March 2016. The plan is for staff to be at 51 by year end 2016. Overall staffing for TDI is expected to be relatively stable over the next five years.

If necessary, TDI can temporarily upgrade a lineman to a trainer for upswings in hiring. As of March 2016, one lineman is serving as a temporary trainer and two are planned to serve in this capacity around mid-year.

TDI bases staffing needs on the work and hiring plans of the PPL EU departments it supports.

Distribution Operations Staff Augmentation Contractors.

Distribution Operations utilizes some staff augmentation contractors in several areas. The majority of contractors is involved in actual field construction activities and is presented in a later table (Distribution Operations Field Contractor FTEs Yearend 2015 Actual and 2016 Projected on pages 28-29). As of March 31, 2016 Distribution Operations reported levels of staff augmentation support as show in the following table.

Exhibit ‑  
Distribution Operations Staff Augmentation Contractor FTEs as of March 31, 2016

| **SRC** | **Organizational Unit** | **Staff  Augmentation FTEs** |
| --- | --- | --- |
| **Leadership and Administration** | | |
| 0479 | Vegetation Management | 3 |
| **Distribution Asset Management** | | |
| 0402 | Distribution Asset Management | 5 |
| **Distribution Engineering** | | |
| 0665 | Relay Test | 5 |
| 0888 | Distribution Design and Standards | 1 |
| **Project and Construction Management** | | |
| 0475 | Project and Construction Management | 9 |
| 0478 | Attachments & Telecomm Business | 1 |
| **Respond to Customer** | | |
| 0481 | Respond To Customer | 2 |
| **Transportation Services** | | |
| 0592 | Transportation - Hazleton Region | 5 |
|  | **Totals** | **31** |
| Source: DN 18-002C | | |

**Vegetation Management.** Two LCI contractors augment the staff along with a contract analyst as of March 2016.

**Distribution Asset Management.** Five contract project controls specialists are helping manage large projects. These contractors will be reduced as the number of large projects declines.

**Distribution Engineering.** Contractors are hired for most new substation transformer commissioning work. Five contract employees are providing smart grid automation support in 2016. Three part-time contractors (1 FTE) support the development of new standards sets.

**Project and Construction Management.** As of March 2016, ten contractors were augmenting the Project Management staff, three were supporting Construction Management, one was supporting data entry into the NJUNS system, five project managers were supporting the project management group and a project coordinator was supporting the manager.

**Respond to Customer.** Two contractors are currently helping with the increased Respond to Customer workload due to commissioning of the new distribution automation equipment being deployed in the system. Two to three contract dispatchers are projected to be needed in 2016 to backfill for retiring employees until the vacancies have been filled.

**Region Operations.** Contractors are augmenting the rights of way section staff in Harrisburg/Lancaster Region Operations.

Lehigh/Northeast Region Operations started using contractors to supplement the region design staff and reduce the amount of overtime in 2015 experienced by the in-house design personnel.

**Technical Development and Improvement.** TDI utilizes contractors to provide specialized services including occupational athletics for field workers; technical writing; industrial hygiene; environmental permitting support; underground cable locations; contractor safety; and training classes on CPR, first aid, asbestos, and other specialized classes. The approximate full-time equivalent employee (FTE) equivalency for these specialized services over 2015 is:

* Safety – occupational athletics, industrial hygienist, contractor safety – 6.25 FTEs
* Training – 1.2 FTEs
* Work Management – technical writing – 1.0 FTE
* Environmental – permitting support – 3.8 FTEs
* Damage Prevention – UG cable locators – 43.0 FTEs

TDI expects to continue using contractors for delivery of occupational athletics to field workers.

**Distribution Operations Specialty Work Groups.** In addition to the staff augmentation contractors, Distribution Operations utilizes contractors to complete specialty work such as directional boring, supplement construction crew work in the field, and supplement staffing of trouble crews in order to complete the scheduled workload. The following table summarizes the contractor FTEs used in these capacities in 2015 and projected for 2016 within the field groups by contractor role.

Exhibit ‑  
Distribution Operations Field Contractor FTEs  
Yearend 2015 Actual and 2016 Projected

| **Organizational Unit** | **Contractor FTEs – 2015 Actual** | **Contractor FTEs – Projected 2016** |
| --- | --- | --- |
| **Respond to Customer** | | |
| Trouble – Lehigh/Northeast Region | 6 | 12 |
| Trouble – Central/Susquehanna Region | 2 | 12 |
| Trouble – Harrisburg/Lancaster Region | 5 | 12 |
| Subtotal | 13 | 36 |
| **Lehigh/Northeast Region** | | |
| Directional Boring work | 12 | 12 |
| Mechanical/Electrical work | 13 | 6 |
| Project Construction work | 32 | 21 |
| Transmission/Distribution work | 38 | 27 |
| Subtotal | 95 | 66 |
| **Central/Susquehanna Region** | | |
| Directional Boring work | 3 | 3 |
| Mechanical/Electrical work | 4 | 6 |
| Project Construction work | 12 | 17 |
| Transmission/Distribution work | 37 | 24 |
| Subtotal | 56 | 50 |
| **Harrisburg/Lancaster Region** | | |
| Directional Boring work | 13 | 15 |
| Mechanical/Electrical work | 3 | 3 |
| Project Construction work | 38 | 18 |
| Transmission/Distribution work | 48 | 12 |
| Subtotal | 102 | 48 |
| **Totals** | **266** | **180** |
| Source: DN 18-065 | | |

The most significant change from 2015 to 2016 is in the number of contract FTEs projected for transmission and distribution work. This is attributed to improved efficiencies and productivity of PPL EU crews. This includes scheduling and bundling of work geospatially, realigning resources across service territories, and unitizing specific work.

**Vegetation Management.** Additionally, there are two contract companies performing VM work on transmission and four working on distribution with about 800 to 900 contract personnel currently deployed. These contractors are on three year contracts with options to extend. The number of contractor personnel is expected to be 30 to 40% lower by completion of the new distribution trim cycle in 2017.

**Respond to Customer.** A second shift of line crews is being added in 2016 to support outage repairs from 4 pm to midnight year round. The line crews are made up of 36 contract line workers in two-person crews (shown as 32 FTEs above). Each of the regions will have one two-person crew working each of three shifts. This second shift is in addition to the extended shift of PPL EU line crews (one per region) operating from March to October, Monday through Friday until 7:30 pm, each year. Discussions have been initiated with Local 1600 regarding the potential for bringing the second shift line crews in-house.

**Technical Development and Improvement.** The overall TDI staffing plan is to maintain a core group of internal experts and use subject matter experts from the field when needed to supplement staff. Contractors are used for most on-site specialized instruction for courses such as CPR, First Aid, crane safety, and many technical topics. The decision on whether to use contractors or in-house staff for specific programs is based on cost, expected duration, expertise on the topic, and the need for a support organization behind the trainer to stay current on the topic.

A multi-year staffing plan is maintained. The primary drivers for staffing are workforce skills changes and hiring activity. The training, safety, and work methods staff are expected to know the business and be expert enough in PPL EU systems to support the operations.

The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS

The formation of PPL EUS had little impact on Distribution Operations.

Transportation Services procures and maintains vehicles for PPL EUS organizations including Supply Chain and Facilities.

The materials handlers were part of PPL SC Supply Chain that was transferred to PPL EUS. The reporting relationship for the materials handlers who work in the service centers, 44 positions in total, was subsequently changed during 2015 to the Region Operations Field Managers; however, the headcount remains in PPL EUS Supply Chain.

The Occupational Health Nurse was transferred from PPL EU Technical Development and Improvement to PPL EU Service Corporation Human Resources in 2015.

The Plans for Adjusting Staffing in PPL EU, PPL SC, and PPL EUS As The Talen TSA Winds Down and Terminates

Distribution Operations is not currently providing any significant support to Talen. There was a Talen TSA project in place for about 90 days in 2015 to transition support for the fleet management system to Talen and to complete the transfer of ownership titles for equipment.

The Central/Susquehanna Region Operations substations group provides some ongoing incidental maintenance coverage at the Susquehanna Nuclear plant.

findings

1. Distribution Operations recently completed a comprehensive staffing study.

The study was performed by a management consultant in December 2015 through January 2016. The results are being used by Distribution Operations to develop plans to achieve first quartile costs. Targets were developed for staffing levels in each functional area.

1. Distribution Operations has an effective succession planning process in place.

Distribution Operations has a succession planning process in place and focuses on the timing of quality hires. New hires have been providing fresh perspectives and new skill sets into the organization.

Distribution Operations staffing projections are tied to workload and demographic information provided by Human Resources. Human Resources provides historical information and a 15 year forward look on turnover, retirement projections, and other factors. The staffing projections are performed at the craft level and at the service center level.

Distribution Operations plans to internally staff for its long term resource needs and use temporaries or contractors to cover short-term or peak load needs. Long-term forecasted resource needs are developed for planned work, unplanned maintenance, and customer-related work at the service center level and by skill. This information is used to determine the number of employees and contractors needed and also may identify the need to reposition existing staff.

Contracting needs are determined from analyzing what is needed to construct, operate, and maintain the distribution system as compared to available in-house resources. Contracting is then used to provide the additional capacity needed to complete the projected program and project work. Overall program work is stable and project work is declining.

1. Core competencies are addressed in position budgeting and succession planning.

Distribution Operations is aware of core competency issues and they are addressed at the organizational unit level in the position budgeting and succession planning process.

**Vegetation Management.** Vegetation Management (VM) is responsible for development and implementation of the transmission and distribution VM program through tree trimming contractors. The group regularly interacts with the tree trim crews and the public as the annual program progresses. Contractor management, forestry, and customer relations are key skills for the Foresters. Contractor management and customer relations are key skills for Line Clearance Inspectors.

**Distribution Asset Management.** This group looks for highly qualified employees who are adept with analytics and use of tool sets, can handle complexity, and have business acumen for the development, analysis, and implementation of the asset management program. Strong data analytics skills are a plus.

Qualified Project Control Specialists are available in the marketplace and require less than two months to train on PPL EU systems and processes.

PPL EU actively uses a co-op program to provide engineering students with internships. This gives PPL EU a chance to evaluate potential future applicants and provides the interns with work experience. PPL EU has filled several openings in the past with interns; however the job market is very competitive.

**Distribution Engineering.** Key competencies in Distribution Engineering include distribution line design, relay settings, relay testing, Doble testing, and oil-filling of transformers. Most engineering is performed in-house which facilitates maintenance of these core competencies.

The apprentice program for new relay technicians in Distribution Engineering is four years. This requires advance planning and projection of technician needs so that the appropriate number of apprentices is enrolled in the program each year.

**Project and Construction Management.** Key core competencies in Project and Construction Management are project manager skills and utility experience for the project managers. Key core competencies are utility experience and field construction experience for the construction managers. It takes about six months from hire to fully train new staff. Experience and continuity are important factors. Contractors allow for more rapid staff increases and decreases but employees are more loyal and less likely to turn over. Good project managers are harder to find and it may take two or three months to identify a good candidate.

**Respond To Customer.** Operations trouble technicians are PPL EU’s most experienced line workers and are hired from the PPL EU line worker staff. A new trouble technician typically needs a month or two of additional training. Union seniority rules limit the potential for external hires.

Distribution System Operators need discipline, integrity, and ability to function under stressful conditions. Many of the operators have a Navy nuclear or Air Force operations background. Electric specific training on grid operations rounds out the necessary skill set. New operators go through a six month training program and testing on the system simulator before moving into line operations. Once experience is gained, the operators work on substation operations. The Distribution System Operators are not union positions.

**Region Operations.** In-house crews are maintained to perform maintenance work and most capital program work. Line technicians and substation electricians are hired at the entry level.

The primary concern is in availability of qualified line workers since the apprentice program is four years. Applicants with training from area community colleges as line technicians can complete the apprentice program in less than four years. Needs are coordinated at the Distribution Operations level to identify the number of apprentices to hire based on projected turnover and work load.

**Transportation Services.** Core Transportation Services competencies include fleet procurement, data analysis, and contractor oversight. As the shift to greater contracting occurs there will be a need to train the supervisors on contract oversight skills. The supervisors will remain as the liaison between the contractors and the vehicle operators.

1. Implementation of new technologies and automation has resulted in staff reductions in several areas.

Several groups have recognized the benefits of automating processes and systems in reducing staffing needs. Records personnel have been reduced through automation of forms and processes. Distribution System Operators have been reduced as a result of the implementation of the Distribution Management System and field automation which improved system resiliency.

1. Several non-core competency functions are being outsourced as attrition occurs.

Distribution Operations has identified several non-core competency functions that can be more cost effectively performed by contractors. These are union represented jobs, so the shift is being implemented through attrition. Areas include conversion of the garage operations to contract mechanics and transfer of civil and concrete work in substations to contractors. These non-core competency functions join tree trimming and directional boring as specialties best performed by contractors.

1. Distribution Operations is proactive in planning for upcoming needs in skilled craft areas.

Several key skilled craft positions have four year apprentice programs including line workers, substation electricians, and relay technicians. Distribution Operations forecasts future needs for replacement or additional journey-level personnel in these and other positions and initiates the hiring process to find qualified persons to enter the apprenticeship program in advance of the need.

1. PPL EU has an active engineering intern program.

Both T&S and Distribution Operations actively utilize engineering interns from area colleges. The interns work in various areas of the organizations and gain practical experience to relate to the theoretical training. PPL EU also has the opportunity to evaluate work performed and identify potential applicants for future openings.

1. The Respond to Customer department has added contractors to provide enhanced outage repair and restoration coverage.

Thirty-six contractors are staffing the initial efforts to create a second shift of line crews to provide additional capability to more rapidly restore service after outages that occur outside of the normal day shift work hours. The decision to use contractors was due to reluctance of the union to support the additional work hours. Distribution Operations plans to work with the union to bring this function in-house.

Recommendations

None.

## customer services

Background

There are on-going staffing changes in Customer Services but they are not directly related to the Talen spinoff or the PPL EUS formation from PPL EU and PPL SC. There was no allocation of personnel to or from PPL EU Customer Services in the formation of PPL EUS. There are no plans for adjusting staffing in Customer Services as the Talen Transition Services Agreement winds down and terminates. Instead, the Customer Services staffing changes are related to efforts to reduce costs.

Overall, the Customer Services organization had 431 employees, about 17% of PPL EU’s 2,551 total employees at the end of 2015. The Customer Services 2015 O&M budget was about $80 million, about 18% of PPL EU’s total O&M budget of $450 million in 2015.

Customer Services is organized into five groups reporting to the Vice President of Customer Services:

* Customer Experience
* Customer Services Operations
* Regulatory Programs and Business Services
* Advanced Metering and Data Operations
* Revenue Operations

Overall Customer Services staffing changed from 470 in 2014 to 431 in 2015, a reduction of 39 positions, or about 8%. Each of the five Customer Services groups is discussed below.

Customer Experience

The Customer Experience group consists of two PPL EU Customer Contact Centers (call centers); Training, Development, and Quality Assurance (QA); Major Accounts; Customer Experience (Digital Strategies); and Energy Efficiency. About 48% of the Customer Experience employees are Customer Service Representatives (CSRs) located in the two PPL EU call centers. PPLSolutions and a non-affiliated contractor provide contract CSRs at two additional call centers.

The staffing numbers for 2014 and 2015, by SRC titles, are as follows:

Exhibit ‑  
PPL EU Customer Experience Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0707 | Customer Contact Center | 204 | 182 | -22 |
| 0711 | Major Accounts | 17 | 12 | -5 |
| 0714 | Customer Programs and Communications | 11 | 7 | -4 |
| 0739 | Energy Efficiency Measurement | 5 | 9 | +4 |
| 0799 | Customer Communications | 14 | 11 | -3 |
|  | **Totals** | **251** | **221** | **-30** |
| Source: DN 18-001-C | | | | |

Customer Experience staffing decreased by 30 positions, nearly 12%, between 2014 and 2015. Customer Contact Center staffing (call center CSRs) was the largest contributor by far, representing an 11% reduction in CSRs and about 73% of the total reduction in Customer Experience positions.

**2015 and 2016 Employee and Contractor Changes.** This Call Center Headcount Model forecasts employee and contractor CSR needs by month.

**Future Employee and Contractor Changes.** The following data for CSRs (Job Code 004200) are based on staffing projections used in the 2015 Business Plan.

Exhibit ‑  
PPL EU Customer Service Representatives – 2015 Business Plan Forecast

| **Job Code 004200** | **Year End** | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Actual** | | **2015 Business Plan** | | | |
| **2014** | **2015** | **2016** | **2017** | **2018** | **2019** |
| CSRs | 114 | 105 | 108 | 80 | 60 | 60 |
| Change | N/A | -9 | +3 | -28 | -20 | 0 |
| Source: DN 18-003-C | | | | | | |

This forecast anticipates a significant reduction of PPL EU call center CSRs from 2014 through 2019. During this period a total reduction of 54 positions, or about 47% is anticipated.

Customer Services attributes the previous and continuing reduction in PPL EU CSRs to:

1. Work management improvements have increased call center capacity by 30 FTEs.
2. Reducing After Call Handle Time through improved supervision and the “Win Monday, Win the Week” program.
3. Reducing calls from construction contractors by 30,000 calls per year by installing the Low-Income Energy Assistance Programs (LEAP) Web portal self-service system for Low Income Home Energy Assistance Program (LIHEAP)-related low-income agency and contractor self-service access.
4. New web portal for construction contractors who want to initiate new service allowing self-serve and further reducing call volumes.

About 40 FTEs will be reduced through attrition, about half from management and half from the bargaining units, while performance is expected to improve.

Customer Services attributes improved contractor CSR productivity and service level performance to:

1. Contract terms and the service levels agreement (SLA) with the non-affiliated call center contractor put at risk for as much as 50% of billings related to five specific metrics (10% additive for each)
2. Improved monitoring and direct day-to-day supervision of the PPLSolutions and non-affiliated call centers

Customer Services Operations

The Customer Services Operations (CS Ops) group is a support unit for the call centers and is responsible for performing staffing studies for the call centers. Through 2015, CS Ops had 22 employees and focused on call center operations, workforce management, productivity, head count and FTE forecasting, and performance indicator and metric development. The group is also responsible for managing the performance and contract compliance for the PPLSolutions call center and the non-affiliated third-party call center.

CS Ops restructured its group in early November 2015 and created a dedicated Workforce Management Team. The position of Planner was added to help develop a long-term forecasting model based on historical information as well as including new developments within the business.

The staffing numbers for 2014 and 2015, by SRC titles, are as follows:

Exhibit ‑  
PPL EU Customer Services Operations Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0705 | Customer Services1 | 2 | 5 | +3 |
| 0770 | Customer Operations and Business Improvement | 14 | 21 | +7 |
|  | **Totals** | **16** | **26** | **+10** |
| 1 Includes three positions in VP's Office for 2015 | | | | |
| Source: DN 18-011-C | | | | |

The CS Ops group staffing grew from 16 to 26, an increase of 10, about 63%. The increase is explained because the group was newly formed and reconfigured during 2015 to provide additional performance support to the call centers. Although the CS Ops group performs staffing studies for the Customer Experience Call Centers and the contractor call centers, it does not perform staffing studies or have a formal multi-year planning process of its own.

Regulatory Programs and Business Services

Regulatory Programs and Business Services is responsible for compliance, low-income customer assistance programs, including OnTrack and the Winter Relief Assistance Program (WRAP). The group is relatively small at 22 employees and is responsible for managing contractors to implement its programs.

The staffing numbers for 2014 and 2015, by SRC title, are as follows:

Exhibit ‑  
PPL EU Regulatory Programs Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0701 | Regulatory Programs and Business Services | **21** | **22** | **+1** |
| Source: DN 18-001-C | | | | |

Regulatory Programs staffing increased by one position. During 2015, a new Manager was hired to replace the retiring Manager, and both were in the group during a transition period. The staffing level will likely reduce to 21 during 2016.

**2015 and 2016 Employee and Contractor Changes.** Since 2015, Regulatory Programs has eliminated two of the ten contractors that provide enrollment services for the OnTrack program.

**Future Employee and Contractor Changes.** The Regulatory Programs group is planning to reduce costs and improve productivity. The group plans a reduction by January 1, 2017 of three Universal Services Representatives (USRs) who have been performing work to support the Act 129-related programs, including WRAP. The USRs' tasks will be transferred to a contractor. The contractor is referred to as a Conservation Service Provider "authorized to perform the services and approved and registered" by the PUC.

Consideration is being given to moving toward a single professional call center contractor to replace the existing community-based organizations for the On-Track program enrollment or to develop an on-line application for the OnTrack program that would reduce the community-based organizations’ workloads. See Chapter X, Customer Assistance Programs for more discussion on this topic.

Advanced Metering and Data Operations

Advanced Metering and Data Operations is responsible for the existing metering system and for managing the on-going MeterVision 20/20 project that will replace the Power Line Carrier metering system with a Radio Frequency Mesh system.

The staffing numbers for 2014 and 2015, by SRC titles, are as follows:

Exhibit ‑  
PPL EU Advanced Metering and Data Operations Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0709 | Advanced Metering | 11 | 12 | +1 |
| 0727 | Smart Meter Plan | 15 | 11 | -4 |
| 0733 | Metering Support and Large Power | 17 | 17 | 0 |
|  | **Totals** | **43** | **40** | **-3** |
| Source: DN 18-001-C | | | | |

The table shows a small staffing decrease of less than 10% from 2014 to 2015.

**Future Employee and Contractor Changes.** As discussed in Chapter IX, Customer Services, PPL EU is implementing the new MeterVision 20/20 project that will replace the existing Power Line Carrier metering system with a Radio Frequency Mesh system. The MeterVision 20/20 project has a resource plan for in-house and contractor employees beginning in 2015 through 2020. The resource plan has taken into consideration the requirements of existing employees and the training needed for the conversion to the new metering system and back-office operations. The plan identifies FTE needs through 2020 on a calendar quarter basis for each of the following organizations:

* PPL EU (Advanced Metering and Data Communications group)
* PPL SC IT
* PPL EU (subject matter experts)
* Contractor A
* Contractor B
* Contractor C
* Contractor D

The MeterVision 20/20 Project Resource Plan anticipates that the total resources will grow from 37.1 FTEs in Q1 2015 to a peak of 161.7 FTEs in Q1 2017, and fall to 16.0 FTEs in Q2 2020. Contractor B, responsible for installing meters, accounts for the largest portion in each quarter, peaking at 97.0 FTEs, or about 62%, in Q2 2017.

In addition, PPL EU has an Organizational Change Management Plan that includes a PPL EU staff training section, designed "to ensure that employees have the skills and knowledge required to successfully adopt the organizational, process and technology changes associated with each release of the project." The training process is comprised of a training needs assessment, a training plan, training design, and train-the-trainer sessions.

**Employee and Contractor Staffing Planning Criteria and Process.** The MeterVision 20/20 Project Resource Plan is predicated on criteria for augmenting in-house staff with project-specific and temporary staffing, for contractor consultants from the vendors who are supplying equipment, and for other contractor services.

Revenue Operations

The Revenue Operations group consists of four units: Regional Metering Operations, Revenue Protection, Billing Operations, and Credit and Collections. This group has the second largest number of employees within Customer Services, after the call centers. Two of the units, Regional Metering Operations and Revenue Protection, have field metering employees and account for a majority of the employees in the Revenue Operations group. Regional Metering Operations uses field contractors to perform seasonal field work. Billing Operations and Credit and Collections use contractors to perform billing-related services and credit and collection services.

The staffing numbers for 2014 and 2015, by SRC titles, are as follows:

Exhibit ‑  
PPL EU Revenue Operations Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0725 | Revenue Protection | 21 | 30 | +9 |
| 0736 | Revenue Operations | 10 | 9 | -1 |
| 0733 | Regional Metering Operations | 106 | 83 | -23 |
|  | **Totals** | **137** | **122** | **-15** |
| Source: DN 18-001-C | | | | |

Revenue Operations experienced a reduction of 15 staff, about 11% from 2014 to 2015.

**Future Employee and Contractor Changes.**

As discussed in Chapter XVI, Merger Synergies, Revenue Operations and the PPL Corporation Kentucky utilities are in the process of selecting contractors for joint primary and secondary credit and collection services. There were also discussions between Metering Operations and Revenue Protection with respect to possible commonality of meter-related functions that may lead to reduced FTE requirements within PPL EU.

PPL EU submitted a request to the PUC in January 2016 for implementation of remote meter turn-ons and turn-offs relating to late or non-payments, a feature of the MeterVision 20/20 system. If the PUC approves the request, which is expected in the third quarter of 2016, the volume of Metering Operations' manual field turn-on and turn-off work will be reduced.

There were also discussions between the Advanced Metering and Data Operations and the Revenue Operations groups related to reduction in Regional Metering Operations staffing requirements. Work volumes of normal day-to-day meter installations and turn-on and turn-offs will reduce as the MeterVision 20/20 system is deployed and as the new automated features become available.

findings

1. Customer Services has developed a well-structured and appropriate one-year call center staffing and contractor forecasting model for the CSRs and is planning to extend the model to a multi-year time horizon.

Customer Services Operations (CS Ops) developed a monthly staffing forecast model for its PPL EU and contractor call centers for 2016. The model incorporated historic call volume seasonality to predict future call volume variations. This was achieved by reviewing call volume by month over the last five years to determine a monthly seasonality factor. The factor determined the monthly call volume forecast. Call center metrics like Average Handle Time, Occupancy, Shrinkage, and Hours in a Month were applied against an in-house-developed staffing model to determine the number of required FTEs to support call center work volumes.

1. Customer Services has not performed formal multi-year staffing studies over the last ten years.

The Customer Services Operations group developed a one-year forecasted monthly staffing requirements model for the two PPL EU call centers, the PPLSolutions call center, and the non-affiliated contractor call center. The Model forecasts the CSR FTEs for each of the call centers. However, it does not perform integrated work-driver and performance-based staffing studies that identify optimal employee and contractor requirements over a multi-year time horizon.

Both the Regional Metering Operations and Revenue Protection units have metering-related functions and significant numbers of field employees that would justify a formal integrated staffing study and multi-year staffing contractor requirements forecast. Although there are no specific plans for staffing changes in Regional Metering Operations, there is an expectation for fewer required FTEs and that reductions will be achieved through attrition.

The Regulatory Programs, Advanced Metering and Data Operations, and Revenue Operations groups have not performed any internal or external benchmarking or other studies related to staffing over the last ten years and do not have a formal multi-year planning process for staffing and contractor forecasts.

1. The staffing positions associated with the PPL EU Business Plan Job Codes and the SRC codes are not readily correlated with the five Customer Services' organizational groups.

The Job Codes and SRC codes were created for Human Resources and budgeting purposes and, although they may serve those purposes, they do not facilitate staff planning and forecasting. These codes are not linked to the current reconfigured Customer Services organization and the five reporting groups.

1. The Advanced Metering and Data Operations unit has an appropriate and comprehensive multi-year resource plan for its MeterVision 20/20 project.

Overall, the Project Resource Plan encompasses, in addition to PPL EU, resources supplied by PPL SC IT employees and external contractors. There is appropriate detail, including: (1) Identifying individual employees and contractor and sub-contractor personnel resources, (2) Assigning resources to specific project work packages, and (3) Scheduling resources on a month-to-month basis.

For example, the Plan's work packages and resource identifications for the meter installation contractor include: (1) Work Stream designations (MDM, AMI, Development, and Deployment), (2) Title/Role (PPL EU and contractor functional titles), (3) Specific resource names, and (4) Resource function/affiliation (MDM Accelerated Development, MDM Implementation and Data Migration, MDM Run Ops, Command center Integration and Business Process Support, Command Center Run Ops, Meter Installation Subcontractor, and Network Installation subcontractor.)

1. Selective elimination of employees and increasing use of contractor personnel and services do not seem to be affecting core competencies and institutional knowledge.

The reduction in employees and staffing FTEs are occurring at a measured and controlled pace through attrition and other forms of voluntary separation. No evidence was found that there has been a negative impact on core competencies or significant loss of institutional knowledge. Customer Services has continued to provide training and improved supervision to ensure that service levels and other performance metrics are not diminished.

Recommendations

1. Expand staffing and contractor personnel forecasting models for the call centers from a one-year to a five-year time horizon. (See Finding 1)

Multi-year resource forecasting models will help Customer Services anticipate resource requirements and ensure sufficient lead times to forecast employee attrition, transfer or hire new employees, develop and train employees to achieve the necessary skill sets, determine contractor requirements, and renegotiate contracts as needed. A five-year forecasting model would coincide with the corporate budgeting process and result in more accurate budget forecasts.

1. Develop resource forecasting models for each Customer Services group with significant employee and contractor resources. (See Finding 2)

Customer Services should develop multi-year resource forecasting models for other non-call center organizational functions, beginning with Regional Metering Operations and Revenue Protection field employees and contractors. Although the nature of field work makes the application of work management practices more challenging compared to call center operations, these metering activities should generate sufficient information to define consistent and standardized work tasks, estimate average task completion times, anticipate work load and employee availability, schedule week-to-week, supervise and track metrics, assess work quality, forecast work load/units, and optimize employee and contractor FTEs on month-to-month and year-to-year bases.

1. Link and correlate Customer Services' Job Codes and SRC codes to the existing organizational groups to facilitate staffing studies and requirements forecasting. (See Finding 3)

Linking and correlating the budgeting codes will enable Customer Services to match the job and skills requirements with available resources, determine the gaps, and act to hire, reallocate, and train employees as necessary to meet future needs. These actions will also improve the accuracy and value of budget forecasts.

## finance, accounting, and audit

Background

This section discusses staffing in service departments that provide finance, accounting, and audit services to PPL EU. Financial and accounting services are provided to PPL EU by both PPL SC and PPL EUS. PPL SC provides certain finance and accounting services to the entire PPL Corporation US domestic family of companies, including PPL EU. The PPL SC audit function provides audit services to PPL Corporation Pennsylvania subsidiaries, including PPL EU. The PPL EUS Regulatory Affairs organization and the Accounting, Planning, and Reporting organization provides finance and accounting services only to PPL EU. Staffing issues covered in the following paragraphs are organized by the departments in PPL SC and PPL EUS that provide finance, accounting, and audit services to PPL EU. These include:

* PPL SC
* Investor Relations and Financial Planning
* Controller
* Tax
* Treasury and Risk
* Corporate Audit and Business Ethics
* PPL EUS
* Regulatory Affairs
* Accounting and Financial Reporting

Staffing Studies

PPL SC Organizations. There were no staffing studies performed prior to the formation of PPL EUS or the spinoff of PPL Corporation’s competitive generation business operations into Talen. For the finance and accounting functions, any change in staffing because of the Talen spinoff was tied to the work load identified with PPL Supply. All employees (in PPL SC and PPL EUS) had to reapply for positions in connection with the reorganization and re-staffing prompted by the Talen spinoff. Existing employees were encouraged to apply for multiple positions in the new and revised organizations.

Also, from 2014 to 2015 in preparation for the Talen spinoff, PPL hired an outside consultant to advise them on the separation of the PPL Corporation organization and spans of control, and to provide some benchmark information.

PPL EUS Organizations

PPL EUS was formed in 2014 and staffed in 2015 with personnel from PPL EU and PPL SC. There were no staffing studies performed prior to the formation of PPL EUS and the spinoff of the supply organization to Talen.

2015 and 2016 Employee and Contractor Changes

**PPL SC Organizations.** The number of PPL SC staffing changes by SRC number and title from the end of 2014 to the end of 2015 is shown on the following table.

Exhibit ‑  
PPL SC Finance and Accounting Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| **Financial Administration** | | | | |
| 0100 | Financial | 3 | 2 | -1 |
| 1199 | TSA Financial | 8 | 9 | 1 |
|  | Sub-total | 11 | 11 | 0 |
| **Investor Relations & Financial Planning** | | | | |
| 0130 | Financial Planning | 8 | 8 | 0 |
| 0198 | Investor Relations | 3 | 2 | -1 |
|  | Sub-total | 11 | 10 | -1 |
| **Controller** | | | | |
| 0103 | Global Accounting | 3 | 4 | 1 |
| 0105 | Controller | 25 | 22 | -3 |
| 0111 | Financial Accounting | 5 | 0 | -5 |
|  | Sub-total | 33 | 26 | -7 |
| **Tax** | | | | |
| 0135 | Tax | 22 | 13 | -9 |
| **Finance and Treasury** | | | | |
| 0042 | Risk Management | 2 | 3 | 1 |
| 0102 | Trading Controls | 3 | 0 | -3 |
| 0191 | Finance and Treasury | 8 | 7 | -1 |
| 0194 | Cash Operations | 39 | 39 | 0 |
| 0197 | Risk Management (Insurance) | 3 | 2 | -1 |
|  | Sub-total | 55 | 51 | -4 |
| **Corporate Audit and Business Ethics** | | | | |
| 0005 | Corp Audit and Bus Ethics | 12 | 11 | -1 |
|  | **Totals** | **144** | **122** | **-22** |
| Sources: DN 01-072; DN 18-002-C | | | | |

The number of staff in PPL SC work units that provided finance, accounting, and audit services to PPL EU was reduced by 15% in 2015, from 144 to 122.

In 2015, with the announced retirement of the head of PPL Global, the PPL Global organization resources were brought into the CFO’s group and placed under the Treasurer. At the end of 2015 it was decided to combine the Treasurer position with the Investor Relations and Financial Planning work group. The individual who was in the Treasurer position in 2015 left the company on January 31, 2016.

Also, on January 1, 2016, the PPL Global employee resources were redeployed to other units. The accounting staff from this group remained with the Controller’s group; the business planning staff went to the Investor Relations and Financial Planning group; the compliance function went to the Office of the General Counsel (OGC); and the risk management personnel went to Corporate Risk Management.

At the same time, the PPLSolutions personnel who had been reporting to the Treasurer were temporarily assigned to the Senior Director, Strategic Business Development pending the divestiture of PPLSolutions. Likewise, the PPL Infrastructure personnel who had reported to the Treasurer were reassigned to the Transmission Department.

The Director, Corporate Finance, who had been reporting to the Treasurer, became the Assistant Treasurer and assumed responsibility for Cash Management as well as long-term financing. The Assistant Treasurer now reports to the VP, Investor Relations, Financial Planning, and Treasurer. The Director, Risk Management, who had been reporting to the Treasurer, now reports directly to the CFO.

There are no planned staffing changes for 2016. Changes that were announced or begun in 2015 will be completed during 2016. Contractors will be used to cover long-term open positions. The Strategic Development work group uses bank consultants for strategic initiatives and the Tax work group uses tax personnel from the Big Four accounting firms on occasion.

**Investor Relations and Financial Planning.** As of January 1, 2016, the Treasury function was added to the Investor Relations and Financial Planning work group. This new addition included the Corporate Finance and Cash Management functions and organizations, but not the Risk Management function, which reports directly to the CFO.

Additionally, the PPL Global workforce was broken up, with the accounting function and personnel assigned to the PPL SC Controller and the planning function and its three staff reporting to the PPL SC VP, Investor Relations, Financial Planning, and Treasury. These former PPL Global personnel are responsible for coordinating and managing the United Kingdom Western Power Division (WPD Midlands) planning function. The actual planning is done by WPD Midlands and is consolidated in this work group for inclusion in the PPL Corporation plans. WPD Midlands is regulated by UK authorities and develops an eight-year plan. The current WPD Midlands plan covers the period, April 1, 2015 through March 31, 2023.

**Controller.** In 2015, this work group lost three direct report positions and added a shared resource. The three positions lost were the Assistant Controller position (retired), Director – Technical Accounting who worked on the TSA and then retired, and the Controller, International and Energy Services Accounting, whose position was eliminated. The shared resource was a systems person, who will work with both the Pennsylvania and Kentucky operations on tax, treasury, and accounting systems. There are no plans for staffing changes in 2016.

In the early part of the Talen spin off, contractors were used to augment the Controller’s staff because of the additional work load. Contractors were utilized for approximately two years.

**Tax.** In 2015, the Tax Department lost one half of its staff due to reduced workload related to the Talen Energy spinoff. In the latter part of 2015, one additional tax staff member retired and was not replaced. In 2016 there have been no changes to date. There are no plans to increase or decrease staff or contractors at this time.

**Treasury and Risk.** During 2015, management positions in the Cash Management work group were reduced due to the work load associated with PPL Supply going to Talen Energy. Positions were identified at the end of 2014 and transitioned to Talen in the spin off. There was no change in the bargaining unit personnel, and most of the replacement management personnel came from within the Treasury work area. One Remittance Processing employee left in 2016 due to medical reasons. The Corporate Finance work group staff was reduced in 2015, due to retirement, internship completion, and movement to a TSA assignment. The Risk Management work group lost one Senior Manager at the end of 2015. The Senior Manager position was not refilled. The Fundamental Market Analyst position was moved to Translink in Q1 2016.

The only contractor used in the Treasury and Risk area is the company that is processing ten percent of PPL EU’s remittances and serves as a backup and disaster recovery means in case of an emergency at the Allentown, Pennsylvania Remittance Center. No changes in contractors are planned for 2016.

At the end of 2015, the Treasurer’s position was moved and combined with Investor Relations and Financial Planning. At the same time, Cash Management was placed under the Assistant Treasurer. Cash Management is scheduled to be moved to PPL EUS in 2016, after the Talen TSA has ended. Following this expected move, the remainder of this work group will be evaluated to determine the appropriate staffing for the work load remaining and expected.

**Corporate Audit and Business Ethics.** In 2015, auditor positions were eliminated due to the Talen spinoff. One team of investigators that had mostly worked on PPL Supply was no longer necessary, and these personnel were moved to Talen. Positions (two FTEs) related to Sarbanes Oxley (SOX) work were added in 2015. This function had been performed by the Controller’s work group and now is the responsibility of Corporate Audit and Business Ethics. Additionally, one FTE was added in 2015 to perform the corporate ethics functions, which includes the Ethics Helpline. Most audit work was done by in-house auditors in 2015.

In 2016, the staffing level for this work group is 13, as compared to 19 budgeted positions in 2014. There are plans to augment audit and SOX staffing by approximately 20% in 2016. Annually, the PPL Audit Committee reviews the adequacy of the staffing level of this department.

PPL EUS Organizations

PPL EUS was formed in 2014, and the finance and accounting functions serving PPL EU were transferred from PPL EU to PPL EUS. The number of staffing changes by SRC number and title from the end of 2014 to the end of 2015 is shown on the following table.

Exhibit ‑  
PPL EUS Finance and Accounting Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| **Finance Regulatory Affairs (Management and Administration)** | | | | |
| 0825 | Finance Regulatory Affairs | 3 | 0 | -3 |
| 0835 | Finance Regulatory Affairs | 0 | 7 | +7 |
|  | Sub-total | 3 | 7 | +4 |
| **Regulatory Affairs** | | | | |
| 0814 | Regulatory Business Affairs | 17 | 0 | -17 |
| 0834 | Regulatory Affairs | 0 | 7 | +7 |
|  | Sub-total | 17 | 7 | -10 |
| **Accounting, Planning, & Reporting** | | | | |
| 0830 | Accounting Planning Reporting | 13 | 0 | -13 |
| 0836 | Accounting Planning Reporting | 0 | 17 | +17 |
| 0837 | Load Forecast | 0 | 1 | +1 |
| 0838 | Budget Consolidate Report | 0 | 9 | +9 |
|  | Sub-total | 13 | 27 | +14 |
|  | **Totals** | **33** | **41** | **+8** |
| Sources: DN 01-071; DN 18-001-C; DN 18-002-C | | | | |

The number of personnel, now in PPL EUS, as of 2015, who provided finance and accounting services to PPL EU increased from 2014 to 2015 by almost 26%, from 33 to 41.

**Regulatory Affairs.** This work group’s reductions in 2015 were the result of evaluating the appropriate skill sets needed for the functions to be performed. New analysts were added in 2016 to fill open positions from within and outside the company.

**Accounting and Financial Reporting.** In 2015, the Asset Management work group was added to the Accounting and Financial Reporting department from PPL SC. In 2016, the staff in the Asset Management work group was increased by two positions. Additionally, three contractors were brought in to assist with unitization work to close out projects. It is expected that two additional permanent staff will be added to this group to assist in setting up and closing out projects and accounting for fixed assets. The three contractors will be utilized at least through the second or third quarter of 2016.

A new Planning and Analysis Department will be set up in 2016. The manager position is planned to report to the VP Finance and Regulatory Affairs. This new group will assume the responsibility for all budget functions and will included the current Budget Consolidations and Reporting work group from the Accounting and Financial Reporting Department.

Future Employee and Contractor Changes

In general, there are no definitive plans in place, either at PPL SC or PPL EUS, involving changes in either personnel staffing or the use of contractors, although changing or increased work load could make the additional use of contractors necessary. For instance, an increased work load because of Financial Accounting Standards Board (FASB) changes could necessitate the use of contractors in the PPL SC Controller’s area. In the Treasury and Risk area, after the Talen Service Agreement (TSA) is terminated (contracted to last no later than June, 2017), there will probably be some changes in staffing at the Remittance Processing Center, since this work group is providing some work for Talen contracted through the TSA. At that time the Remittance Processing Center staffing will be evaluated to make any necessary adjustments to the level of work remaining.

The Corporate Audit and Business Ethics work group plans to use contractors for 20% of the expected work load, primarily to address technical needs or for areas for which the Corporate Audit group does not have experience. This augmentation will allow this work group more flexibility. Additionally, auditors will probably be borrowed from the Kentucky LKE SC audit group as needed. Contractors will be drawn from the Big 4 CPA firms as well as from smaller, boutique firms. Generally, smaller firms are more cost effective, especially for staff augmentation work. Outside contractors will be selected based on responses to request for proposals (RFPs). Nationwide, there is a shortage of internal auditors. At PPL SC, there has been difficulty in attracting internal audit applicants with the appropriate level of talent and experience, hence the need to rely on some outside contractors.

Employee and Contractor Staffing Planning Criteria and Process

In general, the primary criterion utilized to determine the most appropriate levels of employee and contractor staffing levels for the accounting, finance, and audit work groups in PPL SC and PPL EUS was the estimation of current work load and projections of future workloads.

The move to combine the PPL SC Treasurer’s position with the Investor Relations/Financial Planning work group came about as a result of evaluating current workload and needs after the PPL Energy Supply, LLC related work went to Talen.

The PPL SC Tax Department, with assistance from an outside consultant, is conducting an evaluation of the tax process at PPL SC, including the Kentucky operations. This evaluation, expected to be completed in 2016, is being made to determine what processes and skills are required, how the tax work should be accomplished, the technical support required to conduct tax work in an efficient and effective manner, and what processes should be used.

For PPL SC’s Corporate Audit and Business Ethics work group, audit and other related work requirements determine if employees or contractors are used for audit work. Skill sets matched to work requirements will determine which pool of labor is utilized and the amount of labor utilized. Coordination of activities with the LKE SC Kentucky audit group facilitates the borrowing or loaning of audit personnel based on requirements, experience, and audit skills.

Employee staffing changes in the PPL EUS Regulatory Affairs group are dictated by the amount and complexity of expected rate cases and other regulatory proceedings. The increase in the staffing of the PPL EUS Asset Management group was dictated by the increase in the amount of capital spending for PPL EU.

Allocation of Personnel to PPL EU, PPL EUS, and PPL SC

At the time of the formation of PPL EUS, almost all of the work and work groups in PPL SC Finance were evaluated to determine for whom the work was being performed. If the majority of the work was for PPL EU, then consideration was given to moving the workers to PPL EUS. For instance, the Asset Management work group was moved to PPL EUS from PPL SC because most of the work of this group was for PPL EU.

The Cash Operations function is expected to be moved to PPL EUS sometime in the future because of the belief that all operations support functions for PPL EU should reside in PPL EUS. By having the Cash Operations section located in PPL EUS it is expected that it will be easier for Treasury management to understand the PPL EU spending amounts and its impacts on PPL Corporation cash.

Allocation of Personnel to PPL EU and PPL EUS

The Regulatory Affairs group moved intact from PPL EU to PPL EUS on January 1, 2015. It had not been part of PPL SC. The Accounting and Financial Reporting group came from PPL EU to PPL EUS when PPL EUS was formed.

Plans for Adjusting Staffing as the Talen TSA Winds Down

There will be some adjustment in the PPL SC Cash Management area because it is still performing work for Talen as prescribed in the TSA. This adjustment will take place when the TSA ends, which is slated for mid-2017. The other financial work groups do not perform much work for Talen.

When the Talen TSA is terminated, there are plans to transition the Cash Operations work group to PPL EUS. It is expected that the staffing of this work unit will be adjusted to correlate to the expected work load following the end of the TSA. Any staffing adjustments for represented employees will comply with union rules that consider position and seniority.

Currently, the Accounting and Financial Reporting work group in PPL EUS processes some minor invoices for work done for the Talen TSA (billing for the use of facilities and subject matter experts). When the Talen TSA winds down and this work goes away, it will have no appreciable effect on this department.

Findings

1. The increase in staffing and the use of contractors should resolve the unitization delays identified in Asset Management.

Delays have occurred in completing the work of the Asset Management work group, namely the unitization process for identifying the assets in completed capital projects and placing them in their proper account. The delays have resulted in a portion of the new assets remaining in a non-classified account for a lengthy period of time. As of July 31, 2015, $295 million in asset value remained in this non-classified account. Over $47 million in asset value remained in this account for more than one year. In 2016, the staff in the Asset Management work group was increased by two employees, and three contractors were added to help resolve this problem. Two additional employees are expected to be added in 2016. The increase in staffing (employees and contractors) in the Asset Management work group should assist in eliminating the backlog of projects waiting to be closed out. Additionally, improvements in the data input process from Engineering using template uploads and IT system changes should make this work group more efficient. See Chapter V, Finance and Accounting, for more information on the unitization backlog.

1. Potential issues involving retention of core competencies and institutional knowledge were successfully addressed.

The tasks of retaining core competencies and institutional knowledge in the process of losing personnel as part of the Talen spinoff appears to have been handled successfully by the PPL SC and PPL EUS finance, accounting, and auditing work units. Core competencies were preserved through the process of identifying skills, experience, positions, and critical personnel to be retained in PPL SC as PPL EUS was being formed and the PPL supply organization was being spun off to form Talen. For the Talen spinoff, there was an employee selection process to ensure that both the losing organization (PPL SC) and the new organization (Talen Energy) had adequate core competency from the financial organization.

Prior to the Talen spinoff, the financial work group had engaged in knowledge transfer in order to be able to back fill positions and build bench strength. Additionally, core competency and institutional knowledge were not impacted greatly because primarily the personnel who worked on PPL Supply functions were also the personnel that transferred to Talen.

Recommendations

None

## support Services

Background

This section addresses staffing in departments providing support to PPL EU:

* Information Technology
* Human Resources
* Corporate Communications
* Legal
* Public Affairs
* Supply Chain
* Facilities Management
* Protective Services

Information Technology

**Staffing Studies.** In August 2014, an international management consulting firm completed an organization study that that included best practices for IT organizations as well as reviewing and recommending restructuring of the IT organization. In the third quarter of 2015, another international consulting firm was retained by the CIO to assist with identifying, quantifying, and prioritizing likely synergy opportunities between PPL SC and LKE SC from an IT perspective. This study focused mainly on technology platforms in the services functions such as IT, finance, supply chain, and human resources. Potential savings and implementation costs were considered for the opportunities identified. Organizational layers and spans of control were also reviewed as well as organizational centralization and decentralization considerations.

**2015 and 2016 Employee and Contractor Changes.** Data for the 2014–2015 staffing changes in PPL SC IT are provided below.

Exhibit ‑  
PPL SC Information Technology Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0140 | IT Strategy and Bus Services | 21 | 15 | -6 |
| 0141 | IT-Bus Solutions E+ | 1 | 0 | -1 |
| 0142 | IT-Bus Sol Gen & Bus Sup | 1 | 0 | -1 |
| 0143 | IT Shared Solutions | 3 | 0 | -3 |
| 0146 | IT Information Assurance | 14 | 15 | +1 |
| 0147 | IT-Shared Sol & Compliance | 28 | 28 | 0 |
| 0148 | Solution Delivery-EU Ops | 17 | 15 | -2 |
| 0149 | IT-Bus Sol-Energy Mgmt Sol | 17 | 16 | -1 |
| 0151 | IT Infrastructure | 1\* | 0 | -1 |
| 0151 | IT IS Operations | 23 | 21 | -2 |
| 0152 | IT IS Services | 30 | 29 | -1 |
| 0153 | Sol Del Smart Meter Program | 7 | 8 | +1 |
| 0154 | Sol Delivery Customer Svc | 16 | 16 | 0 |
| 0156 | IT Service Management | 6 | 11 | +5 |
| 0157 | IT-Solution Services | 17 | 19 | +2 |
| 0159 | IT Business Solutions | 2 | 0 | -2 |
| 0160 | IT Project Management | 13 | 13 | 0 |
| 0161 | PPL ISD Services/Montana | 1 | 0 | -1 |
| 0163 | Sol Delivery-Corp Svc Mgmt | 22 | 19 | -3 |
|  | **Totals** | **240** | **225** | **-15** |
| \* Identified as an intern. | | | | |
| Sources: DN 01-072; DN 18-002-C | | | | |

PPL SC staffing decreased by 15 positions from 2014 to 2015.

**Future Employee and Contractor Changes.** Most of the IT supervisory and management personnel interviewed indicated that no staffing changes are presently being planned. The implementation of certain systems presently being contemplated may require the addition of contractors. For example, an upgrade to the work management system, Asset Suite, is being contemplated in 2017 and would require additional contractors; however, the detailed planning for this has not begun.

**Employee and Contractor Staffing Planning Criteria and Process.** The staffing planning criteria generally applied for the recent IT organizational changes for consolidated Kentucky and Pennsylvania management of each IT function included the following:

* Costs to PPL EU should not exceed what they were prior to the Talen spinoff.
* There should be no negative impacts on PPL EU. IT metrics were established to measure performance and to ensure effective support of PPL EU.
* Previously developed LKE position descriptions and titles should be used for PPL SC as well.
* Candidates who are the best fit for the position requirements from either LKE SC or PPL SC should be selected.

The process employed to make organizational change involved the following:

* Once selected, each director (of an IT function and a direct report to the CIO) was assigned the responsibility to design his or her own organization.
* Position descriptions were prepared for new positions that mimicked position descriptions for similar LKE SC positions.
* Compensation levels were assigned by Human Resources for each position.
* Position descriptions for the new organizations were then posted and employees applied for those in which they were interested.
* Once applications were reviewed, candidates were interviewed by interview teams comprised mainly of directors.
* Selections were made based on the results of interviews.
* This interview process proceeded from manager positions, to supervisor positions, and finally to individual contributor positions. For the IT staff members seeking positions with Talen, a similar process ran in parallel with the PPL SC process.

Some incumbents in positions for which they were uniquely or specially qualified were “green-boxed,” meaning they were assigned to their position without undergoing the competitive interview process. Each decision to “green-box” an incumbent went through a rigorous review process to defend/justify that decision. This process involved both Human Resources and Legal staff.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** IT staff were not involved in the formation of PPL EUS.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** Prior to the date of the Talen spinoff, a transition service agreement (TSA) had been developed for PPL SC to provide ongoing support to Talen as far into the future as June 2017. The TSA specified the level of support and service expectations on an assignment by assignment basis. For IT, these mainly dealt with movement of systems from the PPL SC technology infrastructure to the Talen infrastructure. A master plan for system transition was developed and is being implemented now. A “Chinese wall,” or an information barrier to avoid potential conflicts of interest between PPL and Talen, was put in place to maintain separation of information between the two companies for FERC/transmission purposes. At the time Phase III field work was being performed in the spring of 2016, approximately 20 IT employees still remained on Talen TSA assignments.

PPL SC employees engaged in TSA assignments will be separated at the completion of those assignments. The Brass Ring system continues to show position openings in both PPL Corporation and Talen that are available for TSA employees to bid on. Some specialty contractors have been used but there are no contractors performing TSA services presently.

Human Resources

Human resources services are provided to PPL EU by both PPL SC and PPL EUS.

**2015 and 2016 Employee and Contractor Changes.**

* **PPL SC HR.** PPL SC HR experienced several staffing changes in 2015 and 2016. The PPL SC Director of HR passed away in mid-2015 and his duties were combined with those of the Director of Human Resources and Services Operations to form the present Director of Corporate HR position.

In 2015, 17 PPL SC HR employees were identified for transition support roles and eventual separation. Two of these employees remain in transition support roles in 2016.

At the end of June 2016, the Senior Vice President of Human Resources and Services will retire from PPL SC. As of March 15, 2016, a replacement had been hired. Additionally, the current VP of Compensation and Benefits will be retiring in June 2016 and will be replaced by the present Director of Compensation. Ample time is available for transition of duties from the incumbents to their replacements.

There were no contractors utilized by PPL SC HR except for specific short-term projects, such as compensation studies.

* **PPL EUS HR.** PPL EUS HR is an organizational element of PPL EUS which was formed at the beginning of 2015 with ten positions. In 2015, PPL EUS HR added an occupational health nurse position to its staff. This position was formerly located in the Safety department of PPL EU. This change provides better supervision of health and short-term disability situations and statistics reporting.

In 2016, PPL EUS HR added an internal recruiter position that was formerly with PPL SC HR. At the time Phase III field work was being performed in the spring of 2016, a search was in progress to fill this position.

There were no major contractor assignments in 2015 and none are planned in 2016.

Data for the 2014–2015 staffing changes in PPL SC HR and PPL EUS HR are provided below.

Exhibit ‑  
PPL SC Human Resources Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0230 | Human Resources | 3 | 2 | -1 |
| 0232 | Health Services1 | 1\* | 0 | -1 |
| 0233 | HR Bus Partner Teams2 | 2\* | 0 | -2 |
| 0234 | HR Genco & Eplus3 | 6\* | 0 | -6 |
| 0235 | HR Electric Utilities | 9\* | 0 | -9 |
| 0236 | HR SSES4 | 2\* | 0 | -2 |
| 0237 | HR Corporate Services | 1 | 7 | +6 |
| 0239 | Recruiting & Selection5 | 4\* | 0 | -4 |
| 0240 | Talent Management6 | 3\* | 0 | -3 |
| 0242 | Diversity & Inclusion | 1\* | 0 | -1 |
| 0243 | HR Transition Project | 0 | 7 | +7 |
| 0245 | Compensation Prgrms7 | 3\* | 0 | -3 |
| 0247 | Benefits Administration | 6 | 7 | +1 |
| 0251 | HR Operations (HR Solutions) | 8 | 9 | +1 |
| 0252 | HR&S Financial Planning8 | 3\* | 0 | -3 |
| 0252 | HR TSA | 0 | 5 | +5 |
| 0253 | Protective Services TSA | 1 | 2 | +1 |
| 0270 | Security | 8 | 6 | -2 |
|  | **Totals** | **61** | **45** | **-16** |
| \* Shown on DN 01-072 but are not listed in DN 18-002-C. | | | | |
| 1 DN 18-002-C lists RC 0232 as “Transfer” with new RC 7005.  2 DN 18-002-C lists RC 0233 as “Transfer” with new RC 0243.  3 DN 18-002-C lists RC 0234 as “Transfer” with two as new RC 0237, three as new RC 0243, and one as new RC 7005.  4 DN 18-002-C lists RC 0236 as “Transfer” with new RC 7005.  5 DN 18-002-C lists RC 0239 as “Transfer” with three as new RC 0237, and one as new RC 0243.  6 DN 18-002-C lists RC 0240 as “Transfer” with one as new RC 0237, and two as new RC 0243.  7 DN 18-002-C lists RC 0245 as “Transfer” with new RC 0247.  8 DN 18-002-C lists RC 0252 as “Transfer” with three as new RC 0243, and one as new RC 0251. | | | | |
| Sources: DN 01-072; DN 18-002-C | | | | |

PPL SC HR staffing was reduced by 22 positions from 2014 to 2015, ten of which were transfers to PPL EUS.

Exhibit ‑  
PPL EUS Human Resources Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 1025 | HR Electric Utilities | 0 | 11 | +11 |
|  | **Totals** | **0** | **11** | **+11** |
| Sources: DN 01-071; DN 18-002-C | | | | |

PPL EUS HR was staffed in 2015 with eleven positions by year end.

**Future Employee and Contractor Changes.** PPL SC HR has no changes planned for either employee or contractor staffing.

Other than the internal recruiter position discussed above, PPL EUS HR has no internal staffing changes planned.

PPL EUS HR has a limited budget for consulting support. For 2016, the HR Director is considering using a contractor to assist with talent management if the work load requires. The budget for consulting support is approximately $60,000 for 2016.

**Employee and Contractor Staffing Planning Criteria and Process.** PPL EU Vice Presidents have been and continue to be responsible for staffing planning and decisions within their organizations. They review their organizations, analyze vacancies, and determine needs. As far as Human Resources staffing is concerned, workload is the predominant driver for internal staff planning. Contractor utilization is usually driven by specific tasks.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** Originally, PPL EUS was formed to facilitate accounting allocations and to provide close shared services support to PPL EU and other businesses that were being contemplated at the time, such as the future Translink. The main EUS organizational elements included Human Resources, Supply Chain, Regulatory, and Finance. Prior to the formation of PPL EUS, a smaller PPL EU Human Resources group existed with about five employees. After PPL EUS was formed, PPL EUS HR gained the labor relations positions that had previously been in PPL SC HR. This was due to the fact that PPL EUS HR group was much closer to labor and labor activities.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** PPL SC HR is presently providing payroll and security support to Talen. The employees involved in the TSA project will be separated at the end of their transition assignments unless they are selected for other open positions in PPL Corporation or Talen. As the services provided to Talen are phased out, affected employees are advised of their planned separation dates.

Human resources record splitting is an activity that continues. This is a PPL SC service obligation to Talen that is not being managed under the TSA. This effort was completed at the end of March 2016.

An outside transition service is assisting separated employees with job searches, resume writing, and other services to make the transition as smooth as possible.

Corporate Communications

Both PPL SC and PPL EUS provide communications services to PPL EU.

**2015 and 2016 Employee and Contractor Changes.**

* **PPL SC Corporate Communications.** The Vice President, Corporate Communications (CC) position was eliminated in 2015 when the incumbent retired. The Director-Corporate Communications at that time assumed those responsibilities and reports directly to the General Counsel, Senior Vice President, and Corporate Secretary. Three CC positions transitioned to Talen as a result of the spinoff.
* **PPL EUS Corporate Communications.**  Effective January 1, 2015, a group from the PPL SC CC organization became part of PPL EUS. Staffing had been constant from that point until a Communications Specialist (for safety communications) from the Technical Development and Improvement group was transferred to the group in late 2015.

Two contract graphic designers have been utilized for web and print design. These contractors are shared with the PPL SC CC group as needed. Also, an advertising agency has been engaged for reputation ads including television time purchases and creative work. Approximately $500 thousand was expended for these services in 2015 and approximately $230 thousand have been expended for 2016 on these services as of the end of March 2016.

Data for the 2014-2015 staffing changes in PPL SC CC and PPL EUS CC are provided below.

Exhibit ‑  
PPL SC Corporate Communication Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0220 | Corporate Communications | 29 | 8 | -21 |
|  | **Totals** | **29** | **8** | **-21** |
| Sources: DN 01-009a; DN 18-002-C | | | | |

PPL SC CC staffing decreased by 21 positions, with seven positions going to PPL EUS.

Exhibit ‑  
PPL EUS Corporate Communication Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 1220 | EU Communications | 0 | 7 | +7 |
|  | **Totals** | **0** | **7** | **+7** |
| Sources: DN 01-009; DN 18-002-C | | | | |

PPL EUS was formed with seven positions from PPL SC.

**Future Employee and Contractor Changes.** There are no changes planned in the present level of employee or contractor staffing in either PPL SC or PPL EUS CC group.

**Employee and Contractor Staffing Planning Criteria and Process.** For both PPL SC and PPL EUS CC, workload is the predominant driver for both internal staff and contractor planning. The workload is generally predictable and lends stability to staffing levels for both employees and contractors.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** The present organization structure involved splitting the PPL SC CC organization at that time into two distinct groups. The first group was a communications organization located in PPL EUS that directly supports PPL EU. Seven employees were assigned to this group. The second group was a communications organization located in PPL SC that is focused on providing communications services to the Board, executive management, and the PPL SC organization. Eight employees were assigned to this group. Due to their previous experience with PPL Energy Supply, LLC three employees from the former PPL SC CC transitioned to Talen.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** Neither the PPL SC CC nor the PPL EUS CC is involved with Talen TSA activities.

Legal

**2015 and 2016 Employee and Contractor Changes.** As part of a reorganization, two legal groups were formed within the Office of General Counsel (OGC), each reporting to the Senior Vice President, General Counsel, and Corporate Secretary (SVP). One group is primarily dedicated to PPL EU legal matters and is led by the Associate General Counsel (AGC). This group deals with regulatory, claims, real estate, and labor matters. The AGC has a dotted line reporting relationship organizationally to the President, PPL EU. The second group is focused on overall PPL Corporation legal matters and is led by the Deputy General Counsel and Vice President (DGC). The OGC paralegals indirectly report to the DGC.

Data for the 2014–2015 staffing changes in PPL SC OGC are provided below.

Exhibit ‑  
PPL SC Office of General Counsel Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0205 | Office of General Counsel | 48 | 37 | -11 |
| 0206 | Business Ethics and Compliance | 3 | 0 | -3 |
| 0207 | FERC/NERC Compliance | 1 | 0 | -1 |
|  | **Totals** | **52** | **37** | **-15** |
| Sources: DN 01-009a; DN 18-002-C | | | | |

The OGC decreased by 15 positions from 2014 to 2015.

**Future Employee and Contractor Changes.** In 2016, the SVP intends to add two attorney positions to the internal staff, one a commercial contracts attorney, the other a litigation attorney. Addition of one paralegal is also planned. These positions are already posted as of spring 2016 and are in the 2016 budget.

Otherwise, there is no plan at present to change the existing organization or staffing levels in the AGC’s or DGC’s areas. The same outside counsel are presently being used as were used before the Talen spinoff

**Employee and Contractor Staffing Planning Criteria and Process.** Workload is the predominant driver for both internal staff and contractor planning. The legal workload has been fairly steady, not considering Talen. In 2016, the department costs have been better estimated and are very close to budget as of spring 2016.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** There were no staffing changes in the OGC associated with the formation of PPL EUS.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** A TSA is in place for the OGC to provide on-call legal assistance to Talen. However, no services are being provided under this arrangement in 2016.

Public Affairs

**Staffing Studies.** In 2014, a comprehensive review of the current state of the PPL SC organization was conducted by an international consulting firm. Although Public Affairs was included in the review, the extent of coverage was limited. As result, a more extensive review was undertaken by the Public Affairs Vice President. This included further review of the organization, exploration of alternatives with others in the industry, and benchmarking with the Public Affairs Council. Although this effort confirmed that the PPL SC Public Affairs group was very lean, it also indicated that additional reductions were needed to achieve the broader organizational objectives.

**2015 and 2016 Employee and Contractor Changes.** Data for the 2014–2015 staffing changes in PPL SC Public Affairs are provided below.

Exhibit ‑  
PPL SC Public Affairs Employee Staffing Changes 2014–2015

| **SRC\*** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 0210 | Gov't Affairs and Communication | 2 | 5 | +3 |
| 0211 | PA State Government Relations | 3 | 0 | -3 |
| 0212 | Federal Government Relations | 2 | 0 | -2 |
|  | **Totals** | **7** | **5** | **-2** |
| Sources: DN 01-009a; DN 18-002-C | | | | |
| **\*** Note: All Public Affairs positions were classified as SRC 0210 in 2015. | | | | |

All positions were consolidated into a single SRC in 2015. There were no changes in the state-facing internal staff; the Senior Manager of State Government Relations position was maintained. In federal-facing internal staff, the Federal Government Relations Vice President was retained and the Federal Senior Manager departed, leaving that position vacant. As a budget saving move, the position was reclassified at a lower Manager level. An administrative position in the Federal Office was eliminated (confidential secretary), and a part-time administrative position was created. A professional position is shared with the General Counsel’s Office. Two governmental affairs positions in Montana were eliminated (one transferred to Talen, another to Northwestern Energy).

As far as contract support is concerned, the level of support was reduced from $20,000 per month to $8,500 per month.

**Future Employee and Contractor Changes.** No changes are planned in employee or contractor staffing.

**Employee and Contractor Staffing Planning Criteria and Process.** Public Affairs is a small work group staffed by professional, specialized individuals and staffing plans are driven by workload. The group followed the corporate staff planning guidelines for the recent reorganization, but came to conclusions on staffing needs independently.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** Public Affairs had no involvement in the formation of PPL EUS.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** Public Affairs had a government relations and Pennsylvania compliance support TSA with Talen.

Supply Chain

Supply Chain was transferred from PPL SC to PPL EUS at yearend 2014. It provides procurement, logistics, and materials management services to PPL EU and other PPL Corporation Pennsylvania subsidiaries.

**Staffing Studies.** Supply Chain has not conducted a formal staffing study. The department used informal benchmarking in 2015 with several other utility warehouse operations to collect comparative information for a review of the staffing of the service center warehouses from a transactional volume perspective.

The benchmarking was conducted with two other utilities and two utility distributors and compared the total number of monthly transactions (issues, transfers, receipts, returns, and cycle counts) to full-time equivalent staffing. PPL EUS was within ten percent of the mean when all PPL EUS warehousing staff was included in the FTE count and was approximately 14.5% above the mean when only staff with direct transactional responsibilities was included. The study concluded there may be an opportunity to reduce the number of material handlers or helpers at the lower volume service center locations.

**2015 Employee and Contractor Changes.** The number of Supply Chain staff decreased in 2015 by almost 52%, from 226 to 108, a total of 118 positions. The Supply Chain department was transferred from PPL SC to PPL EUS during 2015. As a result, a direct and meaningful comparison for the SRC codes is not possible. Some units from the Supply Chain Department were Generation specific units and represented 89 positions that were likely transferred to Talen during 2015. An additional 25 to 29 positions from the remaining units were also transferred to Talen.

Four PPL EUS Supply Chain buyers either transferred to Talen or took jobs elsewhere in 2015. Supply Chain also closed five regional warehouses in late 2015 which resulted in five employees being displaced. The displaced employees were notified in October 2015. These individuals retired or transferred to other jobs; layoffs did not occur. An additional two positions were moved to the central warehouse. Supply Chain converted an open position to a business process improvement Project Manager in 2015. This position is leading several cost reduction and service improvement projects.

In 2015, there were four contractors providing support to the PPL EUS Supply Chain Materials and Non-Operations Services Supply group. In early 2016, one contractor was hired directly to fill a vacant position. As of March 2016, there are three contractors. Two provide support for IT buying and one supports customer service requests. This contract specialist support is an ongoing need and may be replaced with in-house staff to assure continuity of support. There may also be a cost advantage to moving these positions in-house.

Approximately four FTEs of contract truck drivers supplement in-house delivery drivers. One in-house driver recently retired and will not be replaced right away. There may be a future need to add a contract driver.

**Future Employee and Contractor Changes.** The following table shows the PPL EUS Supply Chain staffing changes projected for 2016.

Exhibit ‑  
PPL EUS Supply Chain Employee Staffing Changes 2015–2016

| **SRC** | **Organizational Unit** | **2015** | **Projected 2016** | **Change** |
| --- | --- | --- | --- | --- |
| 1181 | Supply Chain | 9 | 10 | +1 |
| 1176 | Logistics Services Field | 48 | 42 | -6 |
| 1177 | Logistics Services | 34 | 34 | 0 |
| 1178 | Corporate Sourcing | 7 | 8 | +1 |
| 1179 | EU Sourcing | 6 | 7 | +1 |
| New RC | Indirect & IT Supply | 0 | 5 | +5 |
|  | **Totals** | **104** | **106** | **+2** |
| Sources: DN 18-001-C; DN 18-29 | | | | |

Two position additions are projected. The March 2016 headcount was 106 including 42 materials handlers who are located at the service center warehouses and are under the direct supervision of the regional managers. This responsibility center is left under Supply Chain to capture the total cost of supply chain related activity but the positions only receive direction on Supply Chain procedures and practices such as issues, returns, and cycle counting for Supply Chain.

The two part-time contractors supporting PPL IT enterprise level purchasing were transferred to PPL EUS Supply Chain in February 2016 from the IT Supplier Management group. These contractors will remain through year-end 2016. This work will then migrate to LKE SC Supply Chain and the contractors will be let go. There are no further staffing changes currently planned.

Supply Chain expects the volume for Transmission contractor capital work to decline by one-third to one-half by 2019.

According to the union contract, PPL EU and PPL EUS cannot layoff union workers and replace them with contractors. However, PPL EU and PPL EUS can decide not to fill open union positions caused by attrition and contract the work.

**Employee and Contractor Staffing Planning Criteria and Process.** The department is increasing its level of participation in industry groups and in benchmarking to develop ideas for further improvements. A five year workforce plan is expected to be developed during 2016.

Category managers are the most difficult personnel to find and there is a very competitive market for good candidates. It takes experienced category managers three to four more months to learn the PPL EUS systems, processes, and business units.

There is no specific target for Supply Chain O&M cost reduction or eliminating employee positions. However, Supply Chain is cognizant of the PPL EU initiative to achieve first quartile performance in O&M costs and is aggressively pursuing efficiency opportunities. There is an expectation that there will be no increases in the O&M budget in future years. The initial transformation efforts, supported by the business process improvement Project Manager, are expected to be complete by yearend 2016 which will allow for development of a longer term perspective on staffing needs.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** Supply Chain was formerly in PPL SC prior to moving to PPL EUS in 2015.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** All Supply Chain staffing adjustments due to the Talen divestiture were completed in 2015.

Facilities Management

Facilities Management was transferred from PPL SC to PPL EUS at yearend 2014. It provides facilities management and maintenance services for all PPL Corporation owned buildings in Pennsylvania, including PPL EU owned buildings.

**2015 Employee and Contractor Changes.** The PPL EUS Facilities Management staffing by SRC number and title from the end of 2014 to the end of 2015 is shown on the following table.

Exhibit ‑  
PPL EUS Facilities Management Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 889 | Facilities Management | 14 | 3 | -11 |
| 891 | Lehigh Bldg. Services | 14 | 13 | -1 |
| 892 | NE Bldg. Services | 10 | 9 | -1 |
| 893 | General Office Complex | 22 | 27 | +5 |
| 894 | Susquehanna Bldg. Services | 9 | 9 | 0 |
| 895 | Harrisburg Bldg. Services | 8 | 8 | 0 |
| 896 | Lancaster Bldg. Services | 8 | 8 | 0 |
| 897 | SFC & Schuy Bldg. Services | 13 | 13 | 0 |
| 898 | Design and Construction | 9 | 9 | 0 |
|  | **Totals** | **107** | **99** | **-8** |
| Sources: DN 01-071; DN 18-001-C | | | | |

The number of Facilities Management staff decreased in 2015 by 7.5%, from 107 to 99.

A facilities asset management system was implemented in 2015 that enabled automated scheduling and work tracking. As a result, approximately eight management and supervisory positions were eliminated in Facilities Management. An additional five administrative and analyst positions were reclassified as Logistics Workers in 2015 to manage office supply warehousing and inventory control in SRC 893.

Large construction jobs are contracted out along with most janitorial work, snow removal, and landscaping maintenance. Specialized maintenance on elevators and HVAC systems is also contracted out.

Facilities Management utilizes contractors to provide janitorial, lawn care, snow removal, and pest control services. The approximate FTE equivalency for these services is:

* Janitorial – 20.5 FTEs
* Lawn Care – 3.5 FTEs
* Snow Removal – 2.3 FTEs
* Pest Control – 0.1 FTE

The overall facilities workload is currently expected to remain constant. A formal workload plan is not prepared.

**Future Employee and Contractor Changes.** Facilities Management plans on shifting the remaining janitorial services from PPL EUS union represented staff to contractors over the next two years as attrition occurs. This will affect 10 to 12 positions. The remaining in-house union represented staff will continue to perform minor maintenance and small construction work.

No training programs existed for the maintenance staff in the past. Programs are now being developed for the technicians. Performance plans are also being implemented for the managers and supervisors. Staff is being encouraged to achieve industry certifications in their respective skill areas. The technical and maintenance staff is being cross trained to broaden skill sets and improve efficiency.

Maintenance staff and contractors may be reduced in the future as PPL EUS develops and implements its long term facilities asset plan over the next five years and more fully populates the facilities asset management system with building and equipment details to implement additional capabilities of the application.

Facilities Management is also planning to increase the use of remote facility monitoring which may improve the overall efficiency of the staff and facilitate predictive maintenance activities. This technology may also impact staffing needs.

**Employee and Contractor Staffing Planning Criteria and Process.** Data from the new facilities asset management system is being used to develop workload indicators and workload projections. The projections will be used to prepare and update the staffing plan.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** Facilities Management was formerly in PPL SC and was transferred to PPL EUS in 2015.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** Facilities Management is not currently supporting Talen and does not expect any further staffing adjustments due to the Talen divestiture.

Protective Services

Protective Services is a part of PPL SC. It provides corporate security and emergency management planning for all PPL Corporation entities in Pennsylvania, including PPL EU, PPL EUS, PPL SC, and PPLSolutions.

**2015 Employee and Contractor Changes.** The PPL SC Protective Services staffing by SRC number and title from the end of 2014 to the end of 2015 is shown on the following table.

Exhibit ‑  
PPL SC Protective Services Employee Staffing Changes 2014–2015

| **SRC** | **Title** | **2014** | **2015** | **Change** |
| --- | --- | --- | --- | --- |
| 253 | Protective Services TSA | 1 | 2 | +1 |
| 270 | Security | 8 | 6 | -2 |
|  | **Totals** | **9** | **8** | **-1** |
| Sources: DN 01-072; DN 18-001-C; DN 18-098 | | | | |

The number of Protective Services staff decreased in 2015 by one position or approximately 12%, from 9 to 8. In late 2014, three positions were transferred to Talen. Existing security contracts related to generation facilities were also transferred to Talen.

There were two retirements in 2015 that were not backfilled. One employee was transferred to IT. An additional position was added in early 2016 to support background checks as part of the critical infrastructure protection program. Protective Services does not use contractors to augment its core staff.

Contractors provide on-site security at four facilities – Scranton Service Center, Lehigh Service Center, Windsor, and the Allentown General Offices. Contractors also staff the security command center. In 2016, 42 security contractor FTEs provide coverage for PPL Corporation Pennsylvania facilities and operations.

**Future Employee and Contractor Changes.** There are no staffing or contracting changes planned at this time.

Three key Protective Services personnel are close to retirement. Newer staff are being mentored and encouraged to develop collaborative internal and external relationships. The Director of Protective Services has been actively including a qualified staff member in his activities to help develop a capable successor.

**Employee and Contractor Staffing Planning Criteria and Process.** Protective Services staffing needs are driven by the level of security, number of locations, and any special situations, such as labor contract renewals and security alerts.

**The Allocation of Personnel to PPL EU and PPL EUS in the Formation of PPL EUS.** The staffing of Protective Services was not impacted by the formation of PPL EUS.

**Plans for Adjusting Staffing As the Talen TSA Winds Down and Terminates.** There is no additional attrition in staffing expected due to the PPL EUS formation or the wind down of the Talen TSA regarding inclusion in the PPL Corporate Security Plans.

Findings

1. The support services organizations reviewed in this section have achieved considerable staffing reductions apart from the movement of positions to Talen.

The divestiture of the PPL Energy Supply, LLC organization to Talen resulted in the establishment of a financial goal that the regulated entities would not be negatively impacted financially after the energy supply organization was divested. This was an internal goal set with the help of an independent consultant. As a result, position reductions, where required to meet this goal, were conducted in most of the support services organizations.

1. Some of the departments reviewed in this section have performed, or are planning to perform, informal benchmarking studies.

Informal benchmarking can be used as an interim measure, as illustrated by the recent Supply Chain and Public Affairs efforts and the planned Facilities Management benchmarking. However, all support functions serving PPL EU should participate in a formal benchmarking or staffing study at least every three years.

1. The CIO is taking appropriate measures to restructure the IT organization to achieve greater efficiency and improved performance in conjunction with the LKE SC and PPL SC synergy initiative.

In November 2015, as part of an initiative to capture synergies from the merger between PPL Corporation and LKE, the CIO took steps to reorganize the domestic IT functions by merging the Pennsylvania and Kentucky IT organizations at the top level. Under the reorganization, similar IT functions being performed in the two locations are now led by a single director, manager, or supervisor, as appropriate. Thus, some of the duplication of management and supervision for individual functions has been eliminated.

1. The planned attrition of PPL EUS Facilities Management janitorial and training staffs is appropriate.

Facilities Management plans to continue to attrit 10 to 12 janitorial positions as openings occur. Contracting is generally a more cost effective and efficient means to provide this non-core function.

1. The use of contractors is focused in non-core areas of specialized expertise and part time needs.

The departments are generally taking a traditional approach to contracting. Contractors are utilized for short term, part time, and specialized needs. Some contracting is used for staff augmentation to support the in-house staff during workload peaks.

1. Facilities Management is developing training to improve skill sets and knowledge transfer among the maintenance staff.

The new Facilities Management Director identified a gap in maintaining and growing the skill sets among the maintenance positions. Training programs are being developed to develop and broaden electrical, plumbing, and mechanical skill sets. The staff is also being encouraged to obtain tradecraft certifications. Implementation of these efforts will help improve the overall effectiveness of the maintenance staff and address knowledge transfer as attrition occurs.

Recommendations

None

## Enterprise-wide

Background

This section presents findings and recommendations that are generally applicable to PPL EU, PPL EUS, and PPL SC.

findings

1. PPL Corporation has a good employee position and contractor cost budgeting system but it is not preceded by a consistent workforce planning process.

The budgeting system requires five year forecasted employee positions and contractor payments for both O&M and capital expenditures by SRC. This is a good practice. However, as noted in the prior sections of this chapter, PPL Corporation does not have a companion workforce planning process to develop the future employee position and contractor needs. As a result, the employee and contractor projections in the budget are treated as a financial planning effort and are not directly related to any workforce planning efforts in most organizational units.

Workforce planning has to be function specific because the type of work to be done is generally unique to each organizational functional unit. For example, engineering work is different than accounting work. However, there can be a consistent workforce planning process within a large organization that all functions can follow. The overall workforce planning process should include:

* Inclusion of both employee and contractor components of the workforce
* Analysis of the relative costs, productivity, and work quality of employees and contractors
* Inclusion of both capital and expense work
* Recognition of the mix of unique project work (e.g., engineering a new transmission line) and repetitive task work (e.g., processing a customer payment)
* Quantified workload indicators of both future project work and task work with at least five years of projected workloads by organizational unit
* Consideration of anticipated changes in technology, information systems, and work processes and any required improvements in service levels
* Consideration of core competency and institutional knowledge factors

A general workforce planning process that can be applied as appropriate to each work unit would facilitate communication about future employee and contractor needs.

1. PPL EU, PPL EUS, and PPL SC are inconsistent in the use of staffing, cost, and benchmarking studies for workforce planning.

There has been good use of staffing studies within PPL EU and PPL SC:

* Distribution Operations is using a staffing study to guide its long-term workforce planning.
* IT utilized an organization and staffing study to guide its LKE SC and PPL SC management consolidation.

There are other examples of cost studies that have guided workforce planning, such as:

* A cost study related to the Talen spinoff that calculated the amount of cost reductions needed in PPL SC to not increase the overhead costs to PPL EU. Because most of the PPL SC costs are labor related, the cost reduction targets translated to position reduction targets in most functional units.
* PPL EU did a rate case related cost benchmarking study in March of 2015. The findings also guided functional workforce planning efforts in PPL EU and PPL EUS.

There have also been several informal benchmarking efforts that included staffing information by:

* Supply Chain
* Fleet Management
* Public Affairs
* Corporate Communications

Additionally, there have been internal analyses performed and new tools developed for workforce planning, including:

* Customer Services chartered a new unit that is developing and implementing call center workforce planning tools
* Distribution Operations has developed a succession planning process that guides its workforce planning

However, other important areas, such as, Transmission and Substations and the Office of General Counsel, have not participated in staffing related studies.

It is a good practice to participate in benchmarking studies including staffing information at least every three years to guide workforce planning.

1. The respective cost of contractors versus in-house staff has not been formally evaluated in most areas.

Contractors are used, or could be used, by almost all PPL EU, PPL EUS, and PPL SC work units. As part of the workforce planning process, the use of employees or contractors should be regularly reconsidered for each work category. However, the full costs of employees in a format directly comparable to contractor costs are generally not available. To do an employee versus contractor comparison, the full cost of employees must be calculated in the format the contractors use for charging clients.

For example, contractors often price services based upon “billable hours,” that is, the amount of hours directly worked for the client. Billable hours exclude vacation, holiday, sick leave, training, and administrative time not spent on client work. The employee versus contractor comparison challenge in this case is to convert employee cost into cost per billable hour.

To calculate employee billable hours, all costs of having employees must be considered, including HR costs, facilities, information technology, and any other costs of having an employee that are not already included in overhead rates. Then, the number of billable hours for employees must be calculated by subtracting hours that are not spent on directly productive work, similar to what contractors would charge for. For example, if contract crew work billable time starts at the job site while employee paid time starts at the work center, the travel time to the job site must be deducted in the billable hours calculation.

In other cases, contractors may bill on “crew hours,” such as a three person crew including equipment and minor materials. If this is the way contractors charge, then the employee crew costs should be calculated on a directly comparable basis.

Contractors may also bill on a unit basis, such as feet of trench or payment processed. If this is the case, the comparable cost per unit of employees doing the work must be calculated.

Any productivity or work quality differences between employees and contractors should also be considered. Another consideration is core competencies and institutional knowledge. It may be prudent to retain some employees even when contractors have a significant cost advantage to retain core competencies and build institutional knowledge.

recommendations

1. Implement a PPL Corporation level workforce planning process to precede the budgeting process for PPL EU, PPL SC, and PPL EUS. (See Finding 1)

A good workforce planning process should include employee positions as well as contractors and consultants. It should have a strong emphasis on achieving the lowest total long-term labor cost but should be adjusted as necessary to maintain core competencies and institutional knowledge. The workforce planning process should anticipate changes in workload, technology, work processes, organization structure, and employee and contractor economics. The workforce planning process should precede the budgeting process.

1. Conduct a staffing study or participate in a benchmarking study that evaluates staffing levels or labor cost at least every three years. (see Finding 2)

Each functional unit in PPL EU, PPL EUS, and PPL SC should periodically participate in a benchmarking or staffing study to evaluating staffing levels or labor cost. PPL EU’s goal of first quartile performance in all categories requires determining relative performance against peers. Benchmarking studies that include staffing levels or labor costs are a good way to determine relative performance and identify opportunities for improvement, particularly with workforce planning decisions. Periodic participation in benchmarking studies is also a good practice overall.

If benchmarking studies that include staffing levels or labor costs are not readily available for a function, staffing studies should be chartered to assess the labor costs for the function and the employee and contractor mix.

1. Reevaluate the employee and contractor mix in each function on a directly comparable basis during each annual workforce planning process. (See Finding 3)

The reevaluation of the employee and contractor mix should be a part of the annual workforce planning process. Employee costs for each function should be compared to contractor costs on the basis by which the contractors charge for the services. For example, if the contractor charges on billable hours, the employee costs should be calculated on a comparable basis using all of the costs of having employees divided by the hours that would be charged to a client. Where significant effort is required to calculate employee and contractor costs, the comparable cost calculations should be updated at least every three years.

Additional considerations should include productivity and work quality differences between employees and contractors and the preservation of core competencies and the development of institutional knowledge.

# Merger Synergy Opportunities

During Phases I and II of this management audit, it was discovered that synergies were not part of the justification for the PPL Corporation acquisition of E.ON U.S. LLC (E.ON U.S.), since renamed LG&E and KU Energy, LLC (LKE), and that only limited efforts had been made to identify and capture merger synergies between the Pennsylvania and Kentucky utility operations. This chapter contains an analysis of the potential synergies between the PPL Corporation Pennsylvania and Kentucky utility operations that may benefit PPL Electric Utilities Corporation (PPL EU) ratepayers.

PPL Corporation acquired LKE in 2010. LKE has two utility operating companies with electric transmission and distribution systems similar to PPL EU:

* Louisville Gas and Electric Company (LG&E) serves 397,000 electric customers in Kentucky
* Kentucky Utilities Company (KU) serves 543,000 electric customers in Kentucky, Virginia, and Tennessee

In addition, LG&E and KU have regulated generation and LG&E operates a natural gas local distribution service.

Further, LKE has a service company, LG&E and KU Services Company (LKE SC) that serves LG&E, KU, and other LKE subsidiaries. LKE SC was formed in 2000 in conjunction with the Powergen acquisition of LG&E and KU Energy. It continued through the 2002 acquisition of Powergen by E.ON and the 2010 acquisition of LKE by PPL Corporation in 2010.

LKE SC is a fully consolidated service company including the following functions:

* Executive Management
* Generation
* Transmission – most all employees are in LKE SC
* Distribution – the management is in LKE SC but there are some LG&E and KU operating company employees
* Customer Services – most employees are in LKE SC
* Shared Services - most employees are in LKE SC:
* Legal
* Internal Audit
* Compliance
* Finance
* Accounting
* Treasury
* Finance
* Human Resources
* Supply Chain
* Information Technology including Telecommunications
* Communications – external and employee
* Regulatory Affairs
* Government Affairs
* Safety – with additional safety representatives in the operating companies
* Physical Security

This chapter includes the following sections.

A. Merger Synergies Research

B. Case Studies on Recent Merger Synergies

C. PPL Corporation Merger with LKE

D. PPL Corporation Merger Synergy Initiatives

E. Findings

F. Recommendations

## MERGER synergies research

This section summarizes publicly available information on the possible synergies and benefits to customers of utility company mergers.

black & veaTch economies of scale and scope in electric utility mergers

This October 10, 2011 PowerPoint presentation covered several topics, including merger cost savings. It listed potential sources of cost savings as:

* Reduction in corporate positions
* Reduction in transmission and distribution positions
* Reduction in other operations positions
* Reduction in corporate programs
* Nonfuel purchasing economies
* Avoided or deferred capital expenditures
* Reduction in financing costs
* Best practices implementation and process redesigns

These savings would be offset to some degree by the costs to achieve the savings.

Nonfuel Operations and Maintenance Expense Savings

In an analysis of 26 mergers, the study found that the range of announced synergies as a percent of utility nonfuel operations and maintenance expenses (O&M) was 1% to 22%, with a median of 8%. It also found that cost savings actually achieved within three years were between 120% and 200% of the announced synergies.

The median post-transaction changes in electric utility costs four years after the merger varied by function:

* Transmission O&M: -7%
* Distribution O&M: 0%
* Customer Service: -4%
* Administrative and General: -10%

Comparing the mean four year cost of 32 merged utilities to a control group of 19 non-merged utilities found that the mean four year cost changes were lower for the merged group as shown in the following table.

Exhibit ‑  
Utility O&M Cost Changes over Four Years (year before to three years after)  
for 32 Merged Utilities versus 19 Non-Merged Utilities

| **Function** | **Merger Group Cost** | **Non-Merger Group Cost** | **Difference** |
| --- | --- | --- | --- |
| Transmission | -27.70% | 17.39% | -45.09% |
| Distribution | 3.75% | 4.83% | -1.08% |
| Customer Service | 0.04% | 24.01% | -23.97% |
| Administrative and General | -5.50% | 7.08% | -12.58% |
| Total Nonfuel | -2.42% | 9.68% | -12.10% |
| Source: Black & Veatch Economies Of Scale And Scope In Electric Utility Mergers | | | |

Proximity of Merged Firms

Regarding the proximity of the merged firms, the study found less dependence on proximity-related cost savings. While distribution O&M savings were larger for geographically close pairs of firms, there was no difference for administrative and general O&M savings between geographically close and distant utilities. Customer service O&M savings were much larger for distant pairs of firms. Overall, total achieved savings were not related to geographic proximity.

For mergers of electric and gas utilities (rather than two electric or two gas utilities), the administrative and general and customer service cost savings were similar to two of the same commodity synergy savings. However, there were very limited synergies in fuel procurement and logistics.

The study concluded that there were typical savings of 8 to 12% of the merged utilities nonfuel O&M expenses and the percentage savings were not related to the size of the deal. However, the scale of savings varies by functional area.

Marsh & McLennan Companies Oliver Wyman Today’s Utility Mergers: The Search for Financial Strength

This paper was written in 2011 during an active period in utility mergers similar to two prior waves of consolidation in 1999–2000 and 2005–2007. The principal premise is that the mergers in the 2010–2011 timeframe were driven primarily by needs for capital and financial strength rather than the capture of economies of scale or earnings growth. It notes that synergies (10- or 20-year savings estimates) are mentioned in only half of the transactions at that time.

The paper has the following estimates of the sources of synergy savings in mergers:

* Labor: 50–65%
* Administrative and General Expenses: 10–20%
* Facilities: 5–10%
* Supply Chain: 5–15%
* Information Services: 5–15%

The PPL Corporation merger with LKE occurred during the time period covered by this study. However, PPL Corporation indicated the merger was not justified on merger synergy cost savings but rather other strategic purposes.

The Boston Consulting Group Utility MERGERS & AQUISITIONS: Beating the Odds

This paper was published on March 1, 2007. It has a broad perspective but includes specific information on merger synergies and recommendations for the best way to capture the synergies.

The paper estimates that non-fuel O&M merger synergy cost savings available are substantial, as shown in the following table.

Exhibit ‑  
Non-Fuel O&M Merger Synergy Post-Merger Savings   
For a One Million Customer Utility)

| **Function** | **Cost Before** | **Cost After – Conservative** | **Conservative Savings** | **Cost After – Aggressive** | **Maximum Savings** | **Percent Savings** |
| --- | --- | --- | --- | --- | --- | --- |
| Transmission and Distribution (millions) | $134 | $127 | 5.2% | $120 | $14 | 10.4% |
| Customer Services (millions) | $65 | $49 | 24.6% | $39 | $26 | 40.0% |
| Sales, General, and Administrative (millions) | $140 | $112 | 20.0% | $98 | $42 | 30.0% |
| **Totals (millions)** | **$369** | **$288** | **22.0%** | **$257** | **$112** | **30.4%** |
| Source: The Boston Consulting Group Utility Mergers & Acquisitions: Beating the Odds | | | | | | |

The estimates of potential non-fuel O&M cost savings from merger synergies range from 22.0% to 30.4%.

The paper offered four broad objectives that enhance mergers and acquisitions (M&A) value creation:

1. Establish a compelling strategic logic and rationale for the deal, including merger synergies.
2. Carefully manage the regulatory approval process, emphasizing synergies and rate reductions, among other points.
3. Integrate early and aggressively.
4. Use a top-down approach to design realistic but ambitious economic targets.

The Northeast Utilities merger with NSTAR described below in the case studies section followed these steps to achieve large merger synergies.

Sources of Gains in Corporate Mergers: Refined Tests from a Neglected Industry

This is an October 27, 2010 academic paper by three professors from Drexel University and the University of Georgia published in the Journal of Financial and Quantitative Analysis. The paper covers a number of topics but included an analysis of electric rates of 56 completed mergers. It found that there were cost/price reductions after mergers due to economies of scale. After the merger, average electric utility rates for residential, commercial, and industrial customers measured in cents per kilowatt hour declined .5% on average.

## case studies on recent utility merger synergies

This section presents case studies of recent utility mergers. The customer benefits and merger synergy cost savings identified are highlighted in each case study.

Northeast utilities acquisition of nstar

Northeast Utilities (NU) acquired NSTAR on April 10, 2012. The merged company was renamed Eversource Energy in 2015. NU had four utility operating companies:

* The Connecticut Light and Power Company (CL&P), a regulated electric utility that serves customers in parts of Connecticut
* Public Service Company of New Hampshire (PSNH), a regulated electric utility that serves customers in parts of New Hampshire and owns generation assets used to serve customers
* Western Massachusetts Electric Company (WMECO), a regulated electric utility that serves customers in parts of western Massachusetts and owns solar generating assets
* Yankee Gas Services Company (YGS), a regulated natural gas utility that serves customers in parts of Connecticut

NSTAR had two utility operating companies:

* NSTAR Electric Company, a regulated electric utility that serves customers in eastern Massachusetts
* NSTAR Gas Company, a regulated natural gas utility that serves customers in eastern Massachusetts

NU served 1.9 million electric customers and 200,000 natural gas customers. NSTAR served 1.1 million electric customers and 300,000 natural gas customers. Both Northeast Utilities and NSTAR had service companies to provide common shared services to their regulated and unregulated subsidiaries.

Consolidated Post-Merger Organization Structure

Following the merger, the two companies’ management structures were consolidated with one senior executive for each utility and shared services function responsible for both companies. The consolidated functions included:

* Electric Operations
* Gas Operations
* Energy Supply
* Customer Service
* Supply Chain
* Information Technology
* Legal and Corporate Secretary
* Human Resources
* Finance and Accounting
* Corporate Relations

The executives and managers of each consolidated function were responsible for planning and implementing the consolidated function and achieving merger synergies.

The centralization of utility functions and support services also enabled the capture of economies of scale and the sharing of good practices across the operating companies within each function and support service. For example, the implementation of a single outage management system across all four electric utility operating companies spread the cost of the system over four companies and enabled better sharing of resources among the four companies during storms.

Customer Benefits

On February 15, 2012, NU and NSTAR reached comprehensive merger settlement agreements with the Massachusetts Attorney General and the Department of Energy Resources (DOER). The Attorney General settlement agreement covered a variety of rate-making and rate design issues, including a base distribution rate freeze through 2015 for NSTAR Electric, NSTAR Gas, and WMECO, and $15 million, $3 million, and $3 million in the form of rate credits to their respective customers.

On March 13, 2012, NU and NSTAR reached a comprehensive merger settlement agreement with the Connecticut Attorney General and the Connecticut Office of Consumer Counsel. The settlement agreement covers a variety of matters, including a $25 million rate credit to CL&P customers, a CL&P base distribution rate freeze until December 1, 2014, and the establishment of a $15 million fund for energy efficiency and other initiatives to be disbursed at the direction of the Connecticut Public Utilities Regulatory Authority (PURA). In the agreement, CL&P agreed to forego rate recovery of $40 million of the deferred storm restoration costs associated with restoration activities following Tropical Storm Irene and the October 2011 snowstorm.

The merged company also committed to “green” initiatives including the development of electric vehicle infrastructure, microgrids, and other renewable energy generation technologies.

Merger Cost Savings

The merger process projected cost savings from increased operating efficiencies, implementation of best practices and process improvements, increased purchasing leverage, and staffing reductions through attrition and retirement. The April 8, 2011 Net Benefits Analysis projected operational savings to be approximately $948 million on an enterprise-wide basis over the first ten years after the merger, offset by approximately $164 million in merger-related costs, resulting in enterprise-wide net savings of approximately $784 million. The gross and net savings by area projected were:

* Labor Savings $449.1 million
* Corporate and Administrative Savings $276.0 million
* Purchasing Savings $223.0 million
* Total Gross Savings $948.1 million
* Merger-Related Costs Amortization ($164.3 million)
* Total Net Savings $783.8 million

There was no specific NU/NSTAR integration plan that prescribed post-close details for the consolidation with pre-determined time tables. Instead, integration details were delegated to the executives in charge of the consolidated functions who were also assigned to lead the integration efforts in each functional area. The Company achieved cost efficiencies through the implementation of best practices among the operating affiliates, through leveraging the greater size and scope of the combined organization, and through labor reductions where it was possible to reduce staffing while continuing to meet reliability and customer-service objectives.

Eversource Energy has achieved the cost efficiencies promised by the merger, while also providing the best reliability results on record. One of Eversource's regulatory commitments from the merger was to provide updates identifying the net benefits achieved from the merger by functional area. The latest merger integration report shows the ten year projected net savings to be $996.0 million enterprise-wide, which is higher than the pre-merger estimate of $783.8 million.

The Eversource Energy CEO stated that the mission of the merger integration was to “simplify and standardize.” Following are several anecdotes from the merger integration efforts that illustrate how the merger benefits have been achieved.

* At the point of merger, NU and NSTAr had 37 standard pole types. This has been reduced to six at Eversource.
* At the merger, CL&P had bad reliability and poor storm performance. Outage response was slowed by not having trouble technicians on second shifts due to union resistance. This has been resolved in the interim with contractors and reliability has improved.
* Facilities are being consolidated and optimized. The “Work Center of the Future” is being implemented.
* Materials are being pre-staged and new emphasis is being placed on planning, scheduling, and executing work.
* The Eversource workforce strategy has been evolving. NSTAR did more outsourcing in functions like Human Resources and Information Technology than NU and Eversource has been identifying and implementing the better insource or outsource practice in each function over time.
* The merger improved geographic diversity for both companies and facilitated storm response resource sharing.
* The effort produced a “one company” climate with centers of excellence for consolidated functions. The capstone on the “one company” strategy is the name change to Eversource.

Duke Energy acquisition of progress Energy

On July 2, 2012, Duke Energy Corporation (Duke) acquired Progress Energy, Inc. (Progress) to create the largest electric utility in the United States (measured by number of customers). Duke has over seven million retail customers spanning six states.

North Carolina Regulatory Review

On April 4, 2011, Duke and Progress jointly filed an application with the North Carolina Utility Commission (NCUC) seeking approval to combine Duke Energy Carolinas, LLC (DEC) and Progress Energy Carolinas, Inc. (PEC). DEC's service territory in North Carolina and South Carolina encompasses over 24,000 square miles and contains nearly 2.4 million customers. PEC's service territory in North Carolina and South Carolina encompasses over 34,000 square miles and contains nearly 1.5 million customers.

Cost Savings

**Non-Fuel Merger Cost Savings.** The merged entity expected to achieve five to seven percent savings in annual nonfuel operations and maintenance expenses beginning in 2014. It is anticipated that upon the actual integration of Duke and Progress and their service companies, substantial non-fuel O&M cost savings would result from the integration of Duke and Progress over the long term. Additional known and potential benefits include economies of scale and scope and the leveraging of best practices, both of which are expected to result in operating efficiencies and improvements over time.

The integration process will involve workforce reductions as functions are consolidated and duplicate positions are eliminated. These workforce reductions are estimated to include the elimination of approximately 1,860 positions across the combined company, mostly in the Carolinas. The elimination of these positions is expected to account for a substantial portion of the non-fuel O&M cost savings resulting from the merger.

North Carolina Customer Benefits

**Rate Reductions.** The combined monthly impact of all merger related rate changes for a residential customer using 1,000 kWh per month was a decrease of 85¢. The monthly impact for commercial and industrial customers varied based on consumption.

**Other Customer Benefits.** Other customer benefits include:

* The merged companies committed $16.48 million annually in community and charitable support during the first four years following the merger.
* The merged companies committed $10 million in energy assistance for low-income customers, $5 million for workforce development, and $2 million for NC Greenpower, a nonprofit promoting renewable energy.
* Progress Energy and PEC maintain a significant corporate and utility presence in downtown Raleigh following the close of the merger.

exelon’s proposed acquisition of pepco

In April 2014, Chicago-based Exelon Corporation (Exelon) proposed acquiring Pepco Holdings Inc. (PHI), the utility holding company that provides electricity to Washington, D.C. and parts of Maryland, Delaware, and New Jersey.

Exelon is a public utility holding company whose utility subsidiaries distribute electricity to approximately 6.6 million customers in Illinois, Pennsylvania, and Maryland, and natural gas to approximately 1.15 million customers in the Philadelphia and Baltimore areas. Principal subsidiaries are Exelon Energy Delivery Company (Exelon Delivery) and Exelon Generation Company, LLC (Exelon Generation). Exelon Delivery owns Exelon’s three franchised public utilities:

* Commonwealth Edison is a regulated utility that serves 3.8 million residential, commercial, industrial, and wholesale customers in northern Illinois and the City of Chicago.
* PECO is a regulated utility serving 1.6 million electric and 500,000 gas customers in southeastern Pennsylvania.
* Baltimore Gas & Electric is a regulated utility that provides electricity to over 1.2 million electric customers in all or part of 10 counties in central Maryland and the City of Baltimore.

PHI is a holding company with three regulated public utility subsidiaries: Potomac Electric Power Company (Pepco), Delmarva Power & Light Company (Delmarva), and Atlantic City Electric Company (Atlantic City Electric).

* Pepco distributes electricity to approximately 264,000 customers in the District of Columbia and 537,000 customers in the Montgomery and Prince George Counties in Maryland.
* Delmarva provides electricity to 506,000 customers in portions of Delaware and Maryland and delivers natural gas to 126,000 retail customers in New Castle County, Delaware.
* Atlantic City Electric distributes electricity to approximately 545,000 customers in New Jersey.

Customer Benefits

Benefits to ratepayers that were touted by the merger applicants included faster response to power outages during storms, smaller rate hikes than might have occurred without the merger, enhanced electric service, and more sustainability benefits.

Merger Cost Savings

The merger is expected to provide net synergies of $250 million over the first five years, with most of the savings derived through a reduction of PHI’s operational and maintenance expenses.

Iberdrola acquisition of UIL

In December, 2015, UIL Holdings Corporation (UIL) was merged with Iberdrola USA, Inc. to form AVANGRID, Inc. (NYSE: AGR), a U.S. based, diversified energy and utility company with $30 billion in assets, operations in 25 states, and nearly 7,000 employees across the United States.

Iberdrola USA, Inc. was the sub-holding company of Iberdrola S.A. in the United States (US). Iberdrola S.A. is a Spanish public multinational utility company. Iberdrola USA held the Iberdrola S.A. US subsidiaries. At the time of the UIL merger, the Iberdrola USA regulated utility subsidiaries were Central Maine Power, Maine Natural Gas, New York State Electric and Gas, Rochester Gas and Electric, and New Hampshire Gas. Together, they served about 2.4 million customers.

UIL was a holding company for United Illuminating (UI), a Connecticut electric transmission and distribution utility, Southern Connecticut Gas Company (SCG), Connecticut Natural Gas Corporation (CNG), and The Berkshire Gas Company (Berkshire Gas). SCG and CNG are natural gas distribution companies that serve customers in Connecticut, while Berkshire Gas serves natural gas customers in western Massachusetts.  UIL was an energy delivery company with 1,860 employees that served approximately 690,000 utility customers in 66 communities across two states.

Post-Merger Organization Structure

The previous 2010 acquisition by UIL of the local distribution companies (LDCs) resulted in consolidation of a number of functions and departments, including:

* Finance
* Governmental Relations
* Human Resources
* Legal
* Customer and Business Services

In some instances, the merged departments are fully integrated with both electric and gas services and a number of leading practices have been shared between the merged entities. In other instances, the reporting entities have remained as electric or gas sub-departments reporting to an individual with joint electric and gas responsibilities. IT system development, such as the SAP rollout and expansion, covers all companies and extracts processing synergies and efficiencies.

Connecticut Customer Benefits

The settlement agreement provides for:

* $40 million in ratepayer credits to the existing customers of the UIL Utilities ($20 million to UI, SCG, and CNG) in the first 12 months after the merger closes, plus $7.5 million in credits and $1.6 million in savings associated with gas main replacements for SCG customers
* $45.4 million in potential avoided cost recovery associated with the increasing pipeline safety and storm resiliency activity and rate freezes
* $39 million in public benefits associated with environmental remediation, charitable contributions, and customer disaster relief

## PPL Corporation merger with E.on U.S. LLC

PPL Corporation acquired E.ON U.S. LLC (E.ON U.S.), the parent company of two of Kentucky’s major utilities, Louisville Gas & Electric Company (LG&E) and Kentucky Utilities Company (KU) on November 2, 2010.

E.ON U.S., through LG&E and KU, provided electricity service to 941,000 customers, mostly in the state of Kentucky, with some customers in Virginia and Tennessee. LG&E also provides natural gas delivery service to 321,000 customers in Kentucky. E.ON U.S. had about 3,100 employees and owned and operated about 8,000 megawatts of regulated electric generation capacity at the point of acquisition.

PPL Corporation sold energy in key U.S. markets and delivered electricity to about four million customers in Pennsylvania and the United Kingdom. The company had about 10,000 employees at the point of acquisition of E.ON U.S. The 2010 acquisition transformed PPL Corporation into a more geographically diverse utility holding company with combined annual revenues of about $10 billion and serving nearly five million electricity customers in the United States and the United Kingdom.

post-merger structure

At the time of the acquisition, the PPL Corporation Chairman indicated that PPL Corporation intended to operate LKE as a wholly owned subsidiary of PPL Corporation, retaining the headquarters in Louisville, as had been the case during E.ON AG ownership. Customers would continue to be served by LG&E and KU, with operational headquarters in Louisville and Lexington, respectively. No changes in Kentucky employment levels were anticipated as a result of this transaction.” The commitment to maintain the LKE headquarters in Louisville remains in place for 15 years following consummation of the acquisition.

Immediately following the acquisition, PPL served roughly 5.2 million utility customers, including 2.6 million in the United Kingdom, 1.4 million in Pennsylvania, and 1.2 million in Kentucky. The company now had annual revenues estimated to exceed $10 billion (up from $7.6 billion recorded in 2009). The company employed 13,500 people, including about 3,100 in Kentucky.

customer benefits

PPL Services Corporation (PPL SC) executives have stated that the acquisition of LKE was not a “merger synergies deal” and there were no merger cost savings projected from the merger. It was justified on other grounds. Nonetheless, there were customer benefits included in the orders from the state regulatory commissions that approved the merger.

The PPL Corporation acquisition of LKE was reviewed and approved by three state regulatory agencies: the Kentucky Public Service Commission (KPSC), the Virginia State Corporation Commission (VSCC), and the Tennessee Regulatory Authority (TRA). However, only the KPSC imposed customer benefits in its order. Approval for the merger was not required from Pennsylvania, and, therefore, no Pennsylvania customer benefits were promised. Examples of the customer benefits outlined in the final order from the KPSC are summarized below:

* Section 1.1. LG&E and KU committed to a base-rate "stay out" until January 1, 2013, such that any proposed new base rates shall not take effect before that date. Therefore, LG&E and KU would have been permitted to file rate applications during 2012, but the proposed base rates would not take effect before January 1, 2013.
* Section 2.1. In exchange for eliminating Regulatory Commitment No. 39 (requiring the filing of a synergies analysis and sharing methodology), LG&E and KU agreed to adopt and implement the Acquisition Savings Sharing Deferral (ASSD) methodology.
* Section 2.7. The annual ASSD deferral amount, if any, as established by the Commission Order in Section 2.5 was to be recorded by each utility operation in a regulatory liability account and returned to customers through an annual amortized amount in base rates for a period to be determined in the utility operation's next base rate case. The ASSD operated for two years before terminating with the filing of base rate cases by LG&E and KU. The annual ASSD results showed LG&E and KU earned returns were less than their authorized returns. As a result, no benefits were shared with customers under the ASSD mechanism.
* Appendix C, No. 12. PPL, E.ON U.S., LG&E and KU commit to advising the Commission at least annually on the adoption and implementation of best practices at both LG&E and KU following the consummation of the acquisition.

## PPL Corporation Merger Synergy Initiatives

This section addresses the merger synergy initiatives that have occurred since the merger in 2010 through 2015 among PPL EU, PPL EUS, PPL SC, LG&E, KU, and LKE SC.

Much of the merger synergy work through December 2015 was documented in LG&E’s and KU’s Best Practice reports to the KPSC. LG&E and KU are required by the merger order from the KPSC (Case No. 2010-00204) to file an annual update on the adoption and implementation of best practices at LG&E and KU. Each functional area below presents a summary of these initiatives identified in the Best Practice reports from 2011 through 2015. Additional merger synergy information gathered from interviews with PPL EU, PPL EUS, and PPL SC executives and managers is also presented along with information from document request responses in each functional area.

The merger synergy work is discussed in this section under each of the following functional areas:

* Transmission and Substations
* Distribution Operations
* Customer Services and Energy Efficiency
* Finance, Accounting, and Audit
* Support Services

transmission and substations

Kentucky PSC Merger Reports

The transmission and distribution functions have been grouped together in the annual Kentucky PSC merger reports. From 2011 through 2015, Kentucky and Pennsylvania transmission and distribution operations teams worked together to share practices and processes in the areas of safety, reliability, emergency restoration, construction methods, work management, project management, technology, engineering, and fleet management. No tangible initiatives, benefits, or cost savings were identified for any of the above interactions.

PPL EU Transmission and Substations

PPL EU Transmission and Substations and LKE SC Transmission and Substations personnel participated in monthly calls and visits in the 2011 to 2012 timeframe. Various groups in Transmission and Substations continue to maintain regular communications with their counterparts in LKE SC to discuss industry research results, share technical knowledge, provide expertise on shared applications, share processes and procedures, and conduct informal benchmarking. The respective organizational structures and businesses are currently different so most of the sharing is of a general nature. The focus in 2015 and 2016 is on specific issues and use of common systems and applications.

Following are anecdotal examples of cooperation regarding the transmission and substations functions between PPL EU and LKE SC.

**Transmission Project Management.** LKE SC visited PPL EU in March 2016 to review how projects are managed at PPL EU and the systems and processes used. LKE is considering implementing a project management group.

**Reliability Compliance.** The Reliability Compliance groups at LKE SC and PPL EU participate in a monthly call to discuss NERC standards under development and implementation approaches to new standards. In some cases, PPL EU and LKE SC can generate a combined or similar approach while others require specific response by each company.

**Geomagnetic Disturbance**. PPL EU Transmission Operations adapted LKE SC’s geomagnetic disturbance (GMD) procedure for its use.

**Project Delivery.** There is some sharing of critical parts, industry research efforts, and PPL EU’s experience gained with project management tools and project management processes.

**Asset Management.** PPL EU Asset Management is implementing a planning tool used by LKE SC and some representatives from LKE SC will be traveling to PPL EU to show how the tool is used at LKE SC.

**Contractor Safety Management.** PPL EU and LKE SC have shared contractor safety management practices and programs with each other, along with contractor scorecard reviews and other contractor management aspects.

**Vegetation Management.** There are regular PPL EU communications with LKE SC counterparts on specific vegetation management topics. The PPL EU Vegetation Management staff hosted their LKE SC counterparts during 2014, and then visited LKE SC for two days during 2015 to share best practices, procedures, processes, and review NERC FAC-003 compliance plans. PPL EU staff members have also communicated with counterparts in LKE SC on use of LIDAR and geospatial applications for transmission line vegetation management.

Distribution operations

PPL EU Distribution Operations began communicating with counterparts in LKE SC after the merger to establish connections and share activities to generate ideas for improvements in the respective operations. Overall, interactions with LKE SC have been on specific topics of interest to PPL EU or LKE SC Distribution Operations. No general or periodic information sharing process was in place as of early 2016.

Following are anecdotal examples of cooperation regarding the distribution operations functions between PPL EU and LKE SC.

**Low Tension Network.** PPL EU and LKE SC shared information on their respective low tension networks (LTNs). In 2013, LKE SC initiated a consultant review of its LTN system and shared information on the results with PPL EU. PPL EU then used the same consultant to evaluate the condition of its LTN networks in 2013 and make recommendations for improving reliability of its networks. Representatives from the PPL EU work methods group visited LKE SC in 2013 and 2014 and brought back some ideas for improving work methods on the Low Tension Network.

**Customers Experiencing Multiple Interruptions.** PPL EU has also implemented some of LKE SC’s best practices to help simplify the PPL EU Customers Experiencing Multiple Interruptions (CEMI) program processes.

**Safety.** The PPL EU VP Distribution Operations and the Health and Safety Manager confer with their LKE SC counterparts on a regular basis to share safety programs and results achieved.

**Fleet Services.** There is ongoing informal sharing of ideas and information regarding fleet services between PPL EU and LKE SC. LKE SC transitioned to outsourced fleet management in the 1990s and is using the same contractor as PPL EU with three in-house staff supporting the program. LKE SC has been a good resource to PPL EU in planning for the future delivery of fleet services. PPL EU has visited the LKE SC fleet operation twice, once in 2013 and once in 2014. LKE SC leases its vehicles while PPL EU purchases the vehicles in its fleet.

The new fleet management system installed at PPL EU in 2015 is the same as that used by LKE SC. Both PPL EU and LKE SC are using the same GPS and vehicle condition platform which allows each entity to see crew vehicle locations sent to the other utility to support mutual assistance storm restoration work. However, both are under separate contracts.

**Budget Processes.** In 2015, PPL EU representatives participated in a conference call with LKE SC on budget processes as part of identifying refinements to the Distribution Operations Model (DOM). Some good ideas on governance of the budget process were incorporated into the PPL EU DOM process.

**Technical Development and Improvement.** The PPL EU Director of Technical Development and Improvement communicates with his LKE SC counterpart at least monthly to discuss the impact of new federal regulations, such as from the Occupational Health and Safety Agency (OSHA) and the Environmental Protection Agency (EPA), on the organizations and other topics of mutual interest. The PPL EU Vice President of Distribution Operations and the Director, Technical Development and Improvement have begun annual visits with LKE SC, alternating hosting for the visits.

**Distribution Automation.** LKE SC is planning to expand its use of distribution automation (DA) and acquire a Distribution Management System (DMS). However, no decision has been made regarding a vendor. LKE SC initially visited PPL EU in November 2014, after learning of the successes of PPL EU’s DA program, and soon after proposed a multi-year DA program. Since then, LKE SC has visited PPL EU multiple times to observe the DMS and Distribution Supervisory Control and Data Acquisition (DSCADA) systems deployed at PPL EU and to discuss PPL EU’s DA program implementation.

LKE SC has adopted PPL EU’s recloser and recloser control standards and is evaluating implementation of PPL EU’s overcurrent protection guidelines for application in its DA program. The PPL EU Director-Distribution Engineering is also serving on LKE SC’s distribution automation team and DMS Steering Committee. Standards are regularly shared with LKE SC and there are regular discussions on topics such as LTN maintenance, spare parts, and operational practices.

**Animal Contacts.** LKE SC contacted PPL EU in February 2016 regarding methods to reduce animal contacts with overhead power lines. LKE SC substation group is also utilizing best practices from PPL EU to develop a proposal for a multi-year distribution substation wildlife program.

**Real Time Data Collection and Analysis.** Both PPL EU and LKE SC are using the same software product for real time data collection and analysis. Past attempts to work with the vendor on a joint license at reduced cost have been unsuccessful. PPL EU’s current pricing is more favorable than LKE SC’s.

**Relay Management.** In 2014, PPL EU visited LKE SC for a presentation and demonstration of its repository system for all relay records, settings, test plans, and test results and later that year began work transitioning to the application. PPL EU completed its implementation of this system in 2015.

**Common Training Programs.** Two training programs have joint participants from PPL EU and LKE SC which allows for informal networking and establishing contacts with counterparts. The Managing People and Processes course is for supervisors and the Leading People and Processes course is for managers and directors.

**Mutual Aid.** PPL EU and LKE SC have released mutual assistance resources to each other to assist with restoration and repair of their electric systems following significant weather events. Both companies are considered to be reliable for storm restoration support. Typically, PPL EU and LKE SC are not impacted by the same storm systems, minimizing potential conflicts in availability of the non-impacted company to support the impacted company. The overall response time from request to arrival on-site is typically more rapid than from other mutual-aid agreements due to the close working relationships and knowledge of each respective system.

Additional informal information sharing has occurred with smart grid technologies, LED street lighting, and Distribution Control Center functions and processes. Further, PPL EU regularly shares distribution standards with LKE SC and there are regular discussions on various topics such as asset management programs, business tools, and operational practices. Examples include best practice sharing on contingency strategy, LTN maintenance, and spare parts. Moving forward, PPL EU and LKE SC plan to use common technologies and platforms where feasible.

customer services and energy efficiency

No tangible initiatives, benefits, or cost savings for LKE SC and PPL EU Customer Services or Energy Efficiency were reported in the annual merger reports to the KPSC. However, ongoing discussions of best practices between Pennsylvania and Kentucky Customer Services personnel were reported from 2011 through 2015.

The senior staff of PPL EU Customer Services met with their counterparts from LKE SC in March 2016 to discuss best practices, consolidation, and shared services opportunities. Each of PPL EU's Customer Services' five organizational groups reporting to the Vice President of Customer Services participated in these discussions: Customer Experience, Revenue Operations, Regulatory Programs, Customer Services Operations, and Advanced Metering and Data Operations. The discussions included:

Leverage reporting & analytics best practices, understand analytical tools utilized, review bill redesign benchmarking, utilize customer survey vendor, review payment processing vendors, compare energy efficiency vendors, review Kentucky collections strategies, consider workforce management staffing, review staffing model and workforce processes, compare customer experience initiatives, review customer persona & segmentation efforts, benchmark alternate care channels (IVR, chat, web, social), and understand low income program nuances.

The cooperation for each of the five PPL EU Customer Services groups with their LKE SC counterparts is discussed below.

Customer Experience

The PPL EU Customer Experience group includes the PPL EU's two call centers, oversight of the PPLSolutions call center, and a third-party contractor call center.

**Telephone Language Interpretation.** PPL EU Customer Services is considering a shared services agreement for telephone language interpreting for its call centers with Kentucky call centers. PPL EU pays 50 cents per call for that service while Kentucky was able to negotiate lower contract pricing. With a new combined contract, the cost would be reduced with a combined estimated savings of $8,000 per month.

**Customer Interaction Center.** PPL EU uses a phone switch that provides interactive intelligence for the call centers via the Customer Interaction Center (CIC) telephony platform. The package includes a scheduling Optimizer that Customer Services concluded is not adequate. Kentucky uses a different phone switch and uses a different call scheduling tool. The Kentucky tool provides workforce management, quality and performance management, back office optimization, and analytics. Kentucky recently signed a three-year contract for this tool, and PPL EU Customer Services is working with IT to evaluate if there is sufficient infrastructure bandwidth for PPL EU to share the costs of the scheduling system tool with Kentucky.

Revenue Operations

**Third Party Collection Agencies.** PPL EU and LKE SC began discussions about shared services for third party collection agencies. A joint Pennsylvania/Kentucky request for information (RFI) was sent to a list of 28 agencies, including PPL EU’s existing agencies in March 2016. The RFI is seeking two primary agencies and two secondary agencies. The combined account volumes are expected to generate synergy cost savings. PPL EU and LKE SC will evaluate the responses and invite selected participants via a request for proposal (RFP) to submit a formal bid.

**Other Initiatives.** PPL EU Revenue Operations is considering other joint discussions and efforts with its LKE SC counterpart:

* Developing a uniform web design and appearance
* Exploring the changes that may need to (or in any case should) be implemented at electric utilities as a result of actions by the federal Consumer Financial Protection Bureau (CFPB) on predatory practices in the banking industry.
* Sharing services for a joint vendor that will provide lower credit card fees associated with on-line bill payments. The current vendor charges $3.95 per month or transaction which is higher than fees of $2.25 paid by Kentucky customers. Revenue Operations will seek a two-year contract that would terminate in 2018, at the same time that the LKE SC contract will end, so that a new joint RFP can be issued with LKE SC.
* Using a common alert system in the case of a customer threat to a PPL EU employee or asset. The plan to develop a system for threat communication is a result of joint discussions with Kentucky counterparts. Revenue Operations discussed how the Kentucky utilities maintained a data base that tracked threats made by customers against utility employees in the field. There were occasions when the same customer made threats against employees from different organizations, such as T&D and metering operations, but that information was not readily shareable. Revenue Operations therefore is considering developing such a system and data base for PPL EU.

Regulatory Programs

The PPL EU Manager of Regulatory Programs met with this function's Kentucky counterpart in March 2016 and discussed commission complaint and compliance handling. PPL EU learned that the Kentucky utilities have an Operation Help check-off on bills to make it easier for customers to donate. No plans or decisions were made as a result of the discussions.

Customer Services Operations

There are no synergy efforts underway for Customer Services Operations.

Advanced Metering and Data Operations

The PPL EU Director of Advanced Metering and Data Operations met with the function's LKE SC counterpart in March 2016. The Kentucky utilities offer automated meters (AMI) through a demand side management program and are interested in discussing the PPL EU existing and planned meter data management systems. No best practices or consolidation synergies associated with Advanced Metering and Data operations were identified that would benefit PPL EU.

finance, accounting, and audit

Financial and accounting services are provided to PPL EU by both PPL Services Corporation (PPL SC) and PPL EU Services Corporation (PPL EUS). PPL SC provides certain finance and accounting services and auditing services to the entire PPL Corporation family of companies, including PPL EU. The PPL EUS Regulatory Affairs organization and the Accounting, Planning, and Reporting organization provide finance and accounting services only to PPL EU.

Potential for synergies in the areas of finance, accounting, and auditing services among PPL EUS, PPL SC, and LKE SC, LG&E, and KU, as well as synergy initiatives reported in the Kentucky merger report are discussed in this section.

PPL SC

Possible synergies between PPL SC and LKE SC have not been studied to a great extent with the exception of the Information Technology (IT) function. In the IT area, there were duplicate organizations and applications at PPL SC and LKE SC. The organizations have since been combined at the CIO level, and the potential for combining IT applications is being studied. If the financial IT applications used by PPL SC and LKE SC were to be actively considered for consolidation, PPL Corporation, PPL SC, and LKE SC would need to perform a cost-benefit analysis to determine if such a move would be cost effective for the companies. Currently, there are no plans to merge any Pennsylvania and Kentucky financial work groups.

Investor Relations and Financial Planning

This work group is responsible for the functions of Investor Relations, Corporate Budgeting, and Financial Planning.

The Investor Relations’ function ismaintaining relationships with, and making presentations to, PPL Corporation’s investor groups. Thisis a corporate-level function that is not duplicated or performed by any other financial group within the PPL family of companies, including LKE SC.

There have been no synergy initiatives for Corporate Budgeting or Financial Planning.

Controller

Synergies concerning the combination of accounting staff between PPL SC and LKE SC have not been addressed.

A consultant’s report, which evolved from PPL Corporation’s four information technology initiatives, has resulted in the formation of a steering committee to determine what joint or replacement financial systems could be utilized to generate synergies between the Pennsylvania and Kentucky utility companies. This committee is headed by the PPL SC Controller and includes representatives from PPL EU, PPL EUS, and LKE SC. This committee will explore the possibility of joint financial systems, either with current or upgraded current systems or entirely new systems. The consultant’s report estimated that a new, joint financial system could cost approximately $25 million. It has not been determined yet that this would be a cost effective solution for PPL Corporation.

Tax

Since the time of the merger with LKE, the Tax Departments of PPL SC and LKE SC have begun reviewing tax accounting practices and tax positions to determine where best practices for tax planning and compliance may exist. No significant tax accounting changes have been made, nor have any significant tax positions been changed. In 2011, the LKE SC Tax Department provided limited assistance to the PPL SC Tax Department in implementing new features of the tax provision software. Because the LKE SC group had completed its implementation in a prior year, it was able to assist PPL SC in its implementation, including support for the initial setup, loading of historic data, conversion of accounting processes, providing certain trouble shooting assistance, and providing limited training where needed. PPL SC and LKE SC are now operating consistent tax accounting and tax compliance systems. In 2016, the Tax Department, with assistance from an outside consultant, has been conducting an evaluation of the tax processes at PPL SC and LKE SC. This evaluation is being made to determine what tax processes and skills are required, how the tax work should be accomplished, the technical support required to conduct tax work in an efficient and effective manner, and what processes should be used. This evaluation is expected to be completed in 2016.

Treasury and Risk Management

There were no plans for consolidating any of the Treasury functions, cash management, corporate finance, or risk management, at the time of this report. However, these are functions which are often consolidated at the highest corporate level.

In early 2016, LKE SC negotiated a contract extension with its remittance vendor until February 1, 2018. This extension was reached in order to allow LKE SC to complete its ongoing Customer Service System upgrade. Mid 2017 or earlier, LKE SC will begin the RFP process to competitively bid the contract. At that time, PPL EU and LKE SC will likely discuss whether it is prudent for both to jointly bid the contract. Currently, PPL EU and LKE SC are both operating under separate contracts with the vendor. Fifty percent of the remittances being processed at the PPL SC Remittance Processing Center in Allentown, Pennsylvania are PPL EU transactions, with the other fifty percent of the transactions representing work for PPLSolutions.

In 2011, at the time of the PPL Corporation acquisition of LKE, PPL SC had considered having the PPL SC Remittance Processing Center handle all of the Kentucky companies’ payments, but there was a concern that the Kentucky customers would not want to mail their payments to Pennsylvania. Additionally, it was thought that the Remittance Processing Center was probably not large enough to handle its current workload plus the additional Kentucky payments.

Both PPL EU and LKE SC use the same cash management system. PPL EU has its own commercial paper program and does not borrow from other PPL Corporation entities for short term cash requirements.

LKE SC has its own Treasury operations which report through the LKE SC CFO to the LKE SC President, and not through the PPL SC Treasury organization. However, the PPL SC and LKE SC Treasury groups coordinate financial market interfaces.

The PPL SC Risk Management department coordinates placement of all corporate-wide policies including Directors and Officers, excess liability, fiduciary, crime, property, and cyber. However, they do no perform contract reviews for LKE SC.

Corporate Audit and Business Ethics

The Corporate Audit and Business Ethics VP is responsible for the internal audit function and ethics program for PPL Corporation. The VP Corporate Audit reports directly to the Chairman, President and CEO of PPL Corporation, as well as to the PPL Audit Committee. The head of the LKE SC internal audit work group is responsible for the internal audit function of PPL Corporation’s Kentucky companies, with dual-reporting to the LKE Chairman, President and CEO, as well as to the Corporate Audit and Business Ethics VP..

Similarly, the head of the internal audit group in the United Kingdom has a dual-reporting relationship to the WPD Midlands CEO, as well as to the Corporate Audit and Business Ethics VP. The Pennsylvania, Kentucky, and UK internal audit groups do not use the same audit programs but there is coordination between the groups. Pennsylvania and Kentucky audit groups are jointly performing audits in certain areas, including IT audits. These two work groups are also starting to share resources based on experience and skills and to transfer knowledge between the two audit groups on an informal basis. The Corporate Audit and Ethics VP reports combined audit results from the three teams (Pennsylvania, Kentucky, and U.K.) to the PPL Corporation Audit Committee.

Corporate Memberships

Prior to PPL Corporation's acquisition of LKE and its two Kentucky utilities in 2011, LG&E and KU had been members of the Edison Electric Institute (EEI) for many years. EEI membership dues are contingent upon the member's size, with rates being discounted for higher total volumes of customers, revenues, and generation capacity. LG&E and KU have achieved reduced membership costs by being included within the PPL Corporation’s EEI membership rather than filing on an independent basis for LG&E and KU alone. In 2010, LG&E and KU's EEI dues totaled approximately $737,000. In 2011, as part of PPL Corporation, LG&E and KU's EEI dues were reduced to approximately $607,000, a difference of $130,000. PPL EU also realized reduced membership costs as a result of including LG&E and KU with PPL Corporation’s EEI membership.

PPL EUS

There are two work groups relevant to finance and accounting functions in PPL EUS, Regulatory Affairs and Accounting and Financial Reporting.

Regulatory Affairs

The Regulatory Affairs work group for the Kentucky utility companies is part of the LKE SC organization and there is only informal communication between it and the PPL EUS Regulatory Affairs unit. PPL EUS did evaluate the information technology packaged system used by LKE SC for regulatory affairs. However, it was decided that it was not appropriate for PPL EUS at that time.

Accounting and Financial Reporting

There are different accounting and financial systems, reporting requirements, and rate mechanisms among the PPL Corporation utility companies, PPL EU, LG&E, KU, and the WPD Midlands companies. Although the reporting requirements and rate mechanisms for each utility are beyond the control of the utilities, steps are being taken by the Finance organizations to evaluate accounting and financial systems to determine the efficiency and cost effectiveness of putting the Pennsylvania and Kentucky utilities on the same systems. Both PPL SC and LKE SC use the same planning modules, but different versions of the modules are in use.

support services

Support services are provided to PPL EU by PPL SC, PPL EUS, and departments within PPL EU. Possible synergies between PPL Corporation’s Pennsylvania companies, including PPL EU, PPL EUS, and PPL SC and PPL Corporation’s Kentucky companies, LKE SC, LG&E, and KU have not been studied to a great extent with the exception of the Information Technology (IT) function. The support services covered in this section are:

* Information Technology
* Human Resources
* Corporate Communications
* Legal
* Public Affairs
* Supply Chain
* Facilities Management
* Protective Services

Information Technology

In July 2014, the Chief Information Officer (CIO) at LKE SC was named the CIO for all PPL Corporation domestic information technology (IT) operations. Under the direction of the CIO, the IT organization began to identify and analyze its processes and systems to ensure that IT was providing the best value for customers and shareholders.

In mid-2015, the CIO developed four project charters for impending change initiatives focused on IT, Human Resources, Finance, and Operations. Teams representing each of these areas were assembled. Each team was comprised of managers from the respective Kentucky and Pennsylvania organizations. Teams were charged with identifying potential synergies.

The IT change initiative was first to get underway with IT team kick-off meetings, analysis of resources, and identifying synergies and opportunities. The HR, Finance, and Operations initiatives followed suit. It was anticipated that the entire analysis and implementation plan for the four groups would be completed by the end of 2015.

However, once the internal reviews were initiated, an outside consultant was retained by the CIO to assist with identifying, quantifying, and prioritizing likely synergy opportunities between PPL SC and LKE SC. This review superseded the four internal teams’ review. The outside consultant study focused mainly on technology platforms in the services functions such as IT, finance, supply chain, and human resources. Potential savings and implementation costs were considered for the opportunities identified. Organizational layers and spans of control were also reviewed as well as organizational centralization/decentralization considerations.

The outside consultant review identified 26 initiatives for improvement. The initiatives were broadly categorized in four groups: organizational, process, technology, and application. Generally, the initiatives focus on reducing redundancies, organization and system consolidation, single processes, and project management.

Following the completion of our review of PPL EU Information Technology and Systems as presented in Chapter XI, in November 2015, the CIO took steps to reorganize the domestic IT functions by merging the Pennsylvania and Kentucky IT organizations. Under the reorganization, similar IT functions being performed in the two locations are now led by a single director. Within Enterprise Infrastructure, functions are organized under a shared manager, or supervisor, as appropriate. The new IT organization has five units reporting to the CIO:

* Enterprise Infrastructure
* Enterprise Business Services and Project Portfolio for IT and Large-Scale System Application Projects
* Development and Support for Operations Systems
* Development and Support for Business Systems
* Corporate Information Security Officer

Each of these central units is responsible for both Pennsylvania and Kentucky. All of the remaining PPL SC and LKE SC IT units are assigned to one of these five units. Work continues on developing an organizational design for IT that effectively supports both the Pennsylvania and Kentucky utilities.

Some of the shared IT initiatives already completed or underway include: access to the PPL Corporation Hosted Disclosure Management and Financial Management applications now used by LKE SC's Financial Reporting department; defined user provisioning between PPL SC and the LKE SC companies for shared applications using service-oriented architecture technology; pursuit of a joint Unified Communications Strategy development project with the outside consultant; use of a joint information security awareness annual training module; security threat information sharing; shared information security vision, mission, and strategic principles; and LKE SC hosting of the PPL SC Alternate Data Center. PPL SC and LKE SC also strive to optimize combined spend for IT vendors and have participated in joint IT vendor workshops.

The main focus for improvement thus far has been on IT systems because systems are the common thread between various organizations and IT systems consolidation and standardization can have broad organizational benefits. Pursuit of the improvement initiatives identified by the outside consultant are in progress and entails prioritization of the opportunities, development of business cases, detailed planning, funding approval, and initial execution.

Information technology for PPL EU goes through a Pennsylvania Technology Portfolio Management Committee (TPMC) for technology related spend. Kentucky has a separate TPMC. There is an IT Council which consists of executives from PPL SC, PPL EU, and LKE SC. This council has been in existence several years. Evaluation of common platforms and technologies is strongly encouraged and has been pursued where supported by a positive business case.

Human Resources

Human Resources services are provided to PPL EU by both PPL SC and PPL EUS.

**PPL SC Human Resources.** Subsequent to the LKE acquisition by PPL Corporation, several synergies were identified and achieved between PPL SC and LKE SC in the human resources area. Both the PPL Corporation and LKE trusts were combined under a single vendor so that all pension assets are under one trust. Weekly calls occur with enterprise-wide HR leadership. Also, an enterprise-wide HR Leadership conference was recently held to discuss best practices. Recently, administration of the LKE retirement plans (qualified and non-qualified pension and savings plans) was brought under PPL Corporation’s existing vendor. All 401k retirement plans are now under a single vendor. The vendor also manages the executive compensation stock plan services for both PPL SC and LKE SC. Actuarial services, provided by another vendor to PPL SC, are shared with LKE SC. WPD Midlands has no involvement in this sharing except the stock plan services provided by the common vendor.

The membership of the Employee Benefits Pension Board has been expanded to include LKE SC. WPD Midlands was not included, as it operates under British rules. The PPL Corporation Employee Benefits Pension Board has been seeking ways to de-risk the benefits plans administered by PPL SC, LKE SC, and WPD Midlands as well as improving the design of medical insurance plans to make them more cost effective.

Since the divestiture of PPL Energy Supply, LLC the number of development and training program participants has dwindled. To take advantage of this situation, LKE SC has begun to participate in the management and leadership development programs offered by PPL SC HR with participation funded by the participating trainee’s parent organization. LKE SC employees also participate in the PPL SC executive development program and options for a common management assessment program are being discussed with LKE SC, PPL EU, and WPD Midlands.

In 2013, PPL SC and LKE SC began working jointly with a common recruiting software package. The software resides on a single network with one license and one maintenance and upgrade arrangement.

In 2014, LKE SC began using the same diversity software package that PPL SC was using. LKE SC had previously performed this function manually. In 2015, PPL SC and LKE SC developed a joint business case for the use of a common succession planning system. Combined use of this system saved approximately $100,000 in license fees.

The PPL SC HR and LKE SC HR groups frequently have informal conversations regarding the pursuit of joint opportunities in human resources. However, no directed PPL SC HR synergy initiatives are presently being pursued with LKE SC HR.

**PPL EUS Human Resources.** Although there are no directed synergy initiatives between PPL EUS HR and LKE SC HR, two joint activities have been undertaken: succession planning for executives and executive compensation.

PPL EUS HR management interfaces directly with LKE SC HR once per year. Otherwise, PPL EUS HR management has worked to form an HR subcommittee of the Association of Edison Companies to collaborate on HR matters. Up to 20 companies have been involved in this, including LKE SC HR.

The PPL EUS HR Director is working with the combined LKE SC and PPL SC HR systems team on the IT synergy initiative, specifically how to do talent management and employee relations. The goal is to align supervision between the different locations. Process synergy is more of an objective than cost savings.

Corporate Communications

Communications services are provided to PPL EU by groups in both PPL SC and PPL EUS.

**PPL SC Corporate Communications.** No synergies with LKE SC’s communications organization have been identified and there are presently no directed synergy initiatives underway with LKE SC in the communications area. The teams collaborate on articles for the employee communications channels and there is some informal collaboration among the groups to assure consistency in messaging. Additionally, there has been shared use of social media listening tools. Some synergy opportunities that might exist would be common use of contracts, platforms, and social media listening tools.

**PPL EUS Corporate Communications**. There are presently no management-directed initiatives underway to pursue synergies between the PPL EUS Corporate Communications group and its LKE SC counterpart. Information is shared between the groups on an ad hoc basis when appropriate. Otherwise, there is no pursuit of corporate communication synergies with LKE SC.

**Compliance.** Shortly after the completion of the acquisition of E. ON U.S., LKE SC personnel began to participate in several pre-existing PPL SC corporate-level compliance oversight groups. These included a Corporate Compliance Committee, which consists largely of senior officers from both PPL SC and LKE SC. The Corporate Compliance Committee’s general mission, as currently stated, is to promote an organizational culture that ensures ethical conduct and a commitment to compliance with law for PPL Corporation and all of its subsidiaries. Another existing PPL SC corporate-level group which was joined by LKE SC personnel was the Compliance Working Group. The mission of the Compliance Working Group is to support the Corporate Compliance Committee in assessing the effectiveness of the entire organization’s compliance and ethics program. The Compliance Working Group is staffed by senior management personnel representing the compliance, audit, and legal requirements of PPL SC and LKE SC. The group meets monthly. During the first quarter of 2016 a new position, Global Chief Compliance Officer (GCCO), was created and filled by an executive with a central leadership role for the entire organization. The GCCO has overall responsibility to ensure that the organization has an effective ethics and compliance program enterprise-wide, which meets requirements in the U.S. Department of Justice Sentencing Guidelines (and similar requirements of other domestic agencies including FERC), as well as any requirements for such programs in the U.K.) Among the stated functions of the GCCO is to provide a forum for sharing best practices among business risk owners and endeavor to drive consistency where appropriate.

Legal

There are presently no directed synergy initiatives underway between the PPL SC and LKE SC legal staffs although some common systems are used, and joint meetings are held between the organizations. The LKE SC legal staff does not report through the PPL SC legal organization and operates in support of the Kentucky utilities just as the PPL SC Office of General Counsel (OGC) operates in support of PPL EU and PPL Corporation.

The PPL SC General Counsel holds a bi-weekly staff meeting that the LKE SC Deputy General Counsel attends telephonically. Also, weekly teleconferences are held between LKE SC and PPL SC OGC attorneys to discuss finance and governance matters as well as FERC issues. The PPL SC compliance attorney serves as a point of contact with the PPL Corporation Global Chief Compliance Officer and works with LKE SC on compliance matters.

Both the PPL SC and LKE SC legal departments utilize the same billing system for tracking the time and fees associated with external law firms engaged in supporting the legal staffs.

Additionally, both utilize the services of the same disclosure attorney for SEC and financial report development. These services are utilized for all of the PPL Corporation SEC registrants (PPL Corporation, PPL EU, LKE, KU, and LG&E). PPL SC and LKE SC also collaborate on annual corporate sustainability reporting using a core team made up of representatives from across services and domestic and international business units. The Global Reporting Initiative (GRI) is an independent, nongovernmental, nonprofit organization organized in 1997 in Amsterdam, The Netherlands, to assist businesses and governments to communicate their sustainability record to stockholders, consumers, and other stakeholder groups. GRI publishes a list of indicators (or data points) companies should use when reporting their sustainability profile to the general public. GRI’s indicators are regarded as the “gold standard” for sustainability reporting. GRI’s indicators, including those developed for use by the electric utility industry, were drafted by industry representatives and various stakeholder groups. PPL Corporation just completed its 2015 sustainability report which is based on GRI’s G4 guidelines and the electric utility sector supplement guidelines. This is the first time that PPL Corporation has used the GRI guidelines in its sustainability report. The report can be found online at: https://pplsustainability.com/.

There is also an annual legal retreat that is attended by the LKE SC, WPD Midlands, and PPL SC legal staffs. The event consists of panel discussions on legal topics of mutual interest. Data privacy is one of the recent topics of focus. The retreat is held for two days. In 2015, it was held in Pennsylvania; in 2016, it will be held in Kentucky.

Public Affairs

LKE SC has its own governmental affairs group which is structured differently from the PPL SC Public Affairs group. From a federal perspective, however, LKE SC is responsible for contact with Kentucky Federal elected officials and works with the PPL SC Federal office which provides representation for the three US utility operating companies (PPL EU, LG&E, and KU). The Federal office follows FERC policy and legislation activities for PPL EU, LG&E, and KU.

PPL SC’s political action committee coordination is managed for both federal and Pennsylvania state activities by PPL SC Public Affairs. LKE SC manages and administers its own Kentucky state political action committee. Additionally, Edison Electric Institute (EEI) membership costs are managed collectively and allocated to the three domestic electric utilities.

In the interest of collaboration and coordination, quarterly conference calls are held among PPL SC Public Affairs personnel, the PPL SC FERC attorney, the PPL EU Transmission Vice President and staff, and their LKE SC counterparts.

Supply Chain/Procurement

In March 2011, PPLSC and LKE SC began a Sourcing Collaboration Program, initially utilizing an independent, professional external supply chain consultant. During that time, the Supply Chain departments analyzed over 80 categories of spending, and identified opportunities resulting from harmonized pricing and joint sourcing. As a result of these efforts, PPL EU has saved in excess of $40 million and LKE SC has saved approximately $7 million. However, it should be noted that there are very limited business specific items that are commonly utilized by PPL EU and LKE SC. Although the Companies discontinued use of the outside consultant in April 2013, the respective Supply Chain Directors talk and share information informally and PPL EUS Supply Chain personnel talk with their LKE SC counterparts every two or three months. There are also ongoing and routine conversations with the sourcing professionals in each organization’s Supply Chain area. PPL EUS Supply Chain staff members have visited their LKE SC counterparts and LKE SC has visited PPL EUS to share information and experience with using the asset, materials, and purchasing application. LKE SC is currently using a different supply chain management IT system.

PPL EUS Supply Chain has worked informally with LKE SC Supply Chain when opportunities for joint purchasing arise. Some anecdotal examples follow.

**LED Lighting.** Some coordinated purchasing is occurring with the LED lighting contracts that were negotiated by PPL EUS in late 2015. LKE SC plans to use the same vendors for its LED lighting needs. Due to the relatively small volume expected from LKE SC, PPL EUS does not anticipate any direct savings; however, LKE SC should see a better pricing discount due to PPL EUS’s volume if LKE SC selects the same fixtures for its use.

**General Liability Insurance.** Larger scale typically results in lower general liability insurance premiums. For example, the Kentucky properties general liability premium went down when it was bundled with the PPL Corporation policy in 2012.

**Common Category Structure.** PPL EUS Supply Chain is planning to work with the LKE SC Supply Chain to develop a common category structure to facilitate additional joint sourcing opportunities for materials used by both organizations.

**Information Technology.** LKE SC Supply Chain handles the sourcing of software and some hardware for PPL EU because it has more expertise in that category than PPL EUS Supply Chain.

Facilities Management

The Facilities Management function was relocated from PPL EUS to PPL EU in January 2015. The Director of Facility Operations has been in the position since mid-January 2016 but has not had any communications with counterparts in LKE SC regarding facilities operations. The director plans to talk with LKE SC about their approach to facilities management and also plans to include LKE SC in a planned benchmarking effort to develop ideas for organizational options.

Protective Services

Protective Services is a PPL SC function. The Director of Protective Services reports that there is frequent interaction with his LKE SC counterpart including a formal communication that occurs every two weeks to share information and discuss security issues, intelligence received, and any events that have occurred. The LKE SC operation will be visiting PPL SC in 2016 to discuss common issues and share information.

Both PPL SC and LKE SC entities have shared policies and best practices and work together to develop a consistent approach to implementing new requirements as they emerge. The two entities are now using common metrics and are currently working towards making joint presentations of security-related information to the PPL Corporation Board of Directors.

PPL SC and LKE SC are moving towards shared protective services IT applications as well. LKE SC has adopted the business continuity management software that PPL SC has been using and PPL SC has implemented the mass notification software that LKE SC had previously deployed. Coordinated services contracts are in place for both applications.

## findings

Merger Synergy Research

1. Non-fuel O&M cost reductions are often achieved through utility merger synergies.

The studies show that merger synergy non-fuel O&M cost savings are often achieved and can range from 1% to 30% with a normal range of 8% to 12%. Generally, the size of the merger and the proximity of the merging entities had little influence on the percentage of savings achieved through the merger.

1. Merger synergy non-fuel O&M cost reductions vary by function.

The studies show that the magnitude of potential non-fuel O&M merger synergy cost savings vary by function, as shown in the following table.

Exhibit ‑  
Potential Merger Synergy Savings by Function

| **Function** | **Range of Savings** |
| --- | --- |
| Transmission and Distribution | -5% to -10% |
| Customer Service | 0% to -40% |
| Sales, General, and Administrative | -10% to -30% |
| Source: Summary of Merger Synergy Research | |

While savings are usually achieved in all of the non-fuel functional categories, the greatest percentages of savings are gained in the Customer Service and the Sales, General, and Administrative areas.

1. The typical sources of most merger synergy cost savings are labor, facilities, supply chain, and information technology.

The Marsh & McLennan Oliver Wyman study has the following estimates of the sources of synergy savings in mergers:

* Labor: 50–65%
* Facilities: 5–10%
* Supply Chain: 5–15%
* Information Services: 5–15%

This is generally consistent with the Black & Veatch study which first identified reduction in positions (labor cost savings) followed by reduction in corporate programs, nonfuel purchasing economies (supply chain), avoided or deferred capital expenditures, reductions in financing costs, and best practices implementation and process redesigns (enabling other cost savings).

1. There is a well-established process for identifying and realizing merger synergies.

The Boston Consulting Group Utility Mergers & Acquisitions: Beating the Odds paper listed a well-established process for achieving merger synergy cost savings. The Northeast Utilities merger with NSTAR to form Eversource followed a process similar to that process and achieved $1 billion in merger synergy savings.

1. Electricity rates decline an average of 0.5% after mergers.

The Sources of Gains in Corporate Mergers: Refined Tests from a Neglected Industry study found an average reduction in utility rates after mergers of 0.5%. This analysis of electric rates following 56 completed mergers found that there were cost/price reductions after mergers due to economies of scale.

Merger Case Studies

1. Studies of several mergers reveal that guaranteed customer benefits are common in merger regulatory agreements.

The following are the types of customer benefits identified in the merger case studies:

* Rate reductions, credits, and/or freezes
* Reliability improvements
* Customer service improvements
* Safety improvements
* Specific capital expenditures excluded from recovery (e.g., storm cost recovery and transmission lines)
* Funding for programs:
* Low income customer assistance
* Energy efficiency
* Electric vehicles
* Microgrids
* Renewable energy
* Community support and charitable contributions
* Workforce development
* Customer disaster relief
* Maintaining facility presence and employment in the acquired company’s service territory

1. Significant non-fuel merger synergy cost savings are often identified in utility mergers.

Case studies identified large scale merger cost savings of hundreds of millions of dollars and five to seven percent of non-fuel expenses. For instance, in the Northeast Utilities and NSTAR merger, net savings of $783.8 million in the first ten years after the merger were projected. The Exelon-Pepco merger is expected to provide net synergies of $250 million over the first five years, with most of the savings derived through a reduction of PHI’s operational and maintenance expenses. In the Duke Energy-Progress Energy merger, substantial non-fuel O&M cost savings are expected to result from the integration of Duke and Progress over the long term. Additional known and potential benefits include economies of scale and scope and the leveraging of best practices, both of which are expected to result in operating efficiencies and improvements over time. Similarly, the acquisition of UIL Holdings by Iberdrola USA has resulted in $40 million in ratepayer credits to the existing customers of the UIL Utilities ($20 million to UI, SCG, and CNG) in the first 12 months after the merger closes, plus numerous other customer credits, avoided costs and public benefits.

PPL Corporation Merger with E.ON U.S. LLC

1. The PPL Corporation acquisition of E.ON U.S. LLC did not identify any specific merger savings or customer benefits for PPL EU ratepayers, few merger synergies have been identified, and any savings to PPL EU from the merger have not been tracked.

Only the Kentucky ratepayers received customer benefit commitments as a result of the merger. Pennsylvania, Virginia, and Tennessee ratepayers did not receive customer benefit commitments. Approval for the merger was not required from Pennsylvania, and, therefore, no Pennsylvania customer benefits were promised. And, none have been formally tracked by PPL Corporation since acquisition.

1. The LKE Best Practices reports to the Kentucky Public Service Commission have identified few tangible merger benefits or cost savings.

The following cost savings were reported in the KPSC Best Practices Reports:

* $130,000 annual savings to LG&E and KU by consolidating their EEI membership with PPL EU.
* In 2011, the Sourcing Collaboration Program anticipated $3.7 million annual savings to LKE, but there was no report of savings actually achieved.
* In 2012, the Sourcing Collaboration Program anticipated annual savings were increased to $6 million, but there was no report on savings actually achieved.
* In 2013, annual savings of $1 million for LKE was reported from the Sourcing Collaboration Program.

No other significant benefits or savings were identified in the reports attributable to LKE. Although the merger reports created for the KPSC are understandably focused on LKE, and no benefits or savings impacting PPL EU are identified, based on the lack of significant benefits identified which impacted LKE it is reasonable to conclude that few tangible merger benefits or cost savings has been identified which are attributable to PPL EU.

1. Most synergy work between the Pennsylvania and Kentucky operations has been informal and there have been no tangible merger synergies realized from the PPL EU perspective.

With the exception of a recent formal synergy initiative in IT, all of the merger synergy work to date has been informal and largely relies on personal relationships between counterpart executives in Pennsylvania and Kentucky. This has not resulted in significant synergy savings but has produced some positive results. As listed above, there are a number of anecdotal merger synergy opportunities that have been identified by the informal cooperation and communication between PPL Corporation Pennsylvania and Kentucky subsidiaries. These anecdotes indicate the potential for achieving merger synergies. However, there have been no PPL EU cost savings identified.

1. The current synergy initiative being led by the CIO illustrates the greater potential for achieving synergy savings with consolidated functional leadership.

The IT function is unique in that, since November 2015, it has a single leader for both Pennsylvania and Kentucky IT operations. This facilitates the standardization of IT functions, processes, systems, and hardware. Some of the synergy improvements identified include establishing a common IT help desk with a common IT ticketing system, a project management office, a common project management process, and a common electric facilities database. Other improvements include spend reduction by consolidating contracts, consolidating telephony, common SharePoint system utilization, a common records repository, and wider use of mobile platforms. Synergies that can be achieved within the consolidated IT organization can be approved by the CIO and implemented aggressively.

However, consolidated leadership does not extend to any other utility or shared services function other than Compliance. The CIO has two or more (if PPL EUS is involved) clients for every utility or shared services function, including transmission, distribution, and customer services. To achieve IT applications synergies in these other areas, the IT department must forge a consensus between the Pennsylvania and Kentucky heads of those functions. This impedes or prevents synergy initiatives on common IT applications for each utility and shared service function.

IT has a consolidated leadership team, but it does not have consolidated governance. The CIO reports directly to the LKE SC CFO and indirectly to the PPL EU President. There is no unity of governance of IT. There is no way to drive action if consensus cannot be reached.

1. Not having consolidated functional management impedes the realization of synergies between Pennsylvania and Kentucky utility and shared services functions.

LKE SC has a common head for each LG&E and KU function, including transmission, distribution, customer services, and each support service. This common management facilitated the identification and capture of synergies between LG&E and KU prior to their acquisition by PPL Corporation.

However, the new Global Compliance Officer position is the only example of PPL Corporation level functional responsibility and authority. The new Global Compliance Officer has no staff but reports to the PPL Corporation CEO and clearly has responsibility and authority for all compliance functions enterprise-wide. The individuals responsible for compliance in each of the PPL Corporation entities understand that they must follow the PPL Corporation compliance policies, protocols, processes, and systems promulgated by the Global Compliance Officer. If there are synergies available in the compliance function, the Global Compliance Officer can see that they are identified and achieved.

No other utility or shared services functions have the PPL Corporation level of consolidated management. The CIO has consolidated management for the IT function but it is governed by both LKE SC and PPL EU.

Consolidated functional leadership provides concentration of expertise and enables the achievement of economies of scale. Consolidated functional leadership would also facilitate the identification and realization of synergies in each utility and shared services function as well. After proper analysis, a consolidated functional executive could standardize on best practice organization structure, workforce practices, IT systems, materials, policies, and procedures resulting in synergy cost savings and other benefits.

1. There are likely significant synergies available between the PPL Corporation Pennsylvania and Kentucky operations that could benefit PPL EU.

The only current formal program focusing on merger synergies is in Information Technology. It is likely that most other areas could identify and achieve significant merger synergies as well, including Transmission and Substations; Distribution Operations; Customer Services; Finance, Accounting, and Audit; and Support Services.

The merger synergy research and merger case studies suggest that significant merger cost savings are available in: labor, facilities, supply chain, and information technology.

Considering the merger synergy research and case studies, synergy savings in the range of 8% to 12% of nonfuel O&M should be reasonably achievable. PPL EU has already realized some of these possible savings as a result of various initiatives since the 2010 merger with LKE. For example, the 2011 Supply Chain Sourcing Collaboration Program, mentioned previously in this chapter, has resulted in over $40 million in savings for PPL EU. However, V&A team believes, based on the various opportunities identified in this chapter, that substantial merger cost savings are still achievable through a focused merger synergy initiative.

1. Regulatory merger conditions constrain but do not prevent merger synergy initiatives to achieve cost savings or other benefits.

The V&A team reviewed the merger conditions imposed on PPL Corporation by state regulatory commissions to determine if the conditions prevent merger synergy initiatives to achieve cost savings or other benefits.

The PPL Corporation acquisition of LKE was reviewed and approved by three state regulatory agencies: the Kentucky Public Service Commission (KPSC), the Virginia State Corporation Commission (VSCC), and the Tennessee Regulatory Authority (TRA). (Approval for the merger was not required from Pennsylvania). There were merger conditions imposed by the KPSC and VSCC but the TRA did not impose any conditions on the acquisition. Also, there were no merger conditions imposed for PPL Corporation’s acquisition of the United Kingdom companies. The merger conditions imposed by Kentucky and Virginia are discussed below.

**Kentucky Public Service Commission Conditions.** The KPSC merger conditions relevant to synergies and staffing are found in Appendices A and C of the September 30, 2010 Order in Case No. 2010-00204. Some example conditions relevant to achieving merger synergies include:

* PPL, PPL Kentucky, and LG&E committed that there will be no reductions to the unionized workforce of LG&E as a result of the change of control transaction.
* PPL, E.ON US, LG&E and KU committed that the corporate officers of E.ON US, LG&E, and KU will maintain their current titles and responsibilities as officers unless and until otherwise determined by either of their respective Boards of Directors. PPL, E.ON US, LG&E and KU will maintain the highest level of management experience within E.ON US, LG&E, and KU, and will provide an opportunity to broaden that experience by exchanging positions with other managers in PPL's organization.
* PPL committed to taking an active and ongoing role in managing and operating LG&E and KU in the interests of customers, employees, and the Commonwealth of Kentucky, and to take the lead in enhancing LG&E's and KU's relationship with the Commission, with state and local government, and with other community interests, including, but not limited to, meetings between PPL's chief executive and the Commission at least twice a year.
* PPL committed that no planned workforce reductions in E.ON US's, LG&E's, or KU's employees will be made as a result of the acquisition.
* When implementing best practices, PPL, E.ON US, LG&E, and KU committed to taking into full consideration the related impacts on the levels of customer service and customer satisfaction, including any negative impacts resulting from workforce reductions.
* PPL, E.ON US, LG&E, and KU committed that LG&E and KU shall continue to operate through regional offices with local service personnel and field crews.
* PPL, E.ON US, LG&E and KU committed to maintaining the respective headquarters of each of E.ON US, LG&E and KU in Kentucky for a period of 15 years following the closing of the acquisition. KU's headquarters will be maintained in downtown Lexington, Kentucky; and E.ON US's and LG&E's headquarters will be maintained in downtown Louisville, Kentucky.
* As part of their commitment to maintaining the corporate headquarters of E.ON US in downtown Louisville, Kentucky, PPL and E.ON US committed that this corporate headquarters will include the corporate management personnel of E.ON US. Further, PPL and E.ON US committed that the CEO and subordinate officers of E.ON US reside in Kentucky, including the Louisville metropolitan area. This commitment will remain in effect for a period of 15 years following the closing of the acquisition.
* PPL, E.ON US, LG&E, and KU committed that the level of staff at KU's headquarters in downtown Lexington, Kentucky will not be reduced greater than five percent from the current level without prior notice to the Commission and an opportunity for the Commission to investigate the impact of that the proposed staff reduction on KU's provision of service.

**Virginia State Corporation Commission Conditions.** The October 19, 2010 Final Order of the VSCC in Case No. PUE-2010-00060 contained 21 orders. However, none of them are directly relevant to synergies or staffing. The orders required that the distribution system be operated at or above the current levels of service quality and that the company continues to provide customers with an acceptable level of service quality and reliability consistent with nationally recognized standards acceptable to the Commission. However, the Final Order has no requirements on staffing, headquarters locations, service centers, or local customer service office locations.

While the regulatory merger approval conditions place restrictions on the merger synergy initiatives, they do not prevent them. PPL Corporation must only assure that it complies with all if its commitments as synergies are identified and realized.

## Recommendations

1. Appoint PPL Corporation level executives responsible enterprise-wide for each utility and support service, including transmission, distribution, and customer services. (See Finding 11)

Consistent with the recommendation in Chapter IV, Affiliate Relationships, make the PPL SC functional executives responsible for their functions in all of PPL Corporation. Further, PPL Corporation level executives should be appointed for Transmission, Distribution, and Customer Services to oversee the identification and capture of synergies among PPL Corporation’s utility operating companies.

Having a single executive responsible for each utility and support service function will facilitate the identification and capture of synergies available within each function. These executives should report to the PPL Corporation CEO or a Chief Operating Officer or a Chief Administrative Officer who reports to the PPL Corporation CEO. The bulk of the employees in each function can remain deployed to serve individual utility operating companies as they are now.

The PPL Corporation level functional executives may be a single position like the Global Compliance Officer or they may have consolidated staffs like the CIO.

1. Charter a robust merger synergy initiative as constrained by the regulatory merger conditions and follow a well-established process to achieve merger synergies. (See Findings 1–10 and 12–14)

The PPL Corporation CEO should charter a merger synergy initiative with a steering committee of his senior leadership team. There should be a senior executive assigned to lead the overall merger integration process and each PPL Corporation functional executive should be made responsible for identifying and achieving merger synergies in their respective utility or shared services function while complying with all regulatory and legal constraints.

The Boston Consulting Group Utility Mergers & Acquisitions: Beating the Odds process to achieve merger synergies can be modified to fit the PPL Corporation. Although PPL Corporation did not initiate an aggressive merger synergy initiative at the point of the Kentucky merger this process will still be relevant to such an initiative:

1. Establish a compelling strategic logic and rationale for achieving merger synergies by integrating the Pennsylvania and Kentucky utility and shared services functions.
2. Integrate aggressively, including:

* Announce the executive team’s organization early on in the integration process.
* Make top-down decisions on the approach to integration by business and function.
* Set clear guidelines and expectations for the integration.
* Systematically address legal and organizational bottlenecks to progress.

1. Utilize a top-down approach to design realistic but ambitious economic targets, including:

* Construct the top five to ten synergy initiatives to capture value and translate them into specific road maps with milestones and accountabilities.
* Identify the links between synergy outcomes and organizational decisions early on, and manage those decisions from the top.
* Control the human resources policies related to the merger.
* Exploit the merger to create opportunities for significant reductions in the acquirer’s cost base, in addition to the acquiree’s cost base.
* Avoid the tendency to declare victory too soon.

appendices

###### ppl electric UTILITIES CORPORATION operating revenues and expenses

2010–2014 Annual Data and Compound Growth Rate

Exhibit ‑  
Operating Revenues

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Operating Revenues** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| **COMBINED REVENUE: Sales of Electricity** |  |  |  |  |  |  |
| 440 Residential Sales | $1,466,225,536 | $1,276,582,258 | $1,123,785,727 | $1,207,187,064 | $1,271,476,898 | -3.50% |
| 442 Commercial Sales | 591,126,025 | 438,338,633 | 366,423,454 | 363,910,301 | 367,846,397 | -11.18% |
| 442 Industrial Sales | 123,496,523 | 62,341,583 | 52,890,845 | 52,231,584 | 52,574,389 | -19.22% |
| 444 Public Street and Highway Lighting Sales | 22,291,011 | 19,723,078 | 19,490,300 | 20,440,577 | 20,553,309 | -2.01% |
| 445 Other Sales to Public Authorities | 39,655 | 8,114 | 46,600 | 54,841 | 56,339 | 9.18% |
| 446 Sales to Railroads and Railway | 415,308 | 570,392 | 557,186 | 575,885 | 532,566 | 6.41% |
| 448 Interdepartmental Sales | 0 | 0 | 0 | 0 | 0 | NM |
| **Total Sales to Ultimate Customers** | **$2,203,594,058** | **$1,797,564,058** | **$1,563,194,112** | **$1,644,400,252** | **$1,713,039,898** | **-6.10%** |
| 447 Sales for Resale | 3,646,861 | 6,294,924 | 4,184,419 | 4,165,285 | 3,962,787 | 2.10% |
| **Total Sales of Electricity** | **$2,207,240,919** | **$1,803,858,982** | **$1,567,378,531** | **$1,648,565,537** | **$1,717,002,685** | **-6.09%** |
| Less 449.1 Provision for Rate Refunds | 0 | 0 | 0 | 0 | 0 | NM |
| Other Operating Revenues | 295,025,277 | 154,114,954 | 257,343,667 | 307,696,941 | 401,540,098 | 8.01% |
| **Total Electric Operating Revenues** | **$2,502,266,196** | **$1,957,973,936** | **$1,824,722,198** | **$1,956,262,478** | **$2,118,542,783** | **-4.08%** |

Exhibit ‑  
Kilowatt Hours Sold (kWh)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Kilowatt Hours Sold (kWh)** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| **ELECTRIC DISTRIBUTION SALES** |  |  |  |  |  |  |
| 440 Residential Sales | 14,273,914,000 | 14,281,322,000 | 13,697,500,000 | 14,352,819,000 | 14,441,488,000 | 0.29% |
| 442 Commercial Sales | 14,107,201,000 | 14,132,339,000 | 13,917,493,000 | 14,015,398,000 | 14,109,469,000 | 0.00% |
| 442 Industrial Sales | 8,425,105,000 | 8,350,954,000 | 8,219,068,000 | 8,213,631,000 | 8,320,265,000 | -0.31% |
| 444 Public Street and Highway Lighting Sales | 90,641,000 | 80,655,000 | 88,256,000 | 90,956,000 | 85,953,000 | -1.32% |
| 445 Other Sales to Public Authorities | 783,000 | 1,096,000 | 758,000 | 785,000 | 808,000 | 0.79% |
| 446 Sales to Railroads and Railway | 100,371,000 | 95,361,000 | 92,568,000 | 80,744,000 | 60,649,000 | -11.83% |
| 448 Interdepartmental Sales |  |  |  | 0 | 0 | NM |
| **Total Sales to Ultimate Customers** | **36,998,015,000** | **36,941,727,000** | **36,015,643,000** | **36,754,333,000** | **37,018,632,000** | **0.01%** |
| 447 Sales for Resale | 958,610,000 | 954,378,000 | 931,925,000 | 958,545,000 | 987,035,000 | 0.73% |
| **Total Sales of Electricity** | **37,956,625,000** | **37,896,105,000** | **36,947,568,000** | **37,712,878,000** | **38,005,667,000** | **0.03%** |
| Less 449.1 Provision for Rate Refunds | 0 | 0 | 0 | 0 | 0 | NM |
| **Total Kilowatt Hours Sold** | **37,956,625,000** | **37,896,105,000** | **36,947,568,000** | **37,712,878,000** | **38,005,667,000** | **0.03%** |

Exhibit ‑  
Average Number of Customers Per Month

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Average Number of Customers Per Month** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| **ELECTRIC DISTRIBUTION** |  |  |  |  |  |  |
| Residential Sales | 1,224,592 | 1,225,816 | 1,228,361 | 1,231,272 | 1,234,329 | 0.20% |
| Commercial Sales | 171,195 | 172,209 | 172,832 | 173,472 | 174,209 | 0.44% |
| Industrial Sales | 4,418 | 4,405 | 4,364 | 4,334 | 4,271 | -0.84% |
| Public Street and Highway Lighting Sales | 1,439 | 1,446 | 1,461 | 1,465 | 1,475 | 0.62% |
| Other Sales to Public Authorities | 12 | 12 | 12 | 12 | 12 | 0.00% |
| Sales to Railroads and Railway | 1 | 1 | 1 | 1 | 1 | 0.00% |
| Interdepartmental Sales |  |  |  |  |  | NM |
| **Total Sales to Ultimate Customers** | **1,401,657** | **1,403,889** | **1,407,031** | **1,410,556** | **1,414,297** | **0.22%** |
| 447 Sales for Resale | 42 | 42 | 42 | 44 | 43 | 0.59% |
| **Total Sales of Electricity** | **1,401,699** | **1,403,931** | **1,407,073** | **1,410,600** | **1,414,340** | **0.22%** |
| Less 449.1 Provision for Rate Refunds | 0 | 0 | 0 | 0 | 0 | NM |
| **Total Average Number of Customers per Month** | **1,401,699** | **1,403,931** | **1,407,073** | **1,410,600** | **1,414,340** | **0.22%** |

Exhibit ‑  
Operation and Maintenance Expenses

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OPERATION & MAINTENANCE EXPENSES** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| 560.0 Operation Supervision & Engineering | $3,080,150 | $4,953,036 | $7,642,055 | $8,638,138 | $6,299,756 | 19.59% |
| 561.0 Load Dispatching | 3,356,135 | 3,777,424 | 3,304,183 | 3,118,131 | 2,431,400 | -7.74% |
| 562.0 Station Expenses | 997,611 | 569,060 | 717,606 | 2,403,755 | 1,702,335 | 14.29% |
| 563.0 Overhead Line Expenses | 1,267,539 | 1,177,725 | 1,912,843 | 1,600,054 | 1,691,733 | 7.48% |
| 564.0 Underground Line Expenses | 0 | 0 | 0 | 0 | 0 | NM |
| 565.0 Transmission of Electricity by Others | 76,672,820 | 58,347,728 | 58,090,727 | 66,146,409 | 80,276,320 | 1.15% |
| 566.0 Miscellaneous Transmission Expenses | 1,433,722 | 2,141,989 | 2,214,938 | 2,331,297 | 1,765,645 | 5.34% |
| 567.0 Rents | 237,824 | 349,215 | 413,132 | 775,741 | 581,297 | 25.04% |
| 567.1 Operation Supplies & Expenses | 0 |  |  | 0 | 0 | NM |
| **Total Transmission Operation Expenses** | **$87,045,801** | **$71,316,177** | **$74,295,484** | **$85,013,525** | **$94,748,486** | **2.14%** |
| **Transmission Maintenance Expenses** |  |  |  |  |  |  |
| 568.0 Maintenance Supervision and Engineering | $602,357 | $539,962 | $694,232 | $214,823 | $804,152 | 7.49% |
| 569.0 Maintenance of Structures | 609,099 | 565,962 | 547,803 | 281,315 | 638,007 | 1.17% |
| 570.0 Maintenance of Station Equipment | 5,312,194 | 5,353,968 | 6,483,365 | 9,358,527 | 7,575,189 | 9.28% |
| 571.0 Maintenance of Overhead Lines | 18,371,022 | 19,584,389 | 27,593,558 | 20,113,141 | 18,005,857 | -0.50% |
| 572.0 Maintenance of Underground Lines | 111,764 | 111,278 | 470,253 | 392,035 | 56,852 | -15.55% |
| 573.0 Maintenance of Miscellaneous Transmission Plant | 278,017 | 275,774 | 182,773 | 224,635 | 257,253 | -1.92% |
| 574.0 Maintenance of Transmission Plant | 0 | 0 | 0 | 0 | 0 | NM |
| **Total Transmission Maintenance Expenses** | **$25,284,453** | **$26,431,333** | **$35,971,984** | **$30,584,476** | **$27,337,310** | **1.97%** |
| **Total Transmission O&M Expenses** | **$112,330,254** | **$97,747,510** | **$110,267,468** | **$115,598,001** | **$122,085,796** | **2.10%** |
| **Distribution Operation Expenses** |  |  |  |  |  |  |
| 580.0 Operation Supervision and Engineering | $23,543,403 | $22,952,698 | $27,499,630 | $30,075,577 | $23,055,768 | -0.52% |
| 581.0 Load Dispatching | 636,790 | 359,572 | 192,750 | 245,908 | 494,192 | -6.14% |
| 582.0 Station Expenses | 601,042 | 572,142 | 492,815 | 702,636 | 1,043,287 | 14.78% |
| 583.0 Overhead Line Expenses | 18,184,469 | 22,017,403 | 15,619,658 | 14,366,182 | 19,989,185 | 2.39% |
| 584.0 Underground Line Expenses | 6,733,581 | 6,680,892 | 6,295,018 | 5,668,436 | 5,931,441 | -3.12% |
| 585.0 Street Lighting and Signal Expenses | 271,388 | 454,848 | 1,050,982 | 698,498 | 440,973 | 12.90% |
| 586.0 Meter Expenses | 7,592,414 | 10,014,677 | 8,832,924 | 10,107,920 | 7,752,022 | 0.52% |
| 587.0 Customer Installations Expenses | 4,119,382 | 4,490,833 | 4,416,501 | 4,431,206 | 5,590,869 | 7.93% |
| 588.0 Miscellaneous Expenses | 3,407,129 | 10,317,509 | 9,587,474 | 3,406,166 | 9,017,820 | 27.55% |
| 589.0 Rents | 9,917,560 | 8,029,520 | 8,046,800 | 7,311,786 | 7,240,890 | -7.56% |
| **Total Distribution Operation Expenses** | **$75,007,158** | **$85,890,094** | **$82,034,552** | **$77,014,315** | **$80,556,447** | **1.80%** |
| **Distribution Maintenance Expenses** |  |  |  |  |  |  |
| 590.0 Maintenance Supervision and Engineering | $1,528,083 | $1,706,189 | $1,613,406 | $1,692,301 | $994,880 | -10.17% |
| 591.0 Maintenance of Structures | 56,381 | 44,293 | 59,214 | 84,477 | 20,758 | -22.10% |
| 592.0 Maintenance of Station Equipment | 5,596,264 | 3,986,707 | 7,506,656 | 10,003,251 | 10,433,286 | 16.85% |
| **OPERATION & MAINTENANCE EXPENSES** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| 593.0 Maintenance of Overhead Lines | 45,707,212 | 48,635,099 | 53,794,721 | 64,006,683 | 68,078,757 | 10.47% |
| 594.0 Maintenance of Underground Lines | 6,990,586 | 5,872,533 | 5,007,748 | 5,918,999 | 5,641,335 | -5.22% |
| 595.0 Maintenance of Line Transformers | 2,459,224 | 1,342,650 | 2,001,178 | 2,155,652 | 2,064,668 | -4.28% |
| 596.0 Maintenance. of Street Lighting &  Signal Systems | 2,610,474 | 2,640,874 | 2,984,179 | 2,583,772 | 2,514,639 | -0.93% |
| 597.0 Maintenance of Meters | 3,591 | 221 | 502 | 337 | 3,217,821 | 447.13% |
| 598.0 Maintenance of Miscellaneous  Distribution Plant | 2,418,688 | 2,185,755 | 2,297,611 | 2,834,205 | 2,578,200 | 1.61% |
| **Total Distribution Maintenance Expenses** | **$67,370,503** | **$66,414,321** | **$75,265,215** | **$89,279,677** | **$95,544,344** | **9.13%** |
| **Total Distribution O&M Expenses** | **$142,377,661** | **$152,304,415** | **$157,299,767** | **$166,293,992** | **$176,100,791** | **5.46%** |
| **Other Power Supply Expenses** |  |  |  |  |  |  |
| 555.0 Purchased Power | $1,390,117,352 | $759,101,405 | $620,414,938 | $630,362,743 | $660,835,713 | -16.97% |
| 556.0 System Control & Load Dispatching | 109,613 | 47,869 | 62,458 | 57,475 | 57,807 | -14.78% |

###### ppl electric UTILITIES CORPORATION balance sheet

2010–2014 Annual Data and Compound Growth Rate

Exhibit ‑. PPL Electric Utilities Corporation Balance Sheet

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PPL Electric Utilities Corporation Balance Sheet** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| **UTILITY PLANT** | | | | | | |
| 101.0 Electric Plant in Service | $5,463,992,510 | $5,783,441,699 | $6,132,756,388 | $6,471,063,944 | $6,862,257,827 | 5.86% |
| 106.0 Completed Construction Not Classified-Electric | 214,606,027 | 236,469,705 | 369,131,408 | 660,175,598 | 1,003,552,585 | 47.05% |
| **TOTAL PLANT IN SERVICE** | **$5,678,598,537** | **$6,019,911,404** | **$6,501,887,796** | **$7,131,239,542** | **$7,865,810,412** | 8.49% |
| 105.0 Electric Plant Held for Future Use | 36,267,188 | 38,910,622 | 40,353,116 | 42,908,419 | 47,962,529 | 7.24% |
| 105.1 Production Properties Held For Future Use | 0 | 0 | 0 | 0 | 0 |  |
| 107.0 Construction Work in Progress-Electric | 195,701,548 | 263,133,101 | 382,541,040 | 613,584,298 | 749,902,092 | 39.91% |
| Accumulated. Depreciation and Amortization | (2,181,387,701) | (2,259,928,380) | (2,344,558,066) | (2,421,150,691) | (2,508,381,025) | 3.55% |
| **NET UTILITY PLANT (excluding nuclear fuel)** | **$3,729,179,572** | **$4,062,026,747** | **$4,580,223,886** | **$5,366,581,568** | **$6,155,294,008** | 13.35% |
| Nuclear Fuel | 0 | 0 | 0 | 0 | 0 | NM |
| Accumulated Amortization for Nuclear | 0 | 0 | 0 | 0 | 0 | NM |
| **NET NUCLEAR FUEL** | **$0** | **$0** | **$0** | **$0** | **$0** | NM |
| **TOTAL UTILITY PLANT** | **$3,729,179,572** | **$4,062,026,747** | **$4,580,223,886** | **$5,366,581,568** | **$6,155,294,008** | **13.35%** |
| **OTHER PROPERTY AND INVESTMENTS** | | | | | | |
| 121.0 Non-Utility Property | $3,728,964 | $3,558,134 | $3,558,183 | $3,544,040 | $3,543,774 | -1.27% |
| 122.0 Accumulated Depreciation and Amortization | (736,260) | (779,113) | (821,966) | (863,896) | (906,748) | 5.34% |
| 123.0 Investments in Associated Companies | 0 |  | 0 | 0 | 0 | NM |
| 123.1 Investment in Subsidiary Companies | 153,809,590 | 306,056,846 | 7,276,018 | 498,729,940 | 570,914,225 | 38.80% |
| Noncurrent Portion of Allowances |  |  | 0 | 0 | 0 | NM |
| 124.0 Other Investments | 1,021,626 | 988,124 | 1,011,783 | 443,138 | 343,790 | -23.84% |
| 128.0 Special Funds | 12,187,219 | 11,428,331 | 10,669,444 | 0 | 0 | -100.00% |
| **TOTAL OTHER PROPERTY & INVESTMENTS** | **$170,011,139** | **$321,252,322** | **$21,693,462** | **$501,853,222** | **$573,895,041** | **35.55%** |
| **CURRENT AND ACCRUED ASSETS** | | | | | | |
| 131.0 Cash | $8,615,347 | $235,903 | $8,977,284 | $4,850,465 | $3,831,830 | -18.34% |
| Special Deposits | 0 | 0 | 0 | 0 | 0 | NM |
| 135.0 Working Fund | 188,832 | 93,857 | 8,625 | 0 | 0 | -100.00% |
| 136.0 Temporary Cash Investments | 42,735,111 | 14,582,077 | 123,345,817 | 19,602,041 | 29,978,647 | -8.48% |
| 141.0 Notes Receivable | 0 | 0 | 0 | 0 | 0 | NM |
| 142.0 Customer Accounts Receivable | 267,476,462 | 272,960,212 | 255,835,511 | 5,268,132 | 2,247,559 | -69.72% |
| 143.0 Other Accounts Receivable | 38,336,224 | 21,944,482 | 18,110,996 | 24,077,025 | 49,567,368 | 6.63% |
| 144.0 Accumulated for Uncollectible Accounts | (19,920,957) | (21,049,996) | (22,291,961) | (3,751,846) | (3,399,885) | -35.73% |
| 145.0 Notes Receivable from Associated Companies | 0 | 0 | 0 | 0 | 0 | NM |
| 146.0 Accts Receivable from Associated Companies | 7,584,810 | 33,609,389 | 29,210,880 | 26,767,222 | 6,867,282 | -2.45% |
| 151.0 Fuel Stock | 0 | 0 | 0 | 0 | 0 | NM |
| 152.0 Fuel Stock Expenses Undistributed | 0 | 0 | 0 | 0 | 0 | NM |
| 153.0 Residuals and Extracted Products | 0 | 0 | 0 | 0 | 0 | NM |
| **PPL Electric Utilities Corporation Balance Sheet** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| 154.0 Plant Materials and Operating Supplies | 42,595,942 | 38,868,515 | 36,105,068 | 32,752,765 | 39,742,258 | -1.72% |
| 155.0 Merchandise | 0 | 0 | 0 | 0 | 0 | NM |
| 156.0 Other Materials and Supplies | 0 | 0 | 0 | 0 | 0 | NM |
| 157.0 Nuclear Materials Held for Sales | 0 | 0 | 0 | 0 | 0 | NM |
| 158.1 Allowances | 0 | 0 | 0 | 0 | 0 | NM |
| 158.2 Noncurrent Portion of Allowances | 0 | 0 | 0 | 0 | 0 | NM |
| 163.0 Stores Expense Undistributed | 4,151,545 | 2,992,877 | 2,837,814 | 2,720,786 | 3,087,009 | -7.14% |
| Gas Stored Underground-Current | 0 | 0 | 0 | 0 | 0 | NM |
| Liquefied Gas Stored and Held for Proc. | 0 | 0 | 0 | 0 | 0 | NM |
| 165.0 Prepayments | 136,559,252 | 78,961,656 | 75,766,213 | 40,070,906 | 9,795,107 | -48.25% |
| Advances for Gas | 0 | 0 | 0 | 0 | 0 | NM |
| 171.0 Interest and Dividends Receivable | 5,879 | 1,573 | 13,646 | 3,425 | 10,281 | 15.00% |
| 172.0 Rents Receivable | 5,779,151 | 6,187,031 | 6,183,054 | 6,308,626 | 6,551,281 | 3.18% |
| 173.0 Accrued Utility Revenues | 133,428,927 | 97,803,046 | 106,351,925 | 0 | 0 | -100.00% |
| 174.0 Miscellaneous Current and Accrued Assets | 4,220,270 | 5,023,271 | 4,269,480 | 16,985,550 | 11,226,718 | 27.71% |
| **TOTAL CURRENT & ACCRUED ASSETS** | **$671,756,795** | **$552,213,893** | **$644,724,352** | **$175,655,097** | **$159,505,455** | **-30.19%** |
| **DEFERRED DEBITS** | | | | | | |
| 181.0 Unamortized Debt Expenses | $14,304,134 | $17,598,276 | $18,271,026 | $20,474,862 | $22,541,314 | 12.04% |
| 182.1 Extraordinary Property Losses | 0 | 0 | 0 | 0 | 0 | NM |
| 182.2 Unrecovered Plant and Regulatory Study | 0 | 0 | 0 | 0 | 0 | NM |
| 182.3 Other Regulatory Assets | 596,733,553 | 603,594,346 | 719,540,335 | 624,272,555 | 746,458,166 | 5.76% |
| 183.1 Prelim. Survey and Investigation Charges | 0 | 0 | 0 | 0 | 16,984 | NM |
| 184.0 Clearing Accounts | 0 | 0 | 0 | 0 | 0 | NM |
| 185.0 Temporary Facilities | 26,125 | 12,112 | 45,960 | 347,154 | 0 | -100.00% |
| 186.0 Misc. Deferred Debits | 48,359,684 | 50,601,529 | 25,362,193 | 14,340,563 | 2,358,178 | -53.01% |
| 187.0 Def. Losses from Disposition of Plant | 0 | 0 | 0 | 0 | 0 | NM |
| 188.0 Research, Development and Demonstration | 0 | 0 | 0 | 0 | 0 | NM |
| 189.0 Unamortized Loss on Reacquired Debt | 27,466,008 | 76,632,814 | 65,452,319 | 56,594,413 | 49,403,653 | 15.81% |
| 190.0 Accumulated Deferred Income Taxes | 263,986,459 | 319,277,228 | 449,011,705 | 395,823,721 | 430,947,872 | 13.03% |
| **TOTAL DEFERRED DEBITS** | **$950,875,963** | **$1,067,716,305** | **$1,277,683,538** | **$1,111,853,268** | **$1,251,726,167** | **7.11%** |
| **TOTAL ASSETS AND OTHER DEBITS** | **$5,521,823,469** | **$6,003,209,267** | **$6,524,325,238** | **$7,155,943,155** | **$8,140,420,671** | **10.19%** |
| **PROPRIETARY CAPITAL** | | | | | | |
| 201.0 Common Stock Issued | $363,833,249 | $363,833,249 | $363,833,249 | $363,833,249 | $363,833,249 | 0.00% |
| 204.0 Preferred Stock Issued | 250,000,000 | 250,000,000 | 0 | 0 | 0 | -100.00% |
| Capital Stock Subscribed | 0 | 0 | 0 | 0 | 0 | NM |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PPL Electric Utilities Corporation Balance Sheet** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| Stock Liability for Conversion | 0 | 0 | 0 | 0 | 0 | NM |
| 207.0 Premium on Capital Stock | 0 | 0 | 0 | 0 | 0 | NM |
| 211.0 Other Paid-in Capital Stock | 891,262,745 | 991,262,745 | 1,141,262,745 | 1,346,262,745 | 1,609,262,745 | 15.92% |
| 212.0 Installments Received on Capital Stock | 0 | 0 | 0 | 0 | 0 | NM |
| 213.0 Discount on Capital Stock | 0 | 0 | 0 | 0 | 0 | NM |
| 214.0 Capital Stock Expense | (11,735,245) | (11,735,245) | (6,291,006) | (6,283,429) | (6,283,429) | -14.46% |
| 215.0 Appropriated Retained Earnings | 0 | 0 | 0 | 0 | 0 | NM |
| 216.0 Unappropriated Retained Earnings | 446,802,895 | 526,594,518 | 556,196,904 | 641,591,096 | 738,707,570 | 13.39% |
| 216.1 Unappropriated Undistributed Subsidiary Earning | 2,754,990 | 4,047,246 | 5,266,418 | 9,915,664 | 10,261,435 | 38.92% |
| 217.0 Reacquired Capital Stock | 0 | 0 | 0 | 0 | 0 | NM |
| 219.0 Accumulated Other Comprehensive Income | 81,345 | 67,594 | 101,914 | 7,745 | 31,470 | -21.13% |
| **TOTAL PROPRIETARY CAPITAL** | **$1,942,999,979** | **$2,124,070,107** | **$2,060,370,224** | **$2,355,327,070** | **$2,715,813,040** | **8.73%** |
| **LONG-TERM DEBT** | | | | | | |
| 221.0 Bonds | $1,474,040,000 | $1,724,040,000 | $1,974,040,000 | $2,324,040,000 | $2,613,750,000 | 15.40% |
| 222.0 Reacquired Bonds | 0 | 0 | 0 | 0 | 0 | NM |
| 223.0 Advances from Associated Companies | 0 | 0 | 0 | 0 | 0 | NM |
| 224.0 Other Long-Term Debt | 0 | 0 | 0 | 0 | 0 | NM |
| 225.0 Unamortized Premium on Long-Term Debt | 12,540 | 0 | 0 | 0 | 0 | -100.00% |
| 226.0 Unamortized Discount on Long-Term Debt | (1,988,356) | (6,253,320) | (6,623,525) | (8,311,942) | (11,252,895) | 54.24% |
| **TOTAL LONG-TERM DEBT** | **$1,472,064,184** | **$1,717,786,680** | **$1,967,416,475** | **$2,315,728,058** | **$2,602,497,105** | **15.31%** |
| **OTHER NONCURRENT LIABILITIES** | | | | | | |
| 227.0 Obligations Under Capital Leases-Noncurrent | $0 | $0 | $0 | $0 | $0 | NM |
| 228.1 Accumulated Provision for Property Insurance | 0 | 0 | 0 | 0 | 0 | NM |
| 228.2 Accumulated Provision for Injuries & Damages | 0 | 0 | 0 | 0 | 0 | NM |
| 228.3 Accumulated Provision for Pensions & Benefits | 315,801,633 | 239,402,996 | 297,760,623 | 136,517,860 | 252,008,004 | -5.49% |
| 228.4 Accumulated Misc. Operating Provisions | 0 | 0 | 0 | 0 | 0 | NM |
| 229.0 Accumulated Provision for Rate Refunds | 0 | 0 | 0 | 0 | 0 | NM |
| **TOTAL OTHER NONCURRENT LIABILITIES** | **$315,801,633** | **$239,402,996** | **$297,760,623** | **$136,517,860** | **$252,008,004** | **-5.49%** |
| **CURRENT AND ACCRUED LIABILITIES** | | | | | | |
| 231.00 Notes Payable | $0 | $0 | $0 | $19,999,872 | $0 | NM |
| 232.00 Accounts Payable | 224,944,400 | 174,762,886 | 263,915,560 | 300,111,115 | 331,749,330 | 10.20% |
| 233.00 Notes Payable to Associated Companies | 0 | 0 | 0 | 0 | 0 | NM |
| 234.00 Account Payable to Affiliated Companies | 75,222,736 | 66,031,310 | 64,943,227 | 58,862,084 | 71,607,202 | -1.22% |
| 235.00 Customer Deposits-Billing | 17,557,803 | 16,861,676 | 13,278,577 | 14,266,442 | 16,445,130 | -1.62% |
| 236.10 & 236.20 Taxes Accrued | 22,580,806 | 0 | 12,255,092 | 48,625,159 | 65,856,088 | 30.68% |
| 237.10 & 237.20 Interest Accrued | 16,487,863 | 24,377,612 | 25,778,325 | 33,633,267 | 33,645,800 | 19.52% |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PPL Electric Utilities Corporation Balance Sheet** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| 238.00 Dividends Declared | 3,906,250 | 3,906,235 | 0 | 0 | 0 | -100.00% |
| 239.00 Matured Long-Term Debt | 0 | 0 | 0 | 0 | 0 | NM |
| 240.00 Matured Interests | 0 | 0 | 0 | 0 | 0 | NM |
| 241.00 Tax Collections Payable | 2,094,382 | 575,580 | 971,585 | 738,823 | 985,207 | -17.18% |
| 242.00 Miscellaneous Current and Accrued Liabilities | 74,971,845 | 56,338,371 | 62,819,856 | 52,914,613 | 50,599,110 | -9.36% |
| 243.00 Obligations Under Capital Leases-Current | 0 | 0 | 0 |  |  | NM |
| **TOTAL CURRENT AND ACCRUED LIABILITIES** | **$437,766,085** | **$342,853,670** | **$443,962,222** | **$529,151,375** | **$570,887,867** | **6.86%** |
| **DEFERRED CREDITS** | | | | | | |
| 252.00 Customer Advances for Construction | $200,668 | $179,577 | $125,481 | $79,867 | $67,961 | -23.71% |
| 253.00 Other Deferred Credits | 55,404,304 | 63,753,448 | 38,597,912 | 15,586,589 | 38,930,446 | -8.44% |
| 254.00 Other Regulatory Liabilities | 36,474,365 | 63,478,696 | 62,052,616 | 79,963,260 | 94,570,727 | 26.89% |
| 255.00 Accumulated Deferred Investments Tax Credits | 6,317,114 | 4,748,743 | 3,376,569 | 2,281,586 | 846,617 | -39.49% |
| 256.00 Deferred Gains from Disposition of Plant | 0 | 0 | 0 | 0 | 0 | NM |
| 257.00 Unamortized Gain on Reacquired Debt | 0 | 0 | 0 | 0 | 0 | NM |
| 281.00 Accumulated Deferred Income Taxes-Assume. Amor | 0 | 0 | 0 | 0 | 0 | NM |
| 282.00 Accumulated Deferred Income Taxes-Other Property | 966,985,229 | 1,130,817,355 | 1,244,143,301 | 1,365,204,307 | 1,451,990,984 | 10.70% |
| 283.00 Accumulated Deferred Income Taxes-Other Property | 287,809,908 | 316,117,995 | 406,519,815 | 356,103,183 | 412,807,920 | 9.44% |
| **TOTAL DEFERRED CREDITS** | **$1,353,191,588** | **$1,579,095,814** | **$1,754,815,694** | **$1,819,218,792** | **$1,999,214,655** | **10.25%** |
| **TOTAL LIABILITIES & OTHER CREDITS** | **$5,521,823,469** | **$6,003,209,267** | **$6,524,325,238** | **$7,155,943,155** | **$8,140,420,671** | **10.19%** |
|  | | | | | | |
| **NUMBER OF EMPLOYEES** | **2010** | **2011** | **2012** | **2013** | **2014** | **Compound Growth** |
| **TOTAL EMPLOYEES AT YEAREND** | 2,293 | 2,304 | 2,311 | 2,239 | 2,122 | -1.92% |

###### PPL electric utilities CORPORATION comparative data and statistics for the pennsylvania panel 2010–2014

Exhibit ‑  
Total Utility Operating Expense Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 400: INCOME STATEMENT REVENUES AND EXPENSES - Total Utility Operating Expenses, Accounts 401 - 411.9, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS - Total Metered Sales Column (d) Average Number of Customers During the Year

**\* -** 2010 Data for Met Ed, PECO, Penelec, and West Penn was impacted by entries shown in Account 565.0 Transmission of Electricity by Others and Account 561.4 Scheduling, System Control, and Dispatch Services

Exhibit ‑  
Total Transmission Operation & Maintenance Expense Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES - Sum of, Total Transmission Operating Expense, Accounts 560.0 - 567.1, + Total Transmission Maintenance Expense, Accounts 568.0 - 574.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS - Total Metered Sales Column (d) Average Number of Customers During the Year

**\* -** 2010 Data for Met Ed, PECO, Penelec, and West Penn was impacted by entries shown in Account 565.0 Transmission of Electricity by Others and Account 561.4 Scheduling, System Control, and Dispatch Services

Exhibit ‑  
Total Distribution Operation & Maintenance Expense Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – Sum of, Total Distribution Operating Expense, Accounts 580.0 - 589.0, + Total Distribution Maintenance Expense, Accounts 590.0 - 598.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS - Total Metered Sales Column (d) Average Number of Customers During the Year

Exhibit ‑  
Total Transmission and Distribution Operation & Maintenance Expense Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – Sum of, Total Transmission Operating Expense, Accounts 560.0 - 567.1, + Total Transmission Maintenance Expense, Accounts 568.0 - 574.0, + Total Distribution Operating Expense, Accounts 580.0 - 589.0, + Total Distribution Maintenance Expense, Accounts 590.0 - 598.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

\* - 2010 Data for Met Ed, PECO, Penelec, and West Penn was impacted by entries shown in Account 565.0 Transmission of Electricity by Others and Account 561.4 Scheduling, System Control, and Dispatch Services

Exhibit ‑  
Total Administrative and General Expense Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES - Total Administrative and General Operation Expenses, Accounts 920.0 - 933.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

**\* -** 2013 Data for Met Ed, Penelec, and West Penn was impacted by entries shown in ACCT 926.0 Employee Pensions and Benefits. See PUC Annual Report 2014, **201 Notes to Balance Sheet - Note 2**: Pensions and Other Postemployment Benefits. On August 24, 2014, the qualified pension plan was amended authorizing a voluntary cashout window program for certain eligible terminated participants with vested benefits. Additionally, during 2014, certain unions ratified their labor agreements that ended subsidized retiree health care resulting in a reduction to the OPEB benefit obligation.

Exhibit ‑  
Aggregate Customer Service Expenses Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – Sum of, Customer Accounts Operating Expense + Customer Service and Information Expenses + Sales Operating Expenses, Accounts 901.0 - 917.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

Exhibit ‑  
Aggregate Customer Service Expenses Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – Customer Assistance Expenses, Account 908.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

Exhibit ‑  
Total Other Power Supply Expense Per Provider of Last Resort (POLR) Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – Total Other Power Supply Expenses, Accounts 555.0 - 557.0, Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

Exhibit ‑  
Total Transmission Plant Capital Additions Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 205: UTILITY PLANT IN SERVICE – Total Transmission Plant, Accounts 350-359.1 (Column C-Additions), Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

Exhibit ‑  
Total Distribution Plant Capital Additions Per Customer

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 205: UTILITY PLANT IN SERVICE – Total Distribution Plant, Accounts 360-373 (Column C-Additions), Divided by SCHEDULE 600: CLASSIFICATION OF CUSTOMERS – Total Metered Sales Column (d) Average Number of Customers During the Year

Exhibit ‑  
Net Plant in Service to Gross Plant in Service Ratio

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 200: COMPARATIVE BALANCE SHEET – ASSETS AND OTHER DEBITS NET PLANT IN SERVICE, Accounts 101.0 - 111.0, Divided by GROSS PLANT IN SERVICE, Accounts 101.0 - 107.0

Exhibit ‑  
Total Transmission Operation & Maintenance Expense  
as a Percentage of Transmission Plant in Service

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – TOTAL TRANSMISSION OPERATION AND MAINTENANCE EXPENSES, Accounts 560-574, Divided by SCHEDULE 205: UTILITY PLANT IN SERVICE – Total Transmission Plant, Accounts 350-359.1

Exhibit ‑  
Total Distribution Operation & Maintenance Expense  
as a Percentage of Distribution Plant in Service

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – TOTAL DISTRIBUTION OPERATION AND MAINTENANCE EXPENSES, Accounts 575-598, Divided by SCHEDULE 205: UTILITY PLANT IN SERVICE – Total Distribution Plant, Accounts 360-373

Exhibit ‑  
Total Transmission & Distribution Operation & Maintenance Expense as a   
Percentage of Total Transmission & Distribution Plant in Service

SOURCE DATA: PA PUC ANNUAL REPORT

SCHEDULE 405: OPERATION AND MAINTENANCE EXPENSES – Sum of, TOTAL TRANSMISSION O&M EXPENSE, Accounts 560-574, + TOTAL DISTRIBUTION O&M EXPENSE, Accounts 575-598, Divided by SCHEDULE 205: UTILITY PLANT IN SERVICE – Sum of, Total Transmission Plant, Accounts 350-359.1, + Total Distribution Plant, Accounts 360-374

###### PPL Electric utilities CORPORATION comparative customer service performance metrics for the pennsylvania panel 2010–2014

Exhibit ‑  
EDCs Percent of Calls Answered within 30 Seconds \*

SOURCE DATA: PA PUC ANNUAL CUTOMER SERVICE PERFORMANCE REPORTS 2010-2014

\* 12-month average

\*\*Although the four FirstEnergy companies use the same call centers, only Met-Ed, Penelec, and Penn Power are combined under FirstEnergy; due to the commitments made in the PA Merger Settlement Agreement, West Penn’s telephone access data is tracked and reported separately for this report.

**NOTE: Penn Power is not considered a member of the original panel for current statistical purposes.**

Exhibit ‑  
EDCs Call Abandonment Rate \*

SOURCE DATA: PA PUC ANNUAL CUTOMER SERVICE PERFORMANCE REPORTS 2010-2014

\* 12-month average

\*\*Although the four FirstEnergy companies use the same call centers, only Met-Ed, Penelec, and Penn Power are combined under FirstEnergy; due to the commitments made in the PA Merger Settlement Agreement, West Penn’s telephone access data is tracked and reported separately for this report.

**NOTE: Penn Power is not considered a member of the original panel for current statistical purposes.**

Exhibit ‑  
Percent of EDCs Residential Meters Not Read  
by Company or Customer in Six (6) Months \*

SOURCE DATA: PA PUC ANNUAL CUTOMER SERVICE PERFORMANCE REPORTS 2010-2014

\* 12-month average

Exhibit ‑  
Residential Electric Gross Write-Offs Per Residential Electric Customer

SOURCE DATA: PA PUC 2010-2014 Annual Report on Universal Service Programs (USP) & Collections Performance of the Pennsylvania Electric Distribution Companies (EDC) and Natural Gas Distribution Companies (NGDC); PA PUC Annual Reports for 2010-2014.

PA PUC 2010-2014 Annual Report on USP and Collections Performance – GROSS RESIDENTIAL EDC WRITE-OFFS IN DOLLARS FOR RESIDENTIAL ELECTRIC CUSTOMERS, Divided by PA PUC Annual Reports for 2010-2014 SCHEDULE 600: CLASSIFICATION OF CUSTOMERS, UNITS SOLD, AND OPERATING REVENUE – Total Residential Metered Sales Column (c) Number of Customers End of Year

\* - 2010 Universal Service Programs Annual Report data for West Penn Power was not available.

Exhibit ‑  
Residential Electric Gross Write-Offs as a Percentage  
of Total Residential Operating Revenue

SOURCE DATA: PA PUC 2010-2014 Annual Report on Universal Service Programs (USP) & Collections Performance of the Pennsylvania Electric Distribution Companies (EDC) & Natural Gas Distribution Companies (NGDC); PA PUC Annual Reports for 2010-2014.

PA PUC 2010-2014 Annual Report on USP & Collections Performance – GROSS RESIDENTIAL EDC WRITE-OFFS IN DOLLARS FOR RESIDENTIAL ELECTRIC CUSTOMERS, Divided by PA PUC Annual Reports for 2010-2014 SCHEDULE 600: CLASSIFICATION OF CUSTOMERS, UNITS SOLD & OPERATING REVENUE – Total Residential Metered Sales Column (f) Total Operating Revenue

\* - 2010 Universal Service Programs Annual Report data for West Penn Power was not available.