

## Appendix F

## Data and Methodology Changes in the State Energy Data System

Tables and data files in the State Energy Data System (SEDS) supply a new year of data each production cycle. The latest data may be preliminary and, therefore, revised the following cycle. Changes made to consumption and price source data for historical years are also regularly incorporated into SEDS.

Listed below are changes in SEDS contents beyond the standard updates.

### Total Energy

Estimates of total energy consumption by State and end-use sector have been significantly revised because of the following changes:

Net interstate electricity trade data in kilowatthours, recently published in EIA's State Electricity Profiles and available from 1990 forward, are now incorporated into SEDS. A new method is used to estimate the heat content of the energy used to generate electricity that is traded across State lines. "Net interstate flow of electricity," as it is termed in SEDS, is a component of total energy consumption. See Section 6.

The method of estimating electrical system energy losses, which are included in total energy consumption by end-use sector, is revised from 1990 forward. The revised energy loss estimates take into account the heat content of the energy source consumed by the State's electric power sector and the net interstate flow of electricity. See Section 6.

The method of estimating petrochemical feedstocks has been revised (see explanation under Other Petroleum Products below). As a result, total

energy consumption estimates for Texas and Louisiana are revised upward significantly. Total energy consumption for other States (those for which petrochemical feedstock estimates previously existed) are revised downward.

Because of these major changes, total energy consumption series published in 2012 should not be compared with series published in earlier years.

### Petroleum

#### *Asphalt and Road Oil*

For 2009 forward, State-level asphalt and road oil sales are no longer available. The U.S. total consumption estimate is disaggregated to each State using the State's share of total U.S. asphalt and road oil sales in 2008, as published in the *2008 Asphalt Usage Survey for the United States and Canada*.

#### *Liquefied Petroleum Gases (LPG)*

The approximate heat content of propane is used to convert barrels of LPG consumed by the residential, commercial, and transportation sectors to British thermal units (Btu). The conversion factor for the industrial sector is calculated by dividing U.S. industrial LPG consumption in billion Btu by the volume in thousand barrels. The price estimates in dollars per million Btu are also adjusted accordingly.

Previously, the average heat content of LPG was used to convert LPG consumption and prices for all sectors.

### ***Other Petroleum Products***

#### ***Pentanes Plus and Petrochemical Feedstocks, Naphtha less than 401°F***

The U.S. consumption estimates of pentanes plus and naphtha used as petrochemical feedstocks are allocated to the states using a new data series called "State share of capacity of steam crackers using naphtha as feedstocks." The series is compiled using plant-level information on nameplate capacity and average share of naphtha in the feedstock mixture for steam cracker plants producing ethylene. Data were collected for 1997 through 1999, 2002, 2004, 2008, and 2010. The shares of the interim years are interpolated using the compound annual growth rates of years with data, and the shares for 1997 are used for the earlier years. The new method allocates the feedstocks consumption to Louisiana and Texas only.

Three other data series - natural gasoline, plant condensate, and unfractionated streams - that have been discontinued in 1984 were also revised because they were also used as feedstocks for petrochemicals.

Previously, the U.S. consumption of these products was allocated to the States by the value of shipments or value added of the organic industrial manufacturing industry.

#### ***Petrochemical Feedstocks, Other Oils equal to or greater than 401°F***

The U.S. consumption of other oils equal to or greater than 401°F used as petrochemical feedstocks is allocated to the States using a new series called "State share of capacity of steam crackers using other oils as feedstocks." The series is compiled using plant-level information on nameplate capacity

and average share of other oils in the feedstock mixture for steam cracker plants producing ethylene. The new method allocates the feedstocks consumption to Louisiana and Texas only.

Previously, the U.S. consumption of other oils was allocated to the States by the value of shipments or value added of the organic industrial manufacturing industry.

### ***Special Naphthas, Waxes, and Miscellaneous Petroleum Products***

Beginning in 2001, the U.S. total consumption of these products is allocated to the States by using value of shipments data from the Economic Census. Allocations for prior years are based on value added.

## **Renewable Energy**

### ***Solar Energy***

The survey that collects data on shipments of solar thermal collectors, EIA-63A, Annual Solar Thermal Collector Manufacturers Survey, was terminated for data year 2010. State-level residential/commercial consumption of solar energy in 2010 was estimated by applying the 2009 State share to the 2010 U.S. total.