

# NARUC Energy Regulatory Partnership Program

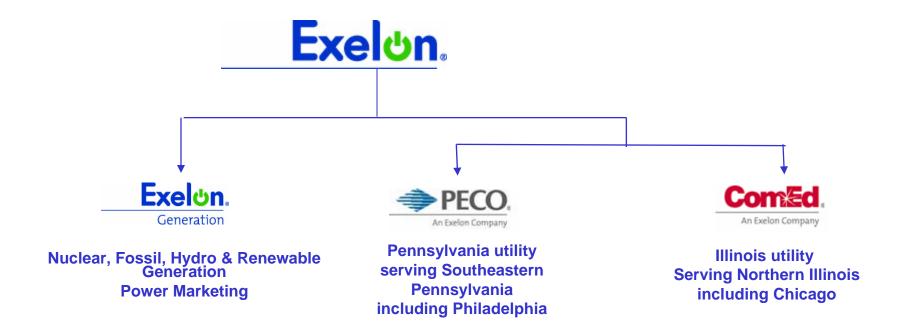


The Energy Agenda of the Republic of Serbia and the Pennsylvania Public Utility Commission

Second Partnership Activity: "Building bridges from Serbia to Pennsylvania"

Presented by PECO Energy April 2, 2008

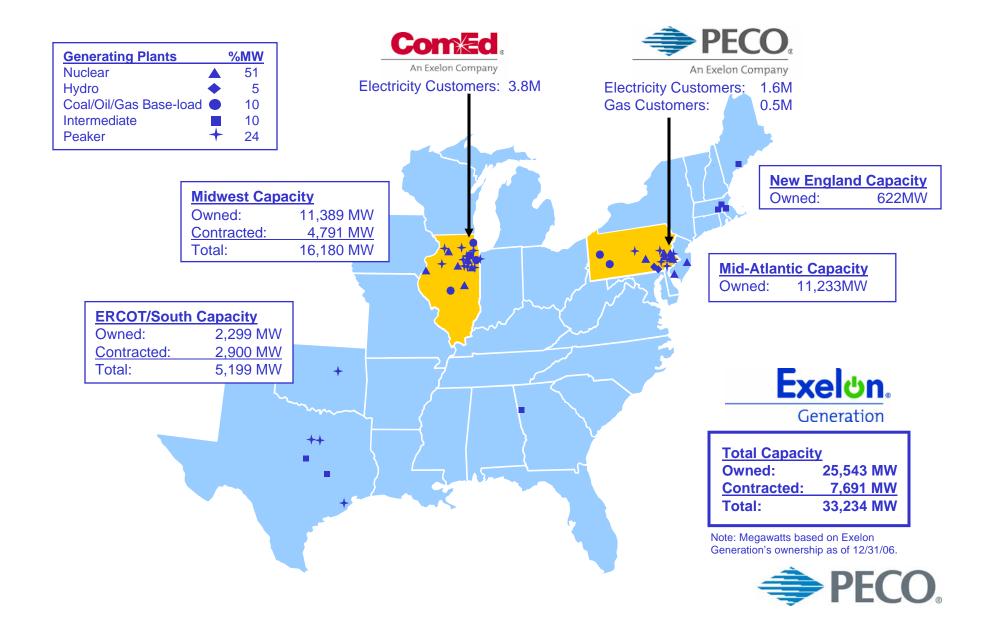
# **The Exelon Companies**







# Exelon. Multi-Regional, Diverse Company



# Pennsylvania Map



#### **PECO Background**

- ✓ Based in Philadelphia, PECO is an electric and natural gas utility serving 1.6 million electric and 480,000 natural gas customers in southeastern Pennsylvania. In 2007, the company delivered 39.9 million megawatt-hours (Mwh) of electricity and 78.5 billion cubic feet of natural gas to residential, business and institutional customers.
- ✓ Founded in 1881, PECO is one of the Greater Philadelphia Region's most active corporate citizens providing leadership, volunteer and financial support to numerous arts and culture, education, environmental, economic development and community programs and organizations to improve the quality of life in region.
- ✓ PECO employees more than 2,500 people and is recognized as one of the best places to work in the Philadelphia region. It also has been recognized as Pennsylvania's safest utility, and one of the best in the nation for employee safety performance by the Energy Association of Pennsylvania, the American Gas Association and the Pennsylvania Department of Labor and Industry.
- ✓ In 2007, PECO invested more than \$350 million in capital spending in its local infrastructure for operational excellence for its customers. PECO is Pennsylvania's largest utility with a service area spanning six counties in southeastern Pennsylvania. The company operates and maintains a network with 21,000 miles of distribution and transmission lines and 11,600 miles of underground gas pipelines.



# **Traditional Utility Functions**

• PA's utilities were historically 'vertically integrated' – owning and operating the entire electric system

Generation + Transmission + Distribution











# **Deregulated Utility Functions**

- PECO is a transmission and distribution company ("wires")
- PECO no longer owns or generates power
  - ➤ Currently have a fixed price Power Purchase Agreement (PPA) with ExGen to supply 100% of generation through 12/31/10



# Transmission + Distribution





# **Current Procurement / Pricing Environment**

- ✓ Provider of Last Resort (Default Service) generation prices are capped until 2011, according to a plan agreed to in 1998
- ✓ PECO procures all of its energy through a full requirements service agreement with its generation affiliate company- Exelon Generation under a Power Purchase Agreement (PPA) that expires with the end of the price caps
- ✓ The PPA payment structure is such that retail generation revenues flow to Exelon Generation after PECO deducts 'out of pocket' costs for state taxes and load-based charges from PJM
  - Exelon Generation manages all of the wholesale supply risk; PECO manages the retail customer credit / collections risk
  - Retail Generation Revenue to PECO: 5.48 cents/kWh
  - Taxes: 0.34 cents/kWh
  - PJM charges to PECO for capacity, ancillary services, and balancing energy: 1.6 cents/kWh

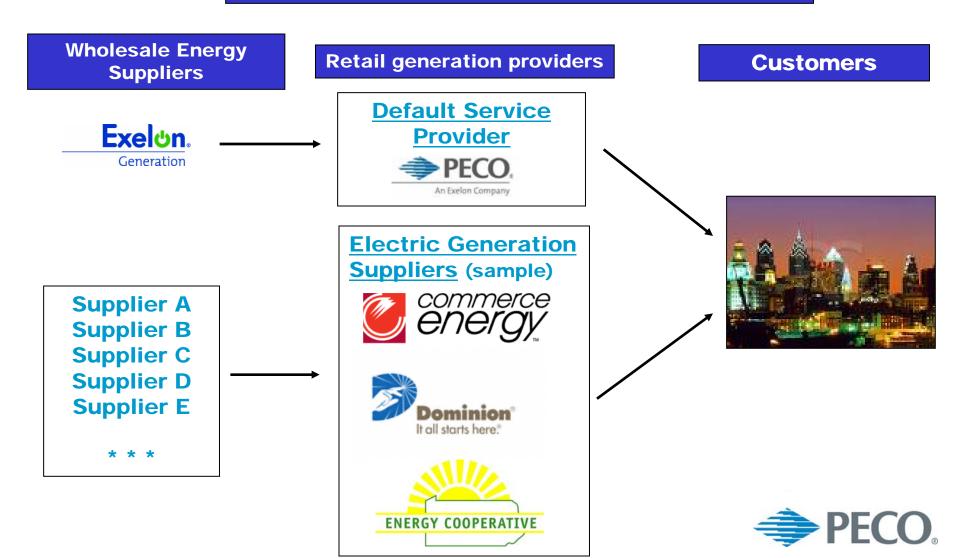
#### **Current Environment - Electric Customer Choice**

- ✓ Retail customers can procure generation service from alternative suppliers called Electric Generation Suppliers (EGS)
- ✓ About 2% of customers currently buy from an EGS
- ✓ This number has varied widely since 2000 and is primarily based on profit margins compared to PECO's capped prices. (see chart on next slide)
- ✓ An EGS can bill its charges or can choose PECO as its billing agent – most suppliers chose PECO as their billing agent.
  - Slide 11 demonstrates how the transaction information flows via
     Electronic Data Interchange protocols developed by Pennsylvania



# **Supply Chain - Relationships today**

Regional Transmission Organization (provides capacity, transmission service, and ancillary services to retail generation providers)



#### **Electric Customer Choice- historic Shopping statistics**

Electric Choice Shopping peaked in 2002 at over 350,000 customers shopping. Declines in recent years are primarily resulting from low profit margins compared to PECO's capped prices.



Source: Office of Consumer Advocate

Note: For January 2002, the shopping variable includes the CDS program (residential customers). The decrease in January 2003 is as a result of New Power, a CDS supplier, defaulting after 1 year. For January 2004, the residential and commercial segments increase as a result of the MST program and then start to decline moving forward (the MST program was for one year). More recently, from July 2006 onward, the decrease in shopping can be attributed to those being returned to PECO by the supplier's choice or by the customer's choice (representing about 75% of the decrease) and those moving to another property (representing about 25% of the decrease).

- ✓ PECO reads customer meters and transmits usage information to alternate supplier serving the customer
- ✓ Alternate supplier transmits generation service charge to PECO
- ✓ PECO bills the customer and transmits payment to alternate supplier



- ✓ PECO transacts business with PJM both as a Load Serving Entity and as a Transmission Owner
- ✓ PECO as a Load Serving Entity buys the following services directly from PJM:

Capacity: about \$15/MWH

Ancillary Services: about \$ 2/MWH

Network Transmission Service: about \$ 5/MWH

✓ PECO receives credits from PJM for its Transmission Assets and for providing local system control and dispatch services



#### **Procurement for Post Transition**

#### ✓ Default Service

- ➤ PECO will provide "default service" for customers who do not choose to buy generation from a competitive supplier
- ➤ PECO will obtain default service from wholesale suppliers through a competitive procurement process
- ✓ The key uncertainties in the market that will influence the 2011 electric generation rates include:
  - Supply and demand
  - Commodity prices of fuels used to generate electricity
  - Environmental Mandates



# **Supply Chain - After Transition Period (2011)**

#### **Regional Transmission Organization**



(provides capacity, transmission service, and ancillary services to retail generation providers and wholesale energy suppliers)

Wholesale Energy Suppliers

**Retail generation providers** 

**Customers** 

Default Service Provider



Supplier A
Supplier B
Supplier C
Supplier D
Supplier E

\* \* \*

**Electric Generation Suppliers** (sample)











# **Future Challenges - Climate Change**



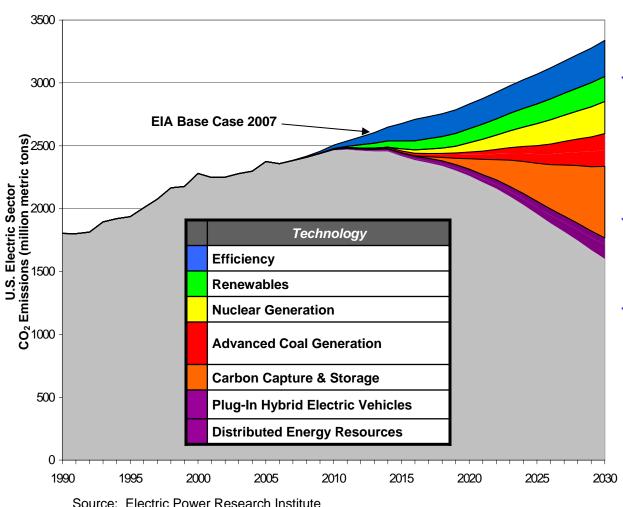
#### **Leadership Addressing Climate Change**

- ✓ Named to the 2006/2007 and 2007/2008 Dow Jones Sustainability North America Index
- ✓ Named to Climate Disclosure Leadership Index of the Carbon Disclosure Project in 2005, 2006 and 2007
- ✓ Signatory to the Global Roundtable on Climate Change and the Ceres/Investor Network on Climate Risk statements
- ✓ Member of the United States Climate Action Partnership (USCAP)
- ✓ Corporate headquarters awarded Leadership in Energy and Environmental Design (LEED®) Platinum Commercial Interiors certification by the U.S. Green Building Council
- ✓ Largest marketer of wind power east of the Mississippi River
- ✓ Signed 20-year deal to purchase output from largest solar photovoltaic installation in PJM region
- ✓ Nation's largest low-carbon generation fleet
- ✓ Invested in landfill gas power generation expansion



#### **CO2 Reductions Demand Multiple Generation Technologies**

#### To stabilize emissions at 1990 levels, multiple technologies and intensive R&D will be required



- √ The technical potential exists for the U.S. electricity sector to significantly reduce CO2 emissions over the coming decades
- √ No one technology will be a silver bullet - a portfolio of technologies will be needed
- ✓ Much of the needed technology is not available yet - substantial R&D and demonstration are required

