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# Overview

- On October 15, 2008, Governor Rendell signed HB 2200 into law as Act 129 of 2008, with an effective date of November 14, 2008.
- The Act expands the Commission's oversight responsibilities and imposes new requirements on electric distribution companies (EDCs), with the overall goal of reducing energy consumption and demand.
- The law provides that each Pennsylvania EDC with at least 100,000 customers is required to implement a Commission approved EEC&DR plan.
- Pennsylvania joins several other mid-Atlantic and Northeastern states who have also mandated programs:  
NY, MD, VT, CT, NJ, VA, NC, and OH



# Overview



- Act 129 required each EDC to file with the PUC by July 1, 2009 an Energy Efficiency and Conservation and Demand Response (EEC & DR) Plan
  - PA PUC has required each Plan include at least one energy consumption reduction and one demand reduction program to each customer class (residential, commercial, and industrial)
  - There must be specific measures for low-income households (measured at below 150% of poverty level) and these must be in addition to LIURP expenditures already made by the EDCs
  - Government, Non-Profit and Higher Education must account for 10 % of the total savings



# Overview



- Plan must demonstrate that it is cost-effective by having a Total Resource Cost (TRC) greater than one.
- The TRC test is “a standard test that is met if, over the effective life of each plan not to exceed 15 years, the net present value of the avoided monetary cost of supplying electricity is greater than the net present value of the monetary cost of energy efficiency conservation measures.” 66 Pa. C.S. §2806.1 (m).
- This test includes ALL expenditures on a program measure, both what the customer contributes and what Duquesne Light would contribute.
- The short version of the story – the benefits must be greater than the costs and calculate to a value greater than 1.



# Overview



Subsequent phases of Act 129 implementation process will address:

- EDC and default service provider responsibilities
- Conservation service providers
- Smart meter technology
- Time-of-use rates
- Real-time pricing plans
- Default service procurement
- Market misconduct
- Alternative energy sources
- Cost recovery



# Overview



Act 129 will have the following impacts:

- Assist customers in reducing electricity bills
- Allow customers to make informed choices about their use of electricity
- Decrease the cost of meeting new demand for electricity



## Legislative Requirements

- Act 129 requires each Pennsylvania electric distribution company to adopt a Commission approved plan to reduce electric consumption by:
  - **at least 1% as of May 2011**
  - **and a minimum of 3% by May 2013**
- 10% of the reduction must come from government, institutes of higher learning and non profit customers
- Requirements for low-income reduction are proportional to the percentage of low-income customers in each EDC. For Duquesne Light that equates to 5.6%.
- The Act also requires each utility reduce its peak demand by:
  - **4.5% by May 2013**



## Legislative Requirements

- The total cost of the plan required could not exceed 2% of the electric distribution company's total annual revenue as of December 31, 2006.
  - For Duquesne Light that equated to \$78,183,806 over the four year period excluding statewide evaluator costs
- Law provides for current recovery of these dollars from customers classes relative to the dollars expended on the programs for each class.
- The legislation provides for mandatory penalties of between \$1 million and \$20 million to be levied against an EDC that does not succeed in meeting the targeted reductions



## Duquesne's Goals



- These goals were measured against Duquesne's June 2009 – May 2010 kWh sales forecast with provisions made for weather adjustments and extraordinary loads that the EDC must serve.
  - **140,885,117 kWh by 2011**
  - **422,565,351 kWh by 2013**
- Act requires a 4.5% reduction by May 31, 2013 in the peak 100 hours of demand
- This goal was measured against the 2007 June – September average of the 100 hours of peak demand
  - **113 MW in the summer of 2012**



# Plan Approach

FEB 09

JUL 09

DEC 09

MAY 2013





## Plan Approach



- EDCs were required to prove that programs were constructed to provide market coverage sufficient to reach overall energy and demand savings goals
- A study was conducted by Duquesne Light to incorporate factors such as:
  - Specific customer data (kw and kwh history)
  - Customer industry type (SIC)
  - Residential housing stock
  - DLC rates
- EEC&DR study projected savings consistent with the PAPUC Technical Resource Manual
- Demonstrated that it is feasible to reach the mandated targets but it is not easy. Nor is it reasonable to exceed the targets



## Plan Development



- Duquesne's Energy Efficiency Conservation and Demand Response Plan
  - combines both energy efficiency and conservation measures with demand response measures
  - creates programs that reduce consumption and demand for each customer class.
- Duquesne analyzed detailed information about customer populations in the residential, commercial and industrial sectors. This included:
  - residential dwelling types
  - commercial building stock floor space
  - industrial market segment energy end-use



# Plan Development



## Customer Sector Information - Residential

Residential Housing Stock	Dwellings	
Single Family Post – 1978	58,411	10.9%
Single Family Pre – 1978	329,561	61.7%
Multi Family Post – 1978	20,984	3.9%
Multi Family Pre – 1978	118,393	22.2%
Mobile Homes Post – 1978	996	0.2%
Mobile Homes Pre – 1978	5,622	1.1%
<b>Total Post – 1978</b>	<b>80,391</b>	<b>15.1%</b>
<b>Total Pre – 1978</b>	<b><u>453,577</u></b>	<b>84.9%</b>
	<b>533,968</b>	



## Plan Development



Stakeholder meetings were held to gather detailed customer input.

Participants included:

- Consumers
- Consumer advocates
- State and local government
- Chambers of commerce
- School districts
- Community based organizations
- Environmental groups
- Conservation service providers
- Vendors for energy efficiency and demand response products and technologies



## Plan Development



In addition to the stakeholder meetings

- Duquesne Light held an informational webinar in April 2009
- Two public input hearings were held at the Allegheny County on Aug. 5, 2009.
- Going forward, stakeholder meetings will be held twice a year. Dates time will be provided to customers as they become available.



## Plan Development



- Duquesne's Energy Efficiency Conservation and Demand Response Plan was crafted to:
  - Utilize results of EE&DSR study
  - Utilize input of process stakeholder
  - Combine both energy efficiency and conservation measures with demand response measures to achieve Act 129 goals
  - Create programs that reduce consumption for each customer class



## Plan Development



- On July 1, 2009, Duquesne Light filed its proposed Energy Efficiency Conservation and Demand Response Plan with the Pennsylvania Public Utility Commission.
- The plan was approved October 28, 2009. The modified plan was submitted on December 23, 2009 and was approved February 2, 2010.
- Programs launched December 1, 2009.



## Programs



- Duquesne is offering a portfolio of programs structured under three broad category “umbrella” programs: residential, commercial and industrial.
- The umbrella programs provide incentives for a full range of measures to assist all residential, commercial and industrial energy customers.
- The umbrella programs put in place a baseline program design, with set incentive levels and forecasted conservation levels.
- Under each umbrella segment , specific programs are offered for key market segments.



# Residential Programs



## Energy Efficiency Program

**Rebate Catalog** – Rebates on compact fluorescent light bulbs, programmable thermostats and much more.

**Online Home Audit** – A detailed, interactive analysis of how customers can save energy and money in their homes, plus easy links to rebates.

**Refrigerator Recycling** – A check for \$35 and free disposal of the old refrigerator.

**School Energy Pledge Program** – Teaching students how to save energy at school and at home.

**Low Income Program** – Reaching out to help all customers gain the benefits of saving energy.

## Demand Side Response Program

**Residential Direct Load Control Program**– Cycling off electric central air conditioners and electric water heaters





# Residential Programs



**Rebates** – Duquesne is offering rebates for the following items

- compact fluorescent lighting
- replacement of older inefficient appliances with new Energy Star or other high-efficiency appliances
- Recycling of inefficient appliances
- programmable thermostats
- ceiling insulation
- duct repair
- cooling systems
- whole house fans
- Solar water heating



For a complete listing, please visit our [www.Wattchoices.com](http://www.Wattchoices.com) website.



## Residential Programs



### Online Home Audit

- On-line Energy Audits allow customers to use their specific 12 months average usage data to perform what-if scenarios and print an audit report tailored to their home with available rebate information.

### Low Income Program

- The low-income program will help customers conserve energy and reduce their electricity costs. Duquesne Light will utilize agencies to gain access to this population.
- Low-income customers are eligible for all residential programs.
- This program is in addition to Duquesne's established Smart Comfort or low income usage reduction program.



## Residential Programs



### School Energy Pledge Program

- Duquesne offers an educational school program to help educate students on energy efficiency and conservation
- Schools K-5 sign up to have an energy conservation assembly at their school
- Children have their parents sign a pledge form indicating they will participate in the program
- A kit containing energy efficiency items is sent to their home where they install the energy measures with their parents
- An incentive of \$25 will be provided to the school for each completed pledge form



# Residential Programs





## Residential Programs

### Residential Direct Load Control Program

- A residential load control switch for air conditioners and electric water heaters will be offered so that these items can be interrupted for a brief period during peak times.
- In exchange for customers allowing this interruption, Duquesne will provide the customer a credit on their bill.





# Business Programs



## Customer Program Segments

- **Large Office Buildings**
- **Small Office Buildings**
- **Retail Establishments** (including restaurants)
- **Primary Metals Industry**
- **Chemicals Industry**
- **Mixed Industries** (including food processing, rubber, plastics, stone, clay, glass, fabricated metals, and electronics industries)
- **Healthcare Facilities**
- **Educational Facilities**
- **Public Agencies**
- **Commercial Umbrella**
- **Industrial Umbrella**





## Business Programs

### Energy Efficiency Program

**Rebates** – Duquesne Light is providing rebates on a wide range of energy-saving devices that a commercial or industrial customer might use, such as fluorescent lamps, ballasts, fixtures, variable frequency drives, door gaskets for freezers, and high efficiency motors. Rebates are paid based on the quantity installed and the equipment must meet certain energy efficiency standards. For a complete listing, visit our website at [www.wattchoices.com](http://www.wattchoices.com)

**Custom Incentives** – Custom incentives are available to customers for less common or more complex energy saving measures installed in qualified retrofit and equipment replacement projects. Custom measure incentives are paid based on kWh savings. Projects that include both custom measures and equipment listed in the rebate catalog will receive custom incentives.



## Business Programs

### Demand Response and Load Curtailment Programs

**Small and Medium Size Commercial and Industrial Load Control Program** – a load control switch for air conditioners and electric water heaters will be offered so that these items can be interrupted for a brief period during peak times. In exchange for customers allowing this interruption, Duquesne will provide the customer a credit on their bill.

**Large Commercial and Industrial Curtailable Load Program** – Duquesne offers programs to either curtail or interrupt usage on the hottest days of summer for a limited number of hours. Duquesne Light expects load shifting, shaving and reductions of all end-uses would be eligible including lighting, cooling, ventilation, refrigeration, cooking, heating, manufacturing, and processing. It is expected that standby or backup generators may also participate. All types of facilities with an individual peak demand exceeding 300 kilowatts (kW) would be eligible



## Public Agency Partnership

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- Duquesne Light will partner with local, state and federal agencies, non-profit organizations and school districts to identify energy conservation and efficiency projects.
- The measures available to the public agency include all measures offered to commercial and industrial customers, both prescriptive as well as custom measures. The complete list of prescriptive measures are found at [www.wattchoices.com](http://www.wattchoices.com).
- Duquesne Light currently has partnerships with many city and county agencies, non-profit organizations and several school districts.
- Our partnerships are designed to achieve the energy efficiency goals of each entity.
- The projects are tailored to those specific goals and are handled on a case by case, project by project basis.
- Duquesne Light attends regular meeting to identify projects, offer technical assistance and help to move projects toward implementation. We have assisted in developing RFPs, contractor selection and the development of quality assurance protocols and policies.



## Public Agency Partnership

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- Duquesne Light offers a unique partnership with public agencies. While the focus is on energy efficiency of the agency, attention is also on the employees/students of the agency. Duquesne Light offers a program to aid the employees in energy efficiency as well. An employee program may include an energy saving kit containing CFL's and other energy saving measures. The kits can be tailored to the specific needs of the agency.
- This partnership allows Duquesne Light to gain access to the residential market sector through the agency employees that live within our service territory.
- This partnership also builds morale within the agency and shows that there is a concern to assist employees in energy savings at home as well as in the office.
- Duquesne Light also offers a Schools Energy Pledge program under our residential sector to offer additional incentives for participating school and school districts. This program is designed to get the students and their families involved in energy conservation while earning money for the school. (please see slides under residential programs)




## Public Agency Partnership

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### Prescriptive and Customs rebates:

- Paid directly to the Public Agency, Non-Profit or Educational Institution, or
- Paid directly to the designate such as contractor, installation company or other as determined by the Public Agency, Non-Profit or Educational Institution. The rebate form will allow for a designee payee as authorized by the Duquesne Light accountholder (Public Agency etc.).



Public Agency Partnership   
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**To participate in Duquesne Light's Public Agency Partnership including Government, Non-Profit and Educational Institutions or to gain answers to questions please visit [www.wattchoices.com](http://www.wattchoices.com) or Dave Defide - [ddefide@duqlight.com](mailto:ddefide@duqlight.com), office phone 412.393.6107, cell phone 412.335.1199**



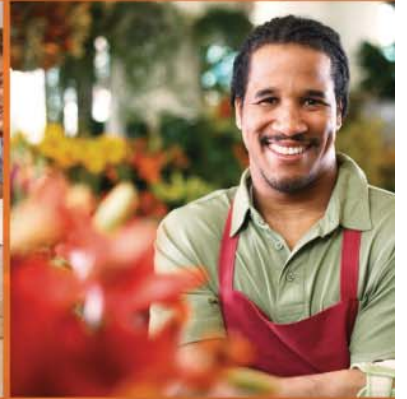
## Program Benefits



- Financial benefits of lower electric bills
- Environmental benefits of reduced power plant emissions
- Minimizing the need to build additional generation facilities

DUQUESNE LIGHT'S  
WATT CHOICES PROGRAM

Can Help  
**YOU**  
Save Energy  
& Money



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