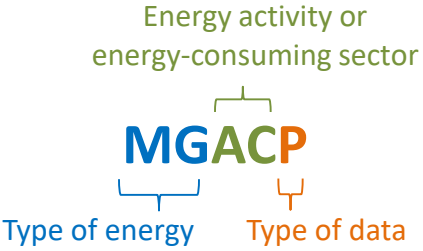


Appendix A. Mnemonic Series Names (MSN)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
BDLCB	Energy losses and co-products from the production of biodiesel.	Billion Btu	BDLCBZZ is independent. BDLCBUS is independent.
BDTCB	Biodiesel total consumption.	Billion Btu	BDTCBZZ = BDTCPZZ * 5.359 BDTCBUS = ΣBDTCBZZ
BDTCP	Biodiesel total consumption.	Thousand barrels	BDTCPZZ is independent. BDTCPUS is independent.
BFLCB	Energy losses and co-products from the production of biofuels.	Billion Btu	BFLCBZZ = BDLCBZZ + EMLCBZZ BFLCBUS = BDLCBUS + EMLCBUS
BFTCB	Biofuels total consumption.	Billion Btu	BFTCBZZ = BDTCBZZ + EMTCBZZ + BFLCBZZ 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 BQICBUS = BQTCBUS
BQICP	Normal butane consumed by the industrial sector.	Thousand barrels	BQICPZZ = BQTCPZZ BQICPUS = BQTCPUS
BQTCB	Normal butane total consumption.	Billion Btu	BQTCBZZ = BQTCPZZ * 4.353 BQTCBUS = ΣBQTCBZZ
BQTCP	Normal butane total consumption.	Thousand barrels	BQTCPZZ is independent. BQTCPUS is independent.
BYICB	Butylene from refineries consumed by the industrial sector.	Billion Btu	BYICBZZ = BYTCBZZ BYICBUS = BYTCBUS
BYICP	Butylene from refineries consumed by the industrial sector.	Thousand barrels	BYICPZZ = BYTCPZZ BYICPUS = BYTCPUS
BYTCB	Butylene from refineries total consumption.	Billion Btu	BYTCBZZ = BYTCPZZ * 4.377 BYTCBUS = ΣBYTCBZZ
BYTCP	Butylene from refineries total consumption.	Thousand barrels	BYTCPZZ is independent. 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.)

MSN	Description	Unit	Formula
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. $CGVAVUS = \Sigma CGVAVZZ$
CLACB	Coal consumed by the transportation sector.	Billion Btu	$CLACBZZ = CLACPZZ * CLACKZZ$ $CLACBUS = \Sigma CLACBZZ$
CLACK	Factor for converting coal consumed by the transportation sector from physical units to Btu.	Million Btu per short ton	CLACKZZ is independent. $CLACKUS = CLACBUS / CLACPUS$
CLACP	Coal consumed by the transportation sector.	Thousand short tons	$CLACPZZ = (CLICPZZ / CLICPUS) * CLACPUS$ CLACPUS is independent.
CLCCB	Coal consumed by the commercial sector.	Billion Btu	$CLCCBZZ = CLCCPZZ * CLHCKZZ$ $CLCCBUS = \Sigma CLCCBZZ$
CLCCP	Coal consumed by the commercial sector.	Thousand short tons	Before 2008: $CLCCPZZ = CLHCPZZ - CLRCPZZ$ $CLCCPUS = \Sigma CLCCPZZ$ 2008 forward: $CLCCPZZ = (CLHDPZZ / CLHDPUS) * CLHCPUS$ $CLCCPUS = \Sigma CLCCPZZ$
CLEIB	Coal consumed by the electric power sector.	Billion Btu	$CLEIBZZ = CLEIPZZ * CLEIKZZ$ $CLEIBUS = \Sigma CLEIBZZ$
CLEIK	Factor for converting coal consumed by the electric power sector from physical units to Btu.	Million Btu per short ton	CLEIKZZ is independent. $CLEIKUS = CLEIBUS / CLEIPUS$
CLEIP	Coal consumed by the electric power sector.	Thousand short tons	CLEIPZZ is independent. $CLEIPUS = \Sigma CLEIPZZ$
CLHCB	Coal consumed by the residential and commercial sectors.	Billion Btu	$CLHCBZZ = CLCCBZZ + CLRCBZZ$ $CLHCBUS = \Sigma CLHCBZZ$
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. $CLHCKUS = CLHCBUS / CLHCPUS$
CLHCP	Coal consumed by the residential and commercial sectors (commercial sector from 2008 forward).	Thousand short tons	$CLHCPZZ = (CLHDPZZ / CLHDPUS) * CLHCPUS$ CLHCPUS is independent.

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
DFCCB	Distillate fuel oil consumed by the commercial sector.	Billion Btu	DFCCBZZ = DFCCPZZ * DFTCKUS DFCCBUS = ΣDFCCBZZ
DFCCP	Distillate fuel oil consumed by the commercial sector.	Thousand barrels	DFCCPZZ = (DFCMPZZ / DFNDPZZ) * DFNCPZZ DFCCPUS = ΣDFCCPZZ
DFCMP	Distillate fuel oil sales to the commercial sector.	Thousand barrels	DFCMPZZ is independent. DFCMPUS = ΣDFCMPZZ
DFEIB	Distillate fuel oil consumed by the electric power sector.	Billion Btu	DFEIBZZ = DFEIPZZ * DFTCKUS DFEIBUS = ΣDFEIBZZ
DFEIP	Distillate fuel oil consumed by the electric power sector.	Thousand barrels	DFEIPZZ = DKEIPZZ - JKEUPZZ DFEIPUS = ΣDFEIPZZ
DFIBP	Distillate fuel oil sales for industrial space heating and other industrial use, including farm use.	Thousand barrels	DFIBPZZ is independent. DFIBPUS = ΣDFIBPZZ
DFICB	Distillate fuel oil consumed by the industrial sector.	Billion Btu	DFICBZZ = DFICPZZ * DFTCKUS DFICBUS = ΣDFICBZZ
DFICP	Distillate fuel oil consumed by the industrial sector.	Thousand barrels	DFICPZZ = (DFINPZZ / DFNDPZZ) * DFNCPZZ DFICPUS = ΣDFICPZZ
DFINP	Distillate fuel oil sales to the industrial sector.	Thousand barrels	DFINPZZ = DFIBPZZ + DFOCPZZ + DFOFPZZ + DFOTPPZZ DFINPUS = ΣDFINPZZ
DFMIP	Distillate fuel oil sales to the military, regardless of use.	Thousand barrels	DFMIPZZ is independent. DFMIPUS = ΣDFMIPZZ
DFNCP	Distillate fuel oil consumption by all end-use sectors.	Thousand barrels	DFNCPZZ = (DFNDPZZ / DFNDPUS) * DFNCPUS DFNCPUS = DFTCPUS - DFEIPUS
DFNDP	Distillate fuel oil sales to all end-use sectors.	Thousand barrels	DFNDPZZ = DFCMPZZ + DFINPZZ + DFRSPZZ + DFTRPZZ DFNDPUS = ΣDFNDPZZ
DFOCP	Distillate fuel oil sales for use by oil companies.	Thousand barrels	DFOCPZZ is independent. DFOCPUS = ΣDFOCPZZ
DFOFP	Distillate fuel oil sales as diesel fuel for off-highway use.	Thousand barrels	DFOFPZZ is independent. DFOFPUS = ΣDFOFPZZ
DFONP	Distillate fuel oil sales as diesel fuel for on-highway use.	Thousand barrels	DFONPZZ is independent. DFONPUS = ΣDFONPZZ
DFOTP	Distillate fuel oil sales for all other uses not identified in other sales categories.	Thousand barrels	DFOTPZZ is independent. DFOTPUS = ΣDFOTPZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
DFRCB	Distillate fuel oil consumed by the residential sector.	Billion Btu	DFRCBZZ = DFRCPZZ * DFTCKUS DFRCBUS = ΣDFRCBZZ
DFRCP	Distillate fuel oil consumed by the residential sector.	Thousand barrels	DFRCPZZ = (DFRSPZZ / DFNDPZZ) * DFNCPZZ DFRCPUS = ΣDFRCPZZ
DFRRP	Distillate fuel oil sales for use by railroads.	Thousand barrels	DFRRPZZ is independent. DFRRPUS = ΣDFRRPZZ
DFRSP	Distillate fuel oil sales to the residential sector.	Thousand barrels	DFRSPZZ is independent. DFRSPUS = ΣDFRSPZZ
DFTCB	Distillate fuel oil total consumption.	Billion Btu	DFTCBZZ = DFACBZZ + DFCCBZZ + DFEIBZZ + DFICBZZ + DFRCBZZ DFTCBUS = ΣDFTCBZZ
DFTCP	Distillate fuel oil total consumption.	Thousand barrels	DFTCPZZ = DFEIPZZ + DFNCPZZ 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 + DFMI PZZ + DFONPZZ + DFRRPZZ DFTRPUS = ΣDFTRPZZ
DFTXB	Distillate fuel oil total end-use consumption.	Billion Btu	DFTXBZZ = DFACBZZ + DFCCBZZ + DFICBZZ + DFRCBZZ DFTXBUS = ΣDFTXBZZ
DFTXP	Distillate fuel oil total end-use consumption.	Thousand barrels	DFTXPZZ = DFACPZZ + DFCCPZZ + DFICPZZ + DFRCPZZ DFTXPUS = ΣDFTXPZZ
DKEIB	Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector.	Billion Btu	DKEIBZZ = DFEIBZZ + JKEUBZZ DKEIBUS = ΣDKEIBZZ
DKEIP	Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector.	Thousand barrels	DKEIPZZ is independent. DKEIPUS = ΣDKEIPZZ
DMTCB	Distillate fuel oil, excluding biodiesel, total consumption.	Billion Btu	Before 2009: DMTCBZZ = DFTCBZZ DMTCBUS = DFTCBUS 2009 forward: DMTCBZZ = DFTCBZZ - BDTCBZZ DMTCBUS = DFTCBUS - BDTCBUS

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
ELEXB	Electricity exported from the United States.	Billion Btu	$ELEXBZZ = ELEXPZZ * 3.412$ $ELEXBUS = \Sigma ELEXBZZ$
ELEXP	Electricity exported from the United States.	Million kilowatthours	ELEXPZZ is independent. $ELEXPUS = \Sigma ELEXPZZ$
ELIMB	Electricity imported into the United States.	Billion Btu	$ELIMBZZ = ELIMPZZ * 3.412$ $ELIMBUS = \Sigma ELIMBZZ$
ELIMP	Electricity imported into the United States.	Million kilowatthours	ELIMPZZ is independent. $ELIMPUS = \Sigma ELIMPZZ$
ELISB	Net interstate flow of electricity and associated losses (negative indicates flow out of state).	Billion Btu	Before 1990: $ELISBZZ = (ESTCBZZ + LOTCBZZ) - TEEIBZZ$ $ELISBUS = 0$ 1990 forward: If $ELISPZZ < 0$, $ELISBZZ = -(TEEIBZZ * (-ELISPZZ / (-ELISPZZ + ESTCPZZ)))$ If $ELISPZZ \geq 0$, $ELISBZZ = ELISPZZ * (\text{average heat content of energy for all outflow electricity})$ $ELISBUS = 0$
ELISP	Net interstate flow of electricity (negative indicates flow out of state).	Million kilowatthours	ELISPZZ is independent. $ELISPUS = 0$
ELLS48	The ratio of electrical system energy losses to electricity sold in the contiguous 48 states and the District of Columbia.	Fraction	$ELLS48 = LOTCB48 / ESTCB48$
ELNIB	Net imports of electricity into the United States.	Billion Btu	$ELNIBZZ = ELIMBZZ - ELEXBZZ$ $ELNIBUS = \Sigma ELNIBZZ$
ELNIP	Net imports of electricity into the United States.	Million kilowatthours	$ELNIPZZ = ELIMPZZ - ELEXPZZ$ $ELNIPUS = \Sigma ELNIPZZ$
EMACB	Fuel ethanol, excluding denaturant, consumed by the transportation sector.	Billion Btu	$EMACBZZ = (MGACPZZ / MGTCPPZZ) * EMTCBZZ$ $EMACBUS = \Sigma EMACBZZ$
EMCCB	Fuel ethanol, excluding denaturant, consumed by the commercial sector.	Billion Btu	$EMCCBZZ = (MGCCPZZ / MGTCPPZZ) * EMTCBZZ$ $EMCCBUS = \Sigma EMCCBZZ$
EMICB	Fuel ethanol, excluding denaturant, consumed by the industrial sector.	Billion Btu	$EMICBZZ = (MGICPZZ / MGTCPPZZ) * EMTCBZZ$ $EMICBUS = \Sigma EMICBZZ$
EMLCB	Energy losses and co-products from the production of fuel ethanol.	Billion Btu	$EMLCBZZ = (EMPRBZZ / EMPRBUS) * EMLCBUS$ EMLCBUS is independent.

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
EMPRB	Fuel ethanol production excluding denaturant.	Billion Btu	EMPRBZZ is independent. EMPRBUS is independent.
EMTCB	Fuel ethanol, excluding denaturant, total consumption.	Billion Btu	EMTCBZZ = (EMTCBUS / ENTCBUS) * ENTCBZZ EMTCBUS is independent.
ENACB	Fuel ethanol, including denaturant, consumed by the transportation sector.	Billion Btu	ENACBZZ = (MGACPZZ / MGTCPZZ) * ENTCBZZ ENACBUS = ΣENACBZZ
ENACP	Fuel ethanol, including denaturant, consumed by the transportation sector.	Thousand barrels	ENACPZZ = (MGACPZZ / MGTCPZZ) * ENTCPZZ ENACPUS = ΣENACPZZ
ENCCB	Fuel ethanol, including denaturant, consumed by the commercial sector.	Billion Btu	ENCCBZZ = (MGCCPZZ / MGTCPZZ) * ENTCBZZ ENCCBUS = ΣENCCBZZ
ENCCP	Fuel ethanol, including denaturant, consumed by the commercial sector.	Thousand barrels	ENCCPZZ = (MGCCPZZ / MGTCPZZ) * ENTCPZZ ENCCPUS = ΣENCCPZZ
ENICB	Fuel ethanol, including denaturant, consumed by the industrial sector.	Billion Btu	ENICBZZ = (MGICPZZ / MGTCPZZ) * ENTCBZZ ENICBUS = ΣENICBZZ
ENICP	Fuel ethanol, including denaturant, consumed by the industrial sector.	Thousand barrels	ENICPZZ = (MGICPZZ / MGTCPZZ) * ENTCPZZ ENICPUS = ΣENICPZZ
ENTCB	Fuel ethanol, including denaturant, total consumption.	Billion Btu	ENTCBZZ = (ENTCPZZ / ENTCPUS) * ENTCBUS 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 ENTCPUS is independent.
ENTRP	Fuel ethanol blended into motor gasoline.	Thousand gallons	ENTRPZZ is independent. ENTRPUS = ΣENTRPZZ
EQICB	Ethane consumed by the industrial sector.	Billion Btu	EQICBZZ = EQTCBZZ EQICBUS = EQTCBUS
EQICP	Ethane consumed by the industrial sector.	Thousand barrels	EQICPZZ = EQTCPZZ EQICPUS = EQTCPUS
EQTCB	Ethane total consumption.	Billion Btu	EQTCBZZ = EQTCPZZ * 2.783 EQTCBUS = ΣEQTCBZZ
EQTCP	Ethane total consumption.	Thousand barrels	EQTCPZZ is independent. EQTCPUS is independent.

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
ESACB	Electricity consumed by (i.e., sold to) the transportation sector.	Billion Btu	ESACBZZ = ESACPZZ * 3.412 ESACBUS = ΣESACBZZ
ESACP	Electricity consumed by (i.e., sold to) the transportation sector.	Million kilowatthours	Before 2003: ESACPZZ = ESTRPZZ ESACPUS = ΣESACPZZ 2003 forward: ESACPZZ is independent. ESACPUS = ΣESACPZZ
ESCCB	Electricity consumed by (i.e., sold to) the commercial sector.	Billion Btu	ESCCBZZ = ESCCPZZ * 3.412 ESCCBUS = ΣESCCBZZ
ESCCP	Electricity consumed by (i.e., sold to) the commercial sector.	Million kilowatthours	Before 2003: ESCCPZZ = ESCMPZZ + (ESOTPZZ - ESTRPZZ) ESCCPUS = ΣESCCPZZ 2003 forward: ESCCPZZ = ESCMPZZ ESCCPUS = ΣESCCPZZ
ESCMP	Electricity sold to a portion of the commercial sector.	Million kilowatthours	ESCMPZZ is independent. ESCMPUS = ΣESCMPZZ
ESICB	Electricity consumed by (i.e., sold to) the industrial sector.	Billion Btu	ESICBZZ = ESICPZZ * 3.412 ESICBUS = ΣESICBZZ
ESICP	Electricity consumed by (i.e., sold to) the industrial sector.	Million kilowatthours	ESICPZZ is independent. 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. ESOTPUS = ΣESOTPZZ
ESRCB	Electricity consumed by (i.e., sold to) the residential sector.	Billion Btu	ESRCBZZ = ESRCPZZ * 3.412 ESRCBUS = ΣESRCBZZ
ESRCP	Electricity consumed by (i.e., sold to) the residential sector.	Million kilowatthours	ESRCPZZ is independent. ESRCPUS = ΣESRCPZZ
ESRPP	Electricity consumed by (i.e., sold to) the residential sector per capita.	Kilowatthours	ESRPP = ESRCP / TPOPP * 1000

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
ESTCB	Electricity total consumption (i.e., retail sales).	Billion Btu	ESTCBZZ = ESTCPZZ * 3.412 ESTCBUS = ΣESTCBZZ ESTCB48 = ESTCBUS - (ESTCBAK + ESTCBHI)
ESTCP	Electricity total consumption (i.e., retail sales).	Million kilowatthours	ESTCPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPPZZ 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. ESTRPUS = ΣESTRPZZ
ESTRSUS	The share of electricity sold to the “Other” sector (ESOTP) that is used for transportation (through 2002).	Fraction	ESTRSUS = ESACPUS / ESOTPUS
ESTXB	Electricity total end-use consumption (i.e., retail sales).	Billion Btu	ESTXBZZ = ESACBZZ + ESCCBZZ + ESICBZZ + ESRCBZZ ESTXBUS = ΣESTXBZZ
ESTXP	Electricity total end-use consumption (i.e., retail sales).	Million kilowatthours	ESTXPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPPZZ ESTXPUS = ΣESTXPZZ
EYICB	Ethylene from refineries consumed by the industrial sector.	Billion Btu	EYICBZZ = EYTCBZZ EYICBUS = EYTCBUS
EYICP	Ethylene from refineries consumed by the industrial sector.	Thousand barrels	EYICPZZ = EYTCPZZ EYICPUS = EYTCPUS
EYTCB	Ethylene from refineries total consumption.	Billion Btu	EYTCBZZ = EYTCPZZ * 2.436 EYTCBUS = ΣEYTCBZZ
EYTCP	Ethylene from refineries total consumption.	Thousand barrels	EYTCPZZ is independent. 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 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 FNICBUS = FNTCBUS

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
GEC5P	Geothermal electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	GEC5PZZ is independent. GEC5PUS = Σ GEC5PZZ
GECCB	Geothermal energy consumed by the commercial sector.	Billion Btu	GECCBZZ = GEC4BZZ + GEC5BZZ GECCBUS = Σ GECCBZZ
GEEGB	Geothermal energy consumed for electricity generation by the electric power sector.	Billion Btu	GEEGBZZ = GEEGPZZ * FFETKUS GEEGBUS = Σ GEEGBZZ
GEEGP	Geothermal electricity net generation in the electric power sector.	Million kilowatthours	GEEGPZZ is independent. GEEGPUS = Σ GEEGPZZ
GEICB	Geothermal energy consumed by the industrial sector.	Billion Btu	GEICBZZ is independent. GEICBUS = Σ GEICBZZ
GERCB	Geothermal energy consumed by the residential sector.	Billion Btu	GERCBZZ is independent. GERCBUS = Σ GERCBZZ
GETCB	Geothermal energy total consumption.	Billion Btu	GETCBZZ = GECCBZZ + GEEGBZZ + GEICBZZ + GERCBZZ GETCBUS = Σ GETCBZZ
GETXB	Geothermal energy total end-use consumption.	Billion Btu	GETXBZZ = GECCBZZ + GEICBZZ + GERCBZZ GETXBUS = Σ GETXBZZ
HLACB	Hydrocarbon gas liquids consumed by the transportation sector.	Billion Btu	Before 2010: HLACBZZ = LGACBZZ HLACBUS = Σ HLACBZZ 2010 forward: HLACBZZ = PQACBZZ HLACBUS = Σ HLACBZZ
HLACP	Hydrocarbon gas liquids consumed by the transportation sector.	Thousand barrels	Before 2010: HLACPZZ = LGACPZZ HLACPUS = Σ HLACPZZ 2010 forward: HLACPZZ = PQACPZZ HLACPUS = Σ HLACPZZ
HLCCB	Hydrocarbon gas liquids consumed by the commercial sector.	Billion Btu	Before 2010: HLCCBZZ = LGCCBZZ HLCCBUS = Σ HLCCBZZ 2010 forward: HLCCBZZ = PQCCBZZ HLCCBUS = Σ HLCCBZZ

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
LGRCP	LPG consumed by the residential sector (through 2009).	Thousand barrels	$LGRCPPZ = LGHCPZZ * LGRCSZZ$ $LGRCBUS = \sum LGRCPPZ$
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	$LGTCBZZ = LGACBZZ + LGCCBZZ + LGICBZZ + LGRCBZZ$ 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: $LGTCPZZ = (LGTPPZZ / LGTPBUS) * LGTCPBUS$ LGTCPBUS is independent. For 2008 and 2009: $LGTCPZZ = LGACPZZ + LGCCPZZ + LGICPZZ + LGRCPZZ$ 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. $LGTPBUS = \sum LGTPPZZ$
LGTXB	LPG total end-use consumption (through 2009).	BillionBtu	$LGTXBZZ = LGACBZZ + LGCCBZZ + LGICBZZ + LGRCBZZ$ $LGTXBUS = \sum LGTXBZZ$
LGTXP	LPG total end-use consumption (through 2009).	Thousand barrels	$LGTXPZZ = LGACPZZ + LGCCPZZ + LGICPZZ + LGRCPZZ$ $LGTXBUS = \sum LGTXPZZ$
LOACB	The transportation sector's share of electrical system energy losses.	Billion Btu	$LOACBZZ = (ESACBZZ / ESTCBZZ) * LOTCBZZ$ $LOACBUS = \sum LOACBZZ$
LOCCB	The commercial sector's share of electrical system energy losses.	Billion Btu	$LOCCBZZ = (ESCCBZZ / ESTCBZZ) * LOTCBZZ$ $LOCCBUS = \sum LOCCBZZ$
LOICB	The industrial sector's share of electrical system energy losses.	Billion Btu	$LOICBZZ = (ESICBZZ / ESTCBZZ) * LOTCBZZ$ $LOICBUS = \sum LOICBZZ$
LORCB	The residential sector's share of electrical system energy losses.	Billion Btu	$LORCBZZ = (ESRCBZZ / ESTCBZZ) * LOTCBZZ$ $LORCBUS = \sum LORCBZZ$

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

MSN	Description	Unit	Formula
NGTXB	Natural gas total end-use consumption (including supplemental gaseous fuels).	Billion Btu	NGTXBZZ = NGACBZZ + NGCCBZZ + NGICBZZ + NGRCBZZ 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) NGTXKUS = (NGTCBUS - NGEIBUS) / (NGTCPUS - NGEIPUS)
NGTXP	Natural gas total end-use consumption (including supplemental gaseous fuels).	Million cubic feet	NGTXPZZ = NGACPZZ + NGCCPZZ + NGICPZZ + NGRCPZZ 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 NGTZPUS = ΣNGTZPZZ
NGVHB	Natural gas consumed as vehicle fuel.	Billion Btu	NGVHBZZ = NGVHPZZ * NGTXKZZ NGVHBUS = ΣNGVHBZZ
NGVHP	Natural gas consumed as vehicle fuel.	Million cubic feet	NGVHPZZ is independent. NGVHPUS = ΣNGVHPZZ
NNACB	Natural gas consumed by the transportation sector.	Billion Btu	NNACBZZ = NGACBZZ NNACBUS = ΣNNACBZZ
NNCCB	Natural gas consumed by the commercial sector (excluding supplemental gaseous fuels).	Billion Btu	NNCCBZZ = NGCCBZZ - SFCCBZZ NNCCBUS = ΣNNCCBZZ
NNEIB	Natural gas consumed by the electric power sector (excluding supplemental gaseous fuels).	Billion Btu	NNEIBZZ = NGEIBZZ - SFEIBZZ NNEIBUS = ΣNNEIBZZ
NNICB	Natural gas consumed by the industrial sector (excluding supplemental gaseous fuels).	Billion Btu	NNICBZZ = NGICBZZ - SFINBZZ NNICBUS = ΣNNICBZZ
NNRCB	Natural gas consumed by the residential sector (excluding supplemental gaseous fuels).	Billion Btu	NNRCBZZ = NGRCBZZ - SFRCBZZ NNRCBUS = ΣNNRCBZZ
NNTCB	Natural gas total consumption (excluding supplemental gaseous fuels).	Billion Btu	NNTCBZZ = NGTCBZZ - SFTCBZZ NNTCBUS = ΣNNTCBZZ
NUEGB	Nuclear energy consumed for electricity generation by the electric power sector.	Billion Btu	NUEGBZZ = NUEGPZZ * NUETKUS NUEGBUS = ΣNUEGBZZ
NUEGP	Nuclear electricity net generation in the electric power sector.	Million kilowatthours	NUEGPZZ is independent. NUEGPUS = ΣNUEGPZZ
NUETB	Nuclear energy consumed for electricity generation, total.	Billion Btu	NUETBZZ = NUEGBZZ NUETBUS = NUEGBUS

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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 NUETPUS = ΣNUETPZZ
OCVAV	Value of shipments (value added prior to 2001) for the industrial organic chemical manufacturing industry.	Million dollars	OCVAVZZ is independent. 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 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 OPICPUS = ΣOPICPZZ
OPTCB	Other petroleum products total consumption.	Billion Btu	OPTCBZZ = ABTCBZZ + COTCBZZ + FNTCBZZ + FOTCBZZ + FSTCBZZ + MBTCBZZ + MSTCBZZ + SGTCBZZ + SNTCBZZ + UOTCBZZ + WXTCBZZ OPTCBUS = ΣOPTCBZZ
OPTCP	Other petroleum products total consumption.	Thousand barrels	OPTCPZZ = ABTCPZZ + COTCPZZ + FNTCPZZ + FOTCPZZ + FSTCPZZ + MBTCPZZ + MSTCPZZ + SGTCPZZ + SNTCPZZ + UOTCPZZ + WXTCPZZ OPTCPUS = ABTCPUS + COTCPUS + FNTCPUS + FOTCPUS + FSTCPUS + MBTCPUS + MSTCPUS + SGTCPUS + SNTCPUS + UOTCPUS + WXTCPUS
OPTXB	Other petroleum products total end-use consumption.	Billion Btu	OPTXBZZ = OPICBZZ OPTXBUS = ΣOPTXBZZ
OPTXP	Other petroleum products total end-use consumption.	Thousand barrels	OPTXPZZ = OPICPZZ 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 P1ICBUS = ARICBUS + KSICBUS + LUICBUS + OPICBUS + PCICBUS

Table A1. Consumption Variables (cont.)

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

MSN	Description	Unit	Formula
PACCP	All petroleum products consumed by the commercial sector.	Thousand barrels	$PACCPZZ = DFCCPZZ + HLCCPZZ + KSCCPZZ + MGCCPZZ + PCCCPZZ + RFCCPZZ$ $PACCPUS = \Sigma PACCPZZ$
PAEIB	All petroleum products consumed by the electric power sector.	Billion Btu	$PAEIBZZ = DFEIBZZ + JKEUBZZ + PCEIBZZ + RFEIBZZ$ $PAEIBUS = \Sigma PAEIBZZ$
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	$PAEIPZZ = DFEIPZZ + JKEUPZZ + PCEIPZZ + RFEIPZZ$ $PAEIPUS = \Sigma PAEIPZZ$
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	$PAICBZZ = ARICBZZ + DFICBZZ + HLICBZZ + KSICBZZ + LUICBZZ + MGICBZZ + OPICBZZ + PCICBZZ + RFICBZZ$ $PAICBUS = \Sigma PAICBZZ$
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	$PAICPZZ = ARICPZZ + DFICPZZ + HLICPZZ + KSICPZZ + LUICPZZ + MGICPZZ + OPICPZZ + PCICPZZ + RFICPZZ$ $PAICPUS = \Sigma PAICPZZ$
PARCB	All petroleum products consumed by the residential sector.	Billion Btu	$PARCBZZ = DFRCBZZ + HLRCBZZ + KSRCBZZ$ $PARCBUS = \Sigma PARCBZZ$
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	$PARCPZZ = DFRCPZZ + HLRCPZZ + KSRCPZZ$ $PARCPUS = \Sigma PARCPZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
PATCB	All petroleum products total consumption.	Billion Btu	$PATCBZZ = ARTCBZZ + AVTCBZZ + DFTCBZZ + HLTCBZZ + JFTCBZZ + KSTCBZZ + LUTCBZZ + MGTCBZZ + OPTCBZZ + PCTCBZZ + RFTCBZZ$ $PATCBUS = \Sigma PATCBZZ$
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	$PATCPZZ = ARTCPZZ + AVTCPZZ + DFTCPZZ + HLTCPPZ + JFTCPZZ + KSTCPZZ + LUTCPZZ + MGTCPPZ + OPTCPZZ + PCTCPZZ + RFTCPZZ$ $PATCPUS = ARTCPUS + AVTCPUS + DFTCPUS + HLTCPPUS + JFTCPUS + KSTCPUS + LUTCPUS + MGTCPPUS + OPTCPUS + PCTCPUS + RFTCPUS$
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	$PATXBZZ = ARTXBZZ + AVTXBZZ + DFTXBZZ + HLTXBZZ + JFTXBZZ + KSTXBZZ + LUTXBZZ + MGTXBZZ + OPTXBZZ + PCTXBZZ + RFTXBZZ$ $PATXBUS = \Sigma PATXBZZ$
PATXP	All petroleum products total end-use consumption.	Thousand barrels	$PATXPZZ = ARTXPZZ + AVTXPZZ + DFTXPZZ + HLTXPZZ + JFTXPZZ + KSTXPZZ + LUTXPZZ + MGTXPZZ + OPTXPZZ + PCTXPZZ + RFTXPZZ$ $PATXPUS = \Sigma PATXPZZ$
PCC3M	Petroleum coke consumed for combined-heat-and-power in the commercial sector.	Thousand tons	PCC3MZZ is independent. $PCC3MUS = \Sigma PCC3MZZ$
PCCCB	Petroleum coke consumed by the commercial sector.	Billion Btu	$PCCCBZZ = PCCCPZZ * PCMKKUS$ $PCCCBUS = \Sigma PCCCBZZ$
PCCCP	Petroleum coke consumed by the commercial sector.	Thousand barrels	$PCCCPZZ = PCC3MZZ * 5$ $PCCCPUS = \Sigma PCCCPZZ$
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	$PCEIBZZ = PCEIPZZ * PCMKKUS$ $PCEIBUS = \Sigma PCEIBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
PCEIM	Petroleum coke consumed by the electric power sector.	Thousand tons	PCEIMZZ is independent. PCEIMUS = Σ PCEIMZZ
PCEIP	Petroleum coke consumed by the electric power sector.	Thousand barrels	PCEIPZZ = PCEIMZZ * 5 PCEIPUS = Σ PCEIPZZ
PCI3B	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Billion Btu	PCI3BZZ = PCI3PZZ * PCMKKUS PCI3BUS = Σ PCI3BZZ
PCI3M	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Thousand tons	PCI3MZZ is independent. PCI3MUS = Σ PCI3MZZ
PCI3P	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Thousand barrels	PCI3PZZ = PCI3MZZ * 5 PCI3PUS = Σ PCI3PZZ
PCICB	Petroleum coke consumed in the industrial sector.	Billion Btu	PCICBZZ = PCI3BZZ + PCOCBZZ + PCRFBZZ PCICBUS = Σ PCICBZZ
PCICP	Petroleum coke consumed in the industrial sector.	Thousand barrels	PCICPZZ = PCI3PZZ + PCOCPZZ + PCRFPZZ 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 PCOCBUS = Σ 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 PCOCPUS = PCICPUS - PCI3PUS - PCRFPUS
PCRFB	Petroleum coke consumed as refinery fuel.	Billion Btu	PCRFBZZ = PCRFPZZ * PCCTKUS PCRFBUS = Σ PCRFBZZ
PCRFP	Petroleum coke consumed as refinery fuel.	Thousand barrels	Before 1981: PCRFPZZ is independent for selected states. PCRFPZZ = (CTCAPZZ / CTCAPGZ) * PCRFPGZ for states belonging to a specific state group, GZ. 1981 through 2012: PCRFPZZ = (CTCAPZZ / CTCAPPZ) * PCRFPZ for states belonging to a specific PADD, PZ. 2013 forward: PCRFPZZ is independent. PCRFPUS = Σ PCRFPZZ for all years.

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
RDINP	Road oil sold to the industrial sector (through 1982).	Short tons	RDINPZZ is independent. RDINPUS = Σ RDINPZZ
RDTCP	Road oil total consumption (through 1982).	Thousand barrels	RDTCPZZ = RDICPZZ RDTCPUS is independent.
REACB	Renewable energy sources consumed by the transportation sector.	Billion Btu	REACBZZ = BDACBZZ + EMACBZZ REACBUS = BDACBUS + EMACBUS
RECCB	Renewable energy sources consumed by the commercial sector.	Billion Btu	RECCBZZ = EMCCBZZ + GECCBZZ + HYCCBZZ + SOCCBZZ + WWCCBZZ + WYCCBZZ 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 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 REICBUS = BDLCBUS + EMICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS
RERCB	Renewable energy sources consumed by the residential sector.	Billion Btu	RERCBZZ = GERCBZZ + SORCBZZ + WDRCBZZ RERCBUS = GERCBUS + SORCBUS + WDRCBUS
RETCB	Renewable energy sources total consumption.	Billion Btu	RETCBZZ = BDLCBZZ + BDTCBZZ + EMLCBZZ + EMTCBZZ + GETCBZZ + HYTCBZZ + SOTCBZZ + WWTCBZZ + WYTCBZZ 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 RFACBUS = Σ RFACBZZ
RFACP	Residual fuel oil consumed by the transportation sector.	Thousand barrels	RFACPZZ = (RFTRPZZ / RFNDPZZ) * RFNCPZZ RFACPUS = Σ RFACPZZ
RFBKP	Residual fuel oil sold for vessel bunkering use, excluding deliveries to the military.	Thousand barrels	RFBKPZZ is independent. RFBKPUS = Σ RFBKPZZ
RFCCB	Residual fuel oil consumed by the commercial sector.	Billion Btu	RFCCBZZ = RFCCPZZ * 6.287 RFCCBUS = Σ RFCCBZZ
RFCCP	Residual fuel oil consumed by the commercial sector.	Thousand barrels	RFCCPZZ = (RFCMPZZ / RFNDPZZ) * RFNCPZZ RFCCPUS = Σ RFCCPZZ

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
TEESB	Total energy used to generate the electricity consumed in a state.	Billion Btu	TEESBZZ = ELISBZZ + TEEIBZZ TEESBUS = TEEIBUS
TEICB	Total energy consumption in the industrial sector.	Billion Btu	Before 1993: TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + EMICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + ESICBZZ + LOICBZZ - SFINBZZ TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + EMICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + ESICBUS + LOICBUS - SFINBUS From 1993 through 2000: TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ + ESICBZZ + LOCIBZZ - SFINBZZ TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS + ESICBUS + LOICBUS - SFINBUS From 2001 forward: TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + BFLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ + ESICBZZ + LOCIBZZ - SFINBZZ 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 TEIPBUS = TEICBUS / TPOPPUS
TERCB	Total energy consumption in the residential sector.	Billion Btu	TERCBZZ = CLRCBZZ + ESRCBZZ + GERCBZZ + LORCBZZ + NGRCBZZ + PARCBZZ + SORCBZZ + WDRCBZZ - SFRCBZZ 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 TERPBUS = TERCBUS / TPOPPUS
TETCB	Total energy consumption.	Billion Btu	TETCBZZ = ELISBZZ + ELNIBZZ + FFTCBZZ + NUETBZZ + RETCBZZ 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 TETGRUS = TETCBUS / GDPRXUS

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
TETPB	Total energy consumption per capita.	Million Btu	TETPBZZ = TETCBZZ / TPOPPZZ TETPBUS = TETCBUS / TPOPPUS
TETXB	Total end-use energy consumption.	Billion Btu	TETXBZZ = TEACBZZ + TECCBZZ + TEICBZZ + TERCBZZ 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 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 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 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 TNRCBUS = TERCBUS - LORCBUS
TNTXB	Total primary energy and electricity consumption in the end-use sectors.	Billion Btu	TNTXBZZ = TNACBZZ + TNCCBZZ + TNICBZZ + TNRCBZZ TNTXBUS = ΣTNTXBZZ
TPOPP	Resident population including Armed Forces.	Thousand	TPOPPZZ is independent. TPOPPUS is independent.
UOICB	Unfinished oils consumed by the industrial sector.	Billion Btu	UOICBZZ = UOTCBZZ UOICBUS = UOTCBUS
UOICP	Unfinished oils consumed by the industrial sector.	Thousand barrels	UOICPZZ = UOTCPZZ UOICPUS = UOTCPUS
UOTCB	Unfinished oils total consumption.	Billion Btu	UOTCBZZ = UOTCPZZ * 5.825 UOTCBUS = ΣUOTCBZZ
UOTCP	Unfinished oils total consumption.	Thousand barrels	UOTCPZZ = (COCAPZZ / COCAPUS) * UOTCPUS UOTCPUS is independent.
USICB	Unfractionated streams consumed by the industrial sector (through 1983).	Billion Btu	USICBZZ = USTCBZZ USICBUS = USTCBUS
USICP	Unfractionated streams consumed by the industrial sector (through 1983).	Thousand barrels	USICPZZ = USTCPZZ USICPUS = USTCPUS

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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

Table A1. Consumption Variables (cont.)

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