

Role of Renewable Energy in Ohio Affecting Losses and Providing Supply

Day 1 – Session 2 Network Design & Configuration

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- Senate Bill 3 passed in 1999 and allowed customers to have a choice for a generation company
 - PUCO regulates transmission and distribution companies
 - Generation providers are competitive, certified by the PUCO, but not fully regulated





- Electric Choice Facts:
 - Customers can choose supplier (generator of electric)
 - Electricity would still be delivered by the electric company
 - Communities can aggregate to buy electricity
 - The PUCO does not regulate how the aggregator negotiates, their rates, or their billing process





- Electric Choice Facts:
 - Quality, safety, and reliability still regulated by the PUCO
 - Choice exists due to state and federal laws
 - PUCO encourages competition





- Federal Energy Regulatory Commission (FERC) regulates interstate transmission and wholesale sales of electric
- Energy Policy Act of 2005
 - Improve electric reliability
 - Promote investment in electric facilities
 - Streamline electric regulation
 - Improve wholesale competition
 - Promote fuel diversity and cleaner fuel sources
 - Promote greater efficiency





- PUCO's response to the Energy Policy Act
 - Explored opportunities to increase Ohio's use of alternative energy
 - Conducted conference to determine barriers to establishing alternative energy
 - June 2006: PUCO issued recommendations that addresses net metering, smart metering, demand response, co-generation, interconnection, and small power production





- PUCO's response to the Energy Policy Act
 - Develop energy portfolio
 - Eliminate rules that limit net metering
 - Streamline the interconnection rules
 - Require company lists for advanced metering technologies and related costs
 - Identify customer and their load types
 - Analyze systems to identify areas for improvement





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Net Metering

 A standard contract will be developed for consumers who wish take advantage of net metering; hospitals will have separate standard contract

Governmental Aggregation

- PUCO will adopt rules to encourage largescale governmental aggregation
- Aggregators may elect not to receive standby service





Ohio Power Siting Board (OPSB)

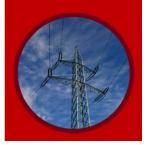
- PUCO department that reviews and approves plans for construction of new energy facilities in Ohio
- Before major utility facility is built, OPSB assures that it:
 - Benefits Ohio citizens
 - Promotes the state's economic interests
 - Protects the environment and land use





Alternative Energy Resource Standard

- 25% or more of total electricity supplied must come from alternative energy by 2025
- At least 12.5% must come from renewable energy:
 - Wind, solar, solar thermal, geothermal, biomass
 - 0.5% reserved for solar energy
 - Half of renewable energy must come from Ohio





Renewable Energy Resources

- Must meet annual benchmarks or make compliance payments
- May use renewable energy certificates to meet benchmarks
- Institutes a 3% cost cap for renewable energy





Renewable Energy Benchmarks



Year	Total req.	Solar req.
2009	0.25%	0.004%
2010	0.50%	0.010%
2011	1.00%	0.030%
2012	1.50%	0.060%
2013	2.00%	0.090%
2014	2.50%	0.120%
2015	3.50%	0.150%
2016	4.50%	0.180%



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Year	Total req.	<u>Solar req.</u>
2017	5.50%	0.220%
2018	6.50%	0.260%
2019	7.50%	0.300%
2020	8.50%	0.340%
2021	9.50%	0.380%
2022	10.50%	0.420%
2023	11.50%	0.460%
2024	12.50%	0.500%



Energy Efficiency Standard

- 22% of electricity demand will be saved through energy efficiency by 2025
- Utilities must meet annual benchmarks which brings them in line with the standard
- Penalties will be assessed for not meeting benchmarks; penalties contributed to state's advanced energy fund





Energy Efficiency Standard

- A utility can use energy efficiency measures industrial companies have already implemented to meet standard
- Utilities may seek rate recovery of revenues lost as a result of any energy efficiency program





Energy Efficiency Benchmarks

Year	EE req.
2009	0.3%
2010	0.8%
2011	1.5%
2012	2.3%
2013	3.2%
2014	4.2%
2015	5.2%
2016	6.2%





Energy Efficiency Benchmarks

Year	EE req.
2017	7.2%
2018	9.2%
2019	11.2%
2020	13.2%
2021	15.2%
2022	17.2%
2023	19.2%
2024	22.2%





Special Provision in Ohio Energy Law

- Allows utilities to meet energy efficiency and demand reduction benchmarks with projects that project power system losses
- Both transmission and distribution system projects qualify





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Questions



