



Redesign of Electricity Data Collections: 2005

**American Council for an Energy
Efficient Economy
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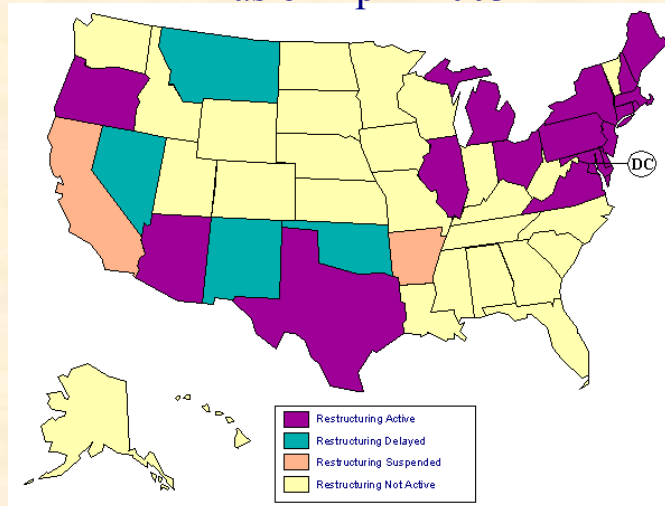


Background

- **FERC Order 888, 889, and 2000 provided for open access to transmission lines and operational oversight.**
- **17 States and the District of Columbia have legislation or regulation orders to allow for retail competition.**
- **1998-2002 conducted Electricity 2002 which developed EIA's approach to maintaining relevant quality information about the changing industry.**
- **Congressional legislation is pending.**
- **Electricity 2005 to refine current forms.**



Status of State Electric Industry Restructuring Activity -- as of April 2003 --



Monthly Data Collection for Electric Industry for 2002

- **Generation, fuel, stocks (EIA-906)**
- **Cost, quantity, and quality data (EIA-423)**
- **Sales and revenue (EIA-826)**
- **Emergency data (EIA-417) – on an as needed basis**



Annual Data Collection for Electric Industry

- **Sales and Revenue and Demand-Side Management (EIA-861)**
- **Power Plant Site and Generator Information (EIA-860)**
- **Operations and Design (EIA-767)**
- **Financial (EIA-412)**
- **Supply and Demand Projections (EIA-411)**



Industry Changes

- **Sale of electric utility assets (generating facilities) to nonutilities.**
- **Open access to transmission lines.**
- **Emergence of competitive suppliers (wholesale and retail).**
- **Less electric utility construction of additional capacity.**
- **A lot of additional planned nonutility capacity, but also many cancellations.**



Changes at EIA

- **New forms January 2002**
- **New *Electric Power Monthly***
- **New *Electric Power Annual***
- **EXCEL spreadsheets on Internet**
- **Internet data collection option**



Changes Made for 2002

- **Consolidated data for regulated and unregulated entities on the same form and now treated equally:**
 - Capacity data on Form EIA-860**
 - Emissions data on Form EIA-767**
 - Plant cost data on Form EIA-412**
 - Energy balances on Form EIA-861**
- **Collect cost and quality of fuels data which are not collected by FERC**
- **Collect transmission cost, substation, and other transmission facility information on Form EIA-412 from non-investor owned utilities**



New Electric Power Reports

- **Generation, fuel consumption, fuel stocks, fossil fuel receipts and costs**
 - U.S. Power Producers
 - Electric Utilities
 - Independent Power Producers
 - Combine Heat and Power Plants
- **Cogenerator fuel consumption and stocks**
 - Total fuel consumption
 - Fuel for electric generation
 - Fuel for useful thermal output



Computer System

- **Internet data collection systems operational**
- **Data entry the same for Internet users and EIA staff**
- **New edits incorporated into all systems**



Electricity 2005

- Utilizes a phased approach, which addresses all activities from data requirements through dissemination of data.
- Accommodates cost-of-service rates as well as different State retail implementation schedules.
- Implements sensitive data policy.



Electricity 2005 Phased Approach

Phase I Data Requirements

- Analyses of Key Issues
- Stakeholder Coordination
- Data Dictionary
- Federal Register Notice

February 2004

Phase II Forms Design

- Consolidations
- Revisions
- Frame Updates
- Pilot Testing
- Evaluation of Sensitive Information
- OMB Clearance

December 2004

Phase III Collection and Processing

- Data Processing System
- Internet Data Collection

January 2005

Phase IV Dissemination

- Internet Product Dissemination Design
- Electric Power Annual
- Electric Power Monthly
- Detailed Spreadsheets
- Databases

September 2005



Analysis of Pertinent Issues

- Role of distributed and dispersed generation
- System emergencies and disturbances
- Need for transmission information
- Bulk power imports and exports
- Form EIA-412 plant cost data for unregulated entities
- Energy balances
- Sales and revenue from transportation and irrigation sectors



Electricity 2005 Phased Approach

Phase I Data Requirements

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February 2004

Phase II Forms Design

- New Surveys
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Phase III Collection and Processing

- Data Processing System
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- Secure File Transfer

January 2005

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September 2005



Confidentiality Issues

- **Entity specific data has been historically used for a variety of purposes**
- **Increasingly difficult to collect sensitive data**
- **Most entity level fuel production and consumption data not published by EIA, except for electricity**
- **Historically, regulated and unregulated entity data were treated differently**



Laws on Sensitive Data

- **Trade Secrets Act**
- **Freedom of Information Act**
- **Department of Energy, Freedom of Information Act Regulations**
- **Paperwork Reduction Act**
- **Confidential Information Protection and Statistical Efficiency Act**



Current Sensitive Data Elements

- Fuel cost (EIA-423)
- Fuel stocks (EIA-906)
- Latitude and longitude (EIA-767, EIA-860)
- Maximum tested heat rate (EIA-860)
- Plant cost for unregulated entities (EIA-412)
- Monthly retail sales, revenue, and number of customers (energy only service) (EIA-826)
- Select emergency information (EIA-417)



EIA-906 Revision for 2004

- Electric power plants
 - Only “product” is electricity
 - All fuel goes for electricity production
- Combined heat & power facilities
 - Facilities produce electricity & heat/steam (useful thermal output – UTO)
 - Facilities don’t separately measure fuel used for electricity and heat/steam

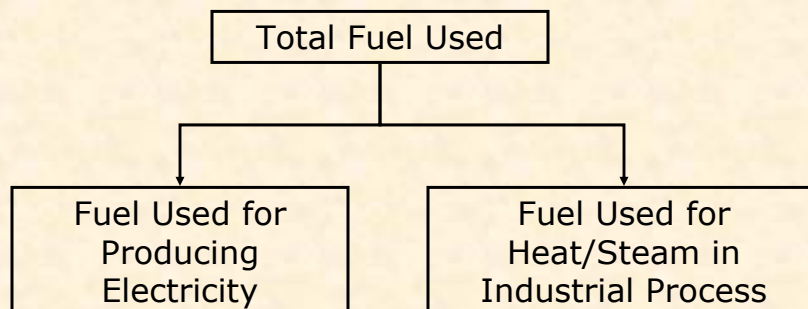


Combined Heat & Power Facilities (Cogenerators)

- Paper mills
- Refineries
- Chemical plants
- Steel mills
- Food processors
- Waste treatment plants



Fuel Use – Facility





EIA's Current Practice

- EIA calculates fuel used for electricity generation as the difference between total fuel consumed and useful thermal output
- Data elements collected by EIA
 - Megawatthours generated
 - Total fuel quantity
 - Heat content of fuel
 - Million Btu of useful thermal output



Formula for Calculating Fuel Use

- Useful thermal output/Average boiler efficiency (80%) = Fuel for thermal output
- Total fuel consumed – fuel for thermal output = Fuel for electricity



Proposed Alternative EIA-906

- Different schedules for the electric power generators and combined heat and power facilities.
- EIA will no longer collect useful thermal output from CHP facilities.
- EIA will collect estimates of fuel used to generate electricity from CHP facilities by prime mover type.
- EIA will sample CHP facilities monthly. Non-sampled facilities will be asked to provide monthly data once a year.