Table 1. Summary of Existing EDC Demand Side Response (DSR) Programs: Large C&I

EDC	Program	Description; Participation Levels (#Customers; MWh Enrolled); Event Responses (Participation Trends-Last Yr.)	Eligible Participants	Special Requirements	Tariff (Y/N)
Allegheny Power 2004	**-- Voluntary Generation Buy-Back--** **Intra-Day or Next Day** (Effective 6/01/01)	-- Allegheny Power buys-back or displaces firm load when the market price for generation is expected to reach a certain level. Customers can select 1 of 10 price signals & request to be notified when Allegheny Power declares a buy-back period. -- AP reports it will continue mining for opportunities & customer solutions to grow customers & MWs participating in the program. This program remains in place and available to industrial customers	-- Large C&I	-- On-Site Generation/ Operational Flexibility	-- No
2007	**-- Voluntary Generation Buy-Back--** **Intra-Day or Next Day** (Effective 6/01/01)	-- Allegheny Power buys-back or displaces firm load when the market price for generation is expected to reach a certain level. Customers can select 1 of 10 price signals & request to be notified when Allegheny Power declares a buy-back period. -- AP reports it will continue mining for opportunities & customer solutions to grow customers & MWs participating in the program. This program remains in place and available to industrial customers	-- Large C&I	-- On-Site Generation/ Operational Flexibility	-- No

Table 2. Summary of Existing EDC Demand Side Response (DSR) Programs: Small Commercial/Residential

EDC	Program	Description; Participation Levels (#Customers; MWh Enrolled); Event Responses (Participation Trends-Last Yr.)	Eligible Participants	Special Requirements	Tariff (Y/N)
Allegheny Power 2004	**- Real Time Pricing Pilot**	This is a limited pilot in which customers are provided with an Internet enabled smart thermostat on enrollment. Each customer can program their thermostat for energy conservation. In addition each customer can pick two energy prices and instruct the system what action to take if those prices are exceeded. Each hour the system looks at the hourly day ahead price and adjust the thermostat based on their instructions several participants have other devices like water heaters, pool pumps or hot tubs also controlled based on hourly price (see below)	-- Resident & Small Commercial	--"Smart" Thermostat	-- No
	-- Distributed Generation Price Pilot Program	- These customers are also part of the Real Time Pricing pilot shown above. There are three customers that have generator units in place. Instead of switching other devices on and off these customers systems switch the distributed generation unit on and off based on the price choices they have made. Hourly, the system looks at their price choices and turns the generator on if their price choice is exceeded. The load connected to the generator is then switched off of the electricity grid onto the natural gas fired unit. When the price drops below their price choice the load is transferred back to the grid and the generator is switched off.	-- Resident	-- Standby Generator	
2007 – NONE					

Table 3. Summary of Allegheny Power DSR Program Evaluations: Current & Past Programs

Program	Summary of Evaluations: Current & Past Programs	Reports Available for Review? Yes/No
2007	No evaluations were performed.	No

Table 4. Summary of Allegheny Power Meter Steps Needed to Make Hourly Pricing Available to ALL Its Customers

Current Status: Availability/Capabilities of Advanced Metering System Infrastructure	Overview of Infrastructure Requirements (Include every aspect from operations center, software to customer location) to Permit All Customers the Ability to Use Hourly Pricing	Costs Associated with Giving All Customers the Ability to Access Hourly Pricing	Future Plans: Approximate Deployment Timeframe
-- **Interval Meters** **2004** _____ **2007** Currently West Penn (d/b/a Allegheny Power) has interval-recording/advanced metering deployed to approximately 1,500 customers, with this customer population representing about half of the total load for West Penn.	-- All customers with existing interval meters are eligible to participate in Allegheny Power's generation buy- back program as previously outlined. _____ This is a massive project that will touch many areas of the company – A high level overview is described below but much upfront analysis would need to be performed to create an infrastructure or meter data management system to handle the massive amount of data that would be collected and to make the best use of the data prior to any AMI installation. ▪ Define Corporate Vision for AMI and Demand Response Goals ▪ Identify Systems directly impacted to provide hourly pricing to all customers e.g Billing and Meter Data Collection and Meter Reading - Define billing system requirements - Define System interface changes or enhancements - Data Storage Requirements - Data Validation and Analysis procedures - Define customer data requirements - Define staffing requirements/changes ▪ Identify Systems indirectly impacted (benefits) from AMI e.g. Outage Management, Distribution Planning, Demand Response Programs, PJM Load Settlement - Define these systems meter data requirements and changes Metering and Telecommunications - Select Meter Solution - Define implementation timeline: In-house or vendor installation? - Purchase equipment - Install - Implement Account Set ups: Data Collection IT - Program changes to billing systems - Assist in implementation of meter data management system - Create new web-based system to display data for customer inquiry - Program changes to other systems as defined in Corporate Vision Rates - Create hourly price rate tariffs - File for cost recovery of meter investment - Define new bill format Load Management - Data Validation; Data Analyses; PJM load Settlement Corporate Communication and Customer Service - Customer Education; - Customer information requirements	None These are existing $600 one time cost for interval meters where not rate required with $30 monthly processing charge. _____ Capital expenditures are estimated to be around $141 million for the metering and communications infrastructure needed to provide real-time pricing to all of Allegheny Power's Pennsylvania customers. This estimate assumes a capital cost per customer of $200 and a Pennsylvania customer base of approximately 705,000. Annual O&M costs of such a system are estimated to be approximately $1.8 million per year. This estimate excludes any changes to existing software systems or the purchase of a new software systems that may be needed to collect, analyze and store this amount of data for billing purposes. This estimate also assumes that the purchase of a new billing system will not be required to bill all PA customers on hourly pricing rates.	Enrollment is open _____ None
