

US EPA ARCHIVE DOCUMENT



Quantifying Emission Impacts

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Evolution of Energy Efficiency

- Advance Plan – Wisconsin's integrated resource planning process
- Focus pilot
- 1999 Wisconsin Act 9
 - Full third-party delivery
 - DOA oversight
- 2005 Wisconsin Act 141
 - Change in funding source
 - Increased funding
 - PSC oversight



Environmental Value of Energy Efficiency



- Advance Plan
 - Monetization of greenhouse gases
 - Values used to compare resource options

- Act 9

Proposals for providing energy conservation or efficiency services shall give priority to proposals directed at the sectors of energy conservation or efficiency markets that are least competitive and at promoting **environmental protection**, electric system reliability or rural economic development

- Act 141

The purpose of the programs should be to help achieve **environmentally sound** and adequate energy supplies at reasonable cost.

Why Determine AQ Benefits?



- Document objective of statute is met
- Reflect environmental benefits in the valuation of energy efficiency programs
 - Use of Expanded Resource Cost Test began under DOA oversight
 - Continued and later reaffirmed by the Commission in its Quadrennial Planning process

Development of approach



- DOA requested LBNL to develop method for the Focus pilot
- Enhancements under Act 9
 - Development of multiple load duration curves
 - Identification of marginal generators during different periods (peak and off-peak for each season)
 - Use of additional plant-specific data for heat rates and NO_x emissions
 - Use of a subset of power plants that more closely models only Wisconsin generation sources
- Enhancements under Act 141
 - Apportion savings over each hour of year
 - Base on data specific to plants estimated to be operating on the margin

Key approach considerations

- Data availability
- Cost of obtaining/developing data
- Realism/accuracy in the estimation of avoided emissions
- Alignment with the Greenhouse Gas Protocol Initiative
 - Broadly accepted
 - Lends credibility to results



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