

# **Introduction to Pennsylvania's Alternative Energy Portfolio Standards Act**

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# What is a Portfolio Standard?

- A requirement that a certain of percentage of retail electricity sold to customers come from specified resources
- Most often renewables, but in Pennsylvania's case also includes indigenous resources with a net environmental benefit
- Relates to electricity

# What is an “Alternative” Energy Portfolio Standard?

- The policy objectives of an “AEPS” are broader and more robust than an RPS
- Recognizes the value of fuels whose use provides a “net” environmental benefit to Pennsylvania
- Includes demand-side management measures as a compliance option

# Why do a Portfolio Standard?

- Fuel Diversity/Energy Security
  - About 90% of PA Electricity is generated by two sources (coal and nuclear)
  - Reduce potential need for imported LNG
- Economic Development Benefits
  - Promote resources indigenous to PA
- Environmental Benefits
  - Reduce criteria pollutants and GHG

# Background – The Making of Act 213

- Originally three bills – two pure play RPS
  - HB 2250 (Rep. Ross)
  - SB 962 (Sen. Ferlo)
  - SB 1030 (Sen. Erickson)
- Idea of using a portfolio standard for economic development/energy security gets traction
- Key: SB 1030 brought together a diverse coalition around the interest of using PA's indigenous energy resources for economic development and energy security

# Portfolio Standard

- Requires 18% of the electricity sold to retail electric customers to come from eligible alternative energy sources in fifteen years
- Tier I – 8%
  - Eligible Sources: Solar photovoltaic energy, wind power, low-impact hydropower, geothermal energy, biologically derived methane gas, fuel cells, biomass energy, coal-mine methane
  - Includes a .5% Solar Share

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# Portfolio Standard (Continued)

- Tier II – 10%
  - Eligible Sources: Waste Coal, Distributed Generation, Demand-Side Management, Large-Scale Hydropower, Municipal Solid Waste (only existing facilities), Electricity from Pulping and Wood Manufacturing Processes

# Unique Elements of the AEPS

- Includes alternative sources
- Solar Share – largest in the country (Nevada and California)
- Includes Demand-Side Management (first restructured state to include DSM)
- Requires Statewide Interconnection and Net-Metering Standards for eligible sources 2MW and under

# Projected Benefits -- Economic

- Wind Development: 3,000 – 4,000 MW
  - Currently less than 200 MW
- Solar PV: 400 to 800 MW
  - Currently less than 1 MW
- 3,500 more jobs compared to BAU over 20 years
- \$9.0 billion more in GSP over 20 years
- Every 1% reduction in natural gas demand saves consumers \$140 million annually (probably even more now)

# Projected Benefits -- Environmental

- Annual Avoidance After 15 Years:
  - 6.5 million tons of CO<sub>2</sub>, equal to approximately 2% of current PA GHG emissions
  - 50,000 tons of sulfur dioxide
  - 14,000 tons of NO<sub>x</sub>
    - Approximately equivalent to 5.3% of 2000 emissions
- Opportunities for watershed restoration and methane capture

# DEP Responsibilities:

- DEP: “...ensure that all qualified alternative energy sources meet all applicable environmental standards and verify that alternative energy sources [meet the standards in the act].”
  - Published technical guidance, second draft for public comment upcoming...
  - Related Initiatives: Wind siting, taxation, and natural resource impacts working groups...
- In concert with the PUC:
  - Alternative Energy Assessment Planning/Reporting
  - Monitor the act’s performance and report the General Assembly annually
- In concert with Labor and Industry: Health and safety standards as needed

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# Certified Resources

## As of Jan. 26

- Tier I: 612.8 MW
  - Wind: 287.4
  - LFG: 217.8
  - Coal Mine Methane: 88
  - (Small amounts of solar and one incremental hydro project)
- Tier II: 12,602.5 MW
  - Pumped Storage: 6,753
  - Large-Scale Hydro: 2,357
  - Waste Coal: 1,951
  - Blast Furnace/Industrial Off-Gas: 567.4
  - Municipal Solid Waste: 610.3
  - Black Liquor/Wood: 13

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# More Information

- Senate Bill 1030 Link:

<http://www2.legis.state.pa.us/WU01/LI/BI/BT/2003/0/SB1030P1973.pdf>

- DEP Draft Section 2 Technical Guidance Link:

<http://www.dep.state.pa.us/dep/deputate/pollprev/PDF/Section%20%20Technical%20Guidance%20Final.pdf>

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