Testimony

of

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On behalf of the

RETAIL ENERGY SUPPLY ASSOCIATION

For the

PENNSYLVANIA PUBLIC UTILITY COMMISSION'S

***En Banc* Hearing on**

"Alternative Energy, Energy Conservation and Efficiency, and Demand Side Response"

November 18, 2008

Good morning Chairman Cawley, Vice Chairman Christy and Commissioners. My name is Richard Hudson. I am the Pennsylvania Chairman for the Retail Energy Supply Association (RESA). I also work for Reliant Energy as the Director of State Regulatory Policy. My comments today are on behalf of RESA, of which Reliant is a member.

RESA is a non-profit trade association of licensed retail energy marketers who advocate for the development of retail and wholesale competition in electricity markets.[1] Many RESA members are licensed to sell electric energy in the markets of Pennsylvania's major electric distribution companies ("EDCs"). Several of our members also currently offer a variety of innovative value-added energy products and services such as energy efficiency and demand response programs and "green" or "clean" energy products.

First of all, I would like to thank you for the opportunity to present our views today on how best to ensure that consumers, and the Commonwealth as a whole, benefit from greater availability of alternative energy, energy conservation, efficiency and demand response products and services. My comments are generally organized into two categories. First, I would like to discuss how the development of a vibrant competitive retail market for electricity can lead to significant innovation in other energy related products and services like "green" energy and conservation, efficiency and demand response services. Second, I will share with you some of our specific recommendations regarding implementation of Act 129. Also, attached to the end of my testimony are RESA's responses to the directed questions that were attached to the Commission's letter announcing this hearing.

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[1] RESA's members include Commerce Energy, Inc; Consolidated Edison Solutions, Inc; Direct Energy Services, LLC; Gexa Energy; Hess Corporation; Integrys Energy Services, Inc.; Liberty Power Corp.; Reliant Energy Retail Services, LLC; Sempra Energy Solutions; SUEZ Energy Resources NA, Inc. and US Energy Savings Corp. The comments expressed in this testimony represent the position of RESA as an organization but may not represent the views of any particular member of RESA.

Competitive retail markets provide value for customers through innovation

While RESA fully supports policies that encourage conservation and efficiency, it is important that the customer remain at the center of this discussion. Reduced consumption and peak demand are laudable goals, but these goals will only be realized through a dramatic paradigm shift in the way customers think about and purchase electricity. Competition and choice have been and will continue to be the critical catalysts for this paradigm shift. The Commission should pursue policies that put customers in the driver's seat and allow them to determine the actions that they are willing to take to change their consumption behavior and energy buying decisions. This can be done in two ways. First, by encouraging the development of retail competition which will bring a vast array of products and services that will help customers make wiser decisions in how they consume and purchase electricity. And second, by seeking to fully tap into the power of the competitive market in meeting the consumption and demand reduction targets required by Act 129.

As Pennsylvania transitions to a competitive retail market for electric generation service, more and more competitive energy service providers will enter the market. These suppliers will bring a vast array of products and services empowering customers with more information and greater choice which will lead to enhanced efficiency and will give customers the tools they need to reduce consumption and peak demand. A recent study published by the Alliance for Retail Choice demonstrates how innovations spurred by retail competition have advanced policy goals

like conservation and efficiency.[2] This report examines in detail the variety of retail product offerings available in competitive markets, but some of them include:

- **New pricing options and more efficient energy procurement strategies for customers.**
  Customers have widely varying load shapes and risk tolerances. When commodity pricing options are matched to the customer's specific needs, this yields both supply-side and demand-side efficiencies. For example, some industrial customers may be willing to purchase a significant amount of supply on the spot market which provides the customer with frequent price signals and the incentive to shift usage to off-peak times thus reducing energy spend.

- **Green and clean products.**

  Many retailers are offering a variety of commodity products bundled with Renewable Energy Credits. These credits effectively allow customers to invest in electricity generated from environmentally friendly sources. Customers can also purchase carbon off-sets that allow them to mitigate or eliminate the impact of their carbon footprint. The existence of such products has allowed many large corporations to integrate concepts of sustainability into their energy management strategies. Several RESA members offer customers the option of becoming certified under the EPA's Green Power Partnership program.

- **Value-added services.**

  Retailers are now offering a variety of value-added services in addition to the commodity product. These services range from facilitating customer participation in RTO/ISO demand response programs to comprehensive energy efficiency audits and upgrades.

Attached to my testimony are excerpts from the report that shows the entire range of products currently available and a list of competitive retailers offering these products. I would note that at the time the report was produced, eight RESA members actively offered renewable energy, demand response, energy efficiency, and/or carbon footprint products.

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2 http://www.allianceforretailchoice.com/Innovation%20in%20the%20Retail%20Electric%20Market.pdf

The vast array of product offerings available in the U.S.'s two most successful competitive markets provides further evidence of the innovation flowing from competition. In Texas, for example, the Power to Choose website shows that for the Houston area residential customers can choose between 82 different products from 25 different suppliers (www.powertochoose.org). In New York City, residential customers can shop between 42 products available from 17 suppliers (www.powertochooseny.org).

Fully engaging customers through the power of competition and choice is the best way to bring about the dramatic paradigm shift that is needed to transform today's energy industry. How the Commission addresses other policy matters, such as default service procurement, will have a profound impact on the extent to which the Commonwealth fully realizes the potential of innovation in the energy industry. Therefore it is vitally important that the Commission implement default service procurement plans that will promote a sustainable and vibrant competitive market which will serve as a platform for delivering innovative energy services to customers and advancing the public policy goal of smarter and more efficient energy use.

Act 129 Implementation

Both RESA and Reliant submitted comments in the Commission's Act 129 implementation docket. However, I would like to reiterate some of our recommendations that we believe are important to the successful implementation of the efficiency and conservation programs required by Act 129.

Fostering Innovation and a Variety of Programs

In implementing Act 129, the Commission should seek to foster innovation and the inclusion of a variety of programs, including programs beyond traditional energy efficiency

measures like weatherization or appliance upgrades. As the Commission is aware, there is a vast array of potential programs, products and services that are available today to reduce consumption and peak demand. Yet there remains the potential for a near term sea change in this industry due to new technology that is rapidly becoming available to foster the design of even more creative and customer oriented products. Accordingly, it would not be in consumer's interests for the Commission to determine what types of programs may or may not qualify for the EDC conservation and energy efficiency plans at this early stage.

As an example of the type of innovative program that may be possible in the near future, Reliant is currently working with market participants to allow implementation of smart energy programs in Texas. Attached to my testimony is a diagram of how such a program could work. This type of program would utilize smart meter and smart grid technology to provide customers with up to date information on usage, pricing, and projected electricity spend. This information would be available to the customer through a variety of media including in-home displays, the internet, and/or remote devices such as cell phones. Customers would also be given tools needed to take action to control their energy usage and total spend. Customers would have an in-home display device linked to a smart meter and other devices as part of a smart energy network within the home. For example, a customer could establish pre-set event triggers such as changing the thermostat when prices reach a certain level, or turning off a water heater while the customer is away on vacation. Such a program has the potential to be far more valuable than any single type of efficiency measure, because it provides a platform for total customization matched to the customer's individual comfort level and willingness to take action.

Encourage Smart Meter Infrastructure

However, such a program is only possible with smart meter and smart grid infrastructure. While Act 129 requires the gradual deployment of smart meters within 15-years, the Commission should strongly encourage EDCs to invest in smart meters and smart grid technology much sooner in order to enable a wider range of efficiency and conservation programs such as the one I just described. The Commission should adopt minimum functionality standards for smart meters and attached to my testimony are recommendations for these standards. Furthermore, the costs associated with the smart meter technology should not be counted against the cost-benefit analysis for Act 129 programs that depend on such infrastructure. Smart meter and smart grid technology has benefits far beyond enabling specific efficiency and conservation programs. Such technology will support measurement and verification for many energy efficiency and conservation programs and produces system reliability benefits. Also, Act 129 provides for a separate standard and mechanism for cost recovery for smart meter technology.[3]

Competitive Process

The Commission should seek to fully tap into the power of the competitive market in implementing Act 129's requirements. RESA recommends that the Commission require EDCs to retain an independent third party entity to solicit energy efficiency and conservation services proposals from qualified third party providers using an open and transparent process. This process would not simply involve bidding out contracts for implementing programs selected and designed by the EDC. Rather, the process would allow third-party conservation services

[3] Section 2807 (f) (7)

providers to submit specific proposals for a variety of programs for consideration in the EDC's plan. This will ensure that the plans are the best available and enable consumers to benefit from innovation in technology and program design. The EDCs should also be required to hold a series of open stakeholder meetings or working groups to solicit input from potential conservation service providers and other interested parties ***before*** developing and submitting their plans. The stakeholder process would provide the EDC an opportunity to explore the types of efficiency and conservation programs that are available and would provide conservation service providers the opportunity to gather the data and information that they may need in order to develop specific proposals for consideration in the EDC's plan.

Competitive Neutrality

Regardless of the specific type of programs selected for the individual EDC plans, no programs should be conditioned on the customer receiving default service from the utility. If a program requires the customer to remain on default service, customers will face the difficult choice of sacrificing their ability to shop for generation service or sacrificing their ability to participate in the efficiency or conservation program. Ultimately, such a restriction would be counterproductive as it would stifle retail competition and the innovation needed to achieve efficiency and conservation.

Conclusion

In conclusion, RESA would like to thank the Commission for this opportunity to present our views on the importance of retail competition in delivering innovative products and services including alternative energy, conservation and efficiency programs. I'm happy to answer any questions that you may have.

Table 1: Retail Product Offerings

Value Category	Customer Type[1]	Products Currently Offered by Retail Electric Suppliers[2]
Reducing the Cost of Retailing Electricity	Price/Value/Bottom Line	Internet gateways/software enabling use of retail products
Superior Wholesale Procurement	Price/Value/Bottom Line	Discounted to price to beat/standard offer
Installation of Metering Equipment	Value/Bottom-Line/Price/Convenience	Smart grid technology use
Price Hedging for Customers	Value/Bottom-Line/Price/Convenience	Fixed Price Partial fixed/bandwidths Day Ahead
Other Hedging Services	Value/Principled/Security	Budget Control Products Power Portfolio Planning
Behind the Meter Applications	Security/Value/Bottom Line	Facilities control/demand control Distributed generation
Green Power	Principled/Value/Security	Renewable energy - Commodity - RECs/Green Tags[3] - Green Brand Demand response - Control technologies - Software - Services Energy Efficiency - Performance Contracting - HVAC (all sectors) - Green buildings - Facilities management - Home Automation Carbon Footprint - Audits and Analysis - Carbon Calculators - Offsets
Total Energy Management Services	Principled/Value/Security Buyers	Portfolio services
Promote More Efficient Wholesale Markets	Value/Principled	Real Time/Indexed/Demand Response[4]

(1) Institutional buyers may fall in any category. See discussion of customer segmentation in Section III.C
(2) Data collected by authors' for this report. Data is publically available on retail suppliers' web sites and promotional brochures.
(3) REC = Renewable Energy Credits
(4) Many of the other products will also promote wholesale market efficiency.

Source:
http://www.allianceforretailchoice.com/Innovation%20in%20the%20Retail%20Electric%20Market.pdf

Table 2: Clean Energy Products*

Retailer	Renewable Energy/RECs	Demand Response	Energy Efficiency	Carbon Footprint
Ameren Energy Marketing	●			
APS Energy Services	●		●	
BlueStar Energy Services	●			
Champion Energy LLC	●	●		
ConEdison Solutions	●		●	
Constellation NewEnergy	●	●	●	
Direct Energy	●	●	●	
DPL Energy			●	
Exelon Energy	●			
First Choice Power	●		●	
FirstEnergy Solutions	●	●	●+	●+
Hess Corp	●	●	●	
Hudson Energy Services	●	●	●	
Integrys Energy Services	●	●	●	
Liberty Power	●	●		
MidAmerican Energy	●	●	●	
NYSEG Solutions/Energetix	●			
Reliant Energy	●	●	●	
Pepco Energy Services	●		●	
Sempra Energy Solutions	●	●	●	
Shell Energy Trading	●	●		
Strategic Energy	●	●		
SUEZ Energy Resources	●	●		
TXU Energy	●		●	
TransCanada Power Marketing	●			

* Adapted from: "Spotlight: C&I Retailers Green Up," *Retail Energy Foresight*, September/October 2007, p. 8 and updated based on authors' research

+ Offered by subsidiary.

Source: http://www.allianceforretailchoice.com/Innovation%20in%20the%20Retail%20Electric%20Market.pdf

Smart Energy Components

Customer Remote Devices

Internet

Customer Local Area Network (LAN)

Router

PC

HAN Gateway

Energy Svcs Company

HAN Mgm/Msg

Disco/Reco Move/Switch

Meter Reads/Data

Meter Data Mgmt

Wires Company

Customer Home Area Network (HAN)

Smart Appliances

Smart Thermostats

Display

Smart Plugs

Smart Switches

Smart Sensors

HAN Protocol
Meter Data, HAN Messages

HAN Protocol
Meter Data, HAN Messages

Commercial Meter Network

Collection

Backhaul

RF, BPL, PLC

GPRS, BPL PLC, Fiber

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Recommendations for Minimum Smart Meter Functionality Standards	
Meter Functionality	
Capability	**Why is this important**
15 minute reads (or match ISO settlement standard) and capability to support ISO settlement off of this interval data	Customer load must be settled on the same interval as ISO resources so that cost savings achieved by customer load changes can be realized.
Remote meter read and remote disconnect/reconnect	These features create utility cost savings. Will facilitate better customer service and easier processing of move-in/move-outs. Important that remote read capability be available to EGSs and conservation service providers (CSP) in addition to the utility. This will allow EGSs to perform real time enrollments.
Meter should be able to store reads for a certain period of time and the register should be accessible by the Home Area Network (HAN)	This will speed up the utility's process of validating, editing and estimating the usage data and will allow the utility to provide more accurate billing data in a quicker manner. Also allows an in-home smart energy device to pull data directly from the meter.
Standard communication protocol allowing the meter to communicate directly to HAN devices.	Fosters innovation by allowing multiple devices (non-proprietary) to communicate between various in-home devices and the meter (i.e. a smart thermostat or smart appliance could respond by curtailing usage based on pre-set triggers)
Meter firmware should be upgradeable over the communications network	Optimizes cost effectiveness and fosters innovation by supporting technology evolution over time.
Communication System	
Capability	**Why is this important**
Open, non-proprietary 2-way access for EGSs and CSPs to send/receive information to/from in-home devices	Allows service providers to directly control smart energy devices in the home or provide customers the information necessary for them to choose to change their usage, thus supporting a wider range of products and services. Open access yields maximum utilization of system capabilities (sort of like the internet) and provides for product innovation.
Ability to send signals up to maximum bandwidth (e.g., kilobytes/Day/Meter)	Ensures consistent customer service by allowing service providers to design products around the bandwidth capabilities of the system
Ability to communicate and set event triggers through meter and to HAN	Allows service providers to offer products that directly control in-home devices, such as changing the thermostat or curtailing a specific appliance.
Ability to remotely join a HAN Device to the AMS meter and register the HAN Device with a service provider	Allows customers to install a HAN Device (such as a smart thermostat) so the device can begin communicating with the smart meter and provides for the HAN Device to register with a service provider who is offering a product that requires communication with a HAN Device. For example, a supplier could offer a product that automatically adjusts the customer's thermostat when prices reach a certain level.

Ability to obtain real-time information from the meter such as usage, demand reads within a specified service level (e.g., 6 seconds)	Allows HAN Devices to display real time information and allows a customer to potentially take action.
Databases	
Capability	**Why is this important**
Open, non-proprietary systems interface for accessing customer usage information and individual customer meter capabilities	Allows the customer and service provider to access the utility's meter information database. Allows service provider to download historical data for a customer to offer better pricing and service options matched to the customer's unique usage history. Allowing service providers to know a potential customer's specific meter capabilities will enable screening for whether customers are eligible for certain AMI products.
Interval usage data should be available	Granular historical usage data enables a wider range of products such as real time and time of use pricing
Prior days interval usage and meter register reads taken daily at midnight and sent within a specified service level, such as next day at 6 AM.	Allows for product innovation by giving customers an indication of their usage and bill to date. Having this knowledge will allow customers to better manage their electrical expenses. Will also enable new products, such as pre-paid electricity (similar to pre-paid cell-phone plans)
Data maintained for at least 13 months	Allows customer and service providers access to at least a year of historical information needed to offer the most accurate pricing and products matched to customers specific usage patterns

HB 2200 EN BANC HEARING
November 19, 2008
CEEP'S QUESTIONS

1. Conservation Service Providers
   a) Should the EDCs collaborate/coordinate on contracting with conservation service providers?

   Yes, provided that EDC coordination does not prevent the consideration of beneficial new programs.

   b) Are there enough common programs for the conservation service providers to provide effective measures across Pennsylvania?

   RESA has no comment on this question.

   c) Does the provision providing for competitive bidding for all contracts with CSPs require the utility to competitively bid all energy efficiency and conservation services? If not, what energy efficiency and demand services should not be competitively bid?

   Yes. All energy efficiency and conservation programs implemented for Act 129 should be competitively bid. For more information on RESA's recommendations for competitive bidding, please see RESA's comments submitted in Docket No. M-2008-2069887 and the testimony of Richard Hudson submitted for the November 19 hearing on energy efficiency, conservation and alternative energy.

   d) Under definitions, a CSP is an unaffiliated entity providing information and technical assistance. Under 2806.1 (A), however, a CSP is said to provide conservation services. How should this Commission interpret this apparent inconsistency?

   RESA recommends that the Commission consider both provisions together rather than interpreting them as inconsistent. Section 2806.1 (A) (10) contemplates that third-party CSPs should be involved in implementing the efficiency and conservation programs. RESA submits that the definitional language describing a CSP as an entity providing "information and technical assistance" is recognition of the fact that a conservation services provider need not be limited to an entity installing physical or traditional energy efficiency measures (such as weatherization or an appliance upgrade) but may also include entities providing innovative programs that seek to incentivize voluntary behavior such as providing customers with greater information through frequent price signals.

e) Under 2806.2, the Commission must establish a registry of approved CSPs. What basic business elements (better business bureau rating, bonding, for example) should be required to be registered?

RESA has no comments on this question.

f) What experience and qualifications should be required of registered CSPs?

Qualification should not be limited to providers with experience installing physical equipment or efficiency measures. The qualification requirements for CSPs should be sufficiently broad so that providers of a wide range of potential efficiency, conservation and demand response measures can qualify. For example, an EGS providing innovative products such as frequent pricing feedback or demand response services should be able to register as a CSP as long as the product is reasonably expected to result in consumption or demand reductions.

2. Measurement of Meeting Statutory Requirements:

a) How would the *addition* of new load in an EDC territory (i.e. RCI new development/construction) be measured, and at what point do these additions meet the "extraordinary load" exceptions?

RESA has no comments on this question.

b) How would one distinguish between *reductions* in consumption as a result of customer participation in technology programs in an EDC territory, implemented as part of an EDC's Energy Efficiency and Conservation Plan, as opposed to unrelated and independent consumer actions (i.e. manually adjust thermostat heat/cooling settings, turn lights off, etc.)?

RESA has no comments on this question.

c) How will economic activity within Pennsylvania and an EDC's service territory be considered when measuring the performance of EE/DR programs? For example, an EDC's territory that is experiencing a recession may meet their goals from decreased economic activity from plant closures, business failures and worker migration out of the service territory.

RESA has no comments on this question.

3. Evaluation:

a) Should the Commission establish a standardized total resource cost manual to evaluate projects? If so, is there a state or utility this Commission should use as a starting point for discussions?

Whatever cost/benefit metrics approved by the Commission, the costs associated with smart meter and smart grid infrastructure should not be counted against specific programs utilizing such enabling technology.

b) What other cost benefit tests should the Commission use to achieve reduction in consumption requirements pursuant to Section 2806.1(C)(3)?

See above response.

c) Act 129 requires utilities to file a plan to assure quality assurance [includes evaluation, measurement and verification by independent parties to ensure quality of completed measures], and further requires an annual independent evaluation of cost effectiveness of the Plan. Given the exposure to penalties by EDCs for potential non-compliance on meeting statutory energy efficiency and conservation goals, what approaches are appropriate to ensure that such independent, third parties are free of coercion from the EDCs they evaluate?

Independent evaluation as well as independent review and selection of potential efficiency and conservation programs are essential to successful program implementation.

4. Cost Recovery:

a) What are the appropriate time frames to expense or amortize energy efficiency and demand response expenditures?

RESA has no comments on this question.

b) How should this Commission ensure recovery of only “prudent and reasonable” costs? Is this established at the time of plan approval? Is it established only after quality assurance and performance is measured, verified, and evaluated, or is it established during the annual independent analysis?

RESA has no comments on this question.

c) If services are not competitively bid, how will this commission determine such costs are reasonable and prudent?

All services should be competitively bid.

5. Program Design

a) How should the statutory requirement be interpreted and implemented that requires energy efficiency and conservation measures be equitably provided to all classes of customers?

This requirement should not be interpreted as requiring that all specific measures be available to all classes of customers. Certain measures may be more suitable for the residential class, while other measures may be more suitable for the industrial class. Maximum value will be achieved if conservation service providers are able to provide programs suited to their individual market niche and expertise.

b) Should all EDCs be required to implement the same type of EE/DR programs? Is it likely that programs will be equally cost effective in every EDC territory?

No. The Commission should foster innovation by considering a wide variety of programs. Third party conservation service providers should be allowed to bid individual programs for consideration in an EDC's Act 129 plan with selection and evaluation performed by an independent entity.

c) Which programs are more cost effective if implemented on a statewide basis?

RESA has no comments on this question.

6. Reporting Requirements

a) What additional information should the Commission require the EDCs to report under Section (I)(1)(IV)?

RESA has no comments on this question.

7. The EDCs already have some DSR Programs available to various customer classes. They have developed these programs voluntarily without any mandates*

a) Please provide a brief overview of current EDCs' DSR programs.
b) What has been your experience with customer interest and participation levels in current programs?
c) What level of weather-normalized peak load and demand consumption reductions have been achieved under the current programs?
d) What types of new programs or changes to existing programs, if any, would be needed to achieve the targets contained in Act 129?
e) What is the projected level of customer interest or savings in these new programs?
f) Please provide references to any market research pertaining to specific EDC programs in Pa.

RESA has no comments on the above questions.

Examples of existing EDC DSR Programs (2007):

a) Duquesne, First energy, PECO, PPL and UGI have load reduction programs requiring use of an interval meter for Commerical & Industrial customers.
b) Duquesne and FirstEnergy have load control programs for residential and small C&I customers.
c) FirstEnergy has a distributed generation program for C&I customers.
d) PennPower has an hourly pricing program available to C&I customers.
e) Most of the EDCs already have some Time of Use (TOU) or Billing Demand programs available to various customer classes.
f) UGI offers to audit customer facilities as well as provide a rebate program for high-efficiency heat pumps.
g) FirstEnergy offers customers a web-based calculator. FirstEnergy is also currently considering two new programs: Power Factor correction for C&I and a Thermostat/Appliance Price Response Program for residential and small commercial customers.

8. In reference to question 1(e) above, the PA Treasury Department already offers the Keystone Home Energy Loan Program (Keystone HELP™). The Department refers to this as Pennsylvania's official streamlined, lower rate financing program for ENERGY STAR™ rated and other high efficiency and renewable energy improvements.

a) To what extent will there be overlap and duplication between this program and Act 129 programs?

RESA has no response to this question.

b) The Treasury Department already has an application process established for customer enrollment and contractor registry. To what extent could this process be used as a model under Act 129 compliance?

The Treasury Department guidelines and processes already in place may be informative on developing registration and qualification procedures for CSPs engaged in installing physical equipment or upgrades for efficiency and conservation measures. However, Act 129 programs should not be limited to such measures. Entities providing other innovative programs that can produce quantifiable consumption and demand reductions should also be eligible (such as providing pricing feedback that yields voluntary customer actions).

c) The Treasury already has a registry of certified contractors. Consumers are able to input a zip code to find certified contractors in their area. To what extent could these contractors' qualifications be used to register CSPs?

See above response to 8b.