

**PECO Energy Company**  
**2020 Winter Readiness Overview**  
**November 20, 2020**

PECO Energy Company (“PECO” or the “Company”), through its Winter Readiness Program, is prepared to provide safe, least-cost, reliable electric and natural gas service to its customers during the upcoming winter season.

**I. PECO’s Winter Readiness Program**

PECO’s Winter Readiness Program ensures system reliability, maintains customer safety and aims for continuous improvement. The extensive Winter Readiness Program requires the Company to review, inspect, maintain and modify items involving safety, corrective maintenance, preventative maintenance, scheduling, procedures, contracts, emergency preparedness, training, transmission, communications, natural gas supply and customer care – all prior to the winter period. PECO’s Emergency Preparedness organization manages our Winter Readiness program, which includes over 300 items.

**A. Gas Operations:**

As we prepare for winter, some of PECO’s major areas of focus include, but are not limited to, the following:

**i. Employee Safety/Readiness; Drills**

PECO reinforces employee safety, year-round, by conducting training and adhering to procedures. Additionally, PECO performs at least one annual natural gas emergency response drill, which prepares personnel to respond to major leaks, blockages, and other significant conditions. These drills familiarize personnel with PECO’s safety response procedures. PECO further ensures that it has the personnel available for proper event response by entering into mutual assistance agreements with other utility companies in other states. In 2020, PECO participated and/or held numerous drills and preparation exercises, discussed in more detail below.

PECO has been participating in a series of meetings and working sessions with cross-sector participation, including the Pennsylvania Public Utility Commission (“PUC”), the Pennsylvania Emergency Management Agency, the Governor’s Office on Homeland Security, the Pennsylvania National Guard, and others, on issues related to “Black Sky Event Response.” Critical sector participation includes energy, communications, fuels, water/wastewater, etc. from across the Commonwealth.

PECO has been participating in regular meetings with the Energy Association of Pennsylvania (“EAP”) to discuss gas operations response to the COVID-19 pandemic since April of 2020. These meetings started off weekly and have since transitioned to meeting every other week. During these sessions each of the gas operators share

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successes and challenges that they are each facing while continuing gas operations during pandemic conditions.

PECO also has been meeting weekly with the PUC to discuss the Company's COVID response since April of 2020. Each week, PECO highlights response activities and challenges that PECO is facing due to the pandemic.

PECO has been participating in weekly American Gas Association discussions regarding impacts to gas utilities based on the COVID pandemic. On October 20, 2020, PECO presented the challenges that it has encountered throughout the pandemic and the coordinated response required to maintain safe gas operations. PECO's presentation highlighted communication changes, impacts to PECO's work plan, the necessary safety policies and protocols which needed to be implemented, responsible re-entry to the workplace and the overall practices that PECO has identified to keep employees safe and informed.

On May 28, 2020, PECO participated in virtual EAP roundtable sessions which replaced the annual Mid-Atlantic Gas T&D Seminar. During this seminar, various operators from Pennsylvania, along with neighboring states, gathered together to discuss a number of different industry topics to share knowledge of common challenges and successfully implemented solutions. Topics included Integrity Management, Pipeline Safety and Public Awareness, Field Services and Measurement, Operator Qualification and Mutual Aid, and Plastics.

On September 10, 2020, PECO participated in the PUC's Pipeline and Electric Virtual Safety Seminar. This event included presentation and discussion related to a variety of gas industry topics including PHMSA regulations, the PUC annual data report, damage prevention, and an industry event lessons learned.

On October 20, 2020, PECO conducted its annual Gas Load Reduction Emergency procedure tabletop drill. In this drill, personnel review all procedures related to a natural gas load reduction crisis.

On October 28, 2020, PECO conducted a combined winter readiness/emergency preparedness drill which is designed to test emergency response requiring mutual assistance during winter operating conditions. The scenario was designed to mimic the loss of a critical feed which would result in the loss of around 15,000 customers during winter weather and COVID conditions.

**ii. Natural Gas System Readiness**

PECO routinely performs numerous preventative maintenance activities, including regulator station and valve inspections; annual review/update of regulator pressure settings; and installation of temporary regulator stations to address Zero Degree days. Winter-critical projects also are completed to eliminate pressure constraints that could exist during periods of high demand. For the 2020-2021 winter season, PECO

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identified six main projects required to withstand prolonged zero degree temperatures. Five of the size identified projects have been completed. The last remaining project is scheduled for completion in 2020 and a contingency plan has been identified should severe winter weather occur prior to the project's completion.

PECO's preparedness activities enhance service reliability to customers during times of inclement weather. These activities include developing contingency plans, conducting leak surveys, monitoring capacity constrained areas, readying snow removal equipment, and checking compressed natural gas ("CNG") trailers and portable CNG kits.

PECO also conducts several drills to prepare its natural gas distribution system for severe weather/operating conditions. Specifically, the Company's Winter Readiness Drill can simulate: 1) the effects of a "Zero Degree" day; 2) severe winter weather (including ice, snow, and high winds); 3) facility damage such as a main hit by a contractor (during winter conditions); and 4) Gas Mutual Assistance processes. The 2020 Winter Readiness drill was completed on October 28, 2020 and focused on a potential system event which was identified and mitigated earlier in the year. This was PECO's first virtual Gas Winter Readiness Drill and aside from the typical scenario, the drill focused on how to respond to an incident during a pandemic.

PECO also conducts a Gas Load Reduction Emergency procedure tabletop drill on an annual basis, in which personnel review all procedures related to a natural gas load reduction crisis. This drill occurred on October 20, 2020.

PECO's Emergency Preparedness organization also is involved in Storm Response, Mutual Assistance, Physical Security, and Cyber Security drills scheduled throughout the year. Other winter readiness efforts include increasing capacity to meet customer heating demands, entering into contracts to secure adequate supplies of natural gas, preparing vehicles for the winter and utilizing snow removal vendors.

In addition, PECO filled its liquefied natural gas ("LNG") peak shaving facility on October 14, 2020 to supplement natural gas supplies during high demand days. PECO also fills its underground storage facilities located off interstate pipelines throughout the year when prices are low to provide customers with the most competitive price available. The Company's hedging activities lock in prices during the year to limit the amount of natural gas purchased during winter months, when natural gas market prices generally peak. As discussed below, PECO has sufficient supplies to meet the needs of its customers this winter. PECO also has tested its system and completed a full check of readiness tasks to ensure that reliable natural gas service will be delivered to customers.

### **iii. Frost Survey**

PECO's Frost Survey protocols mitigate natural gas leaks by requiring proactive leak surveys of cast iron mains during the frost season (when cast iron mains are more susceptible to breaks). PECO's Frost Surveys are conducted per procedure from

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November 1 to April 1. Each year on November 1, PECO begins to monitor low temperatures on a daily basis and only executes Frost Surveys when specific frost temperature conditions exist. Once PECO observes a five-day rolling average low temperature of at least 32 degrees Fahrenheit, the Frost Surveys begin. The surveys are prioritized according to break history. Frost Surveys are discontinued once the five-day rolling average temperature rises above 32 degrees. This process continues through April 1.

PECO also performs accelerated Frost Surveys when conditions warrant additional action. When PECO experiences (3) cast iron main breaks within a single day, it initiates accelerated surveys. During this time, PECO's Leak Survey mechanics conduct surveys on double shifts during a 48-hour period. Once the 48-hour period expires, PECO reverts back to its normal average low temperature-driven Frost Survey protocols.

**iv. Emergency Dispatch**

PECO's Emergency Response Organization provides the necessary management and support for emergency incidents, mitigates threats to public and personnel safety, and ensures safe and reliable delivery of service to customers. PECO's Emergency Response Plan incorporates an incident management approach to streamline and coordinate emergency response efforts.

PECO has established an expectation that all natural gas emergency odor calls will be fielded within one hour. Additionally, PECO monitors the National Weather Service for winter storm warnings when the average daily temperature is forecasted to be 5 degrees Fahrenheit or below. When such warnings are issued and a storm is likely, PECO will prepare and develop the appropriate response plan. As part of those plans, PECO personnel will be ready to respond to natural gas odor calls within one hour and clear ice and snow from natural gas meters and regulators.

**B. Communications and Outreach:**

PECO's Communications and Outreach plan consists of distributing information via news release, PECO Connection content hub, social media, website, and customer and stakeholder newsletters. Through these channels, PECO highlights the work that is performed to provide safe and reliable electric and natural gas service during the winter months, information to help customers prepare their homes for colder weather, and natural gas safety tips.

In addition, PECO continues to promote a suite of enhanced online and mobile tools to give more control to customers and keep them better informed.

Alerts: PECO customers now have greater control and access to important account information through text, email, or phone. Customers can choose how they

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would like to receive information about outages, energy usage, billing, payment, and more.

Website: PECO's website has been redesigned to help customers move seamlessly across their electronic devices and builds on existing tools, such as online outage reporting and the ability to monitor energy use. The site also incorporates enhanced security features to help protect customer information and streamlined navigation.

Outage Map: This tool provides our customers with more information when service is interrupted, including the number of customers affected. The map also includes the cause of the outage, if a crew has been dispatched, and the estimated time when service is expected to be restored.

Finally, PECO has a crisis communications plan, which clearly establishes the roles, responsibilities, and guidelines necessary to maintain and enhance employee and public perceptions during operational emergencies or other situations. Specifically, the communications plan is intended to:

1. Inform employees and the public about the Company's readiness and/or response efforts in an emergency/crisis that impacts operations, customer service or employee/public safety.
2. Demonstrate command and control during an emergency/crisis by defining clear roles and responsibilities and identifying available staffing/resources.
3. Ensure all external communications are coordinated with stakeholders.
4. Provide guidance and direction for communications activities during crisis management, helping to mitigate the crisis and expedite recovery.

This plan commences when a significant event occurs that has the potential to generate extensive news media coverage and/or public scrutiny. For example, a significant system issue could affect the organization's normal operations and also could have political, legal and financial impact to the business. Similarly, a crisis could be caused by human error, mechanical problems, weather conditions or force majeure events. These types of events, revelations, allegations or circumstances threaten the integrity, reputation or survival of an individual or organization. PECO's crisis communications plan mitigates these threats by providing accurate and timely information to customers, employees and key stakeholders. This aids in event recovery and returning to normal operating conditions.

If a storm or significant event is expected to impact the service territory, PECO will contact external stakeholders with information regarding PECO's preparations and what customers should do to prepare and stay safe. If PECO's Emergency Operations Center is activated, external stakeholders are notified and receive updates from PECO's External Affairs department every four hours, with information regarding customer impacts by municipality and restoration strategies. In addition, PECO's External Affairs

department coordinates with regional emergency response centers across the service territory to offer PECO representation at each location, if needed. Conference calls are coordinated with Emergency Response Center Directors, Municipal Managers, and Elected Officials, if conditions warrant.

### **C. Gas Supply and Planning:**

PECO will meet its obligation to provide least-cost natural gas to its firm customers for the winter of 2020-2021 in a safe and reliable manner by utilizing various sources of firm transportation capacity, storage, and supply assets to meet design day demands.

#### **i. Best Practices, Including Communications and Coordination, with Natural Gas Suppliers Ahead of Anticipated Peak Usage.**

PECO Gas Transportation utilizes a program, The Large Gas Customer Notification Program, to communicate to interruptible rate customers. Prior to a called interruption, PECO sends messages via this portal, notifying customers to stop burning gas and switch to an alternate fuel. Other notifications are also sent via this portal such as “cold weather coming” alerts. Suppliers and other internal PECO contacts (such as Account Managers) are also notified. In addition, as a courtesy, all Account Managers call their customers prior to any interruption and PECO’s EBB is updated with interruption messaging for those using the EBB.

PECO also participates in quarterly meetings with its affiliated gas utilities to discuss and share “best practices.” The best practice meetings allow PECO to share and/or adopt best practices and continue to improve our operations to provide the least-cost natural gas to firm customers, in a safe and reliable manner.

#### **ii. Peak Design Day Evaluation**

PECO uses a design temperature of zero degrees Fahrenheit – an average of hourly temperatures during a 24-hour period. The design temperature of zero degrees is a reasonable compromise between reliability and cost because it provides assurance that firm service customers are not likely to face supply interruptions, while keeping the costs for peak day capacity at an acceptable/reasonable level. For the 2020-2021 winter, PECO’s design day is 841,346 Mcf or 875,000 Dth.

#### **iii. System Supply Requirement Review – Resource Planning**

To ensure PECO meets its firm delivery commitments, the Company applied a multi-tier approach to its capacity and supply utilization plan, including deliveries of supply from: (1) Firm Transportation (“FT”) contracts; (2) firm contracted storage; and (3) on-system peak facilities or contracted peak deliveries.

PECO’s FT contracts with interstate pipelines provide an integral part of its overall gas supply reliability plans. These contracts provide reliable firm delivery rights

and geographic diversity of supply (through the firm supply receipt location capacity rights guaranteed in the contracts). This supply diversity has been further enhanced as Marcellus Shale supply has become more readily available.

PECO will supplement the supply from its eleven long-term natural gas supply contracts with supplies withdrawn from its six interstate storage contracts.

PECO also will utilize its two peak shaving facilities to inject firm supplies directly into its distribution system (on an as-needed basis). PECO's LNG facility can provide 161,710 Dth on a peak day, and its propane facility can provide another 25,750 Dth on a peak day.

Finally, PECO will supplement these services with other firm winter delivered services totaling 99,638 Dth per day. A very small portion of the winter delivered services will be supplied by PECO's natural gas suppliers ("NGSs") pursuant to the Gas Choice Program, as they elect the Delivered Service Option.

#### **iv. Interstate Supply and Contract Arrangements**

PECO's annual firm transportation contracts with Texas Eastern and Transcontinental pipelines and its firm transportation contract with Eastern Shore Natural Gas pipelines provide daily transportation capacity during the winter months. Under the foregoing contracts, PECO flows natural gas purchased under long-term, seasonal, and spot purchase agreements with its suppliers, which represents about one third of PECO's peak day supply requirements. Under its current supply contracts, PECO can purchase natural gas from numerous, natural gas trading hubs and transport that natural gas on a firm basis from receipt to delivery at PECO's city gates.

#### **v. Utility and Contract Storage Inventory Delivery Plans**

About one-third of PECO's design day requirements and one-third of PECO's total winter deliveries will be sourced from five interstate pipeline storage contracts. These storage contracts either include transportation or are matched with one of PECO's FT contracts to provide firm delivery. PECO's contract storage utilization plan ensures that the maximum withdrawal capability exists as a source of natural gas from December 1 through February 15. This withdrawal capability is available because PECO's inventory (associated with any of the storage contracts) does not dip below levels that would trigger an automatic reduction of withdraw capability by the pipelines. PECO can inventory a total of 19 Bcf of natural gas under its six storage contracts. PECO's storage inventory was at least 94 percent full by October 31. PECO must leave space in its inventory for injections that may be necessary due to warm days in November.

As stated above, PECO also has on-system propane and LNG storage facilities. The inventory in these facilities is withdrawn in the winter when: (1) system demand projections exceed PECO's firm transportation and storage contract supplies; and (2) intraday changes in forecasted weather increase demand requirements so rapidly, that

unscheduled pipeline storage and transportation capacity could not be utilized. By October 31, 2020, the LNG facility, which has an inventory capacity of 1.2 Bcf, was 100 percent full and the propane facility, which holds 1.98 million gallons of liquid propane, was at capacity.

**vi. Emergency Curtailment Plans**

PECO's emergency curtailment plan has a three-phase approach:

1. Natural Gas Load Reduction Crisis Phase I: Request for voluntary load reductions
2. Natural Gas Load Reduction Crisis Phase II: Mandatory reduction of industrial and commercial load
3. Natural Gas Load Reduction Crisis Phase III: Mandatory reduction of residential load

The curtailment crisis plan addresses a possible inability to meet firm natural gas demand, due to inadequate supply predicated by pipeline Company delivery issues, peak shaving facility issues or a distribution system infrastructure event.

In addition, PECO conducts a test of its customer notification system in which a text, e-mail, and/or an audio message is sent to all customers served under PECO's various interruptible natural gas rates. These customers are notified to curtail their use of natural gas. The annual test for winter 2020-2021 was held on November 10, 2020.

**vii. Weather and Forecasting**

As PECO's natural gas demand is highly temperature driven, the Company relies on a number of weather forecasting services and tools to aid in projecting natural gas system demand. For example, PECO's Gas Supply and Transportation Department, which has the responsibility of ensuring adequate supply, will review forecasts from Meteorlogix. These forecasts are used to make and adjust supply contingency plans, storage management, and purchasing requirements to ensure overall least cost and reliability.

PECO's Gas System Operators ("GSOs") are responsible for forecasting short-term load requirements (one to four days) and rely on Meteorlogix to provide the weather forecast to aid them in this process. GSOs utilize historic data accessing SCADA historic demand information and analyze variables including temperature, time of year, wind speed, and warming and cooling trends when making their short-term forecasts. The forecasted demand information is forwarded to Gas Supply and Transportation who uses it in their daily natural gas demand load balancing process.

**D. Natural Gas Demand from Electric Generators:**

PECO does not have concerns about fuel availability during the winter season given the increased demand for natural gas as an electric generation fuel source. As

discussed above regarding natural gas supply, PECO relies on firm transportation, storage, supply contracts and on-system assets to meet its winter demand. Under the terms of the Company's contracts, the counter-parties are required to deliver as contracted. Due in part to the robust influx of Marcellus and other shale gas, PECO believes that supply will be sufficient to meet winter needs.

There has been no increase to electric generation demand on PECO's distribution system. In addition, PECO's tariff provisions and enforcement of those provisions as they apply to electric generation customers provide sufficient protection for PECO's other natural gas customers. Electric generation deliveries and balancing requirements do not jeopardize PECO's ability to serve its firm customers.

## **II. COVID-19 Preparation/Risk Mitigation:**

PECO is committed to performing our critical role of delivering safe and reliable electric and natural gas service to our customers in the communities we serve. The Company is taking appropriate precautions to protect the health and safety of our employees, contractors and customers. PECO is following guidance from public health professionals, including the Centers for Disease Control, and communicating all relevant information to our customers and workforce.

As an essential industry, PECO has continued its work to ensure every customer has access to safe and reliable electric and gas service since the start of the pandemic. Our dedicated crews have continued to respond to emergency issues as well as perform critical system readiness work. This work aligns with our responsibility to provide life-sustaining, essential energy services to southeastern Pennsylvania and is being completed with special emphasis on employee and customer health and safety.

Since February/March, PECO has engaged in a number of actions and preparations to deal with COVID-19, including:

- Most back office personnel are working remotely from home on a daily basis.
- Field crews have been split into smaller groups and report to remote sites instead of convening at our larger service buildings.
- All personnel reporting to PECO facilities are required to follow current CDC and OHS guidelines.
- Appropriate PPE, cleaning materials, etc. are provided.
- Employees are also expected to follow appropriate guidelines when not at work.
- Regular deep cleaning is conducted at PECO facilities.
- Health screening at all Control Room facilities and as needed at facilities when potential positive cases are identified.
- Detailed contact tracing executed whenever a case is suspected.
- Sequestering plans developed for Control Room personnel in case they are needed.

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- Detailed guidelines developed and implemented for receiving and administering Mutual Assistance crews from across the country, and for our crews traveling to other utilities. These guidelines have been successfully implemented several times this year, both at PECO for several large storm events, and when PECO deployed crews for Mutual Assistance in Illinois, Louisiana, Massachusetts, New York, and Florida.
- 80% of back office storm roles have been modified to be able to be worked remotely, from home. This has been successfully executed several times during the numerous storm events of 2020.
- PECO participates in industry benchmarking on operating during the pandemic, through the Energy Association of PA, and numerous industry groups for both Gas and Electric.

Having implemented these actions in both our day-to-day operations and during storm response/emergency operations, PECO has maintained minimal employee impacts of COVID, and maintained our high operational standards in both electric and gas, despite the pandemic.