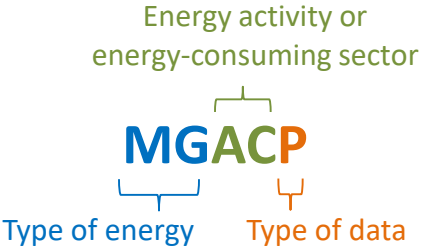


# Appendix A. Mnemonic Series Names (MSN)

This appendix contains an alphabetical listing of the variable used in the consumption module of the State Energy Data System (SEDS). Provided for each variable are: a brief description; unit of measure; and the formulas used to create the variable. If a variable is not one calculated in SEDS but is entered into the system, it is described as an independent variable. Formulas for the state calculations have “ZZ” following the variable name, where “ZZ” represent the two-letter code of a state, and formulas for the United States have “US” following the variable name.

Variables in SEDS have five-letter names that generally consist of the following components:



Characters 1 through 4 are explained in the description of each variable.

Character 5 is one of the following:

- B = Data in British thermal units (Btu)
- K = Factor for converting data from physical units to Btu
- M = Data in alternative physical units
- P = Data in standardized physical units
- S = Share or ratio expressed as a fraction
- V = Value, such as value of shipments

Associated with or attached to the variable names are two-letter U.S. Postal Service codes for the 50 states and the District of Columbia (represented by “ZZ” following the variable names) and the United States (“US”). In this system, the United States means the 50 states and the District of Columbia.

**Table A1. Consumption Variables**

| MSN   | Description   | Unit             | Formula   |
|-------|---|------------------|---|
| ABICB | Aviation gasoline blending components consumed by the industrial sector.        | Billion Btu      | ABICBZZ = ABTCBZZ<br>ABICBUS = ABTCBUS  |
| ABICP | Aviation gasoline blending components consumed by the industrial sector.        | Thousand barrels | ABICPZZ = ABTCPZZ<br>ABICPUS = ABTCPUS  |
| ABTCB | Aviation gasoline blending components total consumption.                        | Billion Btu      | ABTCBZZ = ABTCPZZ * 5.048<br>ABTCBUS = ΣABTCBZZ   |
| ABTCP | Aviation gasoline blending components total consumption.                        | Thousand barrels | ABTCPZZ = (COCAPZZ / COCAPUS) * ABTCPUS<br>ABTCPUS is independent.  |
| AICAP | Aluminum ingot production capacity.   | Short tons       | AICAPZZ is independent.<br>AICAPUS = ΣAICAPZZ   |
| ARICB | Asphalt and road oil consumed by the industrial sector.                         | Billion Btu      | ARICBZZ = ARICPZZ * 6.636<br>ARICBUS = ΣARICBZZ   |
| ARICP | Asphalt and road oil consumed by the industrial sector.                         | Thousand barrels | ARICPZZ = ASICPZZ + RDICPZZ<br>ARICPUS = ΣARICPZZ   |
| ARTCB | Asphalt and road oil total consumption.   | Billion Btu      | ARTCBZZ = ARICBZZ<br>ARTCBUS = ARICBUS  |
| ARTCP | Asphalt and road oil total consumption.   | Thousand barrels | ARTCPZZ = ASTCPZZ + RDTCPZZ<br>ARTCPUS = ΣARTCPZZ   |
| ARTXB | Asphalt and road oil total end-use consumption.                                 | Billion Btu      | ARTXBZZ = ARICBZZ<br>ARTXBUS = ARICBUS  |
| ARTXP | Asphalt and road oil total end-use consumption.                                 | Thousand barrels | ARTXPZZ = ARICPZZ<br>ARTXPUS = ARICPUS  |
| ASICP | Asphalt consumed by the industrial sector.                                      | Thousand barrels | Before 2009:<br>ASICPZZ = (ASINPZZ / ASINPUS) * ASTCPUS<br>ASICPUS = ΣASICPZZ<br>2009 forward:<br>ASICPZZ = (ASPRPZZ / ASPRPUS) * ASTCPUS<br>ASICPUS = ΣASICPZZ |
| ASINP | Asphalt sold to the industrial sector.  | Short tons       | ASINPZZ is independent.<br>ASINPUS = ΣASINPZZ   |
| ASPRP | Asphalt (hot-mix and warm-mix) production excluding reclaimed asphalt pavement. | Short tons       | ASPRPZZ is independent.<br>ASPRPUS = ΣASPRPZZ   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>      | <b>Formula</b>   |
|------------|---|------------------|--|
| ASTCP      | Asphalt total consumption.                                  | Thousand barrels | ASTCPZZ = ASICPZZ<br>ASTCPUS is independent.   |
| AVACB      | Aviation gasoline consumed by the transportation sector.    | Billion Btu      | AVACBZZ = AVACPZZ * 5.048<br>AVACBUS = ΣAVACBZZ  |
| AVACP      | Aviation gasoline consumed by the transportation sector.    | Thousand barrels | AVACPZZ = (AVTTPZZ / AVTTPUS) * AVTCPUS<br>AVACPUS = ΣAVACPZZ  |
| AVMIP      | Aviation gasoline issued to the military (through 2014).    | Thousand barrels | AVMIPZZ is independent.<br>AVMIPUS = ΣAVMIPZZ  |
| AVNMM      | Aviation gasoline sold to nonmilitary users (through 2014). | Thousand gallons | AVNMMZZ is independent.<br>AVNMMUS = ΣAVNMMZZ  |
| AVNMP      | Aviation gasoline sold to nonmilitary users (through 2014). | Thousand barrels | AVNMPZZ = AVNMMZZ / 42<br>AVNMPUS = ΣAVNMPZZ   |
| AVTCB      | Aviation gasoline total consumption.                        | Billion Btu      | AVTCBZZ = AVACBZZ<br>AVTCBUS = ΣAVTCBZZ  |
| AVTCP      | Aviation gasoline total consumption.                        | Thousand barrels | AVTCPZZ = AVACPZZ<br>AVTCPUS is independent.   |
| AVTTM      | Aviation gasoline sold to all users (2015 forward).         | Thousand gallons | AVTTMZZ is independent.<br>AVTTMUS = ΣAVTTMZZ  |
| AVTTP      | Aviation gasoline total sales to the transportation sector. | Thousand barrels | Before 2015:<br>AVTTPZZ = AVMIPZZ + AVNMPZZ<br>AVTTPUS = ΣAVTTPZZ<br>2015 forward:<br>AVTTPZZ = AVTTMZZ / 42<br>AVTTPUS = ΣAVTTPZZ |
| AVTXB      | Aviation gasoline total end-use consumption.                | Billion Btu      | AVTXBZZ = AVACBZZ<br>AVTXBUS = ΣAVTXBZZ  |
| AVTXP      | Aviation gasoline total end-use consumption.                | Thousand barrels | AVTXPZZ = AVACPZZ<br>AVTXPUS = ΣAVTXPZZ  |
| BDACB      | Biodiesel consumed by the transportation sector.            | Billion Btu      | BDACBZZ = BDACPZZ * 5.359<br>BDACBUS = ΣBDACBZZ  |
| BDACP      | Biodiesel consumed by the transportation sector.            | Thousand barrels | BDACPZZ = BDTCPZZ<br>BDACPUS = ΣBDACPZZ  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>         | <b>Formula</b>   |
|------------|---|---------------------|--|
| BDLCB      | Energy losses and co-products from the production of biodiesel. | Billion Btu         | BDLCBZZ is independent.<br>BDLCBUS is independent.                             |
| BDTCB      | Biodiesel total consumption.                                    | Billion Btu         | BDTCBZZ = BDTCPZZ * 5.359<br>BDTCBUS = ΣBDTCBZZ                                |
| BDTCP      | Biodiesel total consumption.                                    | Thousand barrels    | BDTCPZZ is independent.<br>BDTCPUS is independent.                             |
| BFLCB      | Energy losses and co-products from the production of biofuels.  | Billion Btu         | BFLCBZZ = BDLCBZZ + EMLCBZZ<br>BFLCBUS = BDLCBUS + EMLCBUS                     |
| BFTCB      | Biofuels total consumption.                                     | Billion Btu         | BFTCBZZ = BDTCBZZ + EMTCBZZ + BFLCBZZ<br>BFTCBUS = BDTCBUS + EMTCBUS + BFLCBUS |
| BMTCB      | Biomass total consumption.                                      | Billion Btu         | BMTCB = BDLCB + BDTCB + EMLCB + EMTCB + WWTCB                                  |
| BQICB      | Normal butane consumed by the industrial sector.                | Billion Btu         | BQICBZZ = BQTCBZZ<br>BQICBUS = BQTCBUS   |
| BQICP      | Normal butane consumed by the industrial sector.                | Thousand barrels    | BQICPZZ = BQTCPZZ<br>BQICPUS = BQTCPUS   |
| BQTCB      | Normal butane total consumption.                                | Billion Btu         | BQTCBZZ = BQTCPZZ * 4.353<br>BQTCBUS = ΣBQTCBZZ                                |
| BQTCP      | Normal butane total consumption.                                | Thousand barrels    | BQTCPZZ is independent.<br>BQTCPUS is independent.                             |
| BYICB      | Butylene from refineries consumed by the industrial sector.     | Billion Btu         | BYICBZZ = BYTCBZZ<br>BYICBUS = BYTCBUS   |
| BYICP      | Butylene from refineries consumed by the industrial sector.     | Thousand barrels    | BYICPZZ = BYTCPZZ<br>BYICPUS = BYTCPUS   |
| BYTCB      | Butylene from refineries total consumption.                     | Billion Btu         | BYTCBZZ = BYTCPZZ * 4.377<br>BYTCBUS = ΣBYTCBZZ                                |
| BYTCP      | Butylene from refineries total consumption.                     | Thousand barrels    | BYTCPZZ is independent.<br>BYTCPUS is independent.                             |
| CCEXBUS    | Coal coke exported from the United States.                      | Billion Btu         | CCEXBUS = CCEXPUS * 24.80  |
| CCEXPUS    | Coal coke exported from the United States.                      | Thousand short tons | CCEXPUS is independent.  |
| CCIMBUS    | Coal coke imported into the United States.                      | Billion Btu         | CCIMBUS = CCIMPUS * 24.80  |
| CCIMPUS    | Coal coke imported into the United States.                      | Thousand short tons | CCIMPUS is independent.  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>               | <b>Formula</b>  |
|------------|---|---------------------------|---|
| CCNIBUS    | Coal coke net imports into the United States.   | Billion Btu               | $CCNIBUS = CCIMBUS - CCEXBUS$   |
| CCNIPUS    | Coal coke net imports into the United States.   | Thousand short tons       | $CCNIPUS = CCIMPUS - CCEXPUS$   |
| CGVAV      | Value of shipments (value added prior to 2001) for the corrugated and solid fiber box manufacturing industry. | Million dollars           | CGVAVZZ is independent.<br>$CGVAVUS = \Sigma CGVAVZZ$   |
| CLACB      | Coal consumed by the transportation sector.   | Billion Btu               | $CLACBZZ = CLACPZZ * CLACKZZ$<br>$CLACBUS = \Sigma CLACBZZ$   |
| CLACK      | Factor for converting coal consumed by the transportation sector from physical units to Btu.                  | Million Btu per short ton | CLACKZZ is independent.<br>$CLACKUS = CLACBUS / CLACPUS$  |
| CLACP      | Coal consumed by the transportation sector.   | Thousand short tons       | $CLACPZZ = (CLICPZZ / CLICPUS) * CLACPUS$<br>CLACPUS is independent.  |
| CLCCB      | Coal consumed by the commercial sector.   | Billion Btu               | $CLCCBZZ = CLCCPZZ * CLHCKZZ$<br>$CLCCBUS = \Sigma CLCCBZZ$   |
| CLCCP      | Coal consumed by the commercial sector.   | Thousand short tons       | Before 2008:<br>$CLCCPZZ = CLHCPZZ - CLRCPZZ$<br>$CLCCPUS = \Sigma CLCCPZZ$<br>2008 forward:<br>$CLCCPZZ = (CLHDPZZ / CLHDPUS) * CLHCPUS$<br>$CLCCPUS = \Sigma CLCCPZZ$ |
| CLEIB      | Coal consumed by the electric power sector.   | Billion Btu               | $CLEIBZZ = CLEIPZZ * CLEIKZZ$<br>$CLEIBUS = \Sigma CLEIBZZ$   |
| CLEIK      | Factor for converting coal consumed by the electric power sector from physical units to Btu.                  | Million Btu per short ton | CLEIKZZ is independent.<br>$CLEIKUS = CLEIBUS / CLEIPUS$  |
| CLEIP      | Coal consumed by the electric power sector.   | Thousand short tons       | CLEIPZZ is independent.<br>$CLEIPUS = \Sigma CLEIPZZ$   |
| CLHCB      | Coal consumed by the residential and commercial sectors.  | Billion Btu               | $CLHCBZZ = CLCCBZZ + CLRCBZZ$<br>$CLHCBUS = \Sigma CLHCBZZ$   |
| CLHCK      | Factor for converting coal consumed by the residential and commercial sectors from physical units to Btu.     | Million Btu per short ton | CLHCKZZ is independent.<br>$CLHCKUS = CLHCBUS / CLHCPUS$  |
| CLHCP      | Coal consumed by the residential and commercial sectors (commercial sector from 2008 forward).                | Thousand short tons       | $CLHCPZZ = (CLHDPZZ / CLHDPUS) * CLHCPUS$<br>CLHCPUS is independent.  |

**Table A1. Consumption Variables (cont.)**

| MSN     | Description  | Unit                      | Formula  |
|---------|--|---------------------------|--|
| CLHDP   | Coal distributed to the residential and commercial sectors (commercial sector from 2008 forward).          | Thousand short tons       | CLHDPZZ is independent.<br>CLHDPUS = $\Sigma$ CLHDPZZ  |
| CLICB   | Coal consumed by the industrial sector.  | Billion Btu               | CLICBZZ = CLKCBZZ + CLOCBZZ<br>CLICBUS = $\Sigma$ CLICBZZ  |
| CLICP   | Coal consumed by the industrial sector.  | Thousand short tons       | CLICPZZ = CLKCPZZ + CLOCPZZ<br>CLICPUS = $\Sigma$ CLICPZZ  |
| CLKCB   | Coal consumed at coke plants (coking coal).  | Billion Btu               | CLKCBZZ = CLKCPZZ * CLKCKZZ<br>CLKCBUS = $\Sigma$ CLKCBZZ  |
| CLKCK   | Factor for converting coal consumed at coke plants from physical units to Btu.                             | Million Btu per short ton | CLKCKZZ is independent.<br>CLKCKUS = CLKCBUS / CLKCPUS   |
| CLKCP   | Coal consumed by coke plants (coking coal).  | Thousand short tons       | CLKCPZZ = (CLKDPZZ / CLKDPUS) * CLKCPUS<br>CLKCPUS is independent.   |
| CLKDP   | Coal distributed to coke plants (coking coal).   | Thousand short tons       | CLKDPZZ is independent.<br>CLKDPUS = $\Sigma$ CLKDPZZ  |
| CLOCB   | Coal consumed by industrial users other than coke plants.  | Billion Btu               | CLOCBZZ = CLOCPZZ * CLOCKZZ<br>CLOCBUS = $\Sigma$ CLOCBZZ  |
| CLOCK   | Factor for converting coal consumed by industrial users other than coke plants from physical units to Btu. | Million Btu per short ton | CLOCKZZ is independent.<br>CLOCKUS = CLOCBUS / CLOCPUS   |
| CLOCP   | Coal consumed by industrial users other than coke plants.  | Thousand short tons       | CLOCPZZ = (CLODPZZ / CLODPUS) * CLOCPUS<br>CLOCPUS is independent.   |
| CLODP   | Coal distributed to industrial users other than coke plants.   | Thousand short tons       | CLODPZZ is independent.<br>CLODPUS = $\Sigma$ CLODPZZ  |
| CLRCB   | Coal consumed by the residential sector.   | Billion Btu               | CLRCBZZ = CLRCPZZ * CLHCKZZ<br>CLRCBUS = $\Sigma$ CLRCBZZ  |
| CLRCP   | Coal consumed by the residential sector.   | Thousand short tons       | Before 2008:<br>CLRCPZZ = CLHCPZZ * CLRCSUS<br>CLRCPUS = $\Sigma$ CLRCPZZ<br>2008 forward:<br>CLRCPZZ = 0<br>CLRCPUS = 0 |
| CLRCSUS | The share of residential and commercial coal consumed by the residential sector.                           | Percent                   | CLRCSUS is independent.  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>  | <b>Formula</b>  |
|------------|--|--|---|
| CLTCB      | Coal total consumption.  | Billion Btu  | CLTCBZZ = CLACBZZ + CLCCBZZ + CLEIBZZ + CLICBZZ + CLRCBZZ<br>CLTCBUS = ΣCLTCBZZ |
| CLTCP      | Coal total consumption.  | Thousand short tons  | CLTCPZZ = CLACPZZ + CLCCPZZ + CLEIPZZ + CLICPZZ + CLRCPZZ<br>CLTCPUS = ΣCLTCPZZ |
| CLTXB      | Coal total end-use consumption.  | Billion Btu  | CLTXBZZ = CLACBZZ + CLCCBZZ + CLICBZZ + CLRCBZZ<br>CLTXBUS = ΣCLTXBZZ           |
| CLTXP      | Coal total end-use consumption.  | Thousand barrels   | CLTXPZZ = CLACPZZ + CLCCPZZ + CLICPZZ + CLRCPZZ<br>CLTXPUS = ΣCLTXPZZ           |
| COCAP      | Atmospheric crude oil distillation operable capacity (operating capacity before 2013) at refineries. | Barrels per calendar day   | COCAPZZ is independent.<br>COCAPUS = ΣCOCAPZZ                                   |
| COICB      | Crude oil consumed by the industrial sector.   | Billion Btu  | COICBZZ = COTCBZZ<br>COICBUS = COTCBUS  |
| COICP      | Crude oil consumed by the industrial sector.   | Thousand barrels   | COICPZZ = COTCPZZ<br>COICPUS = COTCPUS  |
| COTCB      | Crude oil consumed in petroleum industry operations.   | Billion Btu  | COTCBZZ = COTCPZZ * 5.800<br>COTCBUS = ΣCOTCBZZ                                 |
| COTCP      | Crude oil consumed in petroleum industry operations.   | Thousand barrels   | COTCPZZ is independent.<br>COTCPUS = ΣCOTCPZZ                                   |
| CTCAP      | Catalytic cracking charge capacity of petroleum refineries.  | 1960 through 1979:<br>Barrels per calendar day;<br>1980 forward:<br>Barrels per stream day | CTCAPZZ is independent.<br>CTCAPUS = ΣCTCAPZZ                                   |
| DFACB      | Distillate fuel oil consumed by the transportation sector.   | Billion Btu  | DFACBZZ = DFACPZZ * DFTCKUS<br>DFACBUS = ΣDFACBZZ                               |
| DFACP      | Distillate fuel oil consumed by the transportation sector.   | Thousand barrels   | DFACPZZ = (DFTRPZZ / DFNDPZZ) * DFNCPZZ<br>DFACPUS = ΣDFACPZZ                   |
| DFBKP      | Distillate fuel oil sales for vessel bunkering use, excluding that sold to the military.             | Thousand barrels   | DFBKPZZ is independent.<br>DFBKPUS = ΣDFBKPZZ                                   |
| DFCCB      | Distillate fuel oil consumed by the commercial sector.   | Billion Btu  | DFCCBZZ = DFCCPZZ * DFTCKUS<br>DFCCBUS = ΣDFCCBZZ                               |

**Table A1. Consumption Variables (cont.)**

| MSN   | Description  | Unit             | Formula  |
|-------|--|------------------|--|
| DFCCP | Distillate fuel oil consumed by the commercial sector.   | Thousand barrels | $DFCCPZZ = (DFCMPZZ / DFNDPZZ) * DFNCPZZ$<br>$DFCCPUS = \Sigma DFCCPZZ$          |
| DFCMP | Distillate fuel oil sales to the commercial sector.  | Thousand barrels | DFCMPZZ is independent.<br>$DFCMPUS = \Sigma DFCMPZZ$                            |
| DFEIB | Distillate fuel oil consumed by the electric power sector.   | Billion Btu      | $DFEIBZZ = DFEIPZZ * DFTCKUS$<br>$DFEIBUS = \Sigma DFEIBZZ$                      |
| DFEIP | Distillate fuel oil consumed by the electric power sector.   | Thousand barrels | $DFEIPZZ = DKEIPZZ - JKEUPZZ$<br>$DFEIPUS = \Sigma DFEIPZZ$                      |
| DFIBP | Distillate fuel oil sales for industrial space heating and other industrial use, including farm use. | Thousand barrels | DFIBPZZ is independent.<br>$DFIBPUS = \Sigma DFIBPZZ$                            |
| DFICB | Distillate fuel oil consumed by the industrial sector.   | Billion Btu      | $DFICBZZ = DFICPZZ * DFTCKUS$<br>$DFICBUS = \Sigma DFICBZZ$                      |
| DFICP | Distillate fuel oil consumed by the industrial sector.   | Thousand barrels | $DFICPZZ = (DFINPZZ / DFNDPZZ) * DFNCPZZ$<br>$DFICPUS = \Sigma DFICPZZ$          |
| DFINP | Distillate fuel oil sales to the industrial sector.  | Thousand barrels | $DFINPZZ = DFIBPZZ + DFOCPZZ + DFOFPZZ + DFOTPPZZ$<br>$DFINPUS = \Sigma DFINPZZ$ |
| DFMIP | Distillate fuel oil sales to the military, regardless of use.  | Thousand barrels | DFMIPZZ is independent.<br>$DFMIPUS = \Sigma DFMIPZZ$                            |
| DFNCP | Distillate fuel oil consumption by all sectors other than the electric power sector.                 | Thousand barrels | $DFNCPZZ = (DFNDPZZ / DFNDPUS) * DFNCPUS$<br>$DFNCPUS = DFTCPUS - DFEIPUS$       |
| DFNDP | Distillate fuel oil sales to all sectors other than the electric power sector.                       | Thousand barrels | $DFNDPZZ = DFCMPZZ + DFINPZZ + DFRSPZZ + DFTRPZZ$<br>$DFNDPUS = \Sigma DFNDPZZ$  |
| DFOCP | Distillate fuel oil sales for use by oil companies.  | Thousand barrels | DFOCPZZ is independent.<br>$DFOCPUS = \Sigma DFOCPZZ$                            |
| DFOFP | Distillate fuel oil sales as diesel fuel for off-highway use.  | Thousand barrels | DFOFPZZ is independent.<br>$DFOFPUS = \Sigma DFOFPZZ$                            |
| DFONP | Distillate fuel oil sales as diesel fuel for on-highway use.   | Thousand barrels | DFONPZZ is independent.<br>$DFONPUS = \Sigma DFONPZZ$                            |
| DFOTP | Distillate fuel oil sales for all other uses not identified in other sales categories.               | Thousand barrels | DFOTPZZ is independent.<br>$DFOTPUS = \Sigma DFOTPZZ$                            |
| DFRCB | Distillate fuel oil consumed by the residential sector.  | Billion Btu      | $DFRCBZZ = DFRCPZZ * DFTCKUS$<br>$DFRCBUS = \Sigma DFRCBZZ$                      |



**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>            | <b>Formula</b>  |
|------------|---|------------------------|---|
| DFRCP      | Distillate fuel oil consumed by the residential sector.   | Thousand barrels       | $DFRCPZZ = (DFRSPZZ / DFNDPZZ) * DFNCPZZ$<br>$DFRCPUS = \Sigma DFRCPZZ$   |
| DFRRP      | Distillate fuel oil sales for use by railroads.   | Thousand barrels       | DFRRPZZ is independent.<br>$DFRRPUS = \Sigma DFRRPZZ$   |
| DFRSP      | Distillate fuel oil sales to the residential sector.  | Thousand barrels       | DFRSPZZ is independent.<br>$DFRSPUS = \Sigma DFRSPZZ$   |
| DFTCB      | Distillate fuel oil total consumption.  | Billion Btu            | $DFTCBZZ = DFACBZZ + DFCCBZZ + DFEIBZZ + DFICBZZ + DFRCBZZ$<br>$DFTCBUS = \Sigma DFTCBZZ$   |
| DFTCP      | Distillate fuel oil total consumption.  | Thousand barrels       | $DFTCPZZ = DFEIPZZ + DFNCPZZ$<br>DFTCPUS is independent.  |
| DFTCKUS    | Factor for converting distillate fuel from physical units to Btu.   | Million Btu per barrel | DFTCKUS is independent.   |
| DFTRP      | Distillate fuel oil sales to the transportation sector.   | Thousand barrels       | $DFTRPZZ = DFBKPZZ + DMIPZZ + DFONPZZ + DFRRPZZ$<br>$DFTRPUS = \Sigma DFTRPZZ$  |
| DFTXB      | Distillate fuel oil total end-use consumption.  | Billion Btu            | $DFTXBZZ = DFACBZZ + DFCCBZZ + DFICBZZ + DFRCBZZ$<br>$DFTXBUS = \Sigma DFTXBZZ$   |
| DFTXP      | Distillate fuel oil total end-use consumption.  | Thousand barrels       | $DFTXPZZ = DFACPZZ + DFCCPZZ + DFICPZZ + DFRCPZZ$<br>$DFTXPUS = \Sigma DFTXPZZ$   |
| DKEIB      | Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector. | Billion Btu            | $DKEIBZZ = DFEIBZZ + JKEUBZZ$<br>$DKEIBUS = \Sigma DKEIBZZ$   |
| DKEIP      | Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector. | Thousand barrels       | DKEIPZZ is independent.<br>$DKEIPUS = \Sigma DKEIPZZ$   |
| DMTCB      | Distillate fuel oil, excluding biodiesel, total consumption.  | Billion Btu            | Before 2009:<br>$DMTCBZZ = DFTCBZZ$<br>$DMTCBUS = DFTCBUS$<br>2009 forward:<br>$DMTCBZZ = DFTCBZZ - BDTCBZZ$<br>$DMTCBUS = DFTCBUS - BDTCBUS$ |
| ELEXB      | Electricity exported from the United States.  | Billion Btu            | $ELEXBZZ = ELEXPZZ * 3.412$<br>$ELEXBUS = \Sigma ELEXBZZ$   |

**Table A1. Consumption Variables (cont.)**

| MSN     | Description  | Unit                  | Formula   |
|---------|--|-----------------------|---|
| ELEXP   | Electricity exported from the United States.   | Million kilowatthours | ELEXPZZ is independent.<br>ELEXPUS = $\Sigma$ ELEXPZZ   |
| ELIMB   | Electricity imported into the United States.   | Billion Btu           | ELIMBZZ = ELIMPZZ * 3.412<br>ELIMBUS = $\Sigma$ ELIMBZZ   |
| ELIMP   | Electricity imported into the United States.   | Million kilowatthours | ELIMPZZ is independent.<br>ELIMPUS = $\Sigma$ ELIMPZZ   |
| ELISB   | Net interstate flow of electricity and associated losses (negative indicates flow out of state).                           | Billion Btu           | Before 1990:<br>ELISBZZ = (ESTCBZZ + LOTCBZZ) - TEEIBZZ<br>ELISBUS = 0<br>1990 forward:<br>If ELISPZZ < 0, ELISBZZ = -(TEEIBZZ * (-ELISPZZ / (-ELISPZZ + ESTCPZZ)))<br>If ELISPZZ >= 0, ELISBZZ = ELISPZZ * (average heat content of energy for all outflow electricity)<br>ELISBUS = 0 |
| ELISP   | Net interstate flow of electricity (negative indicates flow out of state).   | Million kilowatthours | ELISPZZ is independent.<br>ELISPUS = 0  |
| ELLSS48 | The ratio of electrical system energy losses to electricity sold in the contiguous 48 states and the District of Columbia. | Fraction              | ELLSS48 = LOTCB48 / ESTCB48   |
| ELNIB   | Net imports of electricity into the United States.   | Billion Btu           | ELNIBZZ = ELIMBZZ - ELEXBZZ<br>ELNIBUS = $\Sigma$ ELNIBZZ   |
| ELNIP   | Net imports of electricity into the United States.   | Million kilowatthours | ELNIPZZ = ELIMPZZ - ELEXPZZ<br>ELNIPUS = $\Sigma$ ELNIPZZ   |
| EMACB   | Fuel ethanol, excluding denaturant, consumed by the transportation sector.   | Billion Btu           | EMACBZZ = (MGACPZZ / MGTCPPZZ) * EMTCBZZ<br>EMACBUS = $\Sigma$ EMACBZZ  |
| EMCCB   | Fuel ethanol, excluding denaturant, consumed by the commercial sector.   | Billion Btu           | EMCCBZZ = (MGCCPZZ / MGTCPPZZ) * EMTCBZZ<br>EMCCBUS = $\Sigma$ EMCCBZZ  |
| EMICB   | Fuel ethanol, excluding denaturant, consumed by the industrial sector.   | Billion Btu           | EMICBZZ = (MGICPZZ / MGTCPPZZ) * EMTCBZZ<br>EMICBUS = $\Sigma$ EMICBZZ  |
| EMLCB   | Energy losses and co-products from the production of fuel ethanol.   | Billion Btu           | EMLCBZZ = (EMPRBZZ / EMPRBUS) * EMLCBUS<br>EMLCBUS is independent.  |
| EMPRB   | Fuel ethanol production excluding denaturant.  | Billion Btu           | EMPRBZZ is independent.<br>EMPRBUS is independent.  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>   |
|------------|--|------------------------|--|
| EMTCB      | Fuel ethanol, excluding denaturant, total consumption.                     | Billion Btu            | EMTCBZZ = (EMTCBUS / ENTCBUS) * ENTCBZZ<br>EMTCBUS is independent. |
| ENACB      | Fuel ethanol, including denaturant, consumed by the transportation sector. | Billion Btu            | ENACBZZ = (MGACPZZ / MGTCPPZZ) * ENTCBZZ<br>ENACBUS = ΣENACBZZ     |
| ENACP      | Fuel ethanol, including denaturant, consumed by the transportation sector. | Thousand barrels       | ENACPZZ = (MGACPZZ / MGTCPPZZ) * ENTCPZZ<br>ENACPUS = ΣENACPZZ     |
| ENCCB      | Fuel ethanol, including denaturant, consumed by the commercial sector.     | Billion Btu            | ENCCBZZ = (MGCCPZZ / MGTCPPZZ) * ENTCBZZ<br>ENCCBUS = ΣENCCBZZ     |
| ENCCP      | Fuel ethanol, including denaturant, consumed by the commercial sector.     | Thousand barrels       | ENCCPZZ = (MGCCPZZ / MGTCPPZZ) * ENTCPZZ<br>ENCCPUS = ΣENCCPZZ     |
| ENICB      | Fuel ethanol, including denaturant, consumed by the industrial sector.     | Billion Btu            | ENICBZZ = (MGICPZZ / MGTCPPZZ) * ENTCBZZ<br>ENICBUS = ΣENICBZZ     |
| ENICP      | Fuel ethanol, including denaturant, consumed by the industrial sector.     | Thousand barrels       | ENICPZZ = (MGICPZZ / MGTCPPZZ) * ENTCPZZ<br>ENICPUS = ΣENICPZZ     |
| ENTCB      | Fuel ethanol, including denaturant, total consumption.                     | Billion Btu            | ENTCBZZ = (ENTCPZZ / ENTCPUS) * ENTCBUS<br>ENTCBUS is independent. |
| ENTCK      | Fuel ethanol total consumption conversion factor.                          | Million Btu per barrel | ENTCKUS = ENTCBUS / ENTCPUS  |
| ENTCP      | Fuel ethanol, including denaturant, total consumption.                     | Thousand barrels       | ENTCPZZ = (ENTRPZZ / ENTRPUS) * ENTCPUS<br>ENTCPUS is independent. |
| ENTRP      | Fuel ethanol blended into motor gasoline.                                  | Thousand gallons       | ENTRPZZ is independent.<br>ENTRPUS = ΣENTRPZZ                      |
| EQICB      | Ethane consumed by the industrial sector.                                  | Billion Btu            | EQICBZZ = EQTCBZZ<br>EQICBUS = EQTCBUS                             |
| EQICP      | Ethane consumed by the industrial sector.                                  | Thousand barrels       | EQICPZZ = EQTCPZZ<br>EQICPUS = EQTCPUS                             |
| EQTCB      | Ethane total consumption.  | Billion Btu            | EQTCBZZ = EQTCPZZ * 2.783<br>EQTCBUS = ΣEQTCBZZ                    |
| EQTCP      | Ethane total consumption.  | Thousand barrels       | EQTCPZZ is independent.<br>EQTCPUS is independent.                 |
| ESACB      | Electricity consumed by (i.e., sold to) the transportation sector.         | Billion Btu            | ESACBZZ = ESACPZZ * 3.412<br>ESACBUS = ΣESACBZZ                    |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>           | <b>Formula</b>  |
|------------|---|-----------------------|---|
| ESACP      | Electricity consumed by (i.e., sold to) the transportation sector.  | Million kilowatthours | Before 2003:<br>ESACPZZ = ESTRPZZ<br>ESACPUS = ΣESACPZZ<br>2003 forward:<br>ESACPZZ is independent.<br>ESACPUS = ΣESACPZZ                 |
| ESCCB      | Electricity consumed by (i.e., sold to) the commercial sector.  | Billion Btu           | ESCCBZZ = ESCCPZZ * 3.412<br>ESCCBUS = ΣESCCBZZ   |
| ESCCP      | Electricity consumed by (i.e., sold to) the commercial sector.  | Million kilowatthours | Before 2003:<br>ESCCPZZ = ESCMPZZ + (ESOTPZZ - ESTRPZZ)<br>ESCCPUS = ΣESCCPZZ<br>2003 forward:<br>ESCCPZZ = ESCMPZZ<br>ESCCPUS = ΣESCCPZZ |
| ESCMP      | Electricity sold to a portion of the commercial sector.   | Million kilowatthours | ESCMPZZ is independent.<br>ESCMPUS = ΣESCMPZZ   |
| ESICB      | Electricity consumed by (i.e., sold to) the industrial sector.  | Billion Btu           | ESICBZZ = ESICPZZ * 3.412<br>ESICBUS = ΣESICBZZ   |
| ESICP      | Electricity consumed by (i.e., sold to) the industrial sector.  | Million kilowatthours | ESICPZZ is independent.<br>ESICPUS = ΣESICPZZ   |
| ESOTP      | Electricity sold to the “Other” sector (i.e., public street and highway lighting, sales to other public authorities, railroads and railways, and interdepartmental sales) (through 2002). | Million kilowatthours | ESOTPZZ is independent.<br>ESOTPUS = ΣESOTPZZ   |
| ESRCB      | Electricity consumed by (i.e., sold to) the residential sector.   | Billion Btu           | ESRCBZZ = ESRCPZZ * 3.412<br>ESRCBUS = ΣESRCBZZ   |
| ESRCP      | Electricity consumed by (i.e., sold to) the residential sector.   | Million kilowatthours | ESRCPZZ is independent.<br>ESRCPUS = ΣESRCPZZ   |
| ESRPP      | Electricity consumed by (i.e., sold to) the residential sector per capita.  | Kilowatthours         | ESRPP = ESRCP / TPOPP * 1000  |
| ESTCB      | Electricity total consumption (i.e., retail sales).   | Billion Btu           | ESTCBZZ = ESTCPZZ * 3.412<br>ESTCBUS = ΣESTCBZZ<br>ESTCB48 = ESTCBUS - (ESTCBAK + ESTCBHI)  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>                   | <b>Formula</b>   |
|------------|---|-------------------------------|--|
| ESTCP      | Electricity total consumption (i.e., retail sales).   | Million kilowatthours         | ESTCPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPPZZ<br>ESTCPUS = ΣESTCPZZ                   |
| ESTPP      | Electricity total consumption (i.e., retail sales) per capita.  | Kilowatthours                 | ESTPP = ESTCP / TPOPP * 1000   |
| ESTRP      | Electricity consumed by transit systems (through 2002).   | Million kilowatthours         | ESTRPZZ is independent.<br>ESTRPUS = ΣESTRPZZ  |
| ESTRSUS    | The share of electricity sold to the “Other” sector (ESOTP) that is used for transportation (through 2002). | Fraction                      | ESTRSUS = ESACPUS / ESOTBUS  |
| ESTXB      | Electricity total end-use consumption (i.e., retail sales).   | Billion Btu                   | ESTXBZZ = ESACBZZ + ESCCBZZ + ESICBZZ + ESRCBZZ<br>ESTXBUS = ΣESTXBZZ                    |
| ESTXP      | Electricity total end-use consumption (i.e., retail sales).   | Million kilowatthours         | ESTXPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPPZZ<br>ESTXPUS = ΣESTXPZZ                   |
| EYICB      | Ethylene from refineries consumed by the industrial sector.   | Billion Btu                   | EYICBZZ = EYTCBZZ<br>EYICBUS = EYTCBUS   |
| EYICP      | Ethylene from refineries consumed by the industrial sector.   | Thousand barrels              | EYICPZZ = EYTCPZZ<br>EYICPUS = EYTCPUS   |
| EYTCB      | Ethylene from refineries total consumption.   | Billion Btu                   | EYTCBZZ = EYTCPZZ * 2.436<br>EYTCBUS = ΣEYTCBZZ  |
| EYTCP      | Ethylene from refineries total consumption.   | Thousand barrels              | EYTCPZZ is independent.<br>EYTCPUS is independent.                                       |
| FFETKUS    | Fossil-fueled steam-electric power plant conversion factor.   | Thousand Btu per kilowatthour | FFETKUS is independent.  |
| FFTCB      | Fossil fuels total consumption.   | Billion Btu                   | FFTCBZZ = CLTCBZZ + NNTCBZZ + PMTCBZZ<br>FFTCBUS = CCNIBUS + CLTCBUS + NNTCBUS + PMTCBUS |
| FNCAS      | State’s share of U.S. capacity of steam crackers using naphtha as feedstocks.                               | Percent share                 | FNCASZZ is independent.  |
| FNICB      | Petrochemical feedstocks, naphtha less than 401° F, consumed by the industrial sector.                      | Billion Btu                   | FNICBZZ = FNTCBZZ<br>FNICBUS = FNTCBUS   |
| FNICP      | Petrochemical feedstocks, naphtha less than 401° F, consumed by the industrial sector.                      | Thousand barrels              | FNICPZZ = FNTCPZZ<br>FNICPUS = FNTCPUS   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>                    | <b>Formula</b>   |
|------------|--|--------------------------------|--|
| FNTCB      | Petrochemical feedstocks, naphtha less than 401° F, total consumption.   | Billion Btu                    | FNTCBZZ = FNTCPZZ * 5.248<br>FNTCBUS = ΣFNTCBZZ                    |
| FNTCP      | Petrochemical feedstocks, naphtha less than 401° F, total consumption.   | Thousand barrels               | FNTCPZZ = FNTCPUS * FNCASZZ<br>FNTCPUS is independent.             |
| FOCAS      | State’s share of U.S. capacity of steam crackers using other oils as feedstocks.                                       | Percent share                  | FOCASZZ is independent.  |
| FOICB      | Petrochemical feedstocks, other oils equal to or greater than 401° F, consumed by the industrial sector.               | Billion Btu                    | FOICBZZ = FOTCBZZ<br>FOICBUS = FOTCBUS                             |
| FOICP      | Petrochemical feedstocks, other oils equal to or greater than 401° F, consumed by the industrial sector.               | Thousand barrels               | FOICPZZ = FOTCPZZ<br>FOICPUS = FOTCPUS                             |
| FOTCB      | Petrochemical feedstocks, other oils equal to or greater than 401° F, total consumption.                               | Billion Btu                    | FOTCBZZ = FOTCPZZ * 5.825<br>FOTCBUS = ΣFOTCBZZ                    |
| FOTCP      | Petrochemical feedstocks, other oils equal to or greater than 401° F, total consumption.                               | Thousand barrels               | FOTCPZZ = FOTCPUS * FOCASZZ<br>FOTCPUS is independent.             |
| FSICB      | Petrochemical feedstocks, still gas, consumed by the industrial sector (through 1985).                                 | Billion Btu                    | FSICBZZ = FSTCBZZ<br>FSICBUS = FSTCBUS                             |
| FSICP      | Petrochemical feedstocks, still gas, consumed by the industrial sector (through 1985).                                 | Thousand barrels               | FSICPZZ = FSTCPZZ<br>FSICPUS = FSTCPUS                             |
| FSTCB      | Petrochemical feedstocks, still gas, total consumption (through 1985).   | Billion Btu                    | FSTCBZZ = FSTCPZZ * 6.000<br>FSTCBUS = ΣFSTCBZZ                    |
| FSTCP      | Petrochemical feedstocks, still gas, total consumption (through 1985).   | Thousand barrels               | FSTCPZZ = (COCAPZZ / COCAPUS) * FSTCPUS<br>FSTCPUS is independent. |
| GDPRX      | Real gross domestic product.   | Million chained (2012) dollars | GDPRXUS is independent.<br>GDPRXZZ is independent.                 |
| GEC4B      | Geothermal energy consumed as direct heat or from heat pumps in the commercial sector.                                 | Billion Btu                    | GEC4BZZ is independent.<br>GEC4BUS = ΣGEC4BZZ                      |
| GEC5B      | Geothermal energy consumed for electricity generation at utility-scale commercial CHP and electricity-only facilities. | Billion Btu                    | GEC5BZZ = GEC5PZZ * FFETKUS<br>GEC5BUS = ΣGEC5BZZ                  |
| GEC5P      | Geothermal electricity net generation at utility-scale commercial CHP and electricity-only facilities.                 | Million kilowatthours          | GEC5PZZ is independent.<br>GEC5PUS = ΣGEC5PZZ                      |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>           | <b>Formula</b>  |
|------------|---|-----------------------|---|
| GECCB      | Geothermal energy consumed by the commercial sector.                                | Billion Btu           | GECCBZZ = GEC4BZZ + GEC5BZZ<br>GECCBUS = ΣGECCBZZ   |
| GEEGB      | Geothermal energy consumed for electricity generation by the electric power sector. | Billion Btu           | GEEGBZZ = GEEGPZZ * FFETKUS<br>GEEGBUS = ΣGEEGBZZ   |
| GEEGP      | Geothermal electricity net generation in the electric power sector.                 | Million kilowatthours | GEEGPZZ is independent.<br>GEEGPUS = ΣGEEGPZZ   |
| GEICB      | Geothermal energy consumed by the industrial sector.                                | Billion Btu           | GEICBZZ is independent.<br>GEICBUS = ΣGEICBZZ   |
| GERCB      | Geothermal energy consumed by the residential sector.                               | Billion Btu           | GERCBZZ is independent.<br>GERCBUS = ΣGERCBZZ   |
| GETCB      | Geothermal energy total consumption.  | Billion Btu           | GETCBZZ = GECCBZZ + GEEGBZZ + GEICBZZ + GERCBZZ<br>GETCBUS = ΣGETCBZZ   |
| GETXB      | Geothermal energy total end-use consumption.  | Billion Btu           | GETXBZZ = GECCBZZ + GEICBZZ + GERCBZZ<br>GETXBUS = ΣGETXBZZ   |
| HLACB      | Hydrocarbon gas liquids consumed by the transportation sector.                      | Billion Btu           | Before 2010:<br>HLACBZZ = LGACBZZ<br>HLACBUS = ΣHLACBZZ<br>2010 forward:<br>HLACBZZ = PQACBZZ<br>HLACBUS = ΣHLACBZZ |
| HLACP      | Hydrocarbon gas liquids consumed by the transportation sector.                      | Thousand barrels      | Before 2010:<br>HLACPZZ = LGACPZZ<br>HLACPUS = ΣHLACPZZ<br>2010 forward:<br>HLACPZZ = PQACPZZ<br>HLACPUS = ΣHLACPZZ |
| HLCCB      | Hydrocarbon gas liquids consumed by the commercial sector.                          | Billion Btu           | Before 2010:<br>HLCCBZZ = LGCCBZZ<br>HLCCBUS = ΣHLCCBZZ<br>2010 forward:<br>HLCCBZZ = PQCCBZZ<br>HLCCBUS = ΣHLCCBZZ |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>  |
|------------|--|------------------------|---|
| HLCCP      | Hydrocarbon gas liquids consumed by the commercial sector.   | Thousand barrels       | Before 2010:<br>HLCCPZZ = LGCCPZZ<br>HLCCPUS = ΣHLCCPZZ<br>2010 forward:<br>HLCCPZZ = PQCCPZZ<br>HLCCPUS = ΣHLCCPZZ   |
| HLICB      | Hydrocarbon gas liquids consumed by the industrial sector.   | Billion Btu            | Before 1984:<br>HLICBZZ = LGICBZZ + NATCBZZ + PLTCBZZ + USTCBZZ<br>1984 through 2009:<br>HLICBZZ = LGICBZZ + PPICBZZ<br>2010 forward:<br>HLICBZZ = BQICBZZ + BYICBZZ + EQICBZZ + EYICBZZ + IQICBZZ + IYICBZZ + PPICBZZ + PQICBZZ + PYICBZZ<br>HLICBUS = ΣHLICBZZ for all years. |
| HLICK      | Average factor for converting hydrocarbon gas liquids consumed by the industrial sector from physical unit to Btu. | Million Btu per barrel | HLICKZZ = HLICBZZ / HLICPZZ<br>HLICKUS = HLICBUS / HLICPUS  |
| HLICP      | Hydrocarbon gas liquids consumed by the industrial sector.   | Thousand barrels       | Before 1984:<br>HLICPZZ = LGICPZZ + NATCPZZ + PLTCPZZ + USTCPZZ<br>1984 through 2009:<br>HLICPZZ = LGICPZZ + PPICPZZ<br>2010 forward:<br>HLICPZZ = BQICPZZ + BYICPZZ + EQICPZZ + EYICPZZ + IQICPZZ + IYICPZZ + PPICPZZ + PQICPZZ + PYICPZZ<br>HLICPUS = ΣHLICPZZ for all years. |
| HLRCB      | Hydrocarbon gas liquids consumed by the residential sector.  | Billion Btu            | Before 2010:<br>HLRCBZZ = LGRCBZZ<br>HLRCBUS = ΣHLRCBZZ<br>2010 forward:<br>HLRCBZZ = PQRCBZZ<br>HLRCBUS = ΣHLRCBZZ   |
| HLRCP      | Hydrocarbon gas liquids consumed by the residential sector.  | Thousand barrels       | Before 2010:<br>HLRCPZZ = LGRCPZZ<br>HLRCPUS = ΣHLRCPZZ<br>2010 forward:<br>HLRCPZZ = PQRCPZZ<br>HLRCPUS = ΣHLRCPZZ   |



**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>   |
|------------|--|------------------------|--|
| HLTCB      | Hydrocarbon gas liquids total consumption.   | Billion Btu            | HLTCBZZ = HLACBZZ + HLCCBZZ + HLICBZZ + HLRCBZZ<br>HLTCBUS = ΣHLTCBZZ  |
| HLTCK      | Average factor for converting hydrocarbon gas liquids total consumption from physical unit to Btu. | Million Btu per barrel | HLTCKZZ = HLTCBZZ / HLTCPPZZ<br>HLTCKUS = HLTCBUS / HLTCPPUS   |
| HLTCP      | Hydrocarbon gas liquids total consumption.   | Thousand barrels       | HLTCPZZ = HLACPZZ + HLCCPZZ + HLICPZZ + HLRCPZZ for all years.<br>Before 1984:<br>HLTCPUS = LGTCPUS + NATCPUS + PLTCPUS + USTCPUS<br>1984 through 2009:<br>HLTCPUS = LGTCPUS + PPTCPUS<br>2010 forward:<br>HLTCPUS is independent. |
| HLTXB      | Hydrocarbon gas liquids total end-use consumption.   | Billion Btu            | HLTXBZZ = HLACBZZ + HLCCBZZ + HLICBZZ + HLRCBZZ<br>HLTXBUS = ΣHLTXBZZ  |
| HLTXP      | Hydrocarbon gas liquids total end-use consumption.   | Thousand barrels       | HLTXPZZ = HLACPZZ + HLCCPZZ + HLICPZZ + HLRCPZZ<br>HLTXPUS = ΣHLTXPZZ  |
| HVC5P      | Conventional hydroelectricity net generation at commercial CHP and electricity-only facilities.    | Million kilowatthours  | HVC5PZZ is independent.<br>HVC5PUS = ΣHVC5PZZ  |
| HVEGP      | Conventional hydroelectricity net generation in the electric power sector.                         | Million kilowatthours  | HVEGPZZ is independent.<br>HVEGPUS = ΣHVEGPZZ  |
| HVI5P      | Conventional hydroelectricity net generation at industrial CHP and electricity-only facilities.    | Million kilowatthours  | HVI5PZZ is independent.<br>HVI5PUS = ΣHVI5PZZ  |
| HYCCB      | Hydropower consumed by the commercial sector.  | Billion Btu            | HYCCBZZ = HYCCPZZ * FFETKUS<br>HYCCBUS = ΣHYCCBZZ  |
| HYCCP      | Hydroelectricity net generation in the commercial sector.  | Million kilowatthours  | HYCCPZZ = HVC5PZZ<br>HYCCPUS = ΣHYCCPZZ  |
| HYEGB      | Hydropower consumed for electricity generation by the electric power sector.                       | Billion Btu            | HYEGBZZ = HVEGPZZ * FFETKUS<br>HYEGBUS = ΣHYEGBZZ  |
| HYEGP      | Hydroelectricity net generation in the electric power sector.                                      | Million kilowatthours  | HYEGPZZ = HVEGPZZ<br>HYEGPUS = ΣHYEGPZZ  |
| HYICB      | Hydropower consumed by the industrial sector.  | Billion Btu            | HYICBZZ = HYICPZZ * FFETKUS<br>HYICBUS = ΣHYICBZZ  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>           | <b>Formula</b>  |
|------------|--|-----------------------|---|
| HYICP      | Hydroelectricity net generation in the industrial sector.      | Million kilowatthours | HYICPZZ = HVI5PZZ<br>HYICPUS = ΣHYICPZZ                     |
| HYTCB      | Hydropower total consumption.                                  | Billion Btu           | HYTCBZZ = HYCCBZZ + HYEGBZZ + HYICBZZ<br>HYTCBUS = ΣHYTCBZZ |
| HYTCP      | Hydroelectricity total net generation.                         | Million kilowatthours | HYTCPZZ = HYCCPZZ + HYEGPZZ + HYICPZZ<br>HYTCPUS = ΣHYTCPZZ |
| HYTXB      | Hydropower energy total end-use consumption.                   | Billion Btu           | HYTXBZZ = HYCCBZZ + HYICBZZ<br>HYTXBUS = ΣHYTXBZZ           |
| HYTXP      | Hydroelectricity, total end-use net generation.                | Million kilowatthours | HYTXPZZ = HYCCPZZ + HYICPZZ<br>HYTXPUS = ΣHYTXPZZ           |
| IQICB      | Isobutane consumed by the industrial sector.                   | Billion Btu           | IQICBZZ = IQTCBZZ<br>IQICBUS = IQTCBUS                      |
| IQICP      | Isobutane consumed by the industrial sector.                   | Thousand barrels      | IQICPZZ = IQTCPZZ<br>IQICPUS = IQTCPUS                      |
| IQTCB      | Isobutane total consumption.                                   | Billion Btu           | IQTCBZZ = IQTCPZZ * 4.183<br>IQTCBUS = ΣIQTCBZZ             |
| IQTCP      | Isobutane total consumption.                                   | Thousand barrels      | IQTCPZZ is independent.<br>IQTCPUS is independent.          |
| IYICB      | Isobutylene from refineries consumed by the industrial sector. | Billion Btu           | IYICBZZ = IYTCBZZ<br>IYICBUS = IYTCBUS                      |
| IYICP      | Isobutylene from refineries consumed by the industrial sector. | Thousand barrels      | IYICPZZ = IYTCPZZ<br>IYICPUS = IYTCPUS                      |
| IYTCB      | Isobutylene from refineries total consumption.                 | Billion Btu           | IYTCBZZ = IYTCPZZ * 4.355<br>IYTCBUS = ΣIYTCBZZ             |
| IYTCP      | Isobutylene from refineries total consumption.                 | Thousand barrels      | IYTCPZZ is independent.<br>IYTCPUS is independent.          |
| JFACB      | Jet fuel consumed by the transportation sector.                | Billion Btu           | JFACBZZ = JKACBZZ + JNACBZZ<br>JFACBUS = ΣJFACBZZ           |
| JFACP      | Jet fuel consumed by the transportation sector.                | Thousand barrels      | JFACPZZ = JKACPZZ + JNACPZZ<br>JFACPUS = ΣJFACPZZ           |
| JFEUB      | Jet fuel consumed by the electric power sector (through 1982). | Billion Btu           | JFEUBZZ = JKEUBZZ<br>JFEUBUS = JKEUBUS                      |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>      | <b>Formula</b>   |
|------------|--|------------------|--|
| JFEUP      | Jet fuel consumed by the electric power sector (through 1982).               | Thousand barrels | JFEUPZZ = JKEUPZZ<br>JFEUPUS = JKEUPUS                                 |
| JFTCB      | Jet fuel total consumption.  | Billion Btu      | JFTCBZZ = JFACBZZ + JFEUBZZ<br>JFTCBUS = ΣJFTCBZZ                      |
| JFTCP      | Jet fuel total consumption.  | Thousand barrels | JFTCPZZ = JFACPZZ + JFEUPZZ<br>JFTCPUS = ΣJFTCPZZ                      |
| JFTXB      | Jet fuel total end-use consumption.  | Billion Btu      | JFTXBZZ = JFACBZZ<br>JFTXBUS = ΣJFTXBZZ                                |
| JFTXP      | Jet fuel total end-use consumption.  | Thousand barrels | JFTXPZZ = JFACPZZ<br>JFTXPUS = ΣJFTXPZZ                                |
| JKACB      | Kerosene-type jet fuel consumed by the transportation sector.                | Billion Btu      | JKACBZZ = JKACPZZ * 5.670<br>JKACBUS = ΣJKACBZZ                        |
| JKACP      | Kerosene-type jet fuel consumed by the transportation sector.                | Thousand barrels | JKACPZZ = (JKTTPZZ / JKTTPUS) * JKACPUS<br>JKACPUS = JKTCPUS - JKEUPUS |
| JKEUB      | Kerosene-type jet fuel consumed by the electric power sector (through 1982). | Billion Btu      | JKEUBZZ = JKEUPZZ * 5.670<br>JKEUBUS = ΣJKEUBZZ                        |
| JKEUP      | Kerosene-type jet fuel consumed by the electric power sector (through 1982). | Thousand barrels | JKEUPZZ is independent.<br>JKEUPUS = ΣJKEUPZZ                          |
| JKTCB      | Kerosene-type jet fuel total consumption.                                    | Billion Btu      | JKTCBZZ = JKTCPZZ * 5.670<br>JKTCBUS = ΣJKTCBZZ                        |
| JKTCP      | Kerosene-type jet fuel total consumption.                                    | Thousand barrels | JKTCPZZ = JKACPZZ + JKEUPZZ<br>JKTCPUS is independent.                 |
| JKTTP      | Kerosene-type jet fuel total sold.   | Thousand gallons | JKTTPZZ is independent.<br>JKTTPUS = ΣJKTTPZZ                          |
| JNACB      | Naphtha-type jet fuel consumed by the transportation sector.                 | Billion Btu      | JNACBZZ = JNTCBZZ<br>JNACBUS = JNTCBUS                                 |
| JNACP      | Naphtha-type jet fuel consumed by the transportation sector.                 | Thousand barrels | JNACPZZ = JNTCPZZ<br>JNACPUS = JNTCPUS                                 |
| JNMIP      | Naphtha-type jet fuel issued to the military.                                | Thousand barrels | JNMIPZZ is independent.<br>JNMIPUS = ΣJNMIPZZ                          |
| JNTCB      | Naphtha-type jet fuel total consumption.                                     | Billion Btu      | JNTCBZZ = JNTCPZZ * 5.355<br>JNTCBUS = ΣJNTCBZZ                        |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>                                    | <b>Unit</b>      | <b>Formula</b>  |
|------------|---|------------------|---|
| JNTCP      | Naphtha-type jet fuel total consumption.              | Thousand barrels | $JNTCPZZ = (JNMIPZZ / JNMIPUS) * JNTCPUS$<br>JNTCPUS is independent.  |
| KSCCB      | Kerosene consumed by the commercial sector.           | Billion Btu      | $KSCCBZZ = KSCCPZZ * 5.670$<br>$KSCCBUS = \sum KSCCBZZ$               |
| KSCCP      | Kerosene consumed by the commercial sector.           | Thousand barrels | $KSCCPZZ = (KSCMPZZ / KSTTPZZ) * KSTCPZZ$<br>$KSCCPUS = \sum KSCCPZZ$ |
| KSCMP      | Kerosene sold to the commercial sector.               | Thousand barrels | KSCMPZZ is independent.<br>$KSCMPUS = \sum KSCMPZZ$                   |
| KSICB      | Kerosene consumed by the industrial sector.           | Billion Btu      | $KSICBZZ = KSICPZZ * 5.670$<br>$KSICBUS = \sum KSICBZZ$               |
| KSICP      | Kerosene consumed by the industrial sector.           | Thousand barrels | $KSICPZZ = (KSINPZZ / KSTTPZZ) * KSTCPZZ$<br>$KSICPUS = \sum KSICPZZ$ |
| KSIHP      | Kerosene sold for industrial heating and processing.  | Thousand barrels | KSIHPZZ is independent.<br>$KSIHPUS = \sum KSIHPZZ$                   |
| KSINP      | Kerosene sold to the industrial sector.               | Thousand barrels | $KSINPZZ = KSIHPZZ + KSOTPZZ$<br>$KSINPUS = \sum KSINPZZ$             |
| KSOTP      | Kerosene sold for all other uses, including farm use. | Thousand barrels | KSOTPZZ is independent.<br>$KSOTPUS = \sum KSOTPZZ$                   |
| KSRCB      | Kerosene consumed by the residential sector.          | Billion Btu      | $KSRCBZZ = KSRCPZZ * 5.670$<br>$KSRCBUS = \sum KSRCBZZ$               |
| KSRCP      | Kerosene consumed by the residential sector.          | Thousand barrels | $KSRCPZZ = (KSRSPZZ / KSTTPZZ) * KSTCPZZ$<br>$KSRCPUS = \sum KSRCPZZ$ |
| KSRSP      | Kerosene sold to the residential sector.              | Thousand barrels | KSRSPZZ is independent.<br>$KSRSPUS = \sum KSRSPZZ$                   |
| KSTCB      | Kerosene total consumption.                           | Billion Btu      | $KSTCBZZ = KSCCBZZ + KSICBZZ + KSRCBZZ$<br>$KSTCBUS = \sum KSTCBZZ$   |
| KSTCP      | Kerosene total consumption.                           | Thousand barrels | $KSTCPZZ = (KSTTPZZ / KSTTPUS) * KSTCPUS$<br>KSTCPUS is independent.  |
| KSTTP      | Kerosene total sold.                                  | Thousand barrels | $KSTTPZZ = KSCMPZZ + KSINPZZ + KSRSPZZ$<br>$KSTTPUS = \sum KSTTPZZ$   |
| KSTXB      | Kerosene total end-use consumption.                   | Billion Btu      | $KSTXBZZ = KSCCBZZ + KSICBZZ + KSRCBZZ$<br>$KSTXBUS = \sum KSTXBZZ$   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>            | <b>Formula</b>   |
|------------|---|------------------------|--|
| KSTXP      | Kerosene total end-use consumption.   | Thousand barrels       | $KSTXPZZ = KSCCPZZ + KSICPZZ + KSRCPZZ$<br>$KSTXPUS = \Sigma KSTXPZZ$  |
| LGACB      | LPG consumed by the transportation sector (through 2009).                                     | Billion Btu            | $LGACBZZ = LGACPZZ * 3.841$<br>$LGACBUS = \Sigma LGACBZZ$  |
| LGACP      | LPG consumed by the transportation sector (through 2009).                                     | Thousand barrels       | $LGACPZZ = LGCBPZZ * LGTRSUS$<br>$LGACPUS = \Sigma LGACPZZ$  |
| LGCBM      | LPG sales for internal combustion engine use (through 2009).                                  | Thousand gallons       | LGCBMZZ is independent.<br>$LGCBMUS = \Sigma LGCBMZZ$  |
| LGCBP      | LPG consumed for internal combustion engine use (through 2009).                               | Thousand barrels       | $LGCBPZZ = LGCBMZZ / 42$<br>$LGCBPUS = \Sigma LGCBPZZ$   |
| LGCCB      | LPG consumed by the commercial sector (through 2009).   | Billion Btu            | $LGCCBZZ = LGCCPZZ * 3.841$<br>$LGCCBUS = \Sigma LGCCBZZ$  |
| LGCCP      | LPG consumed by the commercial sector (through 2009).   | Thousand barrels       | $LGCCPZZ = LGHCPZZ * LGCCSZZ$<br>$LGCCPUS = \Sigma LGCCPZZ$  |
| LGCCS      | The share of residential and commercial LPG consumed by the commercial sector (through 2009). | Percent                | LGCCSZZ is independent.  |
| LGHCM      | LPG sold for residential and commercial use (through 2009).                                   | Thousand gallons       | LGHCMZZ is independent.<br>$LGHCMUS = \Sigma LGHCMZZ$  |
| LGHCP      | LPG consumed by the residential and commercial sectors (through 2009).                        | Thousand barrels       | $LGHCPZZ = LGHCMZZ / 42$<br>$LGHCPUS = \Sigma LGHCPZZ$   |
| LGICB      | LPG consumed by the industrial sector (through 2009).   | Billion Btu            | $LGICBZZ = (LGICPZZ / LGICPUS) * LGICBUS$<br>$LGICBUS = LGTCBUS - (LGACBUS + LGCCBUS + LGRCBUS)$   |
| LGICK      | Average conversion factor for industrial consumption of LPG (through 2009).                   | Million Btu per barrel | $LGICKUS = LGICBUS / LGICPUS$  |
| LGICP      | LPG consumed by the industrial sector (through 2009).   | Thousand barrels       | Before 2008:<br>$LGICPZZ = LGTCPZZ - (LGACPZZ + LGCCPZZ + LGRCPZZ)$<br>$LGICPUS = \Sigma LGICPZZ$<br>For 2008 and 2009:<br>LGICPZZ is Independent.<br>$LGICPUS = \Sigma LGICPZZ$ |
| LGRCB      | LPG consumed by the residential sector (through 2009).  | Billion Btu            | $LGRCBZZ = LGRCPZZ * 3.841$<br>$LGRCBUS = \Sigma LGRCBZZ$  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>  |
|------------|--|------------------------|---|
| LGRCP      | LPG consumed by the residential sector (through 2009).   | Thousand barrels       | $LGRCPPZ = LGHCPZZ * LGRCSZZ$<br>$LGRCBUS = \sum LGRCPPZ$   |
| LGRCS      | The share of residential and commercial LPG consumed by the residential sector (through 2009). | Percent                | LGRCSZZ is independent.   |
| LGTCB      | LPG total consumption (through 2009).  | Billion Btu            | $LGTCBZZ = LGACBZZ + LGCCBZZ + LGICBZZ + LGRCBZZ$<br>LGTCBUS is independent.  |
| LGTCBUS    | Factor for converting LPG from physical units to Btu (through 2009).                           | Million Btu per barrel | LGTCBUS is independent.   |
| LGTCP      | LPG total consumption (through 2009).  | Thousand barrels       | Before 2008:<br>$LGTCPZZ = (LGTPPZZ / LGTPBUS) * LGTCPBUS$<br>LGTCPBUS is independent.<br>For 2008 and 2009:<br>$LGTCPZZ = LGACPZZ + LGCCPZZ + LGICPZZ + LGRCPZZ$<br>LGTCPBUS is independent. |
| LGTRSUS    | The transportation sector's share of LPG internal combustion engine sales (through 2009).      | Fraction               | LGTRSUS is independent.   |
| LGTPP      | LPG total sold (through 2009).   | Thousand gallons       | LGTPPZZ is independent.<br>$LGTPBUS = \sum LGTPPZZ$   |
| LGTXB      | LPG total end-use consumption (through 2009).  | BillionBtu             | $LGTXBZZ = LGACBZZ + LGCCBZZ + LGICBZZ + LGRCBZZ$<br>$LGTXBUS = \sum LGTXBZZ$   |
| LGTXP      | LPG total end-use consumption (through 2009).  | Thousand barrels       | $LGTXPZZ = LGACPZZ + LGCCPZZ + LGICPZZ + LGRCPZZ$<br>$LGTXBUS = \sum LGTXPZZ$   |
| LOACB      | The transportation sector's share of electrical system energy losses.                          | Billion Btu            | $LOACBZZ = (ESACBZZ / ESTCBZZ) * LOTCBZZ$<br>$LOACBUS = \sum LOACBZZ$   |
| LOCCB      | The commercial sector's share of electrical system energy losses.                              | Billion Btu            | $LOCCBZZ = (ESCCBZZ / ESTCBZZ) * LOTCBZZ$<br>$LOCCBUS = \sum LOCCBZZ$   |
| LOICB      | The industrial sector's share of electrical system energy losses.                              | Billion Btu            | $LOICBZZ = (ESICBZZ / ESTCBZZ) * LOTCBZZ$<br>$LOICBUS = \sum LOICBZZ$   |
| LORCB      | The residential sector's share of electrical system energy losses.                             | Billion Btu            | $LORCBZZ = (ESRCBZZ / ESTCBZZ) * LOTCBZZ$<br>$LORCBUS = \sum LORCBZZ$   |

**Table A1. Consumption Variables (cont.)**

| MSN   | Description   | Unit             | Formula   |
|-------|---|------------------|---|
| LOTCB | Total electrical system energy losses.                                  | Billion Btu      | Before 1990:<br>$LOTCBZZ = ESTCBZZ * ELLSS48$<br>Exceptions:<br>$LOTGBAK = TEEIBAK - ESTGBAK$<br>$LOTGBHI = TEEIBHI - ESTGBHI$<br>$LOTGBUS = TEEIBUS - ESTGBUS$<br>$LOTGB48 = LOTGBUS - (LOTGBAK + LOTGBHI)$<br>1990 forward:<br>$LOTGBZZ = TEESBZZ - ESTGBZZ$<br>$LOTGBUS = TEEIBUS - ESTGBUS$ |
| LOTXB | Total electrical system energy losses allocated to the end-use sectors. | Billion Btu      | $LOTXBZZ = LOACBZZ + LOCCBZZ + LOICBZZ + LORCBZZ$<br>$LOTXBUS = \Sigma LOTXBZZ$   |
| LUACB | Lubricants consumed by the transportation sector.                       | Billion Btu      | $LUACBZZ = LUACPZZ * 6.065$<br>$LUACBUS = \Sigma LUACBZZ$   |
| LUACP | Lubricants consumed by the transportation sector.                       | Thousand barrels | Before 2010:<br>$LUACPZZ = (LUTRPZZ / LUTTPZZ) * LUTCPZZ$<br>$LUACPUS = \Sigma LUACPZZ$<br>2010 forward:<br>LUACPZZ is independent.<br>LUACPUS is independent.  |
| LUICB | Lubricants consumed by the industrial sector.                           | Billion Btu      | $LUICBZZ = LUICPZZ * 6.065$<br>$LUICBUS = \Sigma LUICBZZ$   |
| LUICP | Lubricants consumed by the industrial sector.                           | Thousand barrels | Before 2010:<br>$LUICPZZ = (LUINPZZ / LUTTPZZ) * LUTCPZZ$<br>$LUICPUS = \Sigma LUICPZZ$<br>2010 forward:<br>LUICPZZ is independent.<br>LUICPUS is independent.  |
| LUINP | Lubricants sold to the industrial sector (through 2009).                | Thousand barrels | LUINPZZ is independent.<br>$LUINPUS = \Sigma LUINPZZ$   |
| LUTCB | Lubricants total consumption.   | Billion Btu      | $LUTCBZZ = LUACBZZ + LUICBZZ$<br>$LUTCBUS = \Sigma LUTCBZZ$   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>  |
|------------|--|------------------------|---|
| LUTCP      | Lubricants total consumption.  | Thousand barrels       | Before 2010:<br>LUTCPZZ = (LUTTPZZ / LUTTPUS) * LUTCPUS<br>LUTCPUS is independent.<br>2010 forward:<br>LUTCPZZ = LUACPZZ + LUICPZZ<br>LUTCPUS is independent. |
| LUTRP      | Lubricants sold to the transportation sector (through 2009).                         | Thousand barrels       | LUTRPZZ is independent.<br>LUTRPUS = ΣLUTRPZZ   |
| LUTTP      | Lubricants total sold (through 2009).  | Thousand barrels       | LUTTPZZ = LUINPZZ + LUTRPZZ<br>LUTTPUS = ΣLUTTPZZ   |
| LUTXB      | Lubricants total end-use consumption.  | Billion Btu            | LUTXBZZ = LUACBZZ + LUICBZZ<br>LUTXBUS = ΣLUTXBZZ   |
| LUTXP      | Lubricants total end-use consumption.  | Thousand barrels       | LUTXPZZ = LUACPZZ + LUICPZZ<br>LUTXPUS = ΣLUTXPZZ   |
| MBICB      | Motor gasoline blending components consumed by the industrial sector.                | Billion Btu            | MBICBZZ = MBTCBZZ<br>MBICBUS = MBTCBUS  |
| MBICP      | Motor gasoline blending components consumed by the industrial sector.                | Thousand barrels       | MBICPZZ = MBTCPZZ<br>MBICPUS = MBTCPUS  |
| MBTCB      | Motor gasoline blending components total consumption.                                | Billion Btu            | MBTCBZZ = MBTCPZZ * MBTCKUS<br>MBTCBUS = ΣMBTCBZZ   |
| MBTCP      | Motor gasoline blending components total consumption.                                | Thousand barrels       | MBTCPZZ = (COCAPZZ / COCAPUS) * MBTCPUS<br>MBTCPUS is independent.  |
| MBTCKUS    | Factor for converting motor gasoline blending components from physical units to Btu. | Million Btu per barrel | MBTCKUS is independent.   |
| MGACB      | Motor gasoline consumed by the transportation sector.                                | Billion Btu            | MGACBZZ = MGACPZZ * MGTCCKUS<br>MGACBUS = ΣMGACBZZ  |
| MGACP      | Motor gasoline consumed by the transportation sector.                                | Thousand barrels       | MGACPZZ = (MGTRPZZ / MGTPPZZ) * MGTCPPZZ<br>MGACPUS = ΣMGACPZZ  |
| MGAGP      | Motor gasoline sold for agricultural use.  | Thousand gallons       | MGAGPZZ is independent.<br>MGAGPUS = ΣMGAGPZZ   |
| MGBTP      | Motor gasoline sold for boating use (2015 forward).                                  | Thousand gallons       | MGBTPZZ is independent.<br>MGBTPUS = ΣMGBTPZZ   |



**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>      | <b>Formula</b>  |
|------------|---|------------------|---|
| MGCCB      | Motor gasoline consumed by the commercial sector.   | Billion Btu      | MGCCBZZ = MGCCPZZ * MGTKCUS<br>MGCCBUS = ΣMGCCBZZ   |
| MGCCP      | Motor gasoline consumed by the commercial sector.   | Thousand barrels | MGCCPZZ = (MGCMPZZ / MGTPPZZ) * MGTPPZZ<br>MGCCPUS = ΣMGCCPZZ   |
| MGCMP      | Motor gasoline sold to the commercial sector.   | Thousand gallons | Before 2015:<br>MGCMPZZ = MGMSPZZ + MGNPZZ<br>MGCMPUS = ΣMGCMPZZ<br>2015 forward:<br>MGCMPZZ = MGLGPZZ + MGMSPZZ + MGNPZZ<br>MGCMPUS = ΣMGCMPZZ |
| MGCUP      | Motor gasoline sold for construction use.   | Thousand gallons | MGCUPZZ is independent.<br>MGCUPUS = ΣMGCUPZZ   |
| MGICB      | Motor gasoline consumed by the industrial sector.   | Billion Btu      | MGICBZZ = MGICPZZ * MGTKCUS<br>MGICBUS = ΣMGICBZZ   |
| MGICP      | Motor gasoline consumed by the industrial sector.   | Thousand barrels | MGICPZZ = (MGINPZZ / MGTPPZZ) * MGTPPZZ<br>MGICPUS = ΣMGICPZZ   |
| MGINP      | Motor gasoline sold to the industrial sector.   | Thousand gallons | MGINPZZ = MGAGPZZ + MGCUPZZ + MGIYPZZ<br>MGINPUS = ΣMGINPZZ   |
| MGIYP      | Motor gasoline sold for industrial and commercial use (Federal Highway Administration terminology). | Thousand gallons | MGIYPZZ is independent.<br>MGIYPUS = ΣMGIYPZZ   |
| MGLGP      | Motor gasoline sold for lawn and garden use (2015 forward).   | Thousand gallons | MGLGPZZ is independent.<br>MGLGPUS = ΣMGLGPZZ   |
| MGMFP      | Motor gasoline sold for highway use.  | Thousand gallons | MGMFPZZ is independent.<br>MGMFPUS = ΣMGMFPZZ   |
| MGMRP      | Motor gasoline sold for marine use (through 2014).  | Thousand gallons | MGMRPZZ is independent.<br>MGMRPUS = ΣMGMRPZZ   |
| MGMSP      | Motor gasoline sold for miscellaneous and unclassified uses.  | Thousand gallons | MGMSPZZ is independent.<br>MGMSPUS = ΣMGMSPZZ   |
| MGNPN      | Motor gasoline sold for public nonhighway use.  | Thousand gallons | MGNPNZZ is independent.<br>MGNPNUS = ΣMGNPNZZ   |
| MGRVP      | Motor gasoline sold for recreational vehicle use (2015 forward).                                    | Thousand gallons | MGRVPZZ is independent.<br>MGRVPUS = ΣMGRVPZZ   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>            | <b>Formula</b>  |
|------------|---|------------------------|---|
| MGSFP      | Special fuels sold (Federal Highway Administration terminology; primarily diesel fuel with small amounts of liquefied petroleum gases). | Thousand gallons       | MGSFPZZ is independent.<br>MGSFPUS = $\Sigma$ MGSFPZZ   |
| MGTCB      | Motor gasoline total consumption.   | Billion Btu            | MGTCBZZ = MGACBZZ + MGCCBZZ + MGICBZZ<br>MGTCBUS = $\Sigma$ MGTCBZZ   |
| MGTCP      | Motor gasoline total consumption.   | Thousand barrels       | MGTCPZZ = (MGTTPZZ / MGTPUS) * MGTCBUS<br>MGTCPUS is independent.   |
| MGTCBUS    | Factor for converting motor gasoline from physical units to Btu.  | Million Btu per barrel | MGTCBUS is independent.   |
| MGTRP      | Motor gasoline sold to the transportation sector.   | Thousand gallons       | Before 2015:<br>MGTRPZZ = MGMFPZZ + MGMRPZZ - MGSFPZZ<br>MGTRPUS = $\Sigma$ MGTRPZZ<br>2015 forward:<br>MGTRPZZ = MGBTPZZ + MGMFPZZ + MGRVPZZ - MGSFPZZ<br>MGTRPUS = $\Sigma$ MGTRPZZ |
| MGTTP      | Motor gasoline total sold.  | Thousand gallons       | MGTTPZZ = MGCMPZZ + MGINPZZ + MGTRPZZ<br>MGTPUS = $\Sigma$ MGTTPZZ  |
| MGTXB      | Motor gasoline total end-use consumption.   | Billion Btu            | MGTXBZZ = MGACBZZ + MGCCBZZ + MGICBZZ<br>MGTXBUS = $\Sigma$ MGTXBZZ   |
| MGTXP      | Motor gasoline total end-use consumption.   | Thousand barrels       | MGTXPZZ = MGACPZZ + MGCCPZZ + MGICPZZ<br>MGTXPUS = $\Sigma$ MGTXPZZ   |
| MMTCB      | Motor gasoline total consumption, excluding fuel ethanol.   | Billion Btu            | Before 1993:<br>MMTCBZZ = MGTCBZZ<br>MMTCBUS = MGTCBUS<br>1993 forward:<br>MMTCBZZ = MGTCBZZ - EMTCBZZ<br>MMTCBUS = MGTCBUS - EMTCBUS   |
| MSICB      | Miscellaneous petroleum products consumed by the industrial sector.   | Billion Btu            | MSICBZZ = MSTCBZZ<br>MSICBUS = MSTCBUS  |
| MSICP      | Miscellaneous petroleum products consumed by the industrial sector.   | Thousand barrels       | MSICPZZ = MSTCPZZ<br>MSICPUS = MSTCPUS  |
| MSTCB      | Miscellaneous petroleum products total consumption.   | Billion Btu            | MSTCBZZ = MSTCPZZ * 5.796<br>MSTCBUS = $\Sigma$ MSTCBZZ   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>                 | <b>Formula</b>   |
|------------|---|-----------------------------|--|
| MSTCP      | Miscellaneous petroleum products total consumption.   | Thousand barrels            | $MSTCPZZ = (OCVAVZZ / OCVAVUS) * MSTCPUS$<br>MSTCPUS is independent.   |
| NAICB      | Natural gasoline consumed by the industrial sector (through 1983).  | Billion Btu                 | NAICBZZ = NATCBZZ<br>NAICBUS = NATCBUS   |
| NAICP      | Natural gasoline consumed by the industrial sector (through 1983).  | Thousand barrels            | NAICPZZ = NATCPZZ<br>NAICPUS = NATCPUS   |
| NATCB      | Natural gasoline total consumption (through 1983).  | Billion Btu                 | NATCBZZ = NATCPZZ * 4.638<br>NATCBUS = $\Sigma$ NATCBZZ  |
| NATCP      | Natural gasoline total consumption (through 1983).  | Thousand barrels            | NATCPZZ = NATCPUS * FNCASZZ<br>NATCPUS is independent.   |
| NGACB      | Natural gas consumed by the transportation sector.  | Billion Btu                 | NGACBZZ = NGACPZZ * NGTXKZZ<br>NGACBUS = $\Sigma$ NGACBZZ  |
| NGACP      | Natural gas consumed by the transportation sector.  | Million cubic feet          | NGACPZZ = NGPZPZZ + NGVHPZZ<br>NGACPUS = $\Sigma$ NGACPZZ  |
| NGCCB      | Natural gas delivered to the commercial sector, used as consumption (including supplemental gaseous fuels). | Billion Btu                 | NGCCBZZ = NGCCPZZ * NGTXKZZ<br>NGCCBUS = $\Sigma$ NGCCBZZ  |
| NGCCP      | Natural gas delivered to the commercial sector, used as consumption (including supplemental gaseous fuels). | Million cubic feet          | NGCCPZZ is independent.<br>NGCCPUS = $\Sigma$ NGCCPZZ  |
| NGEIB      | Natural gas consumed by the electric power sector (including supplemental gaseous fuels).                   | Billion Btu                 | Before 2010:<br>NGEIBZZ = NGEIPZZ * NGEIKZZ<br>2010 forward:<br>NGEIBZZ is independent.<br>NGEIBUS = $\Sigma$ NGEIBZZ for all years. |
| NGEIK      | Factor for converting natural gas consumed by the electric power sector from physical units to Btu.         | Thousand Btu per cubic foot | NGEIKZZ is independent.<br>NGEIKUS = NGEIBUS / NGEIPUS   |
| NGEIP      | Natural gas consumed by the electric power sector (including supplemental gaseous fuels).                   | Million cubic feet          | NGEIPZZ is independent.<br>NGEIPUS = $\Sigma$ NGEIPZZ  |
| NGICB      | Natural gas consumed by the industrial sector (including supplemental gaseous fuels).                       | Billion Btu                 | NGICBZZ = NGICPZZ * NGTXKZZ<br>NGICBUS = $\Sigma$ NGICBZZ  |
| NGICP      | Natural gas consumed by the industrial sector (including supplemental gaseous fuels).                       | Million cubic feet          | NGICPZZ = NGINPZZ + NGLEPZZ + NGPLPZZ<br>NGICPUS = $\Sigma$ NGICPZZ  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>                 | <b>Formula</b>  |
|------------|--|-----------------------------|---|
| NGINP      | A portion of the natural gas delivered to the industrial sector.   | Million cubic feet          | NGINPZZ is independent.<br>NGINPUS = ΣNGINPZZ                                   |
| NGLEP      | Natural gas consumed as lease fuel.  | Million cubic feet          | NGLEPZZ is independent.<br>NGLEPUS = ΣNGLEPZZ                                   |
| NGLPB      | Natural gas consumed as lease and plant fuel.  | Billion Btu                 | NGLPBZZ = NGLPPZZ * NGTXKZZ<br>NGLPBUS = ΣNGLPBZZ                               |
| NGLPP      | Natural gas consumed as lease and plant fuel.  | Million cubic feet          | NGLPPZZ = NGLEPZZ + NGPLPZZ<br>NGLPPUS = ΣNGLPPZZ                               |
| NGPLP      | Natural gas consumed as plant fuel.  | Million cubic feet          | NGPLPZZ is independent.<br>NGPLPUS = ΣNGPLPZZ                                   |
| NGPZB      | Natural gas for pipeline and distribution use.   | Billion Btu                 | NGPZBZZ = NGPZPZZ * NGTXKZZ<br>NGPZBUS = ΣNGPZBZZ                               |
| NGPZP      | Natural gas for pipeline and distribution use.   | Million cubic feet          | NGPZPZZ is independent.<br>NGPZPUS = ΣNGPZPZZ                                   |
| NGRCB      | Natural gas delivered to the residential sector, used as consumption (including supplemental gaseous fuels). | Billion Btu                 | NGRCBZZ = NGRCPZZ * NGTXKZZ<br>NGRCBUS = ΣNGRCBZZ                               |
| NGRCP      | Natural gas delivered to the residential sector, used as consumption (including supplemental gaseous fuels). | Million cubic feet          | NGRCPZZ is independent.<br>NGRCPUS = ΣNGRCPZZ                                   |
| NGSFP      | Supplemental gaseous fuels supplies.   | Million cubic feet          | NGSFPZZ is independent.<br>NGSFPUS = ΣNGSFPZZ                                   |
| NGTCB      | Natural gas total consumption (including supplemental gaseous fuels).  | Billion Btu                 | NGTCBZZ = NGTCPZZ * NGTCKZZ<br>NGTCBUS = ΣNGTCBZZ                               |
| NGTCK      | Factor for converting natural gas total consumption from physical units to Btu.                              | Thousand Btu per cubic foot | NGTCKZZ is independent.<br>NGTCKUS = NGTCBUS / NGTCPUS                          |
| NGTCP      | Natural gas total consumption (including supplemental gaseous fuels).  | Million cubic feet          | NGTCPZZ = NGACPZZ + NGCCPZZ + NGEIPZZ + NGICPZZ + NGRCPZZ<br>NGTCPUS = ΣNGTCPZZ |
| NGTPB      | Natural gas total consumption per capita.  | Million Btu                 | NGTPB = NGTCB / TPOPP   |
| NGTPP      | Natural gas total consumption per capita.  | Thousand cubic feet         | NGTPP = NGTCP / TPOPP   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>                 | <b>Formula</b>   |
|------------|--|-----------------------------|--|
| NGTXB      | Natural gas total end-use consumption (including supplemental gaseous fuels).  | Billion Btu                 | NGTXBZZ = NGACBZZ + NGCCBZZ + NGICBZZ + NGRCBZZ<br>NGTXBUS = ΣNGTXBZZ                                      |
| NGTXK      | Factor for converting natural gas consumed by all sectors other than the electric utility sector from physical units to Btu. | Thousand Btu per cubic foot | NGTXKZZ = (NGTCBZZ - NGEIBZZ) / (NGTCPZZ - NGEIPZZ)<br>NGTXKUS = (NGTCBUS - NGEIBUS) / (NGTCPUS - NGEIPUS) |
| NGTXP      | Natural gas total end-use consumption (including supplemental gaseous fuels).  | Million cubic feet          | NGTXPZZ = NGACPZZ + NGCCPZZ + NGICPZZ + NGRCPZZ<br>NGTXPUS = ΣNGTXPZZ                                      |
| NGTZP      | Natural gas consumed in sectors that have supplemental gaseous fuels commingled with natural gas.                            | Million cubic feet          | NGTZPZZ = NGCCPZZ + NGEIPZZ + NGINPZZ + NGRCPZZ<br>NGTZPUS = ΣNGTZPZZ                                      |
| NGVHB      | Natural gas consumed as vehicle fuel.  | Billion Btu                 | NGVHBZZ = NGVHPZZ * NGTXKZZ<br>NGVHBUS = ΣNGVHBZZ  |
| NGVHP      | Natural gas consumed as vehicle fuel.  | Million cubic feet          | NGVHPZZ is independent.<br>NGVHPUS = ΣNGVHPZZ  |
| NNACB      | Natural gas consumed by the transportation sector.   | Billion Btu                 | NNACBZZ = NGACBZZ<br>NNACBUS = ΣNNACBZZ  |
| NNCCB      | Natural gas consumed by the commercial sector (excluding supplemental gaseous fuels).  | Billion Btu                 | NNCCBZZ = NGCCBZZ - SFCCBZZ<br>NNCCBUS = ΣNNCCBZZ  |
| NNEIB      | Natural gas consumed by the electric power sector (excluding supplemental gaseous fuels).                                    | Billion Btu                 | NNEIBZZ = NGEIBZZ - SFEIBZZ<br>NNEIBUS = ΣNNEIBZZ  |
| NNICB      | Natural gas consumed by the industrial sector (excluding supplemental gaseous fuels).  | Billion Btu                 | NNICBZZ = NGICBZZ - SFINBZZ<br>NNICBUS = ΣNNICBZZ  |
| NNRCB      | Natural gas consumed by the residential sector (excluding supplemental gaseous fuels).                                       | Billion Btu                 | NNRCBZZ = NGRCBZZ - SFRCBZZ<br>NNRCBUS = ΣNNRCBZZ  |
| NNTCB      | Natural gas total consumption (excluding supplemental gaseous fuels).  | Billion Btu                 | NNTCBZZ = NGTCBZZ - SFTCBZZ<br>NNTCBUS = ΣNNTCBZZ  |
| NUEGB      | Nuclear energy consumed for electricity generation by the electric power sector.   | Billion Btu                 | NUEGBZZ = NUEGPZZ * NUETKUS<br>NUEGBUS = ΣNUEGBZZ  |
| NUEGP      | Nuclear electricity net generation in the electric power sector.   | Million kilowatthours       | NUEGPZZ is independent.<br>NUEGPUS = ΣNUEGPZZ  |
| NUETB      | Nuclear energy consumed for electricity generation, total.   | Billion Btu                 | NUETBZZ = NUEGBZZ<br>NUETBUS = NUEGBUS   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>                   | <b>Formula</b>   |
|------------|---|-------------------------------|--|
| NUETKUS    | Factor for converting electricity generated from nuclear power from physical units to Btu.                                    | Thousand Btu per kilowatthour | NUETKUS is independent.  |
| NUETP      | Nuclear electricity total net generation.   | Million kilowatthours         | NUETPZZ = NUEGPZZ<br>NUETPUS = ΣNUETPZZ  |
| OCVAV      | Value of shipments (value added prior to 2001) for the industrial organic chemical manufacturing industry.                    | Million dollars               | OCVAVZZ is independent.<br>OCVAVUS = ΣOCVAVZZ  |
| OHICB      | Other hydrocarbon gas liquids (other than propane) consumed by the industrial sector.   | Billion Btu                   | OHICB = HLICB - PQICB  |
| OPICB      | Other petroleum products consumed by the industrial sector.   | Billion Btu                   | OPICBZZ = ABICBZZ + COICBZZ + FNICBZZ + FOICBZZ + FSICBZZ + MBICBZZ + MSICBZZ + SGICBZZ + SNICBZZ + UOICBZZ + WXICBZZ<br>OPICBUS = ΣOPICBZZ  |
| OPICP      | Other petroleum products consumed by the industrial sector.   | Thousand barrels              | OPICPZZ = ABICPZZ + COICPZZ + FNICPZZ + FOICPZZ + FSICPZZ + MBICPZZ + MSICPZZ + SGICPZZ + SNICPZZ + UOICPZZ + WXICPZZ<br>OPICPUS = ΣOPICPZZ  |
| OPTCB      | Other petroleum products total consumption.   | Billion Btu                   | OPTCBZZ = ABTCBZZ + COTCBZZ + FNTCBZZ + FOTCBZZ + FSTCBZZ + MBTCBZZ + MSTCBZZ + SGTCBZZ + SNTCBZZ + UOTCBZZ + WXTCBZZ<br>OPTCBUS = ΣOPTCBZZ  |
| OPTCP      | Other petroleum products total consumption.   | Thousand barrels              | OPTCPZZ = ABTCPZZ + COTCPZZ + FNTCPZZ + FOTCPZZ + FSTCPZZ + MBTCPZZ + MSTCPZZ + SGTCPZZ + SNTCPZZ + UOTCPZZ + WXTCPZZ<br>OPTCPUS = ABTCPUS + COTCPUS + FNTCPUS + FOTCPUS + FSTCPUS + MBTCPUS + MSTCPUS + SGTCPUS + SNTCPUS + UOTCPUS + WXTCPUS |
| OPTXB      | Other petroleum products total end-use consumption.   | Billion Btu                   | OPTXBZZ = OPICBZZ<br>OPTXBUS = ΣOPTXBZZ  |
| OPTXP      | Other petroleum products total end-use consumption.   | Thousand barrels              | OPTXPZZ = OPICPZZ<br>OPTXPUS = ΣOPTXPZZ  |
| P1ICB      | Asphalt and road oil, kerosene, lubricants, petroleum coke, and "other petroleum products" consumed by the industrial sector. | Billion Btu                   | P1ICBZZ = ARICBZZ + KSICBZZ + LUICBZZ + OPICBZZ + PCICBZZ<br>P1ICBUS = ARICBUS + KSICBUS + LUICBUS + OPICBUS + PCICBUS   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>   |
|------------|--|------------------------|--|
| P1ICP      | Asphalt and road oil, kerosene, lubricants, petroleum coke, and “other petroleum products” consumed by the industrial sector.            | Thousand barrels       | $P1ICPZZ = ARICPZZ + KSICPZZ + LUICPZZ + OPICPZZ + PCICPZZ$<br>$P1ICPUS = ARICPUS + KSICPUS + LUICPUS + OPICPUS + PCICPUS$                     |
| P1TCB      | Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” total consumption.         | Billion Btu            | $P1TCBZZ = ARTCBZZ + AVTCBZZ + KSTCBZZ + LUTCBZZ + OPTCBZZ + PCTCBZZ$<br>$P1TCBUS = ARTCBUS + AVTCBUS + KSTCBUS + LUTCBUS + OPTCBUS + PCTCBUS$ |
| P1TCP      | Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” total consumption.         | Thousand barrels       | $P1TCPZZ = ARTCPZZ + AVTCPZZ + KSTCPZZ + LUTCPZZ + OPTCPZZ + PCTCPZZ$<br>$P1TCPUS = ARTCPUS + AVTCPUS + KSTCPUS + LUTCPUS + OPTCPUS + PCTCPUS$ |
| P1TXB      | Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” total end-use consumption. | Billion Btu            | $P1TXBZZ = ARTXBZZ + AVTXBZZ + KSTXBZZ + LUTXBZZ + OPTXBZZ + PCTXBZZ$<br>$P1TXBUS = \Sigma P1TXBZZ$  |
| P1TXP      | Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” total end-use consumption. | Thousand barrels       | $P1TXPZZ = ARTXPZZ + AVTXPZZ + KSTXPZZ + LUTXPZZ + OPTXPZZ + PCTXPZZ$<br>$P1TXPUS = \Sigma P1TXPZZ$  |
| PAACB      | All petroleum products consumed by the transportation sector.  | Billion Btu            | $PAACBZZ = AVACBZZ + DFACBZZ + HLACBZZ + JFACBZZ + LUACBZZ + MGACBZZ + RFACBZZ$<br>$PAACBUS = \Sigma PAACBZZ$                                  |
| PAACKUS    | Factor for converting all petroleum products consumed by the transportation sector from physical units to Btu.                           | Million Btu per barrel | $PAACKUS = PAACBUS / PAACPUS$  |
| PAACP      | All petroleum products consumed by the transportation sector.  | Thousand barrels       | $PAACPZZ = AVACPZZ + DFACPZZ + HLACPZZ + JFACPZZ + LUACPZZ + MGACPZZ + RFACPZZ$<br>$PAACPUS = \Sigma PAACPZZ$                                  |
| PACCB      | All petroleum products consumed by the commercial sector.  | Billion Btu            | $PACCBZZ = DFCCBZZ + HLCCBZZ + KSCCBZZ + MGCCBZZ + PCCCBZZ + RFCCBZZ$<br>$PACCBUS = \Sigma PACCBZZ$  |
| PACCKUS    | Factor for converting all petroleum products consumed by the commercial sector from physical units to Btu.                               | Million Btu per barrel | $PACCKUS = PACCBUS / PACCPUS$  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>  |
|------------|--|------------------------|---|
| PACCP      | All petroleum products consumed by the commercial sector.  | Thousand barrels       | $PACCPZZ = DFCCPZZ + HLCCPZZ + KSCCPZZ + MGCCPZZ + PCCCPZZ + RFCCPZZ$<br>$PACCPUS = \Sigma PACCPZZ$                               |
| PAEIB      | All petroleum products consumed by the electric power sector.  | Billion Btu            | $PAEIBZZ = DFEIBZZ + JKEUBZZ + PCEIBZZ + RFEIBZZ$<br>$PAEIBUS = \Sigma PAEIBZZ$   |
| PAEIKUS    | Factor for converting all petroleum products consumed by the electric power sector from physical units to Btu.                       | Million Btu per barrel | $PAEIKUS = PAEIBUS / PAEIPUS$   |
| PAEIP      | All petroleum products consumed by the electric power sector.  | Thousand barrels       | $PAEIPZZ = DFEIPZZ + JKEUPZZ + PCEIPZZ + RFEIPZZ$<br>$PAEIPUS = \Sigma PAEIPZZ$   |
| PAHCBUS    | All petroleum products consumed by the residential and commercial sectors combined.  | Billion Btu            | $PAHCBUS = PACCBUS + PARCBUS$   |
| PAHCKUS    | Factor for converting all petroleum products consumed by the residential and commercial sectors combined from physical units to Btu. | Million Btu per barrel | $PAHCKUS = PAHCBUS / PAHCPUS$   |
| PAHCPUS    | All petroleum products consumed by the residential and commercial sectors combined.  | Thousand barrels       | $PAHCPUS = PACCPUS + PARCPUS$   |
| PAICB      | All petroleum products consumed by the industrial sector.  | Billion Btu            | $PAICBZZ = ARICBZZ + DFICBZZ + HLICBZZ + KSICBZZ + LUICBZZ + MGICBZZ + OPICBZZ + PCICBZZ + RFICBZZ$<br>$PAICBUS = \Sigma PAICBZZ$ |
| PAICKUS    | Factor for converting all petroleum products consumed by the industrial sector from physical units to Btu.                           | Million Btu per barrel | $PAICKUS = PAICBUS / PAICPUS$   |
| PAICP      | All petroleum products consumed by the industrial sector.  | Thousand barrels       | $PAICPZZ = ARICPZZ + DFICPZZ + HLICPZZ + KSICPZZ + LUICPZZ + MGICPZZ + OPICPZZ + PCICPZZ + RFICPZZ$<br>$PAICPUS = \Sigma PAICPZZ$ |
| PARCB      | All petroleum products consumed by the residential sector.   | Billion Btu            | $PARCBZZ = DFRCBZZ + HLRCBZZ + KSRCBZZ$<br>$PARCBUS = \Sigma PARCBZZ$   |
| PARCKUS    | Factor for converting all petroleum products consumed by the residential sector from physical units to Btu.                          | Million Btu per barrel | $PARCKUS = PARCBUS / PARCPUS$   |
| PARCP      | All petroleum products consumed by the residential sector.   | Thousand barrels       | $PARCPZZ = DFRCPZZ + HLRCPZZ + KSRCPZZ$<br>$PARCPUS = \Sigma PARCPZZ$   |



**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>            | <b>Formula</b>   |
|------------|--|------------------------|--|
| PATCB      | All petroleum products total consumption.  | Billion Btu            | $PATCBZZ = ARTCBZZ + AVTCBZZ + DFTCBZZ + HLTCBZZ + JFTCBZZ + KSTCBZZ + LUTCBZZ + MGTCBZZ + OPTCBZZ + PCTCBZZ + RFTCBZZ$<br>$PATCBUS = \Sigma PATCBZZ$  |
| PATCKUS    | Factor for converting all petroleum products consumed by all sectors from physical units to Btu. | Million Btu per barrel | $PATCKUS = PATCBUS / PATCPUS$  |
| PATCP      | All petroleum products total consumption.  | Thousand barrels       | $PATCPZZ = ARTCPZZ + AVTCPZZ + DFTCPZZ + HLTCPPZ + JFTCPZZ + KSTCPZZ + LUTCPZZ + MGTCPPZ + OPTCPZZ + PCTCPZZ + RFTCPZZ$<br>$PATCPUS = ARTCPUS + AVTCPUS + DFTCPUS + HLTCPPUS + JFTCPUS + KSTCPUS + LUTCPUS + MGTCPPUS + OPTCPUS + PCTCPUS + RFTCPUS$ |
| PATPB      | All petroleum products total consumption per capita.   | Million Btu            | $PATPB = PATCB / TPOPP$  |
| PATPP      | All petroleum products total consumption per capita.   | Barrels                | $PATPP = PATCP / TPOPP$  |
| PATXB      | All petroleum products total end-use consumption.  | Billion Btu            | $PATXBZZ = ARTXBZZ + AVTXBZZ + DFTXBZZ + HLTXBZZ + JFTXBZZ + KSTXBZZ + LUTXBZZ + MGTXBZZ + OPTXBZZ + PCTXBZZ + RFTXBZZ$<br>$PATXBUS = \Sigma PATXBZZ$  |
| PATXP      | All petroleum products total end-use consumption.  | Thousand barrels       | $PATXPZZ = ARTXPZZ + AVTXPZZ + DFTXPZZ + HLTXPZZ + JFTXPZZ + KSTXPZZ + LUTXPZZ + MGTXPZZ + OPTXPZZ + PCTXPZZ + RFTXPZZ$<br>$PATXPUS = \Sigma PATXPZZ$  |
| PCC3M      | Petroleum coke consumed for combined-heat-and-power in the commercial sector.                    | Thousand tons          | PCC3MZZ is independent.<br>$PCC3MUS = \Sigma PCC3MZZ$  |
| PCCCB      | Petroleum coke consumed by the commercial sector.  | Billion Btu            | $PCCCBZZ = PCCCPZZ * PCMKKUS$<br>$PCCCBUS = \Sigma PCCCBZZ$  |
| PCCCP      | Petroleum coke consumed by the commercial sector.  | Thousand barrels       | $PCCCPZZ = PCC3MZZ * 5$<br>$PCCCPUS = \Sigma PCCCPZZ$  |
| PCCTKUS    | Factor for converting petroleum coke, catalyst coke from physical units to Btu.                  | Million Btu per barrel | PCCTKUS is independent.  |
| PCEIB      | Petroleum coke consumed by the electric power sector.  | Billion Btu            | $PCEIBZZ = PCEIPZZ * PCMKKUS$<br>$PCEIBUS = \Sigma PCEIBZZ$  |

**Table A1. Consumption Variables (cont.)**

| MSN     | Description   | Unit                   | Formula  |
|---------|---|------------------------|--|
| PCEIM   | Petroleum coke consumed by the electric power sector.   | Thousand tons          | PCEIMZZ is independent.<br>PCEIMUS = $\Sigma$ PCEIMZZ  |
| PCEIP   | Petroleum coke consumed by the electric power sector.   | Thousand barrels       | PCEIPZZ = PCEIMZZ * 5<br>PCEIPUS = $\Sigma$ PCEIPZZ  |
| PCI3B   | Petroleum coke consumed for combined-heat-and-power in the industrial sector.                             | Billion Btu            | PCI3BZZ = PCI3PZZ * PCMKKUS<br>PCI3BUS = $\Sigma$ PCI3BZZ  |
| PCI3M   | Petroleum coke consumed for combined-heat-and-power in the industrial sector.                             | Thousand tons          | PCI3MZZ is independent.<br>PCI3MUS = $\Sigma$ PCI3MZZ  |
| PCI3P   | Petroleum coke consumed for combined-heat-and-power in the industrial sector.                             | Thousand barrels       | PCI3PZZ = PCI3MZZ * 5<br>PCI3PUS = $\Sigma$ PCI3PZZ  |
| PCICB   | Petroleum coke consumed in the industrial sector.   | Billion Btu            | PCICBZZ = PCI3BZZ + PCOCBZZ + PCRFBZZ<br>PCICBUS = $\Sigma$ PCICBZZ  |
| PCICP   | Petroleum coke consumed in the industrial sector.   | Thousand barrels       | PCICPZZ = PCI3PZZ + PCOCPZZ + PCRFPZZ<br>PCICPUS = PCTCPUS - PCCCPUS - PCEIPUS   |
| PCMKKUS | Factor for converting petroleum coke, marketable coke from physical units to Btu.                         | Million Btu per barrel | PCMKKUS is independent.  |
| PCOCB   | Petroleum coke consumed in the industrial sector other than for refinery use and combined-heat-and-power. | Billion Btu            | PCOCBZZ = PCOCPZZ * PCMKKUS<br>PCOCBUS = $\Sigma$ PCOCBZZ  |
| PCOCP   | Petroleum coke consumed in the industrial sector other than for refinery use and combined-heat-and-power. | Thousand barrels       | PCOCPZZ = (AICAPZZ / AICAPUS) * PCOCPUS<br>PCOCPUS = PCICPUS - PCI3PUS - PCRFPUS   |
| PCRFB   | Petroleum coke consumed as refinery fuel.   | Billion Btu            | PCRFBZZ = PCRFPZZ * PCCTKUS<br>PCRFBUS = $\Sigma$ PCRFBZZ  |
| PCRFP   | Petroleum coke consumed as refinery fuel.   | Thousand barrels       | Before 1981:<br>PCRFPZZ is independent for selected states.<br>PCRFPZZ = (CTCAPZZ / CTCAPGZ) * PCRFPGZ for states belonging to a specific state group, GZ.<br>1981 through 2012:<br>PCRFPZZ = (CTCAPZZ / CTCAPPZ) * PCRFPZ for states belonging to a specific PADD, PZ.<br>2013 forward:<br>PCRFPZZ is independent.<br>PCRFPUS = $\Sigma$ PCRFPZZ for all years. |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>      | <b>Formula</b>  |
|------------|--|------------------|---|
| PCTCB      | Petroleum coke total consumption.  | Billion Btu      | $PCTCBZZ = PCCCBZZ + PCEIBZZ + PCICBZZ$<br>$PCTCBUS = \Sigma PCTCBZZ$   |
| PCTCP      | Petroleum coke total consumption.  | Thousand barrels | $PCTCPZZ = PCCCPZZ + PCEIPZZ + PCICPZZ$<br>PCTCPUS is independent.  |
| PCTXB      | Petroleum coke total end-use consumption.  | Billion Btu      | $PCTXBZZ = PCCCBZZ + PCICBZZ$<br>$PCTXBUS = \Sigma PCTXBZZ$   |
| PCTXP      | Petroleum coke total end-use consumption.  | Thousand barrels | $PCTXPZZ = PCCCPZZ + PCICPZZ$<br>$PCTXPUS = \Sigma PCTXPZZ$   |
| PIVAV      | Value of shipments (value added prior to 2001) for the paint and coating manufacturing industry. | Million dollars  | PIVAVZZ is independent.<br>$PIVAVUS = \Sigma PIVAVZZ$   |
| PLICB      | Plant condensate consumed by the industrial sector (through 1983).                               | Billion Btu      | $PLICBZZ = PLTCBZZ$<br>$PLICBUS = PLTCBUS$  |
| PLICP      | Plant condensate consumed by the industrial sector (through 1983).                               | Thousand barrels | $PLICPZZ = PLTCPZZ$<br>$PLICPUS = PLTCPUS$  |
| PLTCB      | Plant condensate total consumption (through 1983).   | Billion Btu      | $PLTCBZZ = PLTCPZZ * 5.418$<br>$PLTCBUS = \Sigma PLTCBZZ$   |
| PLTCP      | Plant condensate total consumption (through 1983).   | Thousand barrels | $PLTCPZZ = PLTCPUS * FNCASZZ$<br>PLTCPUS is independent.  |
| PMTCB      | All petroleum products total consumption, excluding biofuels.                                    | Billion Btu      | $PMTCBZZ = ARTCBZZ + AVTCBZZ + DMTCBZZ + HLTCBZZ + JFTCBZZ + KSTCBZZ + LUTCBZZ + MMTCBZZ + OPTCBZZ + PCTCBZZ + RFTCBZZ$<br>$PMTCBUS = \Sigma PMTCBZZ$ |
| PPICB      | Natural gasoline (pentanes plus) consumed by the industrial sector.                              | Billion Btu      | $PPICBZZ = PPTCBZZ$<br>$PPICBUS = PPTCBUS$  |
| PPICP      | Natural gasoline (pentanes plus) consumed by the industrial sector.                              | Thousand barrels | $PPICPZZ = PPTCPZZ$<br>$PPICPUS = PPTCPUS$  |
| PPTCB      | Natural gasoline (pentanes plus) total consumption.  | Billion Btu      | $PPTCBZZ = PPTCPZZ * 4.638$<br>$PPTCBUS = \Sigma PPTCBZZ$   |
| PPTCP      | Natural gasoline (pentanes plus) total consumption.  | Thousand barrels | $PPTCPZZ = PPTCPUS * FNCASZZ$<br>PPTCPUS is independent.  |
| PQACB      | Propane consumed by the transportation sector.   | Billion Btu      | $PQACBZZ = PQACPZZ * 3.841$<br>$PQACBUS = \Sigma PQACBZZ$   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>      | <b>Formula</b>  |
|------------|--|------------------|---|
| PQACP      | Propane consumed by the transportation sector.               | Thousand barrels | PQACPZZ is independent.<br>PQACPUS is independent.                              |
| PQCCB      | Propane consumed by the commercial sector.                   | Billion Btu      | $PQCCBZZ = PQCCPZZ * 3.841$<br>$PQCCBUS = \Sigma PQCCBZZ$                       |
| PQCCP      | Propane consumed by the commercial sector.                   | Thousand barrels | PQCCPZZ is independent.<br>PQCCPUS is independent.                              |
| PQICB      | Propane consumed by the industrial sector.                   | Billion Btu      | $PQICBZZ = PQICPZZ * 3.841$<br>$PQICBUS = \Sigma PQICBZZ$                       |
| PQICP      | Propane consumed by the industrial sector.                   | Thousand barrels | PQICPZZ is independent.<br>PQICPUS is independent.                              |
| PQRCB      | Propane consumed by the residential sector.                  | Billion Btu      | $PQRCBZZ = PQRCPZZ * 3.841$<br>$PQRCBUS = \Sigma PQRCBZZ$                       |
| PQRCP      | Propane consumed by the residential sector.                  | Thousand barrels | PQRCPZZ is independent.<br>PQRCPUS is independent.                              |
| PQTCB      | Propane total consumption.                                   | Billion Btu      | $PQTCBZZ = PQACBZZ + PQCCBZZ + PQICBZZ + PQRCBZZ$<br>$PQTCBUS = \Sigma PQTCBZZ$ |
| PQTCP      | Propane total consumption.                                   | Thousand barrels | $PQTCPZZ = PQACPZZ + PQCCPZZ + PQICPZZ + PQRCPZZ$<br>PQTCPUS is independent.    |
| PQTXB      | Propane total end-use consumption.                           | Billion Btu      | $PQTXBZZ = PQACBZZ + PQCCBZZ + PQICBZZ + PQRCBZZ$<br>$PQTXBUS = \Sigma PQTXBZZ$ |
| PQTXP      | Propane total end-use consumption.                           | Thousand barrels | $PQTXPZZ = PQTCPZZ$<br>$PQTXPUS = \Sigma PQTXPZZ$                               |
| PYICB      | Propylene from refineries consumed by the industrial sector. | Billion Btu      | $PYICBZZ = PYTCBZZ$<br>$PYICBUS = PYTCBUS$                                      |
| PYICP      | Propylene from refineries consumed by the industrial sector. | Thousand barrels | $PYICPZZ = PYTCPZZ$<br>$PYICPUS = PYTCPUS$                                      |
| PYTCB      | Propylene from refineries total consumption.                 | Billion Btu      | $PYTCBZZ = PYTCPZZ * 3.835$<br>$PYTCBUS = \Sigma PYTCBZZ$                       |
| PYTCP      | Propylene from refineries total consumption.                 | Thousand barrels | PYTCPZZ is independent.<br>PYTCPUS is independent.                              |
| RDICP      | Road oil consumed by the industrial sector (through 1982).   | Thousand barrels | $RDICPZZ = (RDINPZZ / RDINPUS) * RDTCPUS$<br>$RDICPUS = \Sigma RDICPZZ$         |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>      | <b>Formula</b>   |
|------------|--|------------------|--|
| RDINP      | Road oil sold to the industrial sector (through 1982).                                 | Short tons       | RDINPZZ is independent.<br>RDINPUS = $\Sigma$ RDINPZZ  |
| RDTCP      | Road oil total consumption (through 1982).   | Thousand barrels | RDTCPZZ = RDICPZZ<br>RDTCPUS is independent.   |
| REACB      | Renewable energy sources consumed by the transportation sector.                        | Billion Btu      | REACBZZ = BDACBZZ + EMACBZZ<br>REACBUS = BDACBUS + EMACBUS   |
| RECCB      | Renewable energy sources consumed by the commercial sector.                            | Billion Btu      | RECCBZZ = EMCCBZZ + GECCBZZ + HYCCBZZ + SOCCBZZ + WWCCBZZ + WYCCBZZ<br>RECCBUS = EMCCBUS + GECCBUS + HYCCBUS + SOCCBUS + WWCCBUS + WYCCBUS   |
| REEIB      | Renewable energy sources consumed by the electric power sector.                        | Billion Btu      | REEIBZZ = GEEGBZZ + HYEGBZZ + SOEGBZZ + WWEIBZZ + WYEGBZZ<br>REEIBUS = GEEGBUS + HYEGBUS + SOEGBUS + WWEIBUS + WYEGBUS   |
| REICB      | Renewable energy sources consumed by the industrial sector.                            | Billion Btu      | REICBZZ = BDLCBZZ + EMICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ<br>REICBUS = BDLCBUS + EMICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS                     |
| RERCB      | Renewable energy sources consumed by the residential sector.                           | Billion Btu      | RERCBZZ = GERCBZZ + SORCBZZ + WDRCBZZ<br>RERCBUS = GERCBUS + SORCBUS + WDRCBUS   |
| RETCB      | Renewable energy sources total consumption.  | Billion Btu      | RETCBZZ = BDLCBZZ + BDTCBZZ + EMLCBZZ + EMTCBZZ + GETCBZZ + HYTCBZZ + SOTCBZZ + WWTCBZZ + WYTCBZZ<br>RETCBUS = BDLCBUS + BDTCBUS + EMLCBUS + EMTCBUS + GETCBUS + HYTCBUS + SOTCBUS + WWTCBUS + WYTCBUS |
| RFACB      | Residual fuel oil consumed by the transportation sector.                               | Billion Btu      | RFACBZZ = RFACPZZ * 6.287<br>RFACBUS = $\Sigma$ RFACBZZ  |
| RFACP      | Residual fuel oil consumed by the transportation sector.                               | Thousand barrels | RFACPZZ = (RFTRPZZ / RFNDPZZ) * RFNCPZZ<br>RFACPUS = $\Sigma$ RFACPZZ  |
| RFBKP      | Residual fuel oil sold for vessel bunkering use, excluding deliveries to the military. | Thousand barrels | RFBKPZZ is independent.<br>RFBKPUS = $\Sigma$ RFBKPZZ  |
| RFCCB      | Residual fuel oil consumed by the commercial sector.                                   | Billion Btu      | RFCCBZZ = RFCCPZZ * 6.287<br>RFCCBUS = $\Sigma$ RFCCBZZ  |
| RFCCP      | Residual fuel oil consumed by the commercial sector.                                   | Thousand barrels | RFCCPZZ = (RFCMPZZ / RFNDPZZ) * RFNCPZZ<br>RFCCPUS = $\Sigma$ RFCCPZZ  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>      | <b>Formula</b>  |
|------------|---|------------------|---|
| RFCMP      | Residual fuel oil sold to the commercial sector.  | Thousand barrels | RFCMPZZ is independent.<br>RFCMPUS = $\Sigma$ RFCMPZZ                         |
| RFEIB      | Residual fuel oil consumed by the electric power sector.                                    | Billion Btu      | RFEIBZZ = RFEIPZZ * 6.287<br>RFEIBUS = $\Sigma$ RFEIBZZ                       |
| RFEIP      | Residual fuel oil consumed by the electric power sector.                                    | Thousand barrels | RFEIPZZ is independent.<br>RFEIPUS = $\Sigma$ RFEIPZZ                         |
| RFIBP      | A portion of residual fuel oil sold for industrial use, including industrial space heating. | Thousand barrels | RFIBPZZ is independent.<br>RFIBPUS = $\Sigma$ RFIBPZZ                         |
| RFICB      | Residual fuel oil consumed by the industrial sector.  | Billion Btu      | RFICBZZ = RFICPZZ * 6.287<br>RFICBUS = $\Sigma$ RFICBZZ                       |
| RFICP      | Residual fuel oil consumed by the industrial sector.  | Thousand barrels | RFICPZZ = (RFINPZZ / RFNDPZZ) * RFNCPZZ<br>RFICPUS = $\Sigma$ RFICPZZ         |
| RFINP      | Residual fuel oil sold to the industrial sector.  | Thousand barrels | RFINPZZ = RFIBPZZ + RFMSPZZ + RFOCPZZ<br>RFINPUS = $\Sigma$ RFINPZZ           |
| RFMIP      | Residual fuel oil sold to the military, regardless of use.                                  | Thousand barrels | RFMIPZZ is independent.<br>RFMIPUS = $\Sigma$ RFMIPZZ                         |
| RFMSP      | Residual fuel oil sold for miscellaneous uses.  | Thousand barrels | RFMSPZZ is independent.<br>RFMSPUS = $\Sigma$ RFMSPZZ                         |
| RFNCP      | Residual fuel oil consumption by all sectors other than the electric power sector.          | Thousand barrels | RFNCPZZ = (RFNDPZZ / RFNDPUS) * RFNCPUS<br>RFNCPUS = RFTCPUS - RFEIPUS        |
| RFNDP      | Residual fuel oil sold to all sectors other than the electric power sector.                 | Thousand barrels | RFNDPZZ = RFCMPZZ + RFINPZZ + RFTRPZZ<br>RFNDPUS = $\Sigma$ RFNDPZZ           |
| RFOCP      | Residual fuel oil sold for use by oil companies.  | Thousand barrels | RFOCPZZ is independent.<br>RFOCPUS = $\Sigma$ RFOCPZZ                         |
| RFRRP      | Residual fuel oil sold for use by railroads.  | Thousand barrels | RFRRPZZ is independent.<br>RFRRPUS = $\Sigma$ RFRRPZZ                         |
| RFTCB      | Residual fuel oil total consumption.  | Billion Btu      | RFTCBZZ = RFACBZZ + RFCCBZZ + RFEIBZZ + RFICBZZ<br>RFTCBUS = $\Sigma$ RFTCBZZ |
| RFTCP      | Residual fuel oil total consumption.  | Thousand barrels | RFTCPZZ = RFEIPZZ + RFNCPZZ<br>RFTCPUS is independent.                        |
| RFTRP      | Residual fuel oil sold to the transportation sector.  | Thousand barrels | RFTRPZZ = RFBKPZZ + RFMIPZZ + RFRRPZZ<br>RFTRPUS = $\Sigma$ RFTRPZZ           |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>        | <b>Formula</b>  |
|------------|---|--------------------|---|
| RFTXB      | Residual fuel oil total end-use consumption.                      | Billion Btu        | $RFTXBZZ = RFACBZZ + RFCCBZZ + RFICBZZ$<br>$RFTXBUS = \Sigma RFTXBZZ$           |
| RFTXP      | Residual fuel oil total end-use consumption.                      | Thousand barrels   | $RFTXPZZ = RFACPZZ + RFCCPZZ + RFICPZZ$<br>$RFTXPUS = \Sigma RFTXPZZ$           |
| SFCCB      | Supplemental gaseous fuels consumed by the commercial sector.     | Billion Btu        | $SFCCBZZ = SFCCPZZ * NGTXKZZ$<br>$SFCCBUS = \Sigma SFCCBZZ$                     |
| SFCCP      | Supplemental gaseous fuels consumed by the commercial sector.     | Million cubic feet | $SFCCPZZ = NGSFPZZ * (NGCCPZZ / NGTZPZZ)$<br>$SFCCPUS = \Sigma SFCCPZZ$         |
| SFEIB      | Supplemental gaseous fuels consumed by the electric power sector. | Billion Btu        | $SFEIBZZ = SFEIPZZ * NGEIKZZ$<br>$SFEIBUS = \Sigma SFEIBZZ$                     |
| SFEIP      | Supplemental gaseous fuels consumed by the electric power sector. | Million cubic feet | $SFEIPZZ = NGSFPZZ * (NGEIPZZ / NGTZPZZ)$<br>$SFEIPUS = \Sigma SFEIPZZ$         |
| SFINB      | Supplemental gaseous fuels consumed by the industrial sector.     | Billion Btu        | $SFINBZZ = SFINPZZ * NGTXKZZ$<br>$SFINBUS = \Sigma SFINBZZ$                     |
| SFINP      | Supplemental gaseous fuels consumed by the industrial sector.     | Million cubic feet | $SFINPZZ = NGSFPZZ * (NGINPZZ / NGTZPZZ)$<br>$SFINPUS = \Sigma SFINPZZ$         |
| SFRCB      | Supplemental gaseous fuels consumed by the residential sector.    | Billion Btu        | $SFRCBZZ = SFRCPZZ * NGTXKZZ$<br>$SFRCBUS = \Sigma SFRCBZZ$                     |
| SFRCP      | Supplemental gaseous fuels consumed by the residential sector.    | Million cubic feet | $SFRCPZZ = NGSFPZZ * (NGRCPZZ / NGTZPZZ)$<br>$SFRCPUS = \Sigma SFRCPZZ$         |
| SFTCB      | Supplemental gaseous fuels total consumption.                     | Billion Btu        | $SFTCBZZ = SFCCBZZ + SFEIBZZ + SFINBZZ + SFRCBZZ$<br>$SFTCBUS = \Sigma SFTCBZZ$ |
| SFTCP      | Supplemental gaseous fuels total consumption.                     | Million cubic feet | $SFTCPZZ = SFCCPZZ + SFEIPZZ + SFINPZZ + SFRCPZZ$<br>$SFTCPUS = \Sigma SFTCPZZ$ |
| SGICB      | Still gas consumed by the industrial sector.                      | Billion Btu        | $SGICBZZ = SGTCBZZ$<br>$SGICBUS = SGTCBUS$                                      |
| SGICP      | Still gas consumed by the industrial sector.                      | Thousand barrels   | $SGICPZZ = SGTCPZZ$<br>$SGICPUS = SGTCPUS$                                      |

**Table A1. Consumption Variables (cont.)**

| MSN   | Description  | Unit                  | Formula   |
|-------|--|-----------------------|---|
| SGTCB | Still gas total consumption.   | Billion Btu           | Before 2016:<br>SGTCBZZ = SGTCPZZ * 6.000<br>SGTCBUS = ΣSGTCBZZ<br>2016 forward:<br>SGTCBZZ = SGTCPZZ * 6.287<br>SGTCBUS = ΣSGTCBZZ |
| SGTCP | Still gas total consumption.   | Thousand barrels      | SGTCPZZ = (COCAPZZ / COCAPUS) * SGTCPUS<br>SGTCPUS is independent.  |
| SNICB | Special naphthas consumed by the industrial sector.  | Billion Btu           | SNICBZZ = SNTCBZZ<br>SNICBUS = SNTCBUS  |
| SNICP | Special naphthas consumed by the industrial sector.  | Thousand barrels      | SNICPZZ = SNTCPZZ<br>SNICPUS = SNTCPUS  |
| SNTCB | Special naphthas total consumption.  | Billion Btu           | SNTCBZZ = SNTCPZZ * 5.248<br>SNTCBUS = ΣSNTCBZZ   |
| SNTCP | Special naphthas total consumption.  | Thousand barrels      | SNTCPZZ = (PIVAVZZ / PIVAVUS) * SNTCPUS<br>SNTCPUS is independent.  |
| SOC5B | Solar energy consumed for electricity generation at utility-scale commercial CHP and electricity-only facilities.          | Billion Btu           | SOC5BZZ = SOC5PZZ * FFETKUS<br>SOC5BUS = ΣSOC5BZZ   |
| SOC5P | Solar thermal and photovoltaic electricity net generation at utility-scale commercial CHP and electricity-only facilities. | Million kilowatthours | SOC5PZZ is independent.<br>SOC5PUS = ΣSOC5PZZ   |
| SOC7B | Solar energy consumed for electricity generation at small-scale commercial facilities.                                     | Billion Btu           | SOC7BZZ = SOC7PZZ * FFETKUS<br>SOC7BUS = ΣSOC7BZZ   |
| SOC7P | Photovoltaic electricity generation at small-scale commercial facilities.  | Million kilowatthours | SOC7PZZ is independent.<br>SOC7PUS = ΣSOC7PZZ   |
| SOCCB | Solar energy consumed by the commercial sector.  | Billion Btu           | SOCCBZZ = SOC5BZZ + SOC7BZZ<br>SOCCBUS = ΣSOCCBZZ   |
| SOCCP | Solar thermal and photovoltaic electricity net generation in the commercial sector.  | Million kilowatthours | SOCCPZZ = SOC5PZZ + SOC7PZZ<br>SOCCPUS = ΣSOCCPZZ   |
| SOEGB | Solar energy consumed for electricity generation by the electric power sector.   | Billion Btu           | SOEGBZZ = SOEGPZZ * FFETKUS<br>SOEGBUS = ΣSOEGBZZ   |



**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>           | <b>Formula</b>  |
|------------|--|-----------------------|---|
| SOEGP      | Solar thermal and photovoltaic electricity net generation in the electric power sector.                                    | Million kilowatthours | SOEGPZZ is independent.<br>SOEGPUS = $\Sigma$ SOEGPZZ                         |
| SOI5B      | Solar energy consumed for electricity generation at utility-scale industrial CHP and electricity-only facilities.          | Billion Btu           | SOI5BZZ = SOI5PZZ * FFETKUS<br>SOI5BUS = $\Sigma$ SOI5BZZ                     |
| SOI5P      | Solar thermal and photovoltaic electricity net generation at utility-scale industrial CHP and electricity-only facilities. | Million kilowatthours | SOI5PZZ is independent.<br>SOI5PUS = $\Sigma$ SOI5PZZ                         |
| SOI7B      | Solar energy consumed for electricity generation at small-scale industrial facilities.                                     | Billion Btu           | SOI7BZZ = SOI7PZZ * FFETKUS<br>SOI7BUS = $\Sigma$ SOI7BZZ                     |
| SOI7P      | Photovoltaic electricity generation at small-scale industrial facilities.  | Million kilowatthours | SOI7PZZ is independent.<br>SOI7PUS = $\Sigma$ SOI7PZZ                         |
| SOICB      | Solar energy consumed by the industrial sector.  | Billion Btu           | SOICBZZ = SOI5BZZ + SOI7BZZ<br>SOICBUS = $\Sigma$ SOICBZZ                     |
| SOICP      | Solar thermal and photovoltaic electricity net generation in the industrial sector.  | Million kilowatthours | SOICPZZ = SOI5PZZ + SOI7PZZ<br>SOICPUS = $\Sigma$ SOICPZZ                     |
| SOR7B      | Solar energy consumed for electricity generation by small-scale applications in the residential sector.                    | Billion Btu           | SOR7BZZ = SOR7PZZ * FFETKUS<br>SOR7BUS = $\Sigma$ SOR7BZZ                     |
| SOR7P      | Photovoltaic electricity generation by small-scale applications in the residential sector.                                 | Million kilowatthours | SOR7PZZ is independent.<br>SOR7PUS = $\Sigma$ SOR7PZZ                         |
| SORCB      | Solar energy consumed by the residential sector.   | Billion Btu           | SORCBZZ = SOR7BZZ + SOT8BZZ<br>SORCBUS = $\Sigma$ SORCBZZ                     |
| SOT8B      | Solar thermal energy consumed as heat.   | Billion Btu           | SOT8BZZ = (SOTTPZZ / SOTTPUS) * SOT8BUS<br>SOT8BUS is independent.            |
| SOTCB      | Solar energy total consumption.  | Billion Btu           | SOTCBZZ = SOCCBZZ + SOEGBZZ + SOICBZZ + SORCBZZ<br>SOTCBUS = $\Sigma$ SOTCBZZ |
| SOTGP      | Solar thermal and photovoltaic electricity total net generation.   | Million kilowatthours | SOTGPZZ = SOCCPZZ + SOEGPZZ + SOICPZZ + SOR7PZZ<br>SOTGPUS = $\Sigma$ SOTGPZZ |
| SOTTP      | Rolling 20-year accumulation of shipments of solar thermal energy collectors.  | Square feet           | SOTTPZZ is independent.<br>SOTTPUS = $\Sigma$ SOTTPZZ                         |
| SOTXB      | Solar energy total end-use consumption.  | Billion Btu           | SOTXBZZ = SOCCBZZ + SOICBZZ + SORCBZZ<br>SOTXBUS = $\Sigma$ SOTXBZZ           |

**Table A1. Consumption Variables (cont.)**

| MSN   | Description   | Unit        | Formula  |
|-------|---|-------------|--|
| TEACB | Total energy consumption in the transportation sector.  | Billion Btu | <p>Before 1993:<br/> <math>TEACBZZ = CLACBZZ + EMACBZZ + ESACBZZ + LOACBZZ + NGACBZZ + PAACBZZ</math><br/> <math>TEACBUS = CLACBUS + EMACBUS + ESACBUS + LOACBUS + NGACBUS + PAACBUS</math></p> <p>From 1993 through 2008:<br/> <math>TEACBZZ = BDACBZZ + CLACBZZ + ESACBZZ + LOACBZZ + NGACBZZ + PAACBZZ</math><br/> <math>TEACBUS = BDACBUS + CLACBUS + ESACBUS + LOACBUS + NGACBUS + PAACBUS</math></p> <p>2009 forward:<br/> <math>TEACBZZ = CLACBZZ + ESACBZZ + LOACBZZ + NGACBZZ + PAACBZZ</math><br/> <math>TEACBUS = CLACBUS + ESACBUS + LOACBUS + NGACBUS + PAACBUS</math></p>                  |
| TEAPB | Total energy consumption per capita in the transportation sector.   | Million Btu | $TEAPBZZ = TEACBZZ / TPOPPZZ$<br>$TEAPBUS = TEACBUS / TPOPPUS$   |
| TECCB | Total energy consumption in the commercial sector.  | Billion Btu | <p>Before 1993:<br/> <math>TECCBZZ = CLCCBZZ + EMCCBZZ + ESCCBZZ + GECCBZZ + HYCCBZZ + LOCCBZZ + NGCCBZZ + PACCBZZ + SOCCBZZ + WWCCBZZ - SFCCBZZ</math><br/> <math>TECCBUS = CLCCBUS + EMCCBUS + ESCCBUS + GECCBUS + HYCCBUS + LOCCBUS + NGCCBUS + PACCBUS + SOCCBUS + WWCCBUS - SFCCBUS</math></p> <p>1993 forward:<br/> <math>TECCBZZ = CLCCBZZ + ESCCBZZ + GECCBZZ + HYCCBZZ + LOCCBZZ + NGCCBZZ + PACCBZZ + SOCCBZZ + WWCCBZZ + WYCCBZZ - SFCCBZZ</math><br/> <math>TECCBUS = CLCCBUS + ESCCBUS + GECCBUS + HYCCBUS + LOCCBUS + NGCCBUS + PACCBUS + SOCCBUS + WWCCBUS + WYCCBUS - SFCCBUS</math></p> |
| TECPB | Total energy consumption per capita in the commercial sector.   | Million Btu | $TECPBZZ = TECCBZZ / TPOPPZZ$<br>$TECPBUS = TECCBUS / TPOPPUS$   |
| TEEIB | Total energy consumption in the electric power sector plus net imports of electricity into the United States. | Billion Btu | $TEEIBZZ = CLEIBZZ + ELNIBZZ + GEEGBZZ + HYEGBZZ + NGEIBZZ + NUEGBZZ + PAEIBZZ + SOEGBZZ + WWEIBZZ + WYEGBZZ - SFEIBZZ$<br>$TEEIBUS = \Sigma TEEIBZZ$  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>                             | <b>Formula</b>  |
|------------|---|---|---|
| TEESB      | Total energy used to generate the electricity consumed in a state.  | Billion Btu                             | TEESBZZ = ELISBZZ + TEEIBZZ<br>TEESBUS = TEEIBUS  |
| TEICB      | Total energy consumption in the industrial sector.                  | Billion Btu                             | Before 1993:<br>TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + EMICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + ESICBZZ + LOICBZZ - SFINBZZ<br>TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + EMICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + ESICBUS + LOICBUS - SFINBUS<br>From 1993 through 2000:<br>TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ + ESICBZZ + LOCIBZZ - SFINBZZ<br>TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS + ESICBUS + LOICBUS - SFINBUS<br>From 2001 forward:<br>TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + BFLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ + ESICBZZ + LOCIBZZ - SFINBZZ<br>TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + BFLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS + ESICBUS + LOICBUS - SFINBUS |
| TEIPB      | Total energy consumption per capita in the industrial sector.       | Million Btu                             | TEIPBZZ = TEICBZZ / TPOPPZZ<br>TEIPBUS = TEICBUS / TPOPPUS  |
| TERCB      | Total energy consumption in the residential sector.                 | Billion Btu                             | TERCBZZ = CLRCBZZ + ESRCBZZ + GERCBZZ + LORCBZZ + NGRCBZZ + PARCBZZ + SORCBZZ + WDRCBZZ - SFRCBZZ<br>TERCBUS = CLRCBUS + ESRCBUS + GERCBUS + LORCBUS + NGRCBUS + PARCBUS + SORCBUS + WDRCBUS - SFRCBUS  |
| TERPB      | Total energy consumption per capita in the residential sector.      | Million Btu                             | TERPBZZ = TERCBZZ / TPOPPZZ<br>TERPBUS = TERCBUS / TPOPPUS  |
| TETCB      | Total energy consumption.   | Billion Btu                             | TETCBZZ = ELISBZZ + ELNIBZZ + FFTCBZZ + NUETBZZ + RETCBZZ<br>TETCBUS = ELNIBUS + FFTCBUS + NUETBUS + RETCBUS  |
| TETGR      | Total energy consumption per dollar of real gross domestic product. | Thousand Btu per chained (2012) dollars | TETGRZZ = TETCBZZ / GDPRXZZ<br>TETGRUS = TETCBUS / GDPRXUS  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>      | <b>Formula</b>  |
|------------|--|------------------|---|
| TETPB      | Total energy consumption per capita.   | Million Btu      | TETPBZZ = TETCBZZ / TPOPPZZ<br>TETPBUS = TETCBUS / TPOPPUS            |
| TETXB      | Total end-use energy consumption.  | Billion Btu      | TETXBZZ = TEACBZZ + TECCBZZ + TEICBZZ + TERCBZZ<br>TETXBUS = ΣTETXBZZ |
| TNACB      | Total net energy consumption in the transportation sector excluding the sector's share of electrical system energy losses. | Billion Btu      | TNACBZZ = TEACBZZ - LOACBZZ<br>TNACBUS = TEACBUS - LOACBUS            |
| TNCCB      | Total net energy consumption in the commercial sector excluding the sector's share of electrical system energy losses.     | Billion Btu      | TNCCBZZ = TECCBZZ - LOCCBZZ<br>TNCCBUS = TECCBUS - LOCCBUS            |
| TNICB      | Total net energy consumption in the industrial sector excluding the sector's share of electrical system energy losses.     | Billion Btu      | TNICBZZ = TEICBZZ - LOICBZZ<br>TNICBUS = TEICBUS - LOICBUS            |
| TNRCB      | Total net energy consumption in the residential sector excluding the sector's share of electrical system energy losses.    | Billion Btu      | TNRCBZZ = TERCBZZ - LORCBZZ<br>TNRCBUS = TERCBUS - LORCBUS            |
| TNTXB      | Total primary energy and electricity consumption in the end-use sectors.   | Billion Btu      | TNTXBZZ = TNACBZZ + TNCCBZZ + TNICBZZ + TNRCBZZ<br>TNTXBUS = ΣTNTXBZZ |
| TPOPP      | Resident population including Armed Forces.  | Thousand         | TPOPPZZ is independent.<br>TPOPPUS is independent.                    |
| UOICB      | Unfinished oils consumed by the industrial sector.   | Billion Btu      | UOICBZZ = UOTCBZZ<br>UOICBUS = UOTCBUS                                |
| UOICP      | Unfinished oils consumed by the industrial sector.   | Thousand barrels | UOICPZZ = UOTCPZZ<br>UOICPUS = UOTCPUS                                |
| UOTCB      | Unfinished oils total consumption.   | Billion Btu      | UOTCBZZ = UOTCPZZ * 5.825<br>UOTCBUS = ΣUOTCBZZ                       |
| UOTCP      | Unfinished oils total consumption.   | Thousand barrels | UOTCPZZ = (COCAPZZ / COCAPUS) * UOTCPUS<br>UOTCPUS is independent.    |
| USICB      | Unfractionated streams consumed by the industrial sector (through 1983).   | Billion Btu      | USICBZZ = USTCBZZ<br>USICBUS = USTCBUS                                |
| USICP      | Unfractionated streams consumed by the industrial sector (through 1983).   | Thousand barrels | USICPZZ = USTCPZZ<br>USICPUS = USTCPUS                                |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>      | <b>Formula</b>  |
|------------|---|------------------|---|
| USTCB      | Unfractionated streams total consumption (through 1983).                        | Billion Btu      | USTCBZZ = USTCPZZ * 5.418<br>USTCBUS = ΣUSTCBZZ   |
| USTCP      | Unfractionated streams total consumption (through 1983).                        | Thousand barrels | USTCPZZ = USTCPUS * FNCASZZ<br>USTCPUS is independent.  |
| WDC3B      | Wood consumed by CHP and electricity-only facilities in the commercial sector.  | Billion Btu      | WDC3BZZ is independent.<br>WDC3BUS = ΣWDC3BZZ   |
| WDC4B      | Wood energy consumed for other uses in the commercial sector.                   | Billion Btu      | WDC4BZZ = (WDRCPZZ / WDRCPUS) * WDC4BUS<br>WDC4BUS = WDCCBUS - WDC3BUS  |
| WDCCB      | Wood energy consumed by the commercial sector.                                  | Billion Btu      | WDCCBZZ = WDC3BZZ + WDC4BZZ<br>WDCCBUS is independent.  |
| WDEIB      | Wood consumed by the electric power sector.                                     | Billion Btu      | WDEIBZZ is independent.<br>WDEIBUS = ΣWDEIBZZ   |
| WDI3B      | Wood consumed by CHP and electricity-only facilities in the industrial sector.  | Billion Btu      | WDI3BZZ is independent.<br>WDI3BUS = ΣWDI3BZZ   |
| WDI4B      | Wood energy consumed for other uses in the industrial sector.                   | Billion Btu      | WDI4BZZ is independent.<br>WDI4BUS = ΣWDI4BZZ   |
| WDICB      | Wood energy consumed by the industrial sector.                                  | Billion Btu      | WDICBZZ = WDI3BZZ + WDI4BZZ<br>WDICBUS = ΣWDICBZZ   |
| WDRCB      | Wood energy consumed by the residential sector.                                 | Billion Btu      | Before 2015:<br>WDRCBZZ = WDRCPZZ * 20<br>2015 forward:<br>WDRCBZZ is independent.<br>WDRCBUS = ΣWDRCBZZ for all years. |
| WDRCP      | Wood energy consumed by the residential sector (through 2014).                  | Thousand cords   | WDRCPZZ is independent.<br>WDRCPUS = ΣWDRCPZZ   |
| WDTCB      | Wood energy total consumption.  | Billion Btu      | WDTCBZZ = WDCCBZZ + WDEIBZZ + WDICBZZ + WDRCBZZ<br>WDTCBUS = ΣWDTCBZZ   |
| WSC3B      | Waste consumed by CHP and electricity-only facilities in the commercial sector. | Billion Btu      | WSC3BZZ is independent.<br>WSC3BUS = ΣWSC3BZZ   |
| WSCCB      | Waste energy consumed by the commercial sector.                                 | Billion Btu      | WSCCBZZ = WSC3BZZ<br>WSCCBUS = ΣWSCCBZZ   |
| WSEIB      | Waste consumed by the electric power sector.                                    | Billion Btu      | WSEIBZZ is independent.<br>WSEIBUS = ΣWSEIBZZ   |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>  | <b>Unit</b>      | <b>Formula</b>   |
|------------|---|------------------|--|
| WSI3B      | Waste consumed by CHP and electricity-only facilities in the industrial sector. | Billion Btu      | WSI3BZZ is independent.<br>WSI3BUS = $\Sigma$ WSI3BZZ                                      |
| WSI4B      | Waste energy consumed for other uses in the industrial sector.                  | Billion Btu      | WSI4BZZ is independent.<br>WSI4BUS = $\Sigma$ WSI4BZZ                                      |
| WSICB      | Waste energy consumed by the industrial sector.                                 | Billion Btu      | WSICBZZ = WSI3BZZ + WSI4BZZ<br>WSICBUS = $\Sigma$ WSICBZZ                                  |
| WSTCB      | Waste energy total consumption.   | Billion Btu      | WSTCBZZ = WSCCBZZ + WSEIBZZ + WSICBZZ<br>WSTCBUS = $\Sigma$ WSTCBZZ                        |
| WWCCB      | Wood and waste consumed in the commercial sector.                               | Billion Btu      | WWCCBZZ = WDCCBZZ + WSCCBZZ<br>WWCCBUS = $\Sigma$ WWCCBZZ                                  |
| WWEIB      | Wood and waste consumed by the electric power sector.                           | Billion Btu      | WWEIBZZ = WDEIBZZ + WSEIBZZ<br>WWEIBUS = $\Sigma$ WWEIBZZ                                  |
| WWI4B      | Wood and waste consumed in manufacturing processes in the industrial sector.    | Billion Btu      | WWI4BZZ = WDI4BZZ + WSI4BZZ<br>WWI4BUS = $\Sigma$ WWI4BZZ                                  |
| WWICB      | Wood and waste consumed in the industrial sector.                               | Billion Btu      | WWICBZZ = WDICBZZ + WSICBZZ<br>WWICBUS = $\Sigma$ WWICBZZ                                  |
| WWTCB      | Wood and waste total consumption.   | Billion Btu      | WWTCBZZ = WDTCBZZ + WSTCBZZ<br>WWTCBUS = $\Sigma$ WWTCBZZ                                  |
| WWTXB      | Wood and waste total end-use consumption.                                       | Billion Btu      | WWTXBZZ = WDCCBZZ + WDICBZZ + WDRCBZZ +<br>WSCCBZZ + WSICBZZ<br>WWTXBUS = $\Sigma$ WWTXBZZ |
| WXICB      | Waxes consumed by the industrial sector.  | Billion Btu      | WXICBZZ = WXTCBZZ<br>WXICBUS = WXTCBUS   |
| WXICP      | Waxes consumed by the industrial sector.  | Thousand barrels | WXICPZZ = WXTCPZZ<br>WXICPUS = WXTCPUS   |
| WXTCB      | Waxes total consumption.  | Billion Btu      | WXTCBZZ = WXTCPZZ * 5.537<br>WXTCBUS = $\Sigma$ WXTCBZZ                                    |
| WXTCP      | Waxes total consumption.  | Thousand barrels | WXTCPZZ = (CGVAVZZ / CGVAVUS) * WXTCPUS<br>WXTCPUS is independent.                         |
| WYC5B      | Wind energy consumed at commercial CHP and electricity-only facilities.         | Billion Btu      | WYC5BZZ = WYC5PZZ * FFETKUS<br>WYC5BUS = $\Sigma$ WYC5BZZ                                  |

**Table A1. Consumption Variables (cont.)**

| <b>MSN</b> | <b>Description</b>   | <b>Unit</b>           | <b>Formula</b>  |
|------------|--|-----------------------|---|
| WYC5P      | Wind electricity net generation at utility-scale commercial CHP and electricity-only facilities.   | Million kilowatthours | WYC5PZZ is independent.<br>WYC5PUS = $\Sigma$ WYC5PZZ               |
| WYCCB      | Wind energy consumed by the commercial sector.   | Billion Btu           | WYCCBZZ = WYC5BZZ<br>WYCCBUS = $\Sigma$ WYCCBZZ                     |
| WYCCP      | Wind electricity net generation in the commercial sector.  | Million kilowatthours | WYCCPZZ = WYC5PZZ<br>WYCCPUS = $\Sigma$ WYCCPZZ                     |
| WYEGB      | Wind energy consumed for electricity generation by the electric power sector.                      | Billion Btu           | WYEGBZZ = WYEGPZZ * FFETKUS<br>WYEGBUS = $\Sigma$ WYEGBZZ           |
| WYEGP      | Wind electricity net generation in the electric power sector.                                      | Million kilowatthours | WYEGPZZ is independent.<br>WYEGPUS = $\Sigma$ WYEGPZZ               |
| WYI5B      | Wind energy consumed for electricity generation at industrial CHP and electricity-only facilities. | Billion Btu           | WYI5BZZ = WYI5PZZ * FFETKUS<br>WYI5BUS = $\Sigma$ WYI5BZZ           |
| WYI5P      | Wind electricity net generation at utility-scale industrial CHP and electricity-only facilities.   | Million kilowatthours | WYI5PZZ is independent.<br>WYI5PUS = $\Sigma$ WYI5PZZ               |
| WYICB      | Wind energy consumed by the industrial sector.   | Billion Btu           | WYICBZZ = WYI5BZZ<br>WYICBUS = $\Sigma$ WYICBZZ                     |
| WYICP      | Wind electricity net generation in the industrial sector.  | Million kilowatthours | WYICPZZ = WYI5PZZ<br>WYICPUS = $\Sigma$ WYICPZZ                     |
| WYTCB      | Wind energy total consumption.   | Billion Btu           | WYTCBZZ = WYCCBZZ + WYEGBZZ + WYICBZZ<br>WYTCBUS = $\Sigma$ WYTCBZZ |
| WYTCP      | Wind electricity total net generation.   | Million kilowatthours | WYTCPZZ = WYCCPZZ + WYEGPZZ + WYICPZZ<br>WYTCPUS = $\Sigma$ WYTCPZZ |
| WYTXB      | Wind energy total end-use consumption.   | Billion Btu           | WYTXBZZ = WYCCBZZ + WYICBZZ<br>WYTXBUS = $\Sigma$ WYTXBZZ           |
| WYTXP      | Wind energy total end-use net generation.  | Million kilowatthours | WYTXPZZ = WYCCPZZ + WYICPZZ<br>WYTXPUS = $\Sigma$ WYTXPZZ           |