**BEFORE THE**

**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. R-00049255**

**PPL Electric Utilities Corporation**

**Statement No. 4**

# Direct Testimony of Douglas A. Krall

Q. Please state your full name and business address.

A. My name is Douglas A. Krall. My business address is Two North Ninth Street, Allentown, Pennsylvania, 18101.

Q. By whom are you employed and in what capacity?

A. I am employed by PPL Electric Utilities Corporation ("PPL Electric" or the "Company") a subsidiary of PPL Corporation. I work in the Asset Management Department of PPL Electric and my title is Manager – Regulatory Strategy.

Q. Please describe your primary responsibilities in that position.

A. As Manager – Regulatory Strategy, I am responsible for assisting in the development of long-term strategy, goals and objectives; providing regulatory insights into the development and implementation of business strategies; and leading the development of responses to legislative, regulatory, and political issues.

Q. What is your educational background?

A. I graduated from Stevens Institute of Technology in Hoboken, New Jersey in 1973 with a Bachelor of Engineering degree in Mechanical Engineering. I have completed courses in Business Administration at Muhlenberg College in Allentown, Pennsylvania.

Q. Are you a registered Professional Engineer?

A. Yes. I have been a registered Professional Engineer in the Commonwealth of Pennsylvania since 1977. My registration number is PE-026733-E.

Q. Please describe your professional experience.

A. I joined the Mechanical Engineering Department of PPL Electric's predecessor Pennsylvania Power and Light ("PP&L") in 1973 as an Engineer-Level I working on studies related to PP&L's generating plants. In 1974, the engineering functions were restructured, and I became a member of the Power Plant Engineering Department. In 1975, I was promoted to the position of Engineer-Level II, and in 1978 to the position of Project Engineer within that department. Later in 1978, I transferred to the System Planning Department, and in 1981, I was promoted to the position of Senior Project Engineer. In both of those positions I was responsible for the development of plans related to maintaining and upgrading PP&L's existing fossil and hydro generating plants. In 1984, I was promoted to the position of Manager-Generation Development Planning within the System Planning Department with responsibility for the portion of PP&L's capital budget related to existing fossil and hydro generating plants as well as overall administrative responsibility for PP&L's capital budget. I was also, in that position, PP&L's coordinator for activities related to compliance with the 1990 Federal Clean Air Act Amendments. In December 1994, my title changed to Manager-Integrated Resource Planning, but the duties remained relatively the same. In April 1996, I became the Manager-Resource Planning and Pricing. In this capacity, I supervised the development of integrated resource plans, the administration of PP&L's responsibilities regarding non-utility generation, the development of PP&L's capital budget and the development and administration of PP&L's tariff for electric service. As the Competition Act was passed in Pennsylvania in late 1996 and the pace of industry restructuring accelerated, my

duties in this position changed rapidly. The generation and capital budgeting functions were moved to other organizations and, ultimately, to different affiliates. In their place I took on new duties related to load analysis and coordination of activities within the regulated distribution entity to implement customer choice. In August 2001 I assumed my current position.

Q. Have you previously testified as a witness before the Pennsylvania Public Utility Commission ("PUC") or the Federal Energy Regulatory Commission ("FERC")?

A. Yes. I have testified before the PUC on numerous occasions including the Company's restructuring proceeding (Docket No. R-00973954), a base rate proceeding (Docket No. R-00943271), proceedings regarding non-utility generators, and proceedings arising from customer complaints.

At the FERC, I have testified in regard to PP&L's compliance plans under the 1990 Clean Air Act Amendments (Docket No. ER95-1267), and in regard to PP&L's investment in generating plants to serve its wholesale customers (Docket No. SC97-1-000).

Q. What is the purpose of your testimony in this proceeding?

A. My testimony addresses the following:

1. The Company's construction budget which provided the basis for estimates of electric plant additions and retirements reflected in the future test year.
2. The Company's response to Regulation II-B-1 and the Company's claim for land held for future use.
3. The Company's Automated Meter Reading system.

4. The Company's request to amortize and recover from customers costs associated with employee displacements that resulted from the installation of the Automated Meter Reading System.
5. The Company's demand side response programs.
6. Principles and objectives that guided the allocation of costs and rate design.
7. The pass through of FERC-approved transmission charges.
8. The Company's proposal to institute a Distribution System Improvement Charge.
9. The Company's request to amortize and recover from customers costs associated with Hurricane Isabel.

Q. What Exhibits are you sponsoring in this proceeding?

A. I am sponsoring Exhibit DAK1 and I am also responsible for portions of the information supplied in Schedule D-2 of Exhibit Future-1. In addition, I am responsible for and will sponsor the Company's response to Commission Regulation II-B-1.

**Additions to Rate Base**

Q. Please describe Exhibit DAK1.

A. Exhibit DAK1 is a table that summarizes portions of PPL Corporation's 2004-2008 Capital Budget that relate to the capital spending needs of PPL Electric. At PPL Corporation, a capital budget is prepared annually to identify the capital requirements of the corporation and to establish a basis for financial and manpower planning. Each of the corporation's business lines is responsible for

identifying, evaluating, and approving projects for inclusion in its capital budget, and then forwarding all data to the Financial Department where the Capital Budget for PPL Corporation is reviewed and consolidated.

Q. Please describe the major headings listed on Exhibit DAK1.

A. The major headings on Exhibit DAK1 are “Electric Utilities” and “Facilities Management”. The section headed “Electric Utilities” summarizes capital requirements related to the distribution and transmission systems. The section headed “Facilities Management” summarizes capital requirements related to service centers, crew quarters, and office buildings. Supporting the annual amounts shown on Exhibit DAK1 are lists of projects, schedules for projects, and estimates of project costs and those lists, schedules, and estimates provide the detailed information that is the basis of the estimates of property additions and retirements that appear in the Company’s response to Regulation V-A-3.

Q. Please describe the categories of expenditures listed in the section of Exhibit DAK1 headed “Electric Utilities”.

A. The categories listed in this section and a description of each is as follows:

1. “Provide Electric Service” includes projects to install new service for residential, commercial, and industrial customers (including service upgrades for existing customers to serve additional load), street lighting additions and modernization, and purchases of distribution transformers for near-term use that are considered to be in service at the time of receipt. Work in this category is a function of customer requests. Forecasts of capital

requirements are based on forecasted economic conditions and projected numbers of new customers.

2. "Upgrade System Facilities" includes specific projects required to ensure and enhance system capacity and reliability. Projects are driven by forecasts of load growth and identified as a result of engineering studies that simulate system loadings under a variety of conditions. Also included in this category are funds for relocations due to highway improvements or other rights-of-way interferences. Forecasts of capital requirements for these last two items are based on recent spending history.
3. "Assure System Reliability" includes funding for the replacement of deteriorated, obsolete, or failed equipment. Work in this category is a function of identifying a need as the result of inspection, testing, scheduled replacement, or failure. Forecasts of capital requirements reflect inspection and testing plans, the age of equipment, and previously observed conditions.
4. "Revenue Cycle Service" includes electric meters for new services. Forecasts of capital requirements are based on the forecast of new customers.
5. "Automated Meter Reading" is the capital requirement associated with PPL Electric's program to replace existing meters with new and retrofitted meters and communication infrastructure that permits the meters to be read remotely. This program is described in detail later in my testimony.

6. “Other” reflects miscellaneous items such as office furniture, tools and equipment, and site acquisitions. Forecasts of capital requirements reflect recent history.

7. “Respond To Customer” includes small projects to resolve customer concerns related to outages, voltage complaints, street and area lighting problems, property damage, flickering lights, and other concerns. Forecasts of capital requirements are based on recent history.

Q Please describe the categories of expenditures listed in the section of Exhibit DAK1 headed “Facilities Management”.

A. The categories listed in this section and a description of each is as follows:

1. “Replacement” includes projects to replace equipment that can no longer be maintained and is required for the continued operation of the building.

2. “Working Conditions/Safety” includes projects required to provide employees a safe and acceptable work environment.

3. “Environmental” includes projects required to meet state and local environmental regulations.

Forecasts of capital requirements in each category are based both on lists of specific identified needs and on recent history.

Q. Do the capital requirements set forth in Exhibit DAK1 and the associated property additions and retirements that appear in the Company’s response to Regulation V-A-3 represent, in your opinion, a necessary investment in facilities by PPL Electric?

A. Yes. The capital requirements set forth in Exhibit DAK1 and the associated property additions and retirements that appear in the Company's response to Regulation V-A-3 are the result of careful engineering studies extending over many months, and of inspection and testing programs designed to monitor the condition of equipment and to anticipate the need to replace or upgrade it. This forecast of capital requirements reflects PPL Electric's best estimate of the facilities needed to provide reliable and economic delivery service both now and in the future. This forecast also considers the need to provide new and upgraded facilities which are necessary to maintain and, where appropriate, improve the efficiency of operating personnel. I believe that this forecast is reasonable and represents a prudent level of investment.

**Land Held for Future Use**

Q. Please explain PPL Electric's response to Regulation II-B-1.

A. Regulation II-B-1 tabulates sites and rights of way that the Company has acquired in anticipation of the construction of substations and lines. The response includes sites and rights-of-way for both transmission and distribution projects, however, the Company is seeking approval to include in rate base only those sites and rights-of-way associated with distribution projects. The total request associated with distribution plant is $2,212,678 consisting of $1,916,265 associated with distribution substations, $30,075 for distribution lines, and $266,338 associated with the installation of manholes and conduit for distribution lines. The response to Regulation II-B-1 lists 14 individual sites and rights of

way, a description of the project each supports, the original date each was acquired, and the expected date of use for each.

In this proceeding, PPL Electric is making a claim for the $2,212,678 related to distribution plant held for future use. If this claim is not approved by the Commission, PPL Electric, in the alternative, is requesting approval to accrue a return equivalent to the applicable AFUDC rate on these investments and to include the accrued amount as part of its distribution plant investment at the time such plant is placed into service.

Q. Why has PPL Electric acquired these sites and rights-of-way?

A. This land has been acquired because it was prudent to do so in support of the construction of distribution lines and substations that will be necessary to maintain reliability and accommodate new customers in the coming years.

The conditions that produce growth in electrical demand will also result in expansion of land occupancy. Residential, commercial, and other construction in an area may render it more costly or disruptive to the community to purchase land at the last possible moment. When a need can be identified, it is in the community interest to purchase land well in advance and record the land or right-of-way purchase. This provides the community with an awareness of PPL Electric's plans for the area.

Another consideration is that the necessary land or right-of-way may not be available when needed in the future, which may require significant changes in the overall plan for development of the distribution system; potentially making necessary development more costly to customers.

Allowance must be made for local planning discussions, for negotiations, for siting approval by the Commission and for possible condemnation proceedings. Needs must, therefore, be anticipated as far in advance as possible and the necessary steps taken to acquire essential land and easements.

**Automated Meter Reading System**

Q. Could you please provide an overview of PPL Electric's Automated Meter Reading System?

A. PPL Electric's Automated Meter Reading System ("AMR") involves the replacement of existing meters with new or retrofitted meters and communication infrastructure that permits the meters to be read remotely. Deployment began in the spring of 2002 with a small-scale test involving the meters of about 10,000 customers served by four specific substations in the Allentown/Bethlehem area. The purpose of this test was to confirm the technical capabilities of the equipment, develop and refine installation techniques, and establish procedures that would ultimately support the replacement of over 1.3 million meters with new or refurbished meters, the installation of communications equipment at over 300 substations, and the modification of meter data systems and billing systems to permit readings obtained in this fashion to be used for billing. Deployment is expected to be complete by September 30, 2004.

Q. Please describe how the AMR system functions.

A. PPL Electric's AMR system actually employs two different communications approaches to reading meters remotely. The first, deployed to almost all of the

1.3 million customers, relies on communications through the power lines themselves. This technology requires the installation of a communications link at each distribution substation. Communications signals are sent by conventional means (telephone line, fiber optic cable, or wireless) to the substation equipment that then places the signal on the appropriate distribution feeder. The signal travels on the power wave itself. Equipment in the meter is capable of reading this signal. Upon being signaled, the communications device in the meter causes a meter reading to be transmitted in the same fashion back to the substation. At the substation, the communications equipment puts the information back on the conventional communications system for transmission back to a communications server. In this approach, it is the communications server that directs activity. The server requests reads as a result of a prompt by the billing system (in the case of billing reads), a prompt by another meter information need (such as load research), or at the request of an individual user such as a Customer Service Representative ("CSR"). Upon receipt of a read, the communications server routes the response to the appropriate system. The meters themselves do not initiate communication. Logic built into the meters causes them to record readings at appropriate times, but those readings are not transmitted until the communication server requests that they be transmitted.

The second communications approach is employed for customers who are served at higher voltages. In these instances, power line communication cannot survive the voltage transformation associated with metering so, in these cases, wireless communication is used to communicate with the meters. Here the

communications server and the communications device in the meter communicate through existing cellular infrastructure. Upon being signaled, or at predefined intervals, the device causes a meter reading to be transmitted back to the cellular network and, through that network, back to the communications server. This second approach is deployed to about 6,200 customers.

Q. How much will the AMR installation cost once it is completed?

A. PPL Electric anticipates that the total capital cost of the AMR system will be about $160 million. Equipment placed in service through the end of 2003 is reflected in Historic Test Year Rate Base and equipment to be installed during 2004 is reflected in Future Test Year Rate Base.

Q. How do customers benefit from AMR?

A. Customers benefit from AMR in several ways. First, there are quantifiable economic benefits in the form of reduced expenses. Second, there are tangible benefits of a non-economic nature that customers are currently experiencing. Finally, the system PPL Electric has installed provides a platform from which PPL Electric can develop additional functionality that will provide both economic and non-economic benefits to customers in the future.

Q. Please describe the economic benefits of the AMR system.

A. The most fundamental benefit is that the manual reading of meters for billing is discontinued and the meter reading workforce can, over time, be eliminated. Expenses associated with salaries, benefits, and overheads (including vehicles) will be eliminated.

There will also be savings at PPL Electric's call center. With AMR, the need for and number of estimated reads will be reduced and customer calls regarding estimated meter readings and access to meters are virtually eliminated. In addition, the time required to handle telephone calls regarding high usage/high bills will be greatly reduced because the CSRs have available to them actual daily usage information for each account for the previous 45 days. The availability of daily usage information allows a CSR to more quickly resolve with a customer whether the usage billed is indeed accurate.

The ability to obtain meter reads remotely will also greatly reduce the need to send a serviceman to obtain special reads in circumstances such as a final read (when an account is closed) and for high usage/high bill investigations. The reduction in special reads translates, over time, into a reduction in the need for servicemen.

Savings are also expected to be realized at PPL Electric's meter shop as there will be less maintenance to perform given that the population of meters will, on average, be significantly newer than the population it replaced.

The automated data monitoring functions inherent in the new system will eliminate the need to perform manual monitoring of data quality from about 30,000 of PPL Electric's commercial and industrial customers who had metering that required transformation equipment to obtain readings instead of reading consumption directly at the supply voltage.

Finally, a few meters in the previous population were significantly under-recording usage. The mass replacement has resulted in the replacement of

these meters when, under normal circumstances, their condition would have gone unnoticed. The metering and billing of this use represents revenue that the vast majority of customers (over 99% of them) no longer have to provide and, thus, represents an additional economic benefit from their perspective. In addition, this is likely a significant "fairness" issue in the eyes of these customers.

Q. How do these benefits compare to the costs of the AMR installation?

A. The $160 million in capital cost has, associated with it, a net present worth of carrying charges over its 15-year life of $198 million. It is estimated that the benefits described above provide a cumulative net present worth economic value of $205 million over the same period. The difference between the two indicates that revenue requirements will be lower with AMR than they would be without AMR over time.

Q. You mentioned a second category of benefits -- tangible benefits of a non-economic nature that customers are currently experiencing. Could you please describe these benefits?

A. Several of the items described above as producing an economic benefit also have a customer satisfaction component. For example, we know from surveys and past experience that a significant number of customers are unhappy with estimated reads. AMR will not only greatly reduce the expense PPL Electric incurs associated with estimated reads, but it will also eliminate the dissatisfaction that customers experience when they receive a bill based on an estimated read and the inconvenience of make-up bills (and potentially of payment arrangements) that may result from estimates that are too low.

Similarly, while we have identified an economic benefit associated with bringing better information to the discussion with customers of high usage/high bills, we have also experienced that the availability of 45 days of actual usage data helps to resolve those discussions in a way that is more satisfying to the customer. Finally, while we have identified an economic benefit associated with avoiding special reads, we have also relieved the customer of the burden of arranging those reads and, in some cases, access to the meter.

In addition, there are some significant benefits that have been brought to customers, but that we have not attempted to quantify. During Hurricane Isabel, the ability to communicate with meters was used to help manage restoration efforts. Once repairs were done in certain areas, meters were queried in order to determine whether that specific repair had addressed all of the problems in the area or whether there was another line or device in need of repair. This helped make restoration efforts more efficient and helped to provide customers more accurate estimates of when their service would be restored. PPL Electric expects to more fully develop this capability once AMR deployment is complete. Also, when a customer calls to report an outage, the meter can be queried to determine whether the problem exists on PPL Electric's side of the meter or on the customer's side. In the event that it is on the customer's side, he would no longer have to wait for PPL Electric to dispatch field personnel to make that assessment.

Q Finally, you identified a third category of benefits related to the development of additional functionality within the AMR system. Could you please describe the nature of such benefits?

A. Yes. Following are four examples of benefits that will likely be available in the future as AMR functionality is expanded:

1. AMR capabilities support the development of new rate options that will permit customers to achieve significant savings. As an example, participants in PPL Electric's Demand-Side Response Pilot – Residential (described in more detail later) have demonstrated the ability to save significant amounts on the generation portion of their bill. A full scale program will be possible with the development of a system to manage the collection of hourly meter data and the manipulation of that data into billing quantities.
2. At the end of the generation rate cap, data obtained through an enhanced AMR system will support generation purchases and pricing for Provider of Last Resort ("POLR") loads. This more detailed data may enhance load scheduling and reconciliation leading to a reduction in wholesale procurement risk and, perhaps, a commensurate reduction in wholesale price. The availability of AMR data to customers can help them to make decisions regarding the pricing options that are likely to be available in that time frame.
3. Data from an enhanced AMR system may support more optimal utilization of the distribution system. More detailed data may help to delay upgrades (and their rate impacts) or identify more efficient upgrades (and minimize their rate impacts).

4. The analysis of data obtained through an enhanced AMR system may be useful in identifying theft of service.

Q. When does PPL Electric expect to pursue these enhancements of the AMR system?

A. PPL Electric's initial objective was to install a system that would provide its customers near-term benefits and, also, be flexible enough to provide additional benefits as restructuring of the industry continues to evolve. PPL Electric's AMR project is one of the largest and most aggressive AMR projects ever undertaken. PPL Electric decided to focus at the outset on implementing the basic capabilities and assure that those capabilities were working and providing benefits to customers before pursuing enhancements. Furthermore, some of the future benefits will not be available to customers until the generation rate cap expires on December 31, 2009. PPL Electric believes that it is appropriate to defer such expenditures until closer to the date when the customer is likely to experience the benefit. As a first step, PPL Electric is currently investigating data management and storage issues that must be addressed as part of any of the above enhancements.

**Recovery of AMR Displacement Costs**

Q. Please explain PPL Electric's request for the recovery of costs associated with employees displaced by the AMR installation.

A. As described earlier, a significant portion of the benefits achieved by the AMR project is the elimination of manual processes associated with the prior metering

system. With the elimination of manual processes comes the opportunity to reduce the workforce. PPL Electric estimates that the deployment of AMR will ultimately lead to a substantial reduction in the number of positions from what would have otherwise existed without AMR. The displacement of employees carries with it certain costs. PPL Electric has been able to accommodate most of these displacements through normal attrition within PPL Electric; i.e., employees displaced by AMR have been trained to fill vacancies that arose as a result of the normal course of retirements and severance. However, with a displacement this large, the normal rate of attrition has not been enough. Accordingly, the Company offered enhanced severance benefits to 94 employees in order to capture the payroll and benefits savings of AMR. In September 2003, PPL Electric recorded an $8.8 million charge to reflect the estimated costs of enhanced benefits for 94 employees to be separated as part of the AMR project. These costs are based on an actuarial study. The employees will be separated throughout 2003 and 2004 as the AMR deployment gradually eliminates the need for manual meter reading and the processes that support manual readings. As part of this filing, the Company is requesting the amortization of this $8.8 million charge over a period of five years. This request is included as an adjustment to Operating and Maintenance Expenses in the future test year and, accordingly, is included in Schedule D-2 of Exhibit Future-1.

Q. Please describe PPL Electric's rationale for requesting recovery of these costs.

A. The savings to customers of eliminating manual meter reading over the life of the AMR investment were described earlier. As noted earlier, the AMR project

produces a net cumulative present worth reduction in revenue requirements over the life of the investment. Capturing those benefits also requires the up-front one-time expense of $8.8 million for employee displacement costs. PPL Electric believes that this expense is fundamentally similar to the capital investment and that it is appropriate to seek recovery of this expense from customers because it is the customers who ultimately receive the benefits of AMR.

Q. Why does PPL Electric request a five-year amortization of costs incurred as a result of the displacement of employees?

A. PPL Electric believes that a five-year amortization reflects an appropriate dilution of this event through customer bills and is consistent with prior Commission practice regarding the amortization of such one-time costs. Also, consistent with prior Commission practice, PPL Electric is requesting a simple five-year recovery of the $8.8 million and is not requesting a return on amounts not yet recovered.

**Demand Side Response Programs**

Q. Please describe PPL Electric's approach to demand side response.

A. PPL Electric has been and continues to be a strong supporter of market approaches to electricity supply issues. The Company was an early supporter of the deregulation of generation markets and, consistent with that position, PPL Electric believes that a demand side response to market price signals is an important element of a viable competitive generation market. PPL Electric further believes that this can be accomplished within existing jurisdictional structures by having the entities that serve retail load, both Electric Generation Suppliers

(EGSs) and default suppliers, offer demand response programs to their end-use customers. The reduction in demand that results from individual customers' response to price will be seen in the wholesale market as a change in the load servers' aggregate demand. PPL Electric believes that such programs are a natural extension of EGS's participation in the market and their need to manage risks. Default suppliers, on the other hand, participate in generation markets by obligation rather than choice and must be fully compensated for risks associated with that obligation. Their interest in demand side response is further complicated by generation rate caps, supply arrangements that may have been made as a result of restructuring, and distribution rate caps that inhibit their ability to recover the cost of any infrastructure required to support demand response programs. PPL Electric also believes that demand response programs can facilitate efforts to promote energy efficiency and environmentally responsible energy use (assuming that environmental factors are reflected in prices).

Q. Does PPL Electric, as a default supplier, offer its customers any demand side response programs?

A. Yes. In fact, many of the Company's programs pre-date restructuring. The Company's interruptible programs for industrial customers were first initiated in the 1980's, and incorporated components related to both reliability (in the form of emergency interruptions) and price response (in the form of economic interruptions). In the middle-1990's, the Company introduced an experimental price response service that permits industrial customers to purchase generation to serve incremental load above a baseline at a price that varies hourly and is

forecast a day ahead using information from PJM's day ahead energy market. This rate also permits customers to be compensated by PPL Electric at the same prices for reductions below their baseline usage. Both of these programs were closed to new customers as part of the settlement of PPL Electric's restructuring case, but a total of about 70 customers continue to take service under these programs.

Q. Has PPL Electric offered demand side programs more recently to its industrial customers?

A. Yes. In 2001, PPL Electric obtained Commission approval to offer an experimental Demand Side Initiative Rider to eligible large commercial and industrial customers that allowed those customers to designate portions of their load to market pricing. Although a few customers have inquired about the rate, none have chosen to elect this option. It is possible that commercial and industrial customers who may be interested in demand side response programs have, instead, found the programs offered by PJM to be more advantageous. Indeed, about 25 of PPL Electric's customers participated in PJM load response programs during 2003. Nevertheless, PPL Electric is proposing in this filing to extend the availability of this rider beyond its currently scheduled expiration date of January 1, 2005 to January 1, 2008.

Q. Has PPL Electric offered demand response programs to its residential customers?

A. As with its commercial and industrial customers, PPL Electric has a long history of offering demand side programs to its residential customers. These include off-

peak water heating and residential thermal storage programs that involve equipment on the customers' premises and rates that encourage customers to shift loads from on-peak periods to off-peak periods. These programs were closed to new customers as part of the settlement of PPL Electric's restructuring case, but a total of about 15,000 residential customers continue to take service under these programs.

Q. Has PPL Electric offered demand side programs more recently to its residential customers?

A. Yes. In 2002, PPL Electric obtained Commission approval to offer an experimental Demand Side Response Rider – Residential over a three-year period to up to 200 eligible residential customers. This rider provides those customers a rate incentive to shift their load from on-peak periods to off-peak periods during the four summer months. To qualify for this program a customer must have an AMR meter. As a result, the only customers eligible in the first year were those included in the AMR project's test population. About 25 customers participated during July, August, and September of 2002. Approximately three-quarters of the monthly bills rendered to participants during this period were lower as compared to what they would have been charged for standard residential service under Rate Schedule RS. The summertime electric bills for participants were, on average, $3.31 per month below what they would otherwise have been. For those customers whose bills were lower, the average saving was $6.10 per month for the summer period. In aggregate, the participating customers saved about $202 on the generation component of their

electric bills. PPL Electric estimates based on actual Locational Marginal Prices that, over the same period, the shifting of load translated into a saving of about $230 to serve those customers compared to the cost to serve a normal residential load profile. While this was a modest beginning, the fact that customers captured benefits from their actions that were nearly equivalent to the value of those benefits in the energy market suggested that this approach had merit. Follow-up customer research determined that participants were generally pleased with the program. PPL Electric spent about $65,000 on solicitation and enrollment, programming of necessary billing system changes, customer research, and administration and monitoring.

Q. What was PPL Electric's experience with this program in 2003?

A. In 2003, PPL Electric was able to expand the customer base because the AMR project had reached more customers. In 2003, following an extremely positive response to early solicitations, PPL Electric obtained Commission approval to increase the participation limit to 300 eligible customers. About 275 customers participated in 2003 and, again, about three-quarters of the monthly bills rendered to participants during this period were lower as compared to what they would have been charged for standard residential service under Rate Schedule RS. The summertime electric bills for participants were, on average, $2.82 per month below what they would otherwise have been. For those customers whose bills were lower, the average saving was $4.93 per month for the summer period. In aggregate, the participating customers saved about $3,037 on the generation component of their electric bills. PPL Electric estimates based on actual

Locational Marginal Prices that, over the same period, the shifting of load translated into a saving of about $2,204 to serve those customers compared to the cost to serve a normal residential load profile. Clearly, the balance between customer savings and avoided costs that existed in 2002 did not exist in 2003 as participants during 2003 achieved benefits from their actions that were significantly greater than the value of those actions in the energy market. PPL Electric's preliminary analysis indicates that actual off-peak prices were higher in 2003 than in 2002 so that there was less real value associated with the shifting of kWhs in 2003 than in 2002, even though the customer billing values remained about the same (i.e., about 8 cents/kWh on-peak and about 3 cents/kWh off-peak). Again, follow-up customer research found that participants were generally pleased with the program. In 2003, PPL Electric spent an additional $73,000 on solicitation and enrollment, communication with prior year participants, customer research, and administration and monitoring.

Q. What are PPL Electric's plans for the program in 2004?

A. The Commission approved PPL Electric's initial proposal for the program to last for three summers; i.e., through September 30, 2004. PPL Electric plans to offer all existing participants the opportunity to participate for another summer. While the tariff offers PPL Electric the opportunity annually to review and request revision of on-peak and off-peak hours and rates, PPL Electric will forego that review and use the on-peak and off-peak rates currently shown in the tariff. While PPL Electric believes that different rates may be appropriate, we are concerned that a narrowing of the benefit and the corresponding decreased

potential for savings may result in a decline in participation. PPL Electric believes that this is a valuable experiment and wants to have enough participants that results are meaningful. During 2004, PPL Electric will continue to analyze the results, and as an active participant in the Commission's Demand Side Working Group, expects to share data and analysis with that group to assist in the development of policy regarding demand side response programs.

Q. Does PPL Electric propose to continue this program beyond 2004?

A. Yes. PPL Electric is proposing in this filing to extend the availability of this rider beyond its currently scheduled expiration date of September 30, 2004 to September 30, 2007. PPL Electric continues to believe that this program has merit. While the results of 2003 suggest that it may not be an appropriate offering during the period that generation rate caps are in place, the willingness of customers to shift load and their overall positive reaction to the program indicate that it may be an important offering in the post generation rate cap period where pricing can reflect the cost of wholesale procurement. Accordingly, PPL Electric plans to use this additional time to further understand customer behavior, develop and test alternative program designs, and, also, further develop the AMR infrastructure to support programs such as this on a larger scale when the generation rate cap ends. In the absence of meter data management systems and billing interfaces that would allow hourly data to be used directly for billing, PPL Electric is proposing to continue to limit the program to not more than 300 participants.

**Principles and Objectives Applied to Rate Design**

Q. Please describe the principles that guided PPL Electric in the allocation of revenue requirements to customers.

A. The fundamental principle that PPL Electric employed to guide the allocation of revenue requirements to customers was that the allocation of revenue requirements among classes of customers should reflect the cost of providing service to those classes. The impact of that principle is apparent in several aspects of this filing:

- Because this is a distribution system rate increase the allocation of distribution-related revenue requirements falls more heavily on customers who take service at lower voltages (i.e., make greater use of the distribution system) than on customers who take service at higher voltages (i.e., rely less on distribution equipment). This result is evidenced by the fact that more than 90% of the distribution revenue requirement falls to residential and commercial customers.
- Because distribution charges are a larger portion of the total bill of residential and commercial customers, the effect of the request is a greater percentage increase, on a total bill basis, for residential and commercial customers than for industrial customers.

Q. Do the resultant allocations conform exactly to this principle?

A. No, they do not. If prior allocations had conformed to the principle, then the answer could be “yes”; however, those prior allocations date back to 1995 when rates were fully bundled and included significant cross-subsidies among

customer classes. Those cross-subsidies were further compounded by the unbundling of bills that took place with deregulation that had the effect of driving the cross-subsidies into the unbundled components. While it is PPL Electric's goal to eliminate these cross-subsidies, we recognize that this cannot be achieved all at once without significant disruption. In particular, because residential customer rates were subsidized in the past by others and because distribution is such a significant portion of their bill, residential customers would see a sudden and significant increase in rates if cost of service principles were strictly followed. While PPL Electric believes that customer rates should reflect the costs those customers place on the electric system, PPL Electric also believes that this can and should happen gradually over time. Accordingly, the allocations proposed in this filing reflect a step in the process of establishing cost-based rates.

Specifically, PPL Electric established the following objectives in allocating revenue requirements:

1. Keep the increase on a total-bill basis to all residential rate schedules below 10%. "Total-bill" basis means that the allocation process included both the distribution increase proposed in this case and an estimate of the increase in transmission rates that will also occur on January 1, 2005.
2. Keep the increase on a total-bill basis to all rate schedules below 10%.
3. Move the relative rate of return for each customer class closer to the system average rate of return.

PPL Electric was able to achieve all of these objectives. The combination of the distribution increase proposed in this filing and the estimated increase in transmission rates that will be passed through on January 1, 2005 result in increases on a total-bill basis that are less than 10% for all rate schedules. In addition, consistent with the results of the class cost of service study, PPL Electric allocated the revenue requirements such that each rate schedule's relative rate of return moves toward the system average in terms of percentage contribution to the system average return.

Q. Please describe the principles that guided PPL Electric in the design of rates to recover those revenue requirements.

A. The fundamental principle employed to guide the design of rates was, consistent with the nature of distribution service, to move from revenue collection through usage based charges to revenue collection by fixed charges. There is very little distribution system cost that is a function of usage. From the perspective of correct economics, it is appropriate to collect fixed costs on a fixed basis. This becomes particularly important when a customer considers different options for the generation portion of his/her bill. A customer's buying decision with regard to generation is fundamentally a function of usage, and that decision can be distorted when non-usage related components are also being collected on a usage basis. Moving the collection of distribution costs from a usage basis to a fixed basis will make the savings available from Electric Generation Supplier options more clear to customers and promote competition. But even beyond the selection of an alternate supplier, one of the broad goals of restructuring has

always been to make customers aware, through rates, of the consequences of their generation buying preferences. These include not just price, but, also, the amount of consumption, the use of different energy sources, and the burden those choices place on the environment. Moving the collection of distribution costs from a usage basis to a fixed basis will help to clarify these issues for customers as well. This issue becomes even more important as we approach the end of the generation rate cap.

Q. How has PPL Electric addressed this issue in this filing?

A. PPL Electric has, where appropriate, designed distribution rates that increase the proportion of revenues that are collected through either customer charges or demand charges, and has reduced the proportion that are collected through kWh charges. Mindful that such a redesign can introduce significant changes among usage levels within rate schedules, PPL Electric proposes, consistent with the principle of gradualism, modest changes in this regard. For example, while PPL Electric is proposing an increase in the customer charge in residential Rate Schedule RS from $6.47 per month to $12.20 per month, PPL Electric is also proposing to no longer place a distribution charge on the first 200 kWh of usage. In this way, the proposed rate design is able to satisfy the objective of moving toward fixed collections while keeping the increase for about 90% of residential bills to less than 10% (on a total-bill basis). It is acknowledged that the remaining 10% of Rate Schedule RS bills will see increases of greater than 10% and that, in the extreme, a customer who uses no electricity would see a monthly increase of about 88%. However, it is also true that the cost of providing distribution

service is not a function of usage and that the customer who uses no electricity in a particular month (as, for example, in the case of a vacation home) is simply moving toward a charge that more correctly reflects the cost of being connected to the system.

Q. How will this proposed rate design affect low-income customers?

A. PPL Electric does not have income data on all of its customers, but it does have income information regarding customers who are receiving payment assistance. During 2003, about 1.2 million bills (roughly 9% of the total number of bills) were rendered to customers who were receiving payment assistance and were coded at Income Levels 1 or 2 as defined by the Bureau of Consumer Services. Analysis of these two groups of bills shows that the low-income customers tend to use more electricity than the other customers:

- About 95% of the low-income bills were for more than 200 kWh per month whereas only 89% of the other bills were for more than 200 kWh per month.
- The median usage among low-income bills was about 900 kWh per month whereas the median usage among other bills was only about 700 kWh per month.

This analysis shows that the proposed rate design for Rate Schedule RS actually helps to protect low-income payment assistance customers and may well protect low-income customers in general.

**Pass-Through of FERC-Approved Transmission Charges**

Q. PPL Electric's Statement of Reasons for the Proposed Increase explains that, apart from the distribution rate increase requested in this proceeding, transmission service charges reflected in the retail rates of customers taking Provider of Last Resort service from the Company are expected to increase by approximately $57 million effective January 1, 2005. Please describe these transmission service charges.

A. Entities that serve load, both Electric Distribution Companies serving customers taking Provider of Last Resort ("POLR") service and Electric Generation Suppliers, must obtain transmission service in order to deliver generation from the generating plants to the distribution systems to which their generation customers are connected. Load serving entities obtain transmission service from the Pennsylvania-New Jersey-Maryland Interconnection, LLC ("PJM") and are charged by PJM for that service under PJM's Open Access Transmission Tariff ("OATT") which is subject to review and approval by the FERC. PPL Electric is a load serving entity providing generation service to POLR customers, i.e., those customers who do not obtain generation service from an Electric Generation Supplier or whose chosen Electric Generation Supplier fails to provide contracted for generation service. In order to serve its POLR customers, PPL Electric must obtain transmission service from PJM and is billed by PJM in accordance with the OATT. In accordance with the tariff approved as part of the restructuring case, PPL Electric is entitled to automatically pass costs for transmission service

consistent with the OATT accepted or approved by the FERC through to POLR customers.

Q. Has PPL Electric been able to fully recover from its POLR customers the cost of transmission service to serve those customers?

A. No, it has not. PPL Electric has been under a voluntary cap on the sum of its transmission and distribution charges which it agreed to as part of the settlement of its restructuring case filed pursuant to the Electric Competition Act. Both distribution costs and transmission costs have increased since that settlement. With the expiration of the cap on January 1, 2005, PPL Electric is seeking to correct both situations, i.e., obtain Commission approval to increase its rates for distribution service and pass through to POLR customers the full cost of transmission service.

Q. How are transmission charges reflected in this filing?

A. PPL Electric's primary reason for identifying this future increase in transmission charges at this time is to assure that its request for an increase in distribution rates is viewed in the proper context. In order to accomplish its allocation and rate design objectives, and to provide the Commission and PPL Electric's customers with a complete understanding of rate impacts expected to occur on January 1, 2005, PPL Electric has reflected the likely impact of higher transmission charges. Consequently, all of PPL Electric's allocation and rate design testimony and exhibits in this filing assume that transmission payments to PJM incurred in the supply of generation service to POLR customers will increase by an estimated $57 million over current levels as a result of the

expiration of the rate cap. PPL Electric has further assumed that, consistent with the current collection mechanism, transmission costs will be collected from retail customers on a cent per kWh basis. However, whereas the current cent per kWh rates varies among rate schedules, the calculations performed in this filing reflect a uniform transmission charge expressed in cents per kWh that would be applied to all POLR customers on all rate schedules. While the actual amount of the charge will depend on the actual level of PJM charges at the time the cap expires, the estimated increase of $57 million increase will result in a charge rate for transmission service of 0.564 cents per kWh and that is the amount reflected in this filing. With these assumptions, PPL Electric has been able to design rates that will permit the collection of both its distribution revenue requirement and its expected Increase in transmission service charges and result in an increase of about 8% on average and less than 10% for most residential customers.

Q. Does the flat charge for transmission reflect a change in the allocation of transmission costs?

A. The change to a flat charge does result in an allocation of transmission costs among customers that is different than the current allocation. However, one needs to keep in mind that the current allocation actually dates back to the bundled rates that reflected a fully integrated utility that provided its own transmission service as part of fully bundled service. Transmission service itself has been restructured and the transmission service that PJM provides in the restructured environment is very different from the transmission service that PPL Electric charged for in the former regulated environment. PPL Electric believes

that a uniform rate across all customers and all kWh is a more appropriate structure because (1) it is generally consistent with how PJM bills all load servers – Electric Distribution Companies and Electric Generation Suppliers – and (2) it permits the calculation of a simple cent per kWh "price to compare" that can be used by customers who may be shopping for supply to evaluate offers from Electric Generation Suppliers. PPL Electric is requesting, as part of this filing, the Commission's approval to charge all of its POLR customers a uniform cent per kWh rate for transmission charges beginning January 1, 2005.

Q. How does PPL Electric propose to pass changes in transmission service costs on to its POLR customers in the future?

A. PPL Electric recognizes that, from time to time, changes may occur to the PJM OATT that will change PPL Electric's payments to PJM and, as a consequence, the amount that PPL Electric must collect from its POLR customers. Under the restructuring settlement and Commission-approved tariff, such changes would be reflected in customer bills on an as needed basis. This could create customer confusion and, also, make shopping decisions more difficult for customers as transmission cost is a component of the Price to Compare. Questions regarding over and under collection might also arise. To address these issues, PPL Electric is proposing in this filing a transmission rate tracking mechanism that would function in a manner similar to the former Energy Cost Rate. PPL Electric's proposed tracker would be reset annually to (1) reflect the current level of transmission charges and forecast of POLR sales and (2) a reconciliation of

prior year collections to costs. Mr. Kleha describes PPL Electric's proposal in more detail in his direct testimony (PPL Statement No. 5).

**Distribution System Improvement Charge**

Q. Please explain PPL Electric's request to institute a Distribution System Improvement Charge ("DSIC").

A. The DSIC that PPL Electric proposes is a rate mechanism that would allow PPL Electric to recover, between formal rate cases, the carrying costs on certain capital investments in distribution facilities. In the absence of DSIC, PPL Electric can collect no money from customers to support these investments in facilities until they are recognized as additions to rate base in the context of a formal rate proceeding. This situation can go on for years and is becoming increasingly critical as distribution facilities built in the high growth 1960s, 1970s, and 1980s are nearing the end of their useful lives. The DSIC will enable PPL Electric to begin collecting money to cover the carrying costs of these facilities shortly after the facilities are completed and providing service to customers. As a result, PPL Electric will be better able to finance the construction of facilities that are required to maintain safe and reliable service without the immediate need to file a formal base rate case.

Q. What investments in facilities does PPL Electric propose be subject to DSIC?

A. PPL Electric proposes three categories of investments that would be eligible for cost recovery under DSIC. These are:

- Replacements for existing facilities that have worn out, are in deteriorated condition, or need to be upgraded to meet new regulations.
- Unreimbursed costs related to capital projects that relocate Company facilities due to highway relocations.
- Security improvements that are recommended by a Federal or State governmental entity with appropriate jurisdiction over security matters.

Common themes among these categories are that (1) they are not intended to serve new customers so there will be no new revenues to support the investment and (2) from the perspective of PPL Electric these investments are not discretionary.

Q. Is there a precedent for DSIC?

A. Yes. A DSIC has been available to Pennsylvania water companies since the mid-1990s. The Commission's recommended tariff language for water company DSIC is as follows (Opinion and Order at Docket No. P-00961031, Petition of Pennsylvania-American Water Company for Approval to Implement Tariff Supplement Establishing a Distribution System Improvement Charge) :

> "Purpose: To recover the fixed costs (depreciation and pre-tax return) of certain non-revenue producing, non-expense reducing distribution system improvement projects completed and placed in service and to be recorded in the individual accounts, as noted below, between rate cases and to provide the Company with the resources to accelerate the replacement of aging water distribution infrastructure, to comply with evolving regulatory requirements imposed by the Safe Drinking Water Act and to develop and implement solutions to regional

water supply problems. The costs of extending facilities to serve new customers are not recoverable through DSIC."

It is PPL Electric's proposal to establish a similar recovery mechanism for similar investments in electric distribution facilities.

Q. What is PPL Electric requesting the Commission to approve in this filing?

A. PPL Electric is requesting the Commission approve the DSIC as a mechanism to recover the carrying costs associated with future capital investments. The DSIC does not, however, affect PPL Electric's claim for rate base in the Future Test Year. PPL Electric's forecast of Future Test Year rate base already includes projects that, in the future, would be eligible for PPL Electric's proposed DSIC, thus the proposal does not either increase or decrease PPL Electric's revenue requirements or proposed rates in the instant filing. Mr. Kleha describes PPL Electric's proposed collection and reconciliation mechanism in more detail in his direct testimony (PPL Statement No. 5).

Q. When would customers be affected by PPL Electric's proposed DSIC?

A. PPL Electric proposes that DSIC be an annual charge, so it would be PPL Electric's intent to accumulate DISC-eligible investments from the effective date of this tariff until one year after the effective date of this tariff. As proposed, DSIC-eligible investments would be accumulated between January 1, 2005 and December 31, 2005. PPL Electric would then calculate the DSIC charge and the initial DSIC would first appear on bills rendered on January 1, 2006.

Q. What would the impact of PPL Electric's proposal be on customers?

A. PPL Electric has analyzed a typical year's worth of property additions and identified about $26 million of property additions that would be eligible under the proposed definition. We have further estimated that the DSIC formula would result in about $3.3 million in revenues that would have to be collected. The proposal would spread this across about 35 billion kWh; resulting in a charge of about 0.01 cents per kWh. For a small residential customer using about 500 kWh per month, the DSIC would result in an additional charge of about 5 cents. If there were no base rate proceeding, that property would be eligible again in the next year, as would additional eligible property installed during the second year. Assuming a similar amount of eligible property in the second year, the charge would increase to 10 cents per month in the second year.

Q. What safeguards are provided for customers in PPL Electric's proposal?

A. PPL Electric's proposed DSIC provides the following safeguards for customers:

- This rate case and the recognition of property additions in rate base provides customers assurance that only eligible property placed in service after the effective date of DSIC will be reflected in the DSIC calculation.
- As proposed, DSIC is subject to an annual review and reconciliation to provide customers the assurance that only eligible property is being included and that any overcollection will be refunded in the following year. The reconciliation benefits the Company by assuring that any undercollection will be recovered in the following year.
- The fact that, at future rate cases, DSIC-eligible property will be included in rates and the DSIC will be reset to zero provides customers the assurance

that the base rate process still functions to subject all additions to rate base to appropriate Commission review.

- The proposal that DISC charges be limited to not more than 5% of distribution charges provides customers the assurance that DSIC is only an interim mechanism and does not replace base rate proceedings as the ultimate mechanism by which property additions are reflected in rates.

**Amortization of Costs Associated with Hurricane Isabel**

Q. Please explain PPL Electric's request for the amortization of costs associated with Hurricane Isabel.

A. On October 20, 2003, PPL Electric requested Commission authority to defer, for accounting and financial reporting purposes, losses arising from severe damage caused by Hurricane Isabel and to amortize those loses for recovery from customers in a future base rate proceeding. Hurricane Isabel struck PPL Electric's service territory most heavily during the evening of September 19, 2003 and the morning of September 20, 2003. The losses which PPL Electric sought to defer were increases in operation and maintenance, customer, and general administrative expenses incurred by PPL Electric in preparing to respond to the damage from Hurricane Isabel, restoring service to customers, assisting customers during the service interruptions, and repairing facilities damaged by the storm. In its petition, PPL Electric specifically acknowledged that it was not requesting that the Commission decide, at that time, whether its deferred losses were recoverable from customers. PPL Electric stated in its petition that

approval to recover such losses as well as the length of the amortization would be determined in such future rate base proceeding. The Commission granted PPL Electric's request to defer storm-related losses for accounting and financial reporting purposes in an order entered on January 16, 2004 at Docket No. P-0032069. In the instant proceeding, PPL Electric is requesting the amortization of $15 million in costs related to Hurricane Isabel over a period of five years. This request is included as an adjustment to Operating and Maintenance Expenses in the future test year and, accordingly, is included in Schedule D-2 of Exhibit Future-1.

Q. Please describe the damage that PPL Electric and its customers experienced as a result of Hurricane Isabel.

A. Hurricane Isabel was unquestionably an extraordinary event. Hurricane Isabel struck PPL Electric's service territory most heavily during the evening of September 19, 2003 and the morning of September 20, 2003. As the storm left PPL Electric's service territory, 502,516 of PPL Electric's customers through-out its 29 county service territory, about 38% of its entire customer base, were without service. The damage caused by Hurricane Isabel was so severe that PPL Electric was required to undertake the largest restoration effort in its history to restore electric service to all customers. The principal cause of damage was fallen trees and tree branches that brought down many sections of overhead distribution lines. High winds localized wind gusts reported at over 60 miles per hour caused the overwhelming majority of the damage. Adding to the strain that was placed on trees by the sustained winds was saturated ground from heavy

rain in the weeks preceding Hurricane Isabel. Here are some facts that help place the severity of this event in context:

- PPL Electric generally considers a storm to be large if it causes more than 1,000 individual cases of system repairs. Hurricane Isabel caused approximately 3,943 individual cases of necessary system repairs.
- In making repairs, 174,000 feet of wire and 244 poles were replaced. The amount of material used in five days was equivalent to what PPL Electric normally uses in an entire year.
- About 161,000 customer phone calls were answered in three days. Normally, PPL Electric answers about 30,000 customer phone calls in a week. In addition to these incoming calls, PPL Electric made more than 42,000 outreach calls to inform customers of the status of repairs and of the availability of assistance programs. Through these programs, 3,000 gallons of drinking water, nearly 5,000 pounds of dry ice, and 4,000 bags of ice were distributed to customers at no cost to them.
- About 2,750 people were involved in the restoration including about 1,800 PPL employees from PPL Electric and other PPL affiliates; and about 900 people from other utilities and contractors from Canada, New England, New York, and the Midwest (Illinois and Iowa). Electric utilities that provided line crews included Massachusetts Electric (North Borough, Massachusetts), Narragansett Electric (Providence, Rhode Island), Granite State Electric (Lebanon, New Hampshire), Central Hudson Gas & Electric (Poughkeepsie, New York), KeySpan Energy (Brooklyn, New York), United Illuminating (New

Haven, Connecticut), NSTAR (Boston, Massachusetts), and Hydro Quebec (Montreal, Canada). Electrical and tree service contractors assisting in service restoration efforts included Asplundh, Dincher, Eastern Tree, Everhart and Hoover, Henkels & McCoy, Jaflo, JCR Construction (National Grid), K.T. Power, Kocher's Tree Service, L. E. Myers (Illinois and Iowa), T.C. Loyd, T. Ross Electric, Tall Trees Ontario, Three Phase Line Construction, and Williamsport Electric.

Q. Please describe the costs that PPL Electric incurred in restoring service to its customers and that it is requesting in this proceeding be recovered from customers.

A. PPL Electric incurred a total of $17.2 million in costs associated with Hurricane Isabel. Of that total, $15 million is for expense-related items and it is that amount that PPL Electric seeks to recover in this proceeding. The remaining $2.2 million is related to capital. PPL Electric did not request deferred accounting for capital expenditures arising from Hurricane Isabel and is not seeking to amortize recovery of capital items. These items are reflected in PPL Electric's rate base as property additions that occurred in 2003. The $15 million in expense-related items includes expenditures for the following:

- Wages including overtime
- Expenses for outside crews
- Expenses for vehicles and equipment
- Expenses for customer outreach
- Equipment charges.

Q. Does PPL Electric anticipate storms in the context of its budgeting?

A. Yes, PPL Electric does allocate a modest amount in its budget in anticipation that storms will occur. However, that amount is relatively small compared to the actual costs of a storm like Hurricane Isabel. In its 2003 budget, PPL Electric budgeted about $5 million for storm-related costs for the entire year based on the expectation of "normal" storm activity. Normal activity is 5 PUC-reportable storms with a restoration requirement of about 6,000 manhours each and one major storm requiring 20,000 manhours. Even with the expenses associated Hurricane Isabel excluded, storm restoration and repair work in 2003 totaled $11 million – well in excess of the $5 million that had been budgeted. Using a similar definition of "normal" storm activity, but adding funding to recognize that foreign utility crews needed for major storms are in addition to the 20,000 manhours, PPL Electric has included $7 million for storm-related costs in the 2004 budget that is reflected in the future test year. Clearly, the costs associated with storms of the magnitude of Hurricane Isabel are not reflected in the budgets of PPL Electric, nor are they reflected in the rates that the Company charges its customers, even though incurring those costs is wholly consistent with PPL Electric's obligation to provide reliable electric service to its customers.

Q. Why doesn't PPL Electric budget more money for storm-related costs and seek the recovery of such costs in rates?

A. PPL Electric recognizes the difficulty in forecasting storm events and the dichotomy that creates from a rate-making perspective. On one hand, PPL Electric and its customers would probably be in agreement that the Company

should have the resources at its disposal to undertake a speedy restoration of service should a storm occur. However, on the other hand, both would probably also agree that the inclusion in rates of what amount to speculative costs for storms that might occur is a non-traditional approach to ratemaking. Absent a severe storm, customers would rightfully question how that portion of their rates was being spent. As distribution companies and the Commission work together to complete restructuring of the electric industry in Pennsylvania and to understand the financial impact of such events on distribution companies, it may be determined that a "storm recovery surcharge" may be appropriate. Such a mechanism would provide distribution companies the assurance that prudently incurred storm-related costs would be recoverable and it would provide customers the assurance that rates would reflect only prudently incurred costs and that, once recovered, those costs would no longer be reflected in rates. Absent such a mechanism, PPL Electric believes that a reasonable alternative is for distribution companies to continue to budget and reflect in rates amounts that are consistent with normal storm expenditures; i.e., the amount that is most likely to be spent in any year, and for the Commission to consider, on an as needed and requested basis, the recovery of prudently incurred costs associated with extraordinary storm events.

Q. Why does PPL Electric request a five-year amortization of costs incurred as a result of Hurricane Isabel?

A. Even though all of the costs were incurred during only a few days in 2003, PPL Electric believes that a five-year amortization reflects an appropriate dilution of

this one-time event through customer bills and is consistent with prior Commission practice regarding the amortization of such one-time costs. Also, consistent with prior Commission practice, PPL Electric is requesting a simple five-year recovery of the $15 million and is not requesting a return on amounts not yet recovered.

Q. Does this conclude your direct testimony?

A. Yes, it does.

# Exhibit DAK1

## 2004-2008 Capital Budget
## Electric Utilities and Facilities Management

| | Thousands of Dollars | | | | | |
|---|---|---|---|---|---|---|
| **Electric Utilities** | **2004** | **2005** | **2006** | **2007** | **2008** | **Total for 2004-08** |
| Provide Electric Service | $70,443 | $79,787 | $83,011 | $86,492 | $90,967 | $410,700 |
| Upgrade System Facilities | 42,540 | 51,035 | 68,400 | 79,258 | 65,413 | 306,646 |
| Assure System Reliability | 25,433 | 30,594 | 31,683 | 33,633 | 35,617 | 156,960 |
| Revenue Cycle Service | 3,640 | 5,946 | 6,056 | 6,196 | 6,308 | 28,146 |
| Automated Meter Reading | 16,508 | ------ | ------ | ------ | ------ | 16,508 |
| Other | (229) | 5,256 | 3,232 | 1,000 | 500 | 9,759 |
| Respond to Customer | 1,633 | 1,703 | 1,784 | 1,877 | 1,955 | 8,952 |
| **Total Electric Utilities** | **$159,968** | **$174,321** | **$194,166** | **$208,456** | **$200,760** | **$937,671** |
| **Facilities Management** | | | | | | |
| Replacement | $2,700 | $5,891 | $5,015 | 4,425 | $6,060 | $24,091 |
| Working Conditions/Safety | 4,541 | 4,259 | 5,135 | 5,875 | 4,240 | 24,050 |
| Environmental | 250 | 250 | 250 | 100 | 100 | 950 |
| **Total Facilities Management** | **$7,491** | **$10,400** | **$10,400** | **$10,400** | **$10,400** | **$49,091** |
| **TOTAL** | **$167,459** | **$184,721** | **$204,566** | **$218,856** | **$211,160** | **$986,762** |