

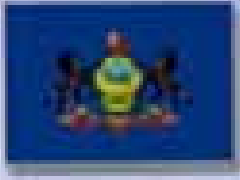


# Selected Issues in Electricity Choice: Wholesale and Retail

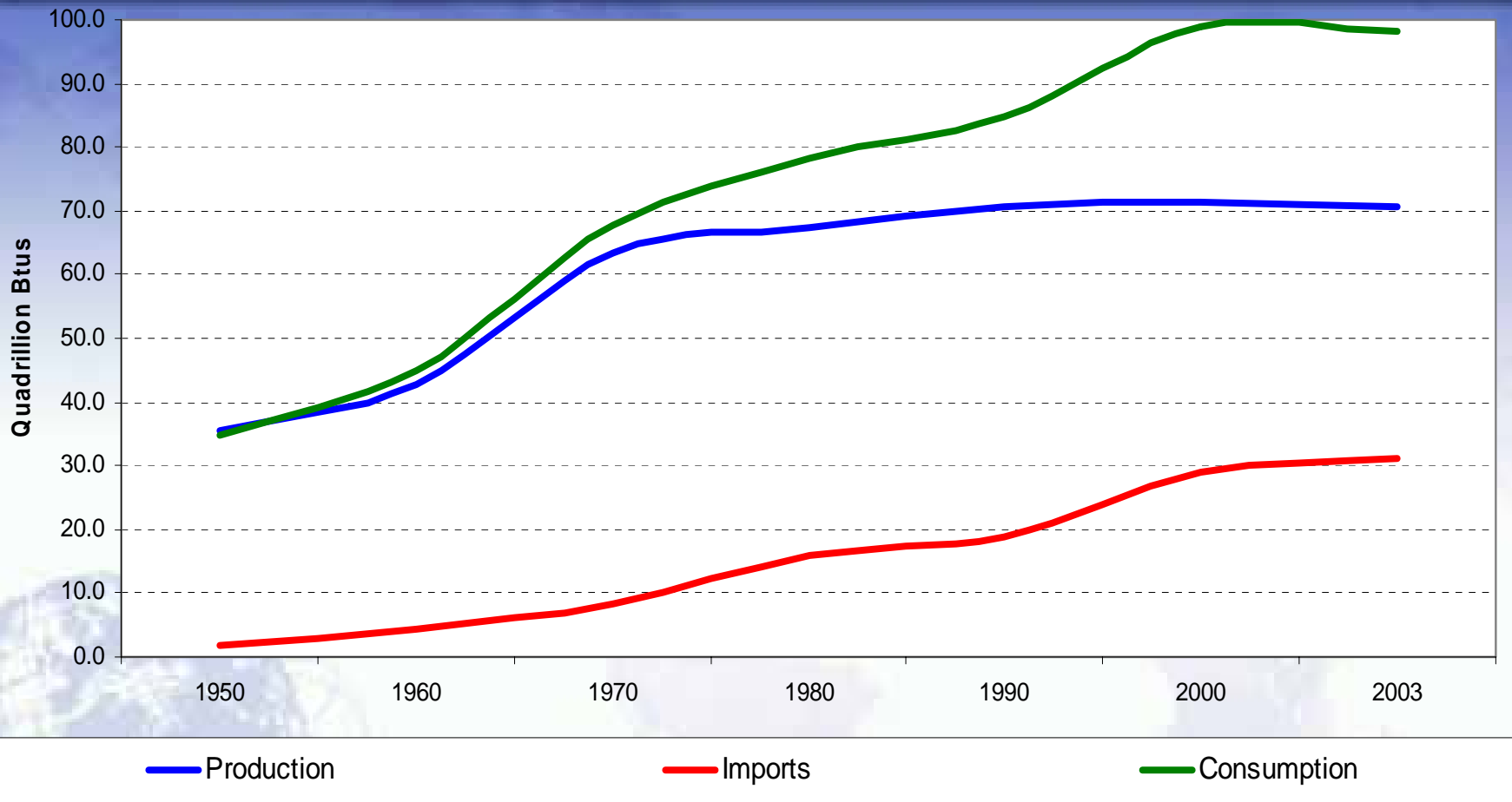
April 20, 2006

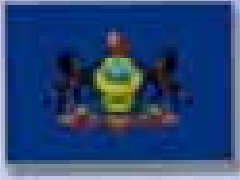
Rajnish Barua, Ph.D.  
Chairman's Energy Advisor  
Pennsylvania PUC  
P. O. Box 3265  
Harrisburg, PA 17120  
Tel: 717-214-1956  
Email: [rbarua@state.pa.us](mailto:rbarua@state.pa.us)

*Disclaimer: Opinions expressed in this presentation belong to the presenter and are for information purposes only; none represent any views of his employer.*

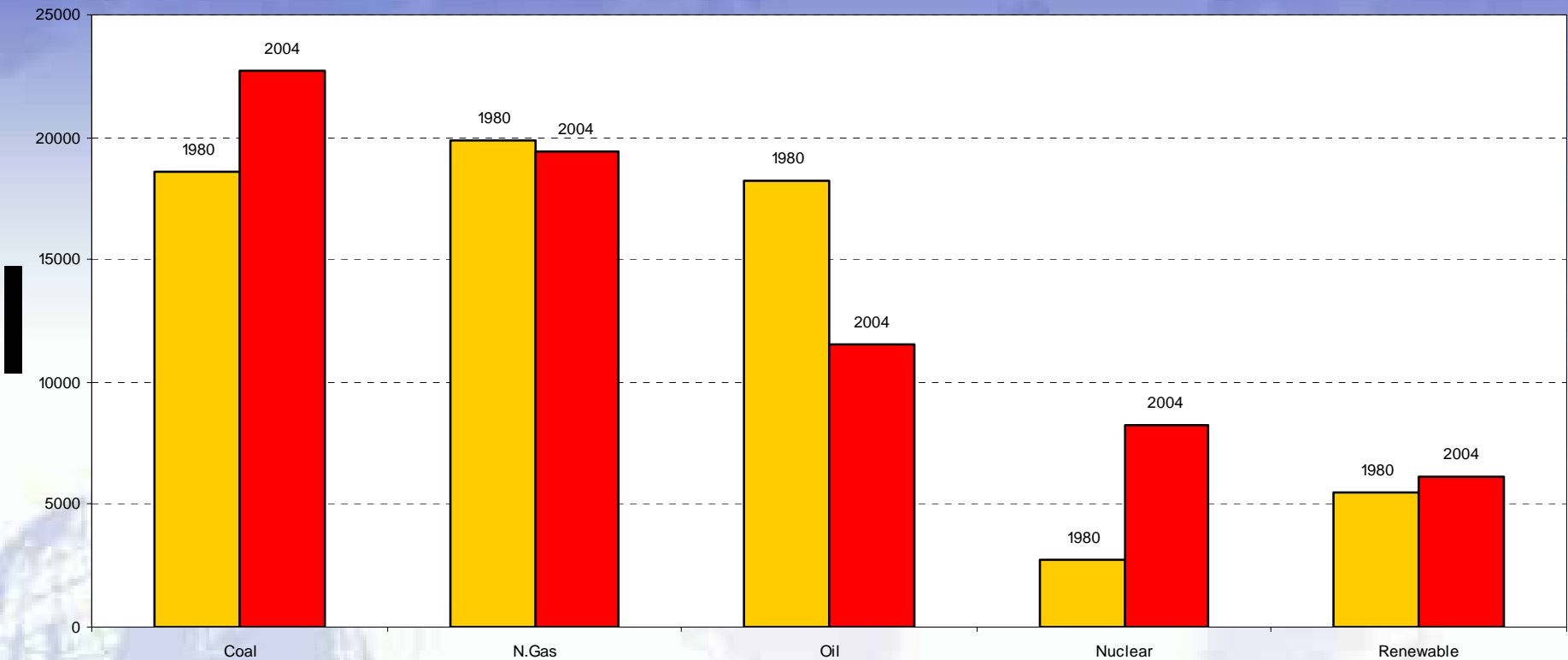


# U.S. Energy Trends



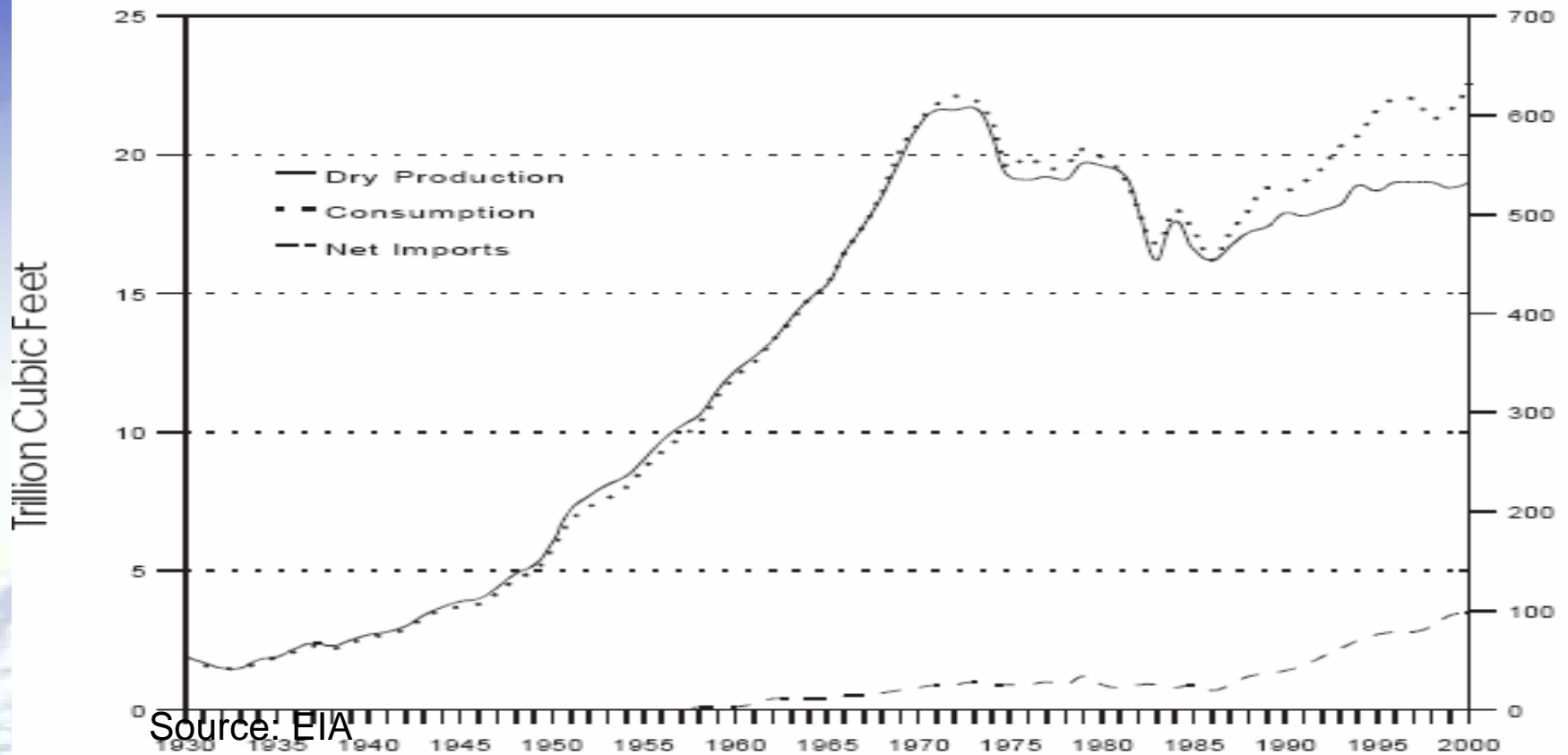


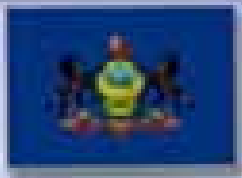
# U.S. Energy Production



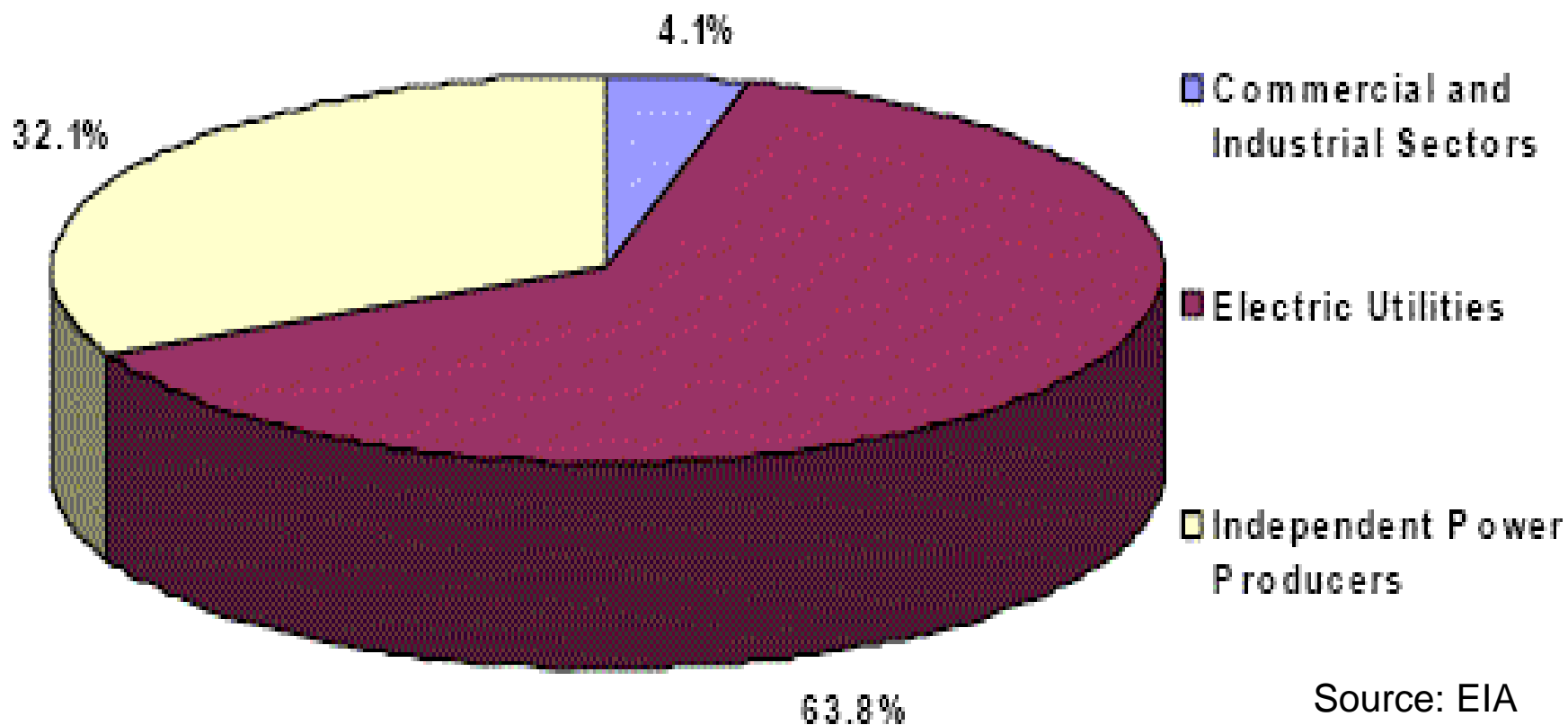


# U.S. Natural Gas Trends



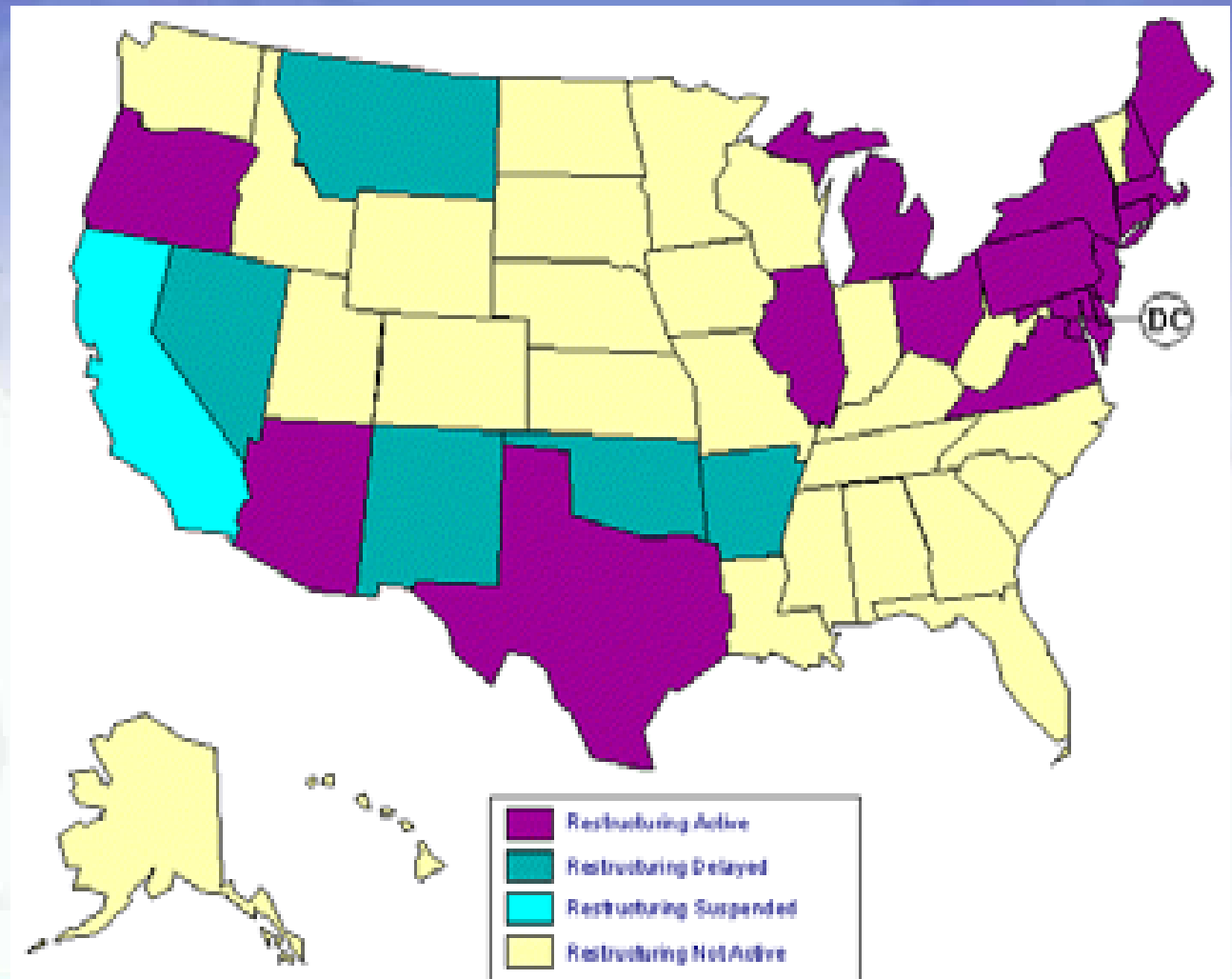


# Electric Generation by Sector





# U.S. Electric Choice by State



Source: EIA

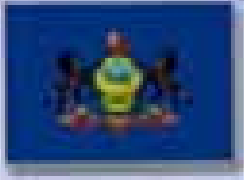
April 2006



# Major EDCs in Pennsylvania



- PECO (1.54 million)
- Pennsylvania Power & Light Company (1.35 million)
- Allegheny Power/West Penn Power (701 000)
- Duquesne Light Company (588 000)
- First Energy/ Penelec (586 000)
- First Energy/Met Ed (521 000)
- First Energy/Pennsylvania Power Company (157 000)
- UGI (62 000)
- Citizens Electric of Lewisburg (6 500)
- Wellsboro Electric Company (5 800)
- Pike County Light & Power Company (4 200)
- ☐ *TOTAL (approx. 5.7 million)*

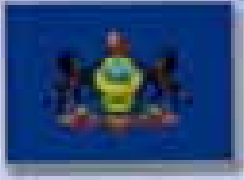


# Current Major Issues



- Post-restructuring rate cases for electric distribution companies
- Provider of last resort (POLR)
- Regional transmission organization (i.e., PJM) and wholesale energy market
- Alternative (renewable) Energy Portfolio Standards

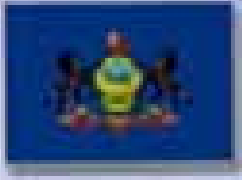




# Open access



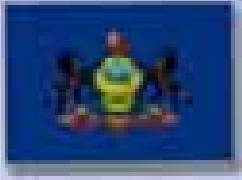
- Since the restructuring of the electricity industry, the Commission no longer has jurisdiction over the generation of power.
- Jurisdiction only over electric companies distributing electric supply to customers.
- Transmission is a federal matter – FERC.
- PJM does not own any transmission assets.
- The transmission wires are still owned by the electric companies in each state, or in some cases, multi-state companies.



# Open access



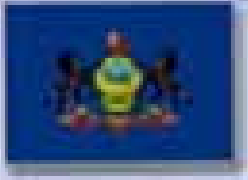
- Basic concept of open access is that the company that owns the transmission wires shall give equal access to any generating company without any bias/favoritism towards its generating affiliate.
- Information for open access has to be available equally all market participants.



# What is Electric Choice?



- Electric customers in Pennsylvania were among the very first people in the United States to be able to choose the company that generates their electricity.
- In 1996, the Electricity Generation Customer Choice and Competition Act became the law.



# What is being chosen?

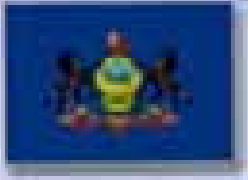
- Choose the company that generates electricity.
- Electric generation supplier (EGS).
- Current electric distribution company (EDC) still provides the transmission and distribution parts of your electric service.
- The PUC will continue to oversee electric service and competition in Pennsylvania.
- The quality, reliability, and maintenance of electric service will not change under this law.



# Why want electric choice?



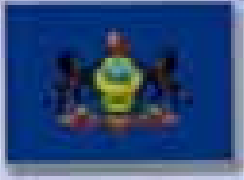
- Shop around for the price and type of service that best suits your needs.
- Different things will be important to each customer.
  - Whether the supplier offers different services and prices.
  - Where the energy is produced.
  - Whether the supplier uses renewable energy sources.
  - Whether the supplier offers a budget-billing plan.



# Regional Markets



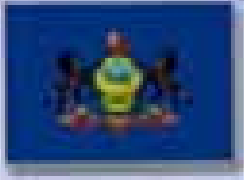
- Almost all of the states in the PJM region have restructured their electricity utility industry and deregulated generation.
- This means that, within certain regulations, generation can be built anywhere by anybody in these states.
- The energy output is sold either as a bilateral contract or in PJM's open market.
- But the states' responsibility of retail rates are still in effect, and retail rates eventually are dependent on wholesale market prices.



# Power purchases



- Bilateral contract
- Spot markets: Day-ahead or hourly
- Under default service, could be acquired in a competitive process such as an auction and/or bids
- Obligation to ensure reliable delivery – possible penalties for non-delivery



# New electricity suppliers



- Affiliates of generating companies.
- Companies without any generation.
- Brokers and aggregators.
- Licensed as retail electricity suppliers by state based on different criteria such as financial and technical capabilities.
- Have to be or have relation with members of PJM to procure electricity in the wholesale market.





# Licensing of Suppliers



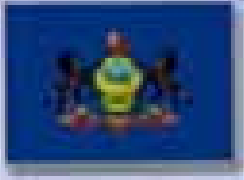
- The PUC must license electric generation suppliers offering service in Pennsylvania.
- Currently, over 40 licensed suppliers.
- Licensing requirements include:
  - The supplier is bonded or is “financially fit.”
  - The supplier meets technical and financial guidelines established by the PUC.
  - The supplier agrees to uphold consumer protection laws and reliability standards.
  - The supplier supports the consumer education requirements.



# Post-restructuring rate cases



- As electric distribution companies (EDCs) end their transition periods, each EDC files a case to set their non-energy rates.
- The first one completed recently was PP&L; Commission's decision was well received by majority of stakeholders.
- The last one will be around 2010-11.



# Provider of Last Resort



- The default supplier, usually an EDC, who provides electric supply to a customer who does not choose or is not served by an EGS.
- Procurement at the wholesale electricity market to be done via auction or bids.
- EDC procurement based on PUC regulations.
- Staggered years for EDCs in Pennsylvania, as late as 2010.



# Information to Customers and Disclosure by Suppliers



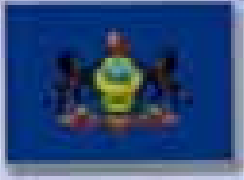
- Information shall be in a clear and understandable format that allows consumers to compare prices and services uniformly.
- Customers must receive written confirmation of the terms of their agreements.
- Suppliers must provide written notification of the expiration date of a customer agreement, and whenever it proposes changes to that agreement.
- EDCs are required to release all customer name, address and usage information to suppliers, unless the customer tells the utility to not release the information.



# Consumer Protection



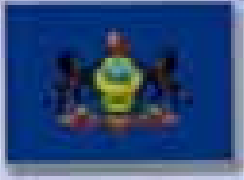
- The law requires EDCs to continue providing protections and services to assist low-income customers.
- The PUC handles complaints about EDCs and EGSs related to billing, meter reading, credit and collections.
- Unauthorized transfer of utility services (slamming) without the customer's permission is prohibited.
- All agreements with a EGS on the telephone or over the Internet has to be confirmed by the EGS in writing in an email, regular mail or in-person hand-delivery.
- When a customer does not choose an EGS or if an EGS declines or cancels service for any reason, the local EDC is obligated to provide power.



# Alternative Energy



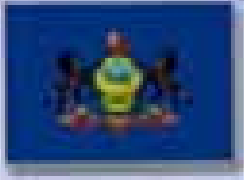
- Alternative Energy Portfolio Standards (Act 213)
- Enacted November 2004; effective February 2005
- Working group formed to draft rules and regulations
- Solar, wind, hydro, geothermal, biomass, methane, fuel cells, waste coal, demand-side management (DSM), distributed generation (DG).
- Alternative energy credits trading platform.



# Societal benefit programs



- Federal and/or state programs
- Affordable access
- Who pays
- Targeted subsidies
- Regulatory instruments
- Financial instruments

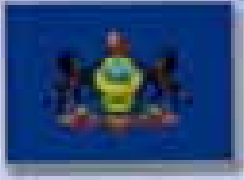


# Societal benefit programs



- Customer Assistance Program (CAP)
- Budget Billing
- Customer Assistance Referral and Evaluation Program (CARES)
- Hardship Funds
- Low-Income Usage Reduction Program (LIURP)
- Low Income Home Energy Assistance Program (LIHEAP)
- Weatherization Assistance Program (WAP)





# Societal benefit programs



- Can lower monthly utility bill
- Determine what the customer can pay verses the cost of energy used
- Residential customers may request budget billing at any time
- Each monthly bill will be the same amount
- Helps customers with special needs
- May help find ways to pay your utility bill
- Family emergencies, medical emergencies
- Goal is to provide support and direction to help customers pay their utility bills
- Help customers lower the amount of energy used each month
- Install energy saving features in your home to help reduce bills