



## A Business Strategy for Reducing Carbon

IEEE

April 24, 2008

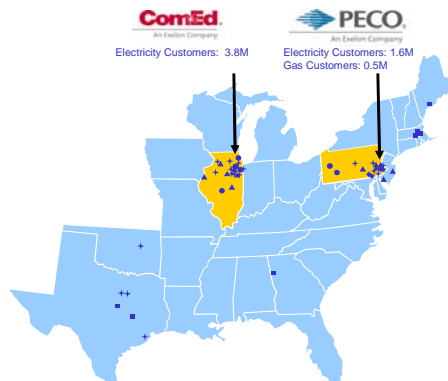
Bill Brady

Director, Corporate Environmental Strategy

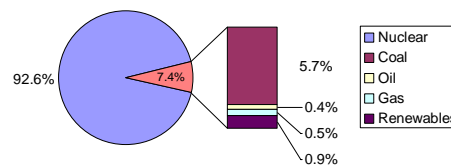
## Background on Exelon (NYSE: EXC)

2

- ✓ One of the nation's largest integrated electric utilities
  - 2007 Total Assets: \$45.9 billion
  - 2007 Revenues: \$18.9 billion
  - Employees: 17,500 (approx.)
  - Customers: 5.4 million electric, 480,000 gas
  - Generating Assets: 32,300 MW, including owned generation and long-term contracts



### Exelon's Low Carbon Generation (2007 Equity Owned Output Mix)



## Why Exelon Has Been Focused on Climate Change

3

- ✓ Scientific consensus is that climate change is real and that greenhouse gas (GHG) emission reductions are needed
- ✓ Federal regulation of GHG emissions is inevitable - it is only a matter of timing and details. States are already starting to act
- ✓ GHG regulation will have a more profound effect on electricity and fossil fuel markets than any other air pollutant regulations, primarily due to current lack of cost-competitive, commercially-available CO2 capture and sequestration technology
- ✓ Exelon currently operates a large portfolio of low carbon generation
- ✓ By engaging early in the debate, and adopting a voluntary GHG reduction goal, Exelon has been working to shape favorable policy outcomes and reasonable technical standards

**Exelon**®

## Setting a Bold New Goal

4

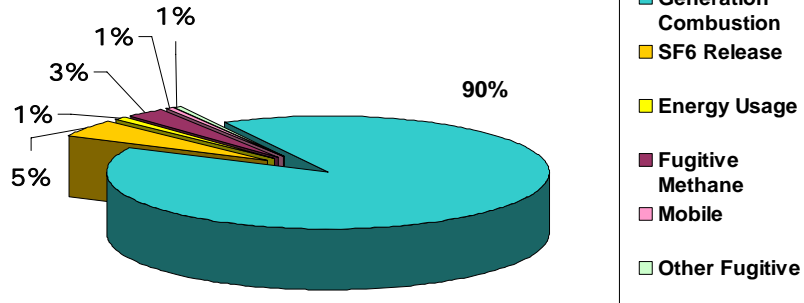
***“Our goal is to reduce, displace or offset the equivalent of our entire carbon footprint by 2020”***

- John W. Rowe, Brookings Institution, February 12, 2008



**Exelon**®

**Emissions by Type**



**Emissions by Business Unit**



- ✓ Exelon will achieve a reduction of 8% below its 2001 level of greenhouse gas (GHG) emissions by 2008
  - 2001 GHG emissions of approximately 15.8M metric tonnes
  - 8% reduction (~1.3M metric tonne reduction, exclusive of any growth in emissions due to increased output in 2008)
  
- ✓ Working with, suppliers to encourage them to reduce their GHG emissions
  
- ✓ Incorporate consideration of GHG emissions and the cost of emissions credits into business case analyses and long range plans



## How Does Exelon Expect to Meet its Goal?

7

- ✓ Maintain high level of performance at nuclear fleet
- ✓ Fossil plant retirement (oil and gas steam units)
- ✓ Renewable energy
- ✓ Energy and process efficiency
  - Fugitive emission reductions: SF-6, gas distribution
  - Building energy efficiency
  - Recycling and investment recovery
  - Fleet fuel efficiency and alternative vehicle fuels
- ✓ Carbon sequestration (prairie grass, PowerTree, TreeVitalize)
- ✓ Offset and credit procurement

**Exelon**®

## Low Carbon Generation

8



### Conowingo

- 512 MW - run of the river facility located on the Susquehanna River
- Recent upgrades – 66 GWh per year (~10,000 homes)



### Fairless Hills

- 60 MW - Landfill Gas
- In 2006, completed a two-year \$11 M project
- Second largest landfill-gas generating station in the U.S.



### Exelon Nuclear

- Estimated annual CO2 emissions avoided by Exelon Nuclear output as compared to applicable average PJM fossil generation emissions = 121 M metric tons, equivalent to approximately 5% of annual U.S. fossil generation CO2 emissions

**Exelon**®

✓ Wholesale Wind & Solar Generation Marketing



Project Name	Installed MW	Capacity Factor	Location
Waymart	63	32%	Near Scranton, PA
Mountaineer	66	32%	Near Thomas, WV
Mill Run	15	29%	Near Pittsburgh, PA
Somerset	<u>9</u>	30%	Somerset, PA
<b>Total MW</b>	<b>153</b>		

**\*\*NEW \*\***  
 20-year contract for a 3-MW solar energy facility was entered into in August 2007. Expected annual output is 3,700 MWh.



Vehicle Fleet

- ✓ 58% of Exelon Fleet (~4600) is alternative fuel enabled
- ✓ One of the largest B20 fleets in US
- ✓ PECO Energy
  - 512 biodiesel trucks, cranes, and derricks
  - 43 Ford Escape hybrid SUVs (38% of PECO SUV fleet)
  - 6 dual fuel CNG pickup trucks, 1 CNG gas crew truck
  - 1 prototype hybrid-electric bucket truck
- ✓ ComEd
  - 1,651 biodiesel trucks, cranes, and derricks
  - 88 Ford Escape hybrid SUVs (41% of ComEd SUV fleet)
  - 2 LPG vehicles
  - 1 prototype hybrid-electric bucket truck
- ✓ Working with suppliers, NGOs and the US EPA to better understand the GHG benefits of using biofuels and emerging options for AFVs
- ✓ Advocating for a life-cycle alternative fuel performance standard



## Improving Internal Energy Use

11

- ✓ Internal Renewable Energy
  - Exelon's headquarters in Chicago's Chase Tower – 10 floors – is supplied with 100% renewable energy
  - 10% of total energy used in PECO Energy's, Philadelphia main office building, supplied by wind energy (2005 – 2007)
- ✓ Internal Energy Efficiency
  - Exelon's Chicago headquarters renovated in accordance with US Green Building Council LEED guidelines (50% less energy use and 30% less water consumption)
  - Exelon Energy Delivery commercial space has reduced internal energy use on average 3% per year since 2005 and we are looking to set more aggressive targets going forward
  - Through thermal efficiency improvements in our nuclear fleet we have added 174 MW of virtually GHG-emission free generation capacity



## Carbon Sequestration

12

- ✓ PowerTree Carbon Company – Exelon Generation
  - 3,800 acres restored in the Lower Mississippi River Alluvial Valley
  - Estimated 2M tons of CO<sub>2</sub> over the trees' 100-year lifetime
- ✓ Prairie Grassland - ComEd
  - Restored more than 488 acres since 1994
  - Partnered with government and NGOs to manage transmission rights of way in conjunction with a 337 acre restoration project
- ✓ TreeVitalize – PECO Energy
  - Plant 20,000 trees and restore 1,000 acres of riparian buffer
  - Four-year program – public-private partnership
- ✓ Lower Susquehanna River Riparian Buffer Restoration - Exelon
  - Exelon is working with Pennsylvania Environment Council
- ✓ Electric Power Research Institute CO<sub>2</sub> Capture Storage Pilot



✓ PECO Energy Conservation and Energy Efficiency



✓ Education

- Energy Saving Tips and Home Renovations
- *Energy Saver* \$ booklet
- Home Energy Saver (energy audit)
- Home Appliance Energy Guide

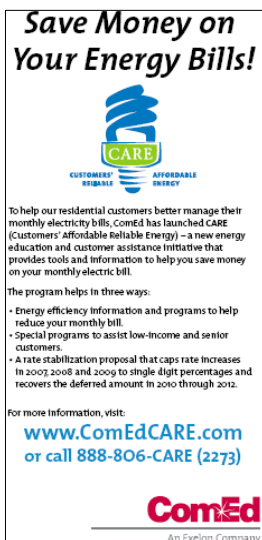
✓ Energy Saving Products

- PECO Energy Saver Kit
- Online Energy Store
- Partnership with Electrical Association of Philadelphia to offer rebates up to \$700 on high-efficiency air conditioners and heat pumps

✓ [www.pecowinter.com](http://www.pecowinter.com)



ComEd CARE (Customers' Affordable Reliable Energy) Program



- Energy efficiency information and programs to help reduce monthly energy use
- Special programs to assist low-income and senior customers
- ENERGY STAR® Compact Fluorescent Light Bulb Program
  - ✓ CFL bulbs use 66% less energy and can last 10 times longer than incandescent bulbs
  - ✓ ComEd offered customers discounts on 1.3 million CFL bulbs in the ComEd service territory
  - ✓ Program reduces GHG emissions by about 90 million pounds of CO<sub>2</sub>/yr

• [www.ComEdCARE.com](http://www.ComEdCARE.com)





- ✓ **PECO WIND<sup>SM</sup> is a 100% wind energy product**
  - Fuel-free
  - Pollution-free
  - Locally produced in Pennsylvania
- ✓ **PECO WIND<sup>SM</sup> is sold in flexible blocks of 100 kWh, up to 100% of actual monthly usage**
- ✓ **Each wind block is priced in addition to standard PECO Energy charges:**
  - \$2.54 per 100 kWh
  - Negotiated special contracts are available for large purchases in excess of 2600 MWh (26,000 blocks/year or 2,167 blocks/month)
- ✓ **Over 38,000 customers in 2007**
- ✓ **ComEd will purchase 2% of its power supply from renewable sources in 2008**



- ✓ **Advocate for federal climate change legislation**
  - National in scope
  - Mandatory
  - Economy-wide program, addressing all six greenhouse gases
  - Point of regulation should be upstream
  - Cap-and-trade program with cost containment
  - Free allocation of allowances transitioning to full auction
  - Preventing windfalls and avoid distortion of price signals to consumers





## Working with the Investment Community

17

- ✓ Investor interest in the environmental performance of the companies in which they invest continues to grow
  - Exelon has expanded its 10-K discussion of climate change
  - Exelon Environmental Progress Report and corporate internet site disclose company air emissions and position / actions on climate change
  - CEO actively engaged in public policy debate on climate change
  - CEO/CFO discussion during investor and media calls
  - No shareholder resolutions on climate change received by Exelon since 2002
- ✓ Increased interest by socially responsible investment funds and indices that consider environmental attributes of corporations
  - Named to the *Dow Jones Sustainability North American Index 2007/2008*
  - Named to the Carbon Disclosure Project's *Climate Disclosure Leadership Index 2007*
  - Named an Electric Sector Sustainability Leader, Silver Class in PwC/SAM's "The Sustainability Yearbook 2008"



CARBON DISCLOSURE PROJECT



## Stakeholder Partnerships

18



CARBON DISCLOSURE PROJECT



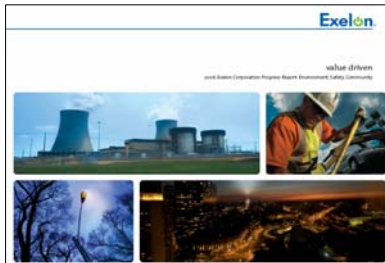
Metropolitan Family Services  
150 years of amazing strength



ADLER  
PLANETARIUM

PHILADELPHIA ZOO





Resources:

- Exelon's website  
[www.exeloncorp.com](http://www.exeloncorp.com)
- Environment, under Corporate Responsibility drop down
- Annual Progress Report

