



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Policy Office

Clean Power Plan

Conventional Oil and Gas Advisory Committee

January 13, 2016

Tom Wolf, Governor

John Quigley, Secretary

Complying with Clean Power Plan

- U.S. EPA Final Rule covering carbon emissions existing fossil fuel power plants
- PA: 33% reduction by 2030
- Compliance obligation begins 2022
- State plan due September 2016
 - Or submit draft plan with extension request
- Focus on low-income and overburdened communities
- **DEP committed to a Pennsylvania-centric plan that serves the state's economy and maintains our net exporter status**

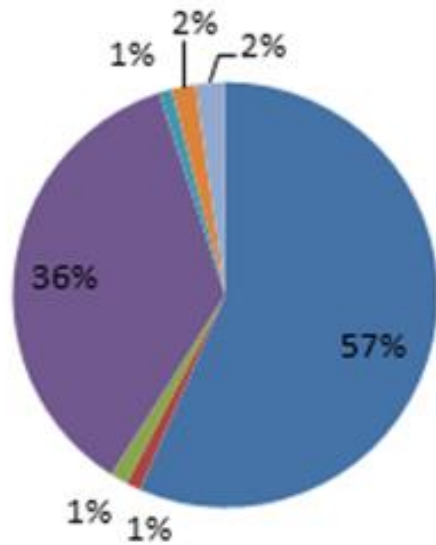
▶ Pennsylvania energy – by the numbers

Pennsylvania is the:

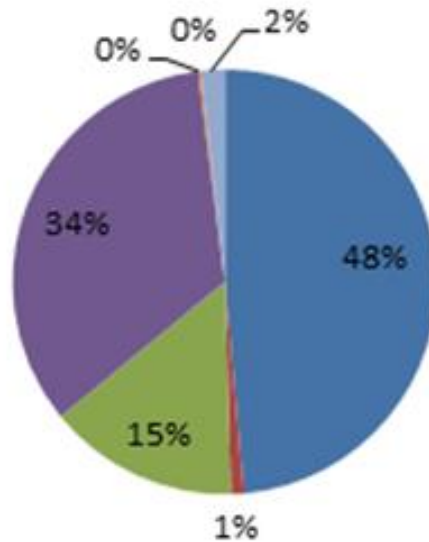
- 1st in the nation for electricity exports
- 2nd largest in nation for electric generation
- 2nd in nation for natural gas production
- 2nd in nation for nuclear generation
- 4th in nation for coal production
- 12th in nation for solar capacity
- 16th in nation wind capacity installed

Evolution of Pennsylvania Energy

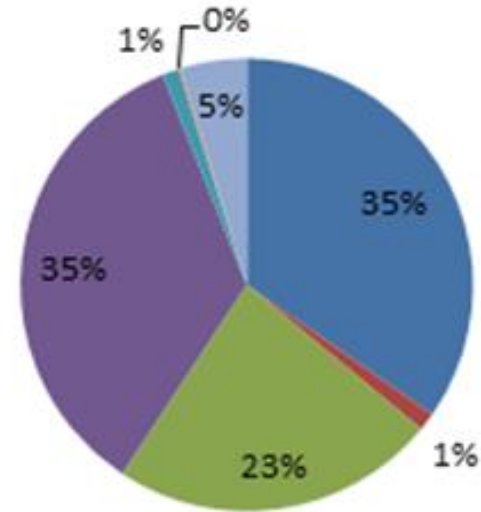
Primary Electric Fuel Sources



2000



2010



2017

- Coal
- Natural Gas
- Other (Non-Woody) Biomass
- Renewable Sources

- Hydroelectric
- Nuclear Power
- Petroleum

Overview

- Overview of Clean Power Plan
- Questions that PA needs to address in formulating its plan
- Our public participation process
- No details on final plan yet
 - Will use comments received to craft draft plan

Clean Power Plan Basics

- EPA rule promulgated under Section 111(d) of the Clean Air Act
- EPA establishes emissions guidelines for states
- States develop plans according to guidelines and to achieve necessary reductions
- If state fails to submit plan or the plan is inadequate, EPA will impose a federal plan

Baseline PA Emissions

Using 2012 as the baseline year

- Rate:
 - 1,682 pounds of CO₂ per megawatt-hour
- Mass:
 - 117 million tons of CO₂ emissions

Calculation of State Targets

- Best System for Emissions Reduction (BSER)
- U.S. EPA established targets for the state using three “building blocks”
 - Heat rate improvements
 - Dispatching more gas over coal
 - Increased renewable generation
- Only used to calculate target, compliance strategies can be farther reaching

CPP Targets for Pennsylvania

- 2030 Rate-Based Target: 1,095 pounds per megawatt hour
 - Interim: 1,258 pounds per megawatt hour
- 2030 Mass-Based Target: 90 million tons of emissions
 - Interim: 99 million tons
- “Glide Path” Approach

Rate vs. Mass

- Credits vs. Allowances
 - Credits are self-generating
 - Allowances are allocated
- Key decisions
 - Allow trading in-state
 - Enter into multi-state agreements
 - Common elements approach

Key Considerations

- Rate or Mass?
- Allocating allowances under mass?
- Inclusion of new natural gas plants under mass?
- Suggestions on measuring compliance?
- Should PA allow out-of-state trading? How?

Key Considerations (cont'd)

- Energy efficiency as a compliance option?
- Renewables as a compliance option?
- Clean Energy Incentive Program?
- Least-cost options for compliance?
- How can we prioritize indigenous resources?
- How can we maintain a diverse fuel mix?
- Maintain net exporter status?
- Ensure electric reliability?

Key Considerations (cont'd)

- Communities experiencing adverse impacts from climate change?
- Communities experiencing economic impacts due to the rule?
- How can we effectively reach out to vulnerable populations?
- Ensure communities are not disproportionately impacted by the state plan?

Comment Period

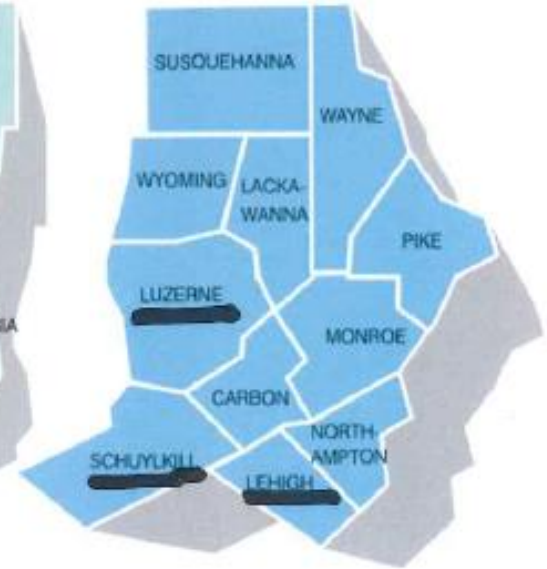
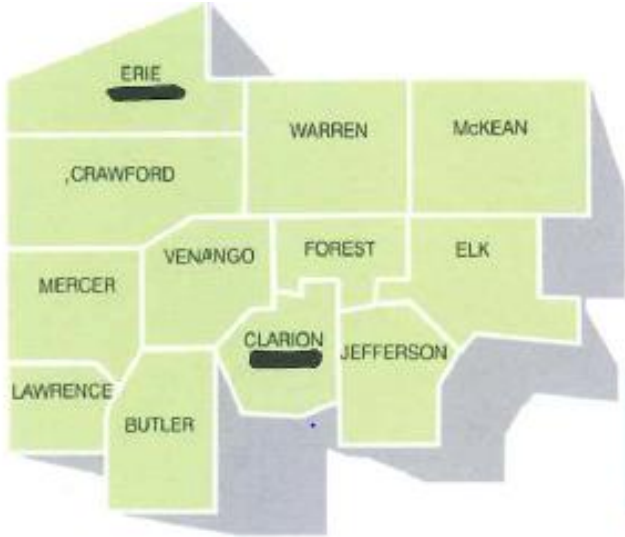
DEP accepted comments on how PA should approach a state compliance plan for 60 days

Received approximately 3,000 comments (all available on eComment)



- 1,700 form letters
- 273 persons provided testimony at Listening Sessions

Listening Sessions



Next Steps

- Fall/Winter 2015 - Comments received will be used to develop draft plan for Pennsylvania
- Spring 2016- Draft plan issued for public comment w/ public hearings
- Fall 2016- Submission of final plan to U.S. EPA by September 2016

Questions

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