

Energy Efficiency Analysts Needs for Electric Market Data

R. Neal Elliott, Ph.D., P.E.

Industrial Program Director

**American Council for an Energy-
Efficient Economy**

Washington, D.C



The American Council for an Energy Efficient Economy (ACEEE)

- Non-profit (501c (3)) dedicated to advancing energy efficiency through research and dissemination.
- 25+ staffers in Washington, DC, Delaware, Michigan and Wisconsin
- The Energy Efficiency “Think Tank”
- Internationally Respected Source of Research Focus on End-Use Efficiency, Policy and Programs
- Funding:
 - Foundation and Government Grants (55%)
 - Specific Contract work (20%)
 - Conferences and Publications (25%)



Overall Needs

As energy efficiency analysts we need:

- Timely data on:
 - Capacity
 - Generation
 - Fuel consumption
 - Fuel expenditures
 - Retail prices
- Data disaggregated by:
 - State
 - Fuel
 - Ownership (utility, IPP, commercial, industrial)



Need to Historic Data

- Most analyses involve looking at market trends – need consistent time series data
- Most analyses combine electric sector data with other data – e.g., end-use consumption, economic activity, forecasts – need consistent characterization of data across time

Data Challenges

- Differences between electric interconnections and state boundaries
- Explaining differences between NERC and EIA data
- Differences in data quality between electric sector and other sources – electric data sets expectations for other data sectors that is not met
- Prices vary by individual consumer – reported averages obscure impacts of TOU and peak pricing

Specific CHP/Cogen Data Needs

- Installed capacity and Electric generation – state and national
- Estimate of thermal output – need transparency of methodology
- Estimation of small systems – e.g., less than 1 MW
- Distribution of:
 - Capacity by system electric capacity
 - Fuel
 - Technology (e.g., engine, combustion turbine, steam turbine)

Data Challenges Moving Forward

- Changing structure of the electricity sector:
 - Changing roles of utility
 - Non-traditional generators
 - Distributed generation
 - Increasing importance of demand relative to generation
- Changing price structures:
 - Increases in demand-responsive pricing
 - Impacts of advanced metering/controls
- Regional variations in market structure and operation

Contact Information

R. Neal Elliott, Ph.D., P.E.

Industrial Program Director

ACEEE

1001 Conn. Ave, NW, Suite 801

Washington, DC 20036

202-429-8873

rne Elliott@aceee.org

For more information visit:

<http://aceee.org/energy>

