<u>Residential</u>

Question: Consider offering a program for duct sealing.

Response: Verification of duct sealing remediation requires a pre-and post-test by means of a duct-blaster. This test is costly (range of \$150-250 per site per test) and involves multiple hours of remediation and testing for relatively small savings. Overall measure cost per kWh saved would be expensive. An alternative would be to provide education to homeowners on the importance of secure ductwork. This can be accomplished through marketing and through PPL Electric Utilities' "Connect" the customer bill insert.

Question: Use realtor network as a way to reach customers who may benefit from a weatherization survey or audit.

<u>Response</u>: We contacted the PA Realtor Association and learned that we are able to advertise on their website to provide potential home buyers information about our weatherization and audit program.

Another way to reach new homeowners would be to provide information to home inspectors about audit and surveys to leave with customers as they are performing a home inspection. We will explore this as a possible marketing opportunity for Phase II.

Question: Offer HVAC tune-up to residential customers (maintenance, tune-up, proper sizing). Consider working with contractors and offering a program that includes an installation package component to ensure that all units are installed and working properly.

Response: PPL Electric Utilities is currently evaluating the cost effectiveness of a residential tune-up program. In August, we will be asking our customers, through our PPL Power Panel, if they currently have a maintenance contract, and if not, their willingness to participate in a tune-up program. Our preliminary assessment shows that other utilities have offered cost effective HVAC tune-up programs. PPL Electric Utilities is currently evaluating program design to determine if contractor support can be confirmed.

Our current program offers rebates to customers who purchase and install ENERGY STAR[®] HVAC products. Our website contains a list of qualified trade ally contractors.

As with all trade allies, we have offered sessions to learn about program details and have shared best practices. We can consider offering information, in future sessions, about the importance of proper installation. However, as the trade allies are independent contractors, we aren't able to require that they meet standards for installation.

Question: Consider thermostats that can be controlled through smart phones (e.g., Nest thermostat).

<u>Response</u>: In August, through the same PPL Power Panel previously mentioned, we will be asking customers, about their knowledge and interest in in-home devices. Information garnered

from that survey will help us further evaluate if these types of devices should be considered. There aren't direct savings associated with these types of products. Currently, the TRM does not allow savings for programmable thermostats for residential heat pumps. Programmable thermostats for central air conditioning are included in the TRM but have minimal savings and are difficult to verify, largely because most customers do not use them properly.

Question: Evaluate different ways to discard/recycle CFLs and the locations where customers can take them to be recycled, especially but not limited to broken bulbs. Note: there was a concern that some municipalities don't accept broken CFLs for recycling.

<u>Response</u>: In addition to retail stores such as Lowe's and The Home Depot who offer free recycling, PPL Electric Utilities has partnered with several Ace and True Value Hardware stores and provided recycling pails for customers to deposit their spent CFLs. Prior to Act 129. PPL Electric Utilities offered recycling pails and customer information to municipalities. Today, information about where a customer can recycle is found through our webpage. Further, as part of our residential lighting program, in Phase II we will continue to seek opportunities to promote CFL recycling.

Question: Consider a loan program for residential customers to make energy efficiency improvements. Note: PPL Electric Utilities does not support on-bill financing. SEF explained that customers may receive loans through Keystone Help.

<u>Response</u>: The Final Order does not require EDCs to offer on-bill financing. The Final Order suggests that stakeholders interested in this topic should join that working group and PPL EU has stated willingness to participate in the working group.

Question: Offer a consumer electronics program.

<u>Response</u>: PPL Electric Utilities is considering offering an electronics program and is exploring a manufacturer's buy down or salesperson incentive option instead of a customer rebate. We have determined a straightforward customer rebate does not appear to be cost effective.

Question: As prices have come down on solar hot water, re-evaluate cost effectiveness. <u>Response:</u> PPL Electric Utilities will be offering a solar hot water rebate in Q4 2012 to evaluate the cost effectiveness. The rebate will be open to the first 50 eligible RTS Rate Schedule customers who have installed an ENERGY STAR[®] Solar Hot Water Heater. Rebates will be paid at \$200.

Question: Research working with cable companies to offer, for example, smart strips and energy efficient set top boxes.

<u>Response</u>: One opportunity to work with cable companies would be to provide smart strips to customers when a cable box was installed. A smart strip costs around \$20 and has a deemed savings of 184 kWh.

Customers, however, have reported to us that they do not want smart strips because 1) it takes too long to "reboot" their TV after the cable box is shut off, and 2) it does not allow the DVR to record if the cable box is not turned on.

PPL Electric Utilities is also researching to identify most energy efficient cable boxes and will reach out to cable companies to discuss possible incentives in providing efficient cable boxes to our customers.

Low Income

Question: Evaluate the potential for more CFLs per household being distributed by WRAP. Currently WRAP installs six bulbs per household for low income customers but there has been research that suggests the potential number of sockets could be upwards of 16. We don't have a limit on the number of CFLs installed in WRAP jobs.

<u>Response</u>: Our only criterion for the number of bulbs that can be replaced in a WRAP household is we want CFLs installed where there's more usage (i.e. we don't put one in a seldom-used closet). We are able to increase the number of bulbs to meet the needs of customers. As the average household has around 80 bulbs, there remains opportunity to increase the number of bulbs offered in WRAP.

Question: Consider offering OPOWER report cards to customers that are identified through the E-PowerWise program or other low income initiatives.

Response: OPOWER in is the process of running several pilot programs with utilities targeting low-income customers. Once the analysis is complete, PPL EU will review the costs along with savings attributed specifically to this sector to determine if it a cost effective way of 1) marketing other low-income programs, and 2) if low-income customers change their behavior as a result of receiving the report cards.

<u>Question</u>: Coordinate, with other utilities, the release of RFPs, selection and negotiation with contractors. Note: this suggestion wasn't just for the process in selecting and working with low income contractors, but for all bids with contractors/CSPs.

Response: Each EDC has specific targets and individual plans designed to reach those goals. We all offer some programs that are similar to each other but not identical because of the way we need to plan our programs to meet the unique needs of each of our territories. In instances where appropriate, like with our recycling program, we were able to coordinate with other EDCs and include information in our RFP that asked for pricing if a contractor was selected by one or more utility.

Further, each EDC has different legal/contractual terms and conditions that would be very difficult to standardize statewide. Because of that, negotiations need to be separate. The time and costs for multiple EDCs to coordinate and administer a single contract, address changes along the way, etc. will likely outweigh any savings from a larger, single contract.

Finally, the PA Energy Association holds meetings on a regular basis where the EDC's meeting to discuss Act 129 issues including program issues. This forum provides an opportunity to discuss similarities and differences in program design.

Small C&I

Question: Evaluate having a set rebate amount for combined heat and power (CHP) projects.

Response: We met with CHP contractors to discuss changes to the program including discussing if we should 1) offer caps on incentives, 2) change the percent of what is offered, 3) offer a lower price per kWh, or, 4) some combination of these. We discussed if there should be low number of projects with higher rebates or fewer projects at a lower rebate amounts. Contractor input varied and we will design a program that will best address CHP for our customers.

Question: There are not many funding options available for small businesses. Consider on-bill financing. Note: The PUC plans on setting up a working group to discuss on-bill financing. **Response:** The Final Order noted that EDCs will not be required to provide on-bill financing. The PUC did suggested that stakeholders interested in this topic should join that working group and PPL EU has commented that it will participate in the working group.

Question: Evaluate the HVAC program including incentivizing entry heat controls (e.g. programmable thermostats and occupancy sensors.)

Response: Programmable thermostat installations and lock-outs are currently part of our tuneup program. Occupancy sensors are currently part of our lighting program and most likely will be part of Phase II. Entry heat control is a custom measure and, therefore, eligible for incentives in Phase I and may be in Phase II.

Question: Look at data centers as a subsector that would benefit from an energy efficiency program.

<u>Response</u>: We are not considering a separate program for data centers. Data centers will be able to participate via a custom program.

Large C&I

Question: Consider having a Direct Discount program for Large C&I customers. Response: At a recent meeting with our lighting contractors and manufacturers we discussed offering Direct Discount for Large C&I customers. The contractors noted that this sector would be interested in a Direct Discount. In that meeting, it was recommended that we consider a "tiered rebate" program providing higher rebates for Small C&I under 400,000 kWh/yr. and lower rebates for customers over 400,000 kWh/yr.

<u>Question</u>: Allow customers that have installed energy efficiency measures and not received a rebate to receive a credit on their electric bill.

<u>Response</u>: To provide a "credit" on the bill in lieu of a rebate check, PPL Electric Utilities thinks this would require a change in the tariff. Act 129 was designed to provide rebates and incentives. This falls outside of the way the Act was designed.

<u>GNI</u>

Question: A concern was raised about the disposal of exit signs containing tritium. PPL Electric Utilities will review this issue and provide follow up.

<u>Response</u>: PPL Electric Utilities agrees that exit signs with tritium should be disposed of properly. We have researched disposal of exit signs containing tritium and we are making contractors aware of proper disposal through informational meetings and training we conduct.

Question: Consider offering school benchmarking.

Response: School benchmarking was offered as an O&M program, not through Act 129, from 2009 to 2011. Over 200 schools participated in this program. Since savings come from equipment upgrades and incentives in place for those measures, and not from benchmarking alone, we do not think we will be considering benchmarking at this time for Phase II.

We are considering offering a Direct Discount program for schools.

Question: Hold competitions between schools/districts to generate interest in energy efficiency program participation.

Response: We are currently researching several programs targeted specifically at school districts. In reference to competitions, we are in the process of working with a vendor to be able to hold challenges/competitions via a Facebook application to generate interest in programs. The challenge would be included in one of our O&M programs, which is funded via base rates. At this time there are no plans to include a competition program in our Act 129 Phase II filing.

Question: Market a waste water program.

Response: The company provides incentives in Phase I for measures typically installed by waste water treatment facilities (lighting, efficient motors, custom equipment, and process changes). We expect to continue those measures in Phase II. One of our key account reps is assigned to work with government customers and has worked with a number of plants, via the Custom Program, to help them understand how to qualify for rebates.

We do not think it makes sense to incur the administrative costs associated with creating a separate program specifically for this business type. Incentives can be provided through a program open to all sectors and business types.

Question: Evaluate solar thermal.

Response: PPL Electric Utilities has reviewed the solar thermal option for energy efficiency measures. Currently a solar thermal product would need to pass the TRC test and would be paid under the custom measure protocol. If PPL Electric Utilities offers a custom program in Act 129 Phase II, this would be the process for solar thermal applications. Based on research of various websites such as CEE, DSIRE and ENERGY STAR® only a limited number of solar thermal rebate programs exist. Most solar thermal programs are funded through government entities and are not utility based. One commercial incentive that was found provides an incentive of approximately \$20 per REC in the Southeast. The challenge continues to be the TRC; given PA calculations and the cost of gas in PA, it would be difficult to reach a 1.0 TRC.

Question: Work directly with municipalities providing education and programs that meet their needs.

Response: PPL Electric Utilities held a meeting with municipalities on August 2nd bringing together representatives from 29 municipalities from within the Lehigh Service territory to review various topics, including Energy Choice, our storm restoration process and energy efficiency. Future events are being planned for the other regions where energy efficiency and Phase II will be discussed.

Question: Evaluate the age of refrigerators in multifamily buildings. Consider replacing and recycling refrigerators that are old and inefficient.

<u>Response</u>: Replacing and recycling refrigerators in the individual units and in common areas of master-metered low-income buildings is being considered as part of the multifamily building program.