Section 1. Documentation Guide

This section describes the common data identification codes used in the State Energy Data System (SEDS). Sections 2 through 6 provide information for each of the major energy sources: coal, natural gas, petroleum, renewable energy, and electricity. Section 7 describes adjustments for consumption of industrial process fuel, intermediate products, and other uncosted energy sources that SEDS removes to calculate expenditures.

Appendix A is an alphabetical listing of all the variable names and formulas used in the price and expenditure module. Appendix B presents the current-dollar gross domestic product (GDP) by state used to calculate energy expenditures per dollar of GDP. Appendix C provides metric and other physical conversion factors for measures used in energy analyses. Appendix D summarizes the changes in SEDS content made since the last complete release of data.

There are about 1,000 variables in SEDS, each identified by a unique five-character mnemonic series name, or MSN. All published MSNs are listed in the Codes and Descriptions file on the SEDS website here: https://www.eia.gov/state/seds/CDF/Codes_and_Descriptions.xlsx.

In the following example, MGACV is the identifying code for motor gasoline expenditures in the transportation sector in million dollars:

Energy activity or energy-consuming sector

MGACV

Type of energy Type of data

The first two characters in the SEDS variable names represent energy sources and products:

AR = asphalt and road oil
AV = aviation gasoline
CC = coal coke
CL = coal
DF = distillate fuel oil
EL = electricity
EM = fuel ethanol, excluding denaturant
ES = electricity sales
FN = petrochemical feedstocks, naphtha less than 401°F
FO = petrochemical feedstocks, other oils equal to or greater than 401°F
FS = petrochemical feedstocks, still gas
HL = hydrocarbon gas liquids
JF = jet fuel
KS = kerosene
LU = lubricants
MG = motor gasoline
MS = miscellaneous petroleum products
NG = natural gas, including supplemental gaseous fuels
NU = nuclear electric power
OH = other hydrocarbon gas liquids
OP = other petroleum products
P1 = asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and other petroleum products
P5 = other intermediate products (petroleum only)
PA = all petroleum products
PC = petroleum coke
PE = primary energy
PQ = propane
RF = residual fuel oil
SN = special naphtha
TE = total energy
TN = total net energy
WD = wood
WW = wood and waste
WX = waxes

SEDS assumes that there are no direct fuel costs for hydroelectric (HY), geothermal (GE), solar thermal and photovoltaic (SO), and wind (WY) energy. There are no price and expenditure MSNs for these energy sources.
The third and fourth characters in the SEDS variable names have several meanings and some are specific to only certain energy sources. First, many represent the energy-consuming sectors:

- AC = transportation sector
- CC = commercial sector
- EG = electric power sector (generation)
- EI = electric power sector (consumption)
- ET = total cost of electricity generation (nuclear only)
- IC = industrial sector
- RC = residential sector
- TC = total consumption of all energy-consuming sectors
- TX = total end-use consumption

“TP” in the third and fourth characters represents per capita expenditures.

The third and fourth characters in the SEDS variable names also indicates activities such as trade and subsectors that SEDS uses to calculate prices and expenditures. Examples are:

- EX = exports
- IM = imports
- IS = industrial consumption, costed
- KC = coke plants (coal only)
- NI = net imports
- OC = industrial consumption, excluding coke plants.

Lastly, the third and fourth characters in the SEDS variable names identify the activities used to calculate adjusted consumption for the expenditure calculations. Examples are:

- AS = transportation sector adjusted consumption
- CS = commercial sector adjusted consumption
- IS = industrial sector adjusted consumption
- RS = residential sector adjusted consumption
- SC = total adjusted consumption, all sectors
- SS = total adjusted consumption, all end-use sectors

Section 7 describes all the variables used in the calculation of adjusted consumption and Appendix A2 lists the MSNs and the formulas.

The fifth character of the SEDS variable name identifies the units or type of data:

- B = consumption in British thermal units (Btu)
- D = price in dollars per million Btu
- K = factor for converting data from physical units to Btu
- P = data in standardized physical units
- S = share or ratio expressed as a fraction
- V = expenditure in million dollars

There are a few variables that do not follow the convention:

- TPOPP = resident population
- GDPRV = current-dollar gross domestic product (GDP)
- TEGDS = total energy expenditures as percent of current-dollar GDP

---

**Table TN1.1. Geographic area codes used in the State Energy Data System**

<table>
<thead>
<tr>
<th>Code</th>
<th>State</th>
<th>Code</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>Alaska</td>
<td>MT</td>
<td>Montana</td>
</tr>
<tr>
<td>AL</td>
<td>Alabama</td>
<td>NC</td>
<td>North Carolina</td>
</tr>
<tr>
<td>AR</td>
<td>Arkansas</td>
<td>ND</td>
<td>North Dakota</td>
</tr>
<tr>
<td>AZ</td>
<td>Arizona</td>
<td>NE</td>
<td>Nebraska</td>
</tr>
<tr>
<td>CA</td>
<td>California</td>
<td>NH</td>
<td>New Hampshire</td>
</tr>
<tr>
<td>CO</td>
<td>Colorado</td>
<td>NJ</td>
<td>New Jersey</td>
</tr>
<tr>
<td>CT</td>
<td>Connecticut</td>
<td>NM</td>
<td>New Mexico</td>
</tr>
<tr>
<td>DC</td>
<td>District of Columbia</td>
<td>NV</td>
<td>Nevada</td>
</tr>
<tr>
<td>DE</td>
<td>Delaware</td>
<td>NY</td>
<td>New York</td>
</tr>
<tr>
<td>FL</td>
<td>Florida</td>
<td>OH</td>
<td>Ohio</td>
</tr>
<tr>
<td>GA</td>
<td>Georgia</td>
<td>OK</td>
<td>Oklahoma</td>
</tr>
<tr>
<td>HI</td>
<td>Hawaii</td>
<td>OR</td>
<td>Oregon</td>
</tr>
<tr>
<td>IA</td>
<td>Iowa</td>
<td>PA</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>ID</td>
<td>Idaho</td>
<td>RI</td>
<td>Rhode Island</td>
</tr>
<tr>
<td>IL</td>
<td>Illinois</td>
<td>SC</td>
<td>South Carolina</td>
</tr>
<tr>
<td>IN</td>
<td>Indiana</td>
<td>SD</td>
<td>South Dakota</td>
</tr>
<tr>
<td>KS</td>
<td>Kansas</td>
<td>TN</td>
<td>Tennessee</td>
</tr>
<tr>
<td>KY</td>
<td>Kentucky</td>
<td>TX</td>
<td>Texas</td>
</tr>
<tr>
<td>LA</td>
<td>Louisiana</td>
<td>UT</td>
<td>Utah</td>
</tr>
<tr>
<td>MA</td>
<td>Massachusetts</td>
<td>VA</td>
<td>Virginia</td>
</tr>
<tr>
<td>MD</td>
<td>Maryland</td>
<td>VT</td>
<td>Vermont</td>
</tr>
<tr>
<td>ME</td>
<td>Maine</td>
<td>WA</td>
<td>Washington</td>
</tr>
<tr>
<td>MI</td>
<td>Michigan</td>
<td>WI</td>
<td>Wisconsin</td>
</tr>
<tr>
<td>MN</td>
<td>Minnesota</td>
<td>WV</td>
<td>West Virginia</td>
</tr>
<tr>
<td>MO</td>
<td>Missouri</td>
<td>WY</td>
<td>Wyoming</td>
</tr>
<tr>
<td>MS</td>
<td>Mississippi</td>
<td>US</td>
<td>United States</td>
</tr>
</tbody>
</table>

---

10 U.S. Energy Information Administration | State Energy Data 2019: Prices and Expenditures
Throughout the Technical Notes, SEDS often describes the variables with a geographic identification attached to them. Geographic areas used in SEDS are the 50 states, the District of Columbia (represented by the U.S. Postal Service state abbreviations), and the United States as a whole. In SEDS, the term “state” includes the District of Columbia.

Table TN1.1 shows the geographic area codes used in SEDS.