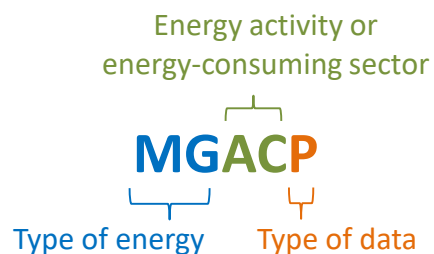


Appendix A. Mnemonic Series Names (MSN)

This appendix contains an alphabetical listing of the State Energy Data System (SEDS) energy consumption variables, called MSNs. For each variable, SEDS provides: a brief description; unit of measure; and the formulas used to create the variable. Variables that are entered directly from other sources, but not calculated by SEDS, are independent variables. Formulas for the state calculations have “ZZ” following the variable name, where “ZZ” represents the two-letter state code. The formulas for the United States have “US” following the variable name. If the formula for the states and the United States are the same, only one formula is shown.

The SEDS MSN variables have five-character names that generally consist of the following components:



See [Section 1](#) of the SEDS Technical Notes for explanation of the five-character MSN code descriptions.

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
CLRCSUS	The share of residential and commercial coal consumed by the residential sector.	Percent	CLRCSUS is independent.

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
DFBKP	Distillate fuel oil sales for vessel bunkering use, excluding that sold to the military.	Thousand barrels	DFBKPZZ is independent. DFBKPUS = \sum DFBKPZZ
DFCCB	Distillate fuel oil consumed by the commercial sector.	Billion Btu	DFCCBZZ = DFCCPZZ * DFTCKUS DFCCBUS = \sum DFCCBZZ
DFCCP	Distillate fuel oil consumed by the commercial sector.	Thousand barrels	DFCCPZZ = (DFCMPZZ / DFNDPZZ) * DFNCPZZ DFCCPUS = \sum DFCCPZZ
DFCMP	Distillate fuel oil sales to the commercial sector.	Thousand barrels	DFCMPZZ is independent. DFCMPUS = \sum DFCMPZZ
DFEIB	Distillate fuel oil consumed by the electric power sector.	Billion Btu	DFEIBZZ = DFEIPZZ * DFTCKUS DFEIBUS = \sum DFEIBZZ
DFEIP	Distillate fuel oil consumed by the electric power sector.	Thousand barrels	DFEIPZZ = DKEIPZZ - JKEUPZZ DFEIPUS = \sum DFEIPZZ
DFIBP	Distillate fuel oil sales for industrial space heating and other industrial use, including farm use.	Thousand barrels	DFIBPZZ is independent. DFIBPUS = \sum DFIBPZZ
DFICB	Distillate fuel oil consumed by the industrial sector.	Billion Btu	DFICBZZ = DFICPZZ * DFTCKUS DFICBUS = \sum DFICBZZ
DFICP	Distillate fuel oil consumed by the industrial sector.	Thousand barrels	DFICPZZ = (DFINPZZ / DFNDPZZ) * DFNCPZZ DFICPUS = \sum DFICPZZ
DFINP	Distillate fuel oil sales to the industrial sector.	Thousand barrels	DFINPZZ = DFIBPZZ + DFOCPZZ + DFOFPZZ + DFOTPPZZ DFINPUS = \sum DFINPZZ
DFMIP	Distillate fuel oil sales to the military, regardless of use.	Thousand barrels	DFMIPZZ is independent. DFMIPUS = \sum DFMIPZZ
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 = \sum DFNDPZZ
DFOCP	Distillate fuel oil sales for use by oil companies.	Thousand barrels	DFOCPZZ is independent. DFOCPUS = \sum DFOCPZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
DFOFP	Distillate fuel oil sales as diesel fuel for off-highway use.	Thousand barrels	DFOFPZZ is independent. DFOFPUS = Σ DFOFPZZ
DFONP	Distillate fuel oil sales as diesel fuel for on-highway use.	Thousand barrels	DFONPZZ is independent. DFONPUS = Σ DFONPZZ
DFOTP	Distillate fuel oil sales for all other uses not identified in other sales categories.	Thousand barrels	DFOTPZZ is independent. DFOTPUS = Σ DFOTPZZ
DFRCB	Distillate fuel oil consumed by the residential sector.	Billion Btu	DFRCBZZ = DFRCPPZZ * DFTCKUS DFRCBUS = Σ DFRCBZZ
DFRCP	Distillate fuel oil consumed by the residential sector.	Thousand barrels	DFRCPZZ = (DFRSPZZ / DFNDPZZ) * DFNCPZZ DFRCPUS = Σ DFRCPZZ
DFRRP	Distillate fuel oil sales for use by railroads.	Thousand barrels	DFRRPZZ is independent. DFRRPUS = Σ DFRRPZZ
DFRSP	Distillate fuel oil sales to the residential sector.	Thousand barrels	DFRSPZZ is independent. DFRSPUS = Σ DFRSPZZ
DFTCB	Distillate fuel oil total consumption.	Billion Btu	DFTCBZZ = DFACBZZ + DFCCBZZ + DFEIBZZ + DFICBZZ + DFRCBZZ DFTCBUS = Σ DFTCBZZ
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 + DFMIPZZ + DFONPZZ + DFRRPZZ DFTRPUS = Σ DFTRPZZ
DFTXB	Distillate fuel oil total end-use consumption.	Billion Btu	DFTXBZZ = DFACBZZ + DFCCBZZ + DFICBZZ + DFRCBZZ DFTXBUS = Σ DFTXBZZ
DFTXP	Distillate fuel oil total end-use consumption.	Thousand barrels	DFTXPZZ = DFACPZZ + DFCCPZZ + DFICPZZ + DFRCPPZZ DFTXPUS = Σ DFTXPZZ
DKEIB	Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector.	Billion Btu	DKEIBZZ = DFEIBZZ + JKEUBZZ DKEIBUS = Σ DKEIBZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
DKEIP	Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector.	Thousand barrels	DKEIPZZ is independent. DKEIPUS = \sum DKEIPZZ
DMTCB	Distillate fuel oil, excluding biodiesel, total consumption.	Billion Btu	Before 2009: DMTCBZZ = DFTCBZZ DMTCBUS = DFTCBUS 2009 forward: DMTCBZZ = DFTCBZZ - BDTCBZZ DMTCBUS = DFTCBUS - BDTCBUS
ELEXB	Electricity exported from the United States.	Billion Btu	ELEXBZZ = ELEXPZZ * 3.412 ELEXBUS = \sum ELEXBZZ
ELEXP	Electricity exported from the United States.	Million kilowatthours	ELEXPZZ is independent. ELEXPUS = \sum ELEXPZZ
ELIMB	Electricity imported into the United States.	Billion Btu	ELIMBZZ = ELIMPZZ * 3.412 ELIMBUS = \sum ELIMBZZ
ELIMP	Electricity imported into the United States.	Million kilowatthours	ELIMPZZ is independent. ELIMPUS = \sum 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 >= 0, ELISBZZ = ELISPZZ * (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
ELLSS48	The ratio of electrical system energy losses to electricity sold in the contiguous 48 states and the District of Columbia.	Fraction	ELLSS48 = LOTCB48 / ESTCB48
ELNIB	Net imports of electricity into the United States.	Billion Btu	ELNIBZZ = ELIMBZZ - ELEXBZZ ELNIBUS = \sum ELNIBZZ
ELNIP	Net imports of electricity into the United States.	Million kilowatthours	ELNIPZZ = ELIMPZZ - ELEXPZZ ELNIPUS = \sum ELNIPZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
EMACB	Fuel ethanol, excluding denaturant, consumed by the transportation sector.	Billion Btu	EMACBZZ = (MGACPZZ / MGTCPPZZ) * EMTCBZZ EMACBUS = ΣEMACBZZ
EMCCB	Fuel ethanol, excluding denaturant, consumed by the commercial sector.	Billion Btu	EMCCBZZ = (MGCCPZZ / MGTCPPZZ) * EMTCBZZ EMCCBUS = ΣEMCCBZZ
EMICB	Fuel ethanol, excluding denaturant, consumed by the industrial sector.	Billion Btu	EMICBZZ = (MGICPZZ / MGTCPPZZ) * EMTCBZZ EMICBUS = ΣEMICBZZ
EMLCB	Energy losses and co-products from the production of fuel ethanol.	Billion Btu	EMLCBZZ = (EMPRBZZ / EMPRBUS) * EMLCBUS EMLCBUS is independent.
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 / MGTCPPZZ) * ENTCBZZ ENACBUS = ΣENACBZZ
ENACP	Fuel ethanol, including denaturant, consumed by the transportation sector.	Thousand barrels	ENACPZZ = (MGACPZZ / MGTCPPZZ) * ENTCPZZ ENACPUS = ΣENACPZZ
ENCCB	Fuel ethanol, including denaturant, consumed by the commercial sector.	Billion Btu	ENCCBZZ = (MGCCPZZ / MGTCPPZZ) * ENTCBZZ ENCCBUS = ΣENCCBZZ
ENCCP	Fuel ethanol, including denaturant, consumed by the commercial sector.	Thousand barrels	ENCCPZZ = (MGCCPZZ / MGTCPPZZ) * ENTCPZZ ENCCPUS = ΣENCCPZZ
ENICB	Fuel ethanol, including denaturant, consumed by the industrial sector.	Billion Btu	ENICBZZ = (MGICPZZ / MGTCPPZZ) * ENTCBZZ ENICBUS = ΣENICBZZ
ENICP	Fuel ethanol, including denaturant, consumed by the industrial sector.	Thousand barrels	ENICPZZ = (MGICPZZ / MGTCPPZZ) * 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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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.
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
ESRCB	Electricity consumed by (i.e., sold to) the residential sector.	Billion Btu	$ESRCBZZ = ESRCPZZ * 3.412$ $ESRCBUS = \sum ESRCBZZ$
ESRCP	Electricity consumed by (i.e., sold to) the residential sector.	Million kilowatthours	ESRCPZZ is independent. $ESRCPUS = \sum ESRCPZZ$
ESRPP	Electricity consumed by (i.e., sold to) the residential sector per capita.	Kilowatthours	$ESRPP = ESRCP / TPOPP * 1000$
ESTCB	Electricity total consumption (electricity sales to ultimate customers).	Billion Btu	$ESTCBZZ = ESTCPZZ * 3.412$ $ESTCBUS = \sum ESTCBZZ$ $ESTCB48 = ESTCBUS - (ESTCBAK + ESTCBHI)$
ESTCP	Electricity total consumption (electricity sales to ultimate customers).	Million kilowatthours	$ESTCPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPZZ$ $ESTCPUS = \sum ESTCPZZ$
ESTPP	Electricity total consumption (electricity sales to ultimate customers) per capita.	Kilowatthours	$ESTPP = ESTCP / TPOPP * 1000$
ESTRP	Electricity consumed by transit systems (through 2002).	Million kilowatthours	ESTRPZZ is independent. $ESTRPUS = \sum ESTRPZZ$
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 (electricity sales to ultimate customers).	Billion Btu	$ESTXBZZ = ESACBZZ + ESCCBZZ + ESICBZZ + ESRCBZZ$ $ESTXBUS = \sum ESTXBZZ$
ESTXP	Electricity total end-use consumption (electricity sales to ultimate customers).	Million kilowatthours	$ESTXPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPZZ$ $ESTXPUS = \sum ESTXPZZ$
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	$EYTCBZZ = EYTCPZZ * 2.436$ $EYTCBUS = \sum EYTCBZZ$
EYTCP	Ethylene from refineries total consumption.	Thousand barrels	EYTCPZZ is independent. EYTCPUS is independent.

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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. $GEC4BUS = \Sigma GEC4BZZ$
GEC5B	Geothermal energy consumed for electricity generation at utility-scale commercial CHP and electricity-only facilities.	Billion Btu	$GEC5BZZ = GEC5PZZ * FFETKUS$ $GEC5BUS = \Sigma GEC5BZZ$
GEC5P	Geothermal electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	GEC5PZZ is independent. $GEC5PUS = \Sigma GEC5PZZ$
GECCB	Geothermal energy consumed by the commercial sector.	Billion Btu	$GECCBZZ = GEC4BZZ + GEC5BZZ$ $GECCBUS = \Sigma GECCBZZ$
GEEGB	Geothermal energy consumed for electricity generation by the electric power sector.	Billion Btu	$GEEGBZZ = GEEGPZZ * FFETKUS$ $GEEGBUS = \Sigma GEEGBZZ$
GEEGP	Geothermal electricity net generation in the electric power sector.	Million kilowatthours	GEEGPZZ is independent. $GEEGPUS = \Sigma GEEGPZZ$
GEICB	Geothermal energy consumed by the industrial sector.	Billion Btu	GEICBZZ is independent. $GEICBUS = \Sigma GEICBZZ$
GERCB	Geothermal energy consumed by the residential sector.	Billion Btu	GERCBZZ is independent. $GERCBUS = \Sigma GERCBZZ$
GETCB	Geothermal energy total consumption.	Billion Btu	$GETCBZZ = GECCBZZ + GEEGBZZ + GEICBZZ + GERCBZZ$ $GETCBUS = \Sigma GETCBZZ$
GETXB	Geothermal energy total end-use consumption.	Billion Btu	$GETXBZZ = GECCBZZ + GEICBZZ + GERCBZZ$ $GETXBUS = \Sigma GETXBZZ$
HLACB	Hydrocarbon gas liquids consumed by the transportation sector.	Billion Btu	Before 2010: $HLACBZZ = LGACBZZ$ $HLACBUS = \Sigma HLACBZZ$ 2010 forward: $HLACBZZ = PQACBZZ$ $HLACBUS = \Sigma HLACBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
HLACP	Hydrocarbon gas liquids consumed by the transportation sector.	Thousand barrels	Before 2010: HLACPZZ = LGACPZZ HLACPUS = ΣHLACPZZ 2010 forward: HLACPZZ = PQACPZZ HLACPUS = ΣHLACPZZ
HLCCB	Hydrocarbon gas liquids consumed by the commercial sector.	Billion Btu	Before 2010: HLCCBZZ = LGCCBZZ HLCCBUS = ΣHLCCBZZ 2010 forward: HLCCBZZ = PQCCBZZ HLCCBUS = ΣHLCCBZZ
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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: $HLICPZZ = BQICPZZ + BYICPZZ + EQICPZZ + EYICPZZ + IQICPZZ + IYICPZZ + PPICPZZ + PQICPZZ + PYICPZZ$ $HLICPUS = \sum HLICPZZ$ for all years.
HLRCB	Hydrocarbon gas liquids consumed by the residential sector.	Billion Btu	Before 2010: $HLRCBZZ = LGRCBZZ$ $HLRCBUS = \sum HLRCBZZ$ 2010 forward: $HLRCBZZ = PQRCBZZ$ $HLRCBUS = \sum HLRCBZZ$
HLRCP	Hydrocarbon gas liquids consumed by the residential sector.	Thousand barrels	Before 2010: $HLRCPZZ = LGRCPZZ$ $HLRCPUS = \sum HLRCPZZ$ 2010 forward: $HLRCPZZ = PQRCPZZ$ $HLRCPUS = \sum HLRCPZZ$
HLTCB	Hydrocarbon gas liquids total consumption.	Billion Btu	$HLTCBZZ = HLACBZZ + HLCCBZZ + HLICBZZ + HLRCBZZ$ $HLTCBUS = \sum HLTCBZZ$
HLTCK	Average factor for converting hydrocarbon gas liquids total consumption from physical unit to Btu.	Million Btu per barrel	$HLTCKZZ = HLTCBZZ / HLTCPZZ$ $HLTCKUS = HLTCBUS / HLTCPUS$
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.

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
JKACB	Kerosene-type jet fuel consumed by the transportation sector.	Billion Btu	$JKACBZZ = JKACPZZ * 5.670$ $JKACBUS = \sum JKACBZZ$
JKACP	Kerosene-type jet fuel consumed by the transportation sector.	Thousand barrels	Before 2010: $JKACPZZ = (JKTTPZZ / JKTTPUS) * JKACPUS$ $JKACPUS = JKTCPUS - JKEUPUS$ 2010 forward: JKACPZZ is independent. $JKACPUS = \sum JKACPZZ$
JKEUB	Kerosene-type jet fuel consumed by the electric power sector (through 1982).	Billion Btu	$JKEUBZZ = JKEUPZZ * 5.670$ $JKEUBUS = \sum JKEUBZZ$
JKEUP	Kerosene-type jet fuel consumed by the electric power sector (through 1982).	Thousand barrels	JKEUPZZ is independent. $JKEUPUS = \sum JKEUPZZ$
JKTCB	Kerosene-type jet fuel total consumption.	Billion Btu	$JKTCBZZ = JKTCPZZ * 5.670$ $JKTCBUS = \sum JKTCBZZ$
JKTCP	Kerosene-type jet fuel total consumption.	Thousand barrels	Before 2010: $JKTCPZZ = JKACPZZ + JKEUPZZ$ JKTCPUS is independent. 2010 forward: $JKTCPZZ = JKACPZZ$ JKTCPUS is independent.
JKTTP	Kerosene-type jet fuel total sold (through 2009).	Thousand gallons	JKTTPZZ is independent. $JKTTPUS = \sum JKTTPZZ$
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. $JNMIPUS = \sum JNMIPZZ$
JNTCB	Naphtha-type jet fuel total consumption.	Billion Btu	$JNTCBZZ = JNTCPZZ * 5.355$ $JNTCBUS = \sum JNTCBZZ$
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	$KSCCBZZ = KSCCPZZ * 5.670$ $KSCCBUS = \sum KSCCBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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	$KSTXBZZ = KSCCBZZ + KSICBZZ + KSRCBZZ$ $KSTXBUS = \sum KSTXBZZ$
KSTXP	Kerosene total end-use consumption.	Thousand barrels	$KSTXPZZ = KSCCPZZ + KSICPZZ + KSRCPZZ$ $KSTXPUS = \sum KSTXPZZ$
LGACB	LPG consumed by the transportation sector (through 2009).	Billion Btu	$LGACBZZ = LGACPZZ * 3.841$ $LGACBUS = \sum LGACBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
LGACP	LPG consumed by the transportation sector (through 2009).	Thousand barrels	LGACPZZ = LGCBPZZ * LGTRSUS LGACPUS = ΣLGACPZZ
LGCBM	LPG sales for internal combustion engine use (through 2009).	Thousand gallons	LGCBMZZ is independent. LGCBMUS = ΣLGCBMZZ
LGCBP	LPG consumed for internal combustion engine use (through 2009).	Thousand barrels	LGCBPZZ = LGCBMZZ / 42 LGCBPUS = ΣLGCBPZZ
LGCCB	LPG consumed by the commercial sector (through 2009).	Billion Btu	LGCCBZZ = LGCCPZZ * 3.841 LGCCBUS = ΣLGCCBZZ
LGCCP	LPG consumed by the commercial sector (through 2009).	Thousand barrels	LGCCPZZ = LGHCPZZ * LGCCSZZ LGCCPUS = ΣLGCCPZZ
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 = ΣLGHCMZZ
LGHCP	LPG consumed by the residential and commercial sectors (through 2009).	Thousand barrels	LGHCPZZ = LGHCMZZ / 42 LGHCPUS = ΣLGHCPZZ
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 + LGRCPPZZ) LGICPUS = ΣLGICPZZ For 2008 and 2009: LGICPZZ is Independent. LGICPUS = ΣLGICPZZ
LGRCB	LPG consumed by the residential sector (through 2009).	Billion Btu	LGRCBZZ = LGRCPZZ * 3.841 LGRCBUS = ΣLGRCBZZ
LGRCP	LPG consumed by the residential sector (through 2009).	Thousand barrels	LGRCPZZ = LGHCPZZ * LGRCSZZ LGRCPUS = ΣLGRCPZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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.
LGTCKUS	Factor for converting LPG from physical units to Btu (through 2009).	Million Btu per barrel	LGTCKUS is independent.
LGTCP	LPG total consumption (through 2009).	Thousand barrels	Before 2008: LGTCPZZ = (LGTPPZZ / LGTPPUS) * LGTCPUS LGTCPUS is independent. For 2008 and 2009: LGTCPZZ = LGACPZZ + LGCCPZZ + LGICPZZ + LGRCPZZ LGTCPUS 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. LGTPPUS = ΣLGTPPZZ
LGTXB	LPG total end-use consumption (through 2009).	BillionBtu	LGTXBZZ = LGACBZZ + LGCCBZZ + LGICBZZ + LGRCBZZ LGTXBUS = ΣLGTXBZZ
LGTXP	LPG total end-use consumption (through 2009).	Thousand barrels	LGTXPZZ = LGACPZZ + LGCCPZZ + LGICPZZ + LGRCPZZ LGTXPUS = ΣLGTXPZZ
LOACB	The transportation sector's share of electrical system energy losses.	Billion Btu	LOACBZZ = (ESACBZZ / ESTCBZZ) * LOTCBZZ LOACBUS = ΣLOACBZZ
LOCCB	The commercial sector's share of electrical system energy losses.	Billion Btu	LOCCBZZ = (ESCCBZZ / ESTCBZZ) * LOTCBZZ LOCCBUS = ΣLOCCBZZ
LOICB	The industrial sector's share of electrical system energy losses.	Billion Btu	LOICBZZ = (ESICBZZ / ESTCBZZ) * LOTCBZZ LOICBUS = ΣLOICBZZ
LORCB	The residential sector's share of electrical system energy losses.	Billion Btu	LORCBZZ = (ESRCBZZ / ESTCBZZ) * LOTCBZZ LORCBUS = ΣLORCBZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
LOTCB	Total electrical system energy losses.	Billion Btu	Before 1990: $LOTCBZZ = ESTCBZZ * ELLSS48$ Exceptions: $LOTCBAK = TEEIBAK - ESTCBAK$ $LOTCBHI = TEEIBHI - ESTCBHI$ $LOTCBUS = TEEIBUS - ESTCBUS$ $LOTCB48 = LOTCBUS - (LOTCBAK + LOTCBHI)$ 1990 forward: $LOTCBZZ = TEESBZZ - ESTCBZZ$ $LOTCBUS = TEEIBUS - ESTCBUS$
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. $LUTRPUS = \Sigma LUTRPZZ$
LUTTP	Lubricants total sold (through 2009).	Thousand barrels	$LUTTPZZ = LUINPZZ + LUTRPZZ$ $LUTTPUS = \Sigma LUTTPZZ$
LUTXB	Lubricants total end-use consumption.	Billion Btu	$LUTXBZZ = LUACBZZ + LUICBZZ$ $LUTXBUS = \Sigma LUTXBZZ$
LUTXP	Lubricants total end-use consumption.	Thousand barrels	$LUTXPZZ = LUACPZZ + LUICPZZ$ $LUTXPUS = \Sigma LUTXPZZ$
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	$MBTCBZZ = MBTCPZZ * MBTCKUS$ $MBTCBUS = \Sigma MBTCBZZ$
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	$MGACBZZ = MGACPZZ * MGTCKUS$ $MGACBUS = \Sigma MGACBZZ$
MGACP	Motor gasoline consumed by the transportation sector.	Thousand barrels	$MGACPZZ = (MGTRPZZ / MGTPPZZ) * MGTPPZZ$ $MGACPUS = \Sigma MGACPZZ$
MGAGP	Motor gasoline sold for agricultural use.	Thousand gallons	MGAGPZZ is independent. $MGAGPUS = \Sigma MGAGPZZ$
MGBTP	Motor gasoline sold for boating use (2015 forward).	Thousand gallons	MGBTPZZ is independent. $MGBTPUS = \Sigma MGBTPZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
MGCCB	Motor gasoline consumed by the commercial sector.	Billion Btu	MGCCBZZ = MGCCPZZ * MGTCCKUS MGCCBUS = ΣMGCCBZZ
MGCCP	Motor gasoline consumed by the commercial sector.	Thousand barrels	MGCCPZZ = (MGCMPZZ / MGTPPZZ) *MGTCPZZ MGCCPUS = ΣMGCCPZZ
MGCMP	Motor gasoline sold to the commercial sector.	Thousand gallons	Before 2015: MGCMPZZ = MGMPSPZZ + MGNPNZZ MGCMPUS = ΣMGCMPZZ 2015 forward: MGCMPZZ = MGLGPZZ + MGMPSPZZ + MGNPNZZ 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 * MGTCCKUS MGICBUS = ΣMGICBZZ
MGICP	Motor gasoline consumed by the industrial sector.	Thousand barrels	MGICPZZ = (MGINPZZ / MGTPPZZ) * MGTCCKUS MGICPUS = 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
MGMPSP	Motor gasoline sold for miscellaneous and unclassified uses.	Thousand gallons	MGMPSPZZ is independent. MGMPSPUS = ΣMGMPSPZZ
MGNPN	Motor gasoline sold for public nonhighway use.	Thousand gallons	MGNPNZZ is independent. MGNPNUS = ΣMGNPNZZ
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 / MGTPPUS) * MGTCBUS MGTCBUS 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 MSICBUS = 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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
NUETB	Nuclear energy consumed for electricity generation, total.	Billion Btu	NUETBZZ = NUEGBZZ NUETBUS = NUEGBUS
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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
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 = ΣP1TXBZZ
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 = ΣP1TXPZZ
PAACB	All petroleum products consumed by the transportation sector.	Billion Btu	PAACBZZ = AVACBZZ + DFACBZZ + HLACBZZ + JFACBZZ + LUACBZZ + MGACBZZ + RFACBZZ PAACBUS = ΣPAACBZZ
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 = ΣPAACPZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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	$PACCKUS = PACCBUS / PACCPUS$
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	$PAICKUS = PAICBUS / PAICPUS$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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	$PARCPZZ = DFRCPZZ + HLRCPZZ + KSRCPZZ$ $PARCPUS = \Sigma PARCPZZ$
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	$PATCPZZ = ARTCPZZ + AVTCPZZ + DFTCPZZ + HLTCPZZ + JFTCPZZ + KSTCPZZ + LUTCPZZ + MGTCPZZ + OPTCPZZ + PCTCPZZ + RFTCPZZ$ $PATCPUS = ARTCPUS + AVTCPUS + DFTCPUS + HLTCPUS + JFTCPUS + KSTCPUS + LUTCPUS + MGTCPUS + OPTCPUS + PCTCPUS + RFTCPUS$
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	$PATXBZZ = ARTXBZZ + AVTXBZZ + DFTXBZZ + HLTXBZZ + JFTXBZZ + KSTXBZZ + LUTXBZZ + MGTXBZZ + OPTXBZZ + PCTXBZZ + RFTXBZZ$ $PATXBUS = \Sigma PATXBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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	$PCEIBZZ = PCEIPZZ * PCMKKUS$ $PCEIBUS = \Sigma PCEIBZZ$
PCEIM	Petroleum coke consumed by the electric power sector.	Thousand tons	PCEIMZZ is independent. $PCEIMUS = \Sigma PCEIMZZ$
PCEIP	Petroleum coke consumed by the electric power sector.	Thousand barrels	$PCEIPZZ = PCEIMZZ * 5$ $PCEIPUS = \Sigma PCEIPZZ$
PCI3B	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Billion Btu	$PCI3BZZ = PCI3PZZ * PCMKKUS$ $PCI3BUS = \Sigma PCI3BZZ$
PCI3M	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Thousand tons	PCI3MZZ is independent. $PCI3MUS = \Sigma PCI3MZZ$
PCI3P	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Thousand barrels	$PCI3PZZ = PCI3MZZ * 5$ $PCI3PUS = \Sigma PCI3PZZ$
PCICB	Petroleum coke consumed in the industrial sector.	Billion Btu	$PCICBZZ = PCI3BZZ + PCOCBZZ + PCRFBZZ$ $PCICBUS = \Sigma PCICBZZ$
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	$PCOCBZZ = PCOCPZZ * PCMKKUS$ $PCOCBUS = \Sigma PCOCBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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 = ΣPCRFBZZ
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) * PCRFPZZ for states belonging to a specific PADD, PZ. 2013 forward: PCRFPZZ is independent. PCRFPUS = ΣPCRFPZZ for all years.
PCTCB	Petroleum coke total consumption.	Billion Btu	PCTCBZZ = PCCCBZZ + PCEIBZZ + PCICBZZ PCTCBUS = ΣPCTCBZZ
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 = ΣPCTXBZZ
PCTXP	Petroleum coke total end-use consumption.	Thousand barrels	PCTXPZZ = PCCCPZZ + PCICPZZ PCTXPUS = ΣPCTXPZZ
PIVAV	Value of shipments (value added prior to 2001) for the paint and coating manufacturing industry.	Million dollars	PIVAVZZ is independent. PIVAVUS = ΣPIVAVZZ
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 = ΣPLTCBZZ
PLTCP	Plant condensate total consumption (through 1983).	Thousand barrels	PLTCPZZ = PLTCPUS * FNCASZZ PLTCPUS is independent.

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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	$PQACBZZ = PQACPZZ * 3.841$ $PQACBUS = \Sigma PQACBZZ$
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	$PQTCBZZ = PQACBZZ + PQCCBZZ + PQICBZZ + PQRCPZZ$ $PQTCBUS = \Sigma PQTCBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
PQTCP	Propane total consumption.	Thousand barrels	$PQTCPZZ = PQACPZZ + PQCCPZZ + PQICPZZ + PQRCPZZ$ PQTCPUS is independent.
PQTXB	Propane total end-use consumption.	Billion Btu	$PQTXBZZ = PQACBZZ + PQCCBZZ + PQICBZZ + PQRCPZZ$ $PQTXBUS = \Sigma PQTXBZZ$
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	$RDICPZZ = (RDINPZZ / RDINPUS) * RDTCPUS$ $RDICPUS = \Sigma RDICPZZ$
RDINP	Road oil sold to the industrial sector (through 1982).	Short tons	RDINPZZ is independent. $RDINPUS = \Sigma RDINPZZ$
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	$REEIBZZ = GEEGBZZ + HYEGBZZ + SOEGBZZ + WVEIBZZ + WYEGBZZ$ $REEIBUS = GEEGBUS + HYEGBUS + SOEGBUS + WVEIBUS + WYEGBUS$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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 = ΣRFACBZZ
RFACP	Residual fuel oil consumed by the transportation sector.	Thousand barrels	RFACPZZ = (RFTRPZZ / RFNDPZZ) * RFNCPZZ RFACPUS = ΣRFACPZZ
RFBKP	Residual fuel oil sold for vessel bunkering use, excluding deliveries to the military.	Thousand barrels	RFBKPZZ is independent. RFBKPUS = ΣRFBKPZZ
RFCCB	Residual fuel oil consumed by the commercial sector.	Billion Btu	RFCCBZZ = RFCCPZZ * 6.287 RFCCBUS = ΣRFCCBZZ
RFCCP	Residual fuel oil consumed by the commercial sector.	Thousand barrels	RFCCPZZ = (RFCMPZZ / RFNDPZZ) * RFNCPZZ RFCCPUS = ΣRFCCPZZ
RFCMP	Residual fuel oil sold to the commercial sector.	Thousand barrels	RFCMPZZ is independent. RFCMPUS = ΣRFCMPZZ
RFEIB	Residual fuel oil consumed by the electric power sector.	Billion Btu	RFEIBZZ = RFEIPZZ * 6.287 RFEIBUS = ΣRFEIBZZ
RFEIP	Residual fuel oil consumed by the electric power sector.	Thousand barrels	RFEIPZZ is independent. RFEIPUS = ΣRFEIPZZ
RFIBP	A portion of residual fuel oil sold for industrial use, including industrial space heating.	Thousand barrels	RFIBPZZ is independent. RFIBPUS = ΣRFIBPZZ
RFICB	Residual fuel oil consumed by the industrial sector.	Billion Btu	RFICBZZ = RFICPZZ * 6.287 RFICBUS = ΣRFICBZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
RFICP	Residual fuel oil consumed by the industrial sector.	Thousand barrels	$RFICPZZ = (RFINPZZ / RFNDPZZ) * RFNCPZZ$ $RFICPUS = \sum RFICPZZ$
RFINP	Residual fuel oil sold to the industrial sector.	Thousand barrels	$RFINPZZ = RFIBPZZ + RFMSPZZ + RFOCPZZ$ $RFINPUS = \sum RFINPZZ$
RFMIP	Residual fuel oil sold to the military, regardless of use.	Thousand barrels	RFMIPZZ is independent. $RFMIPUS = \sum RFMIPZZ$
RFMSP	Residual fuel oil sold for miscellaneous uses.	Thousand barrels	RFMSPZZ is independent. $RFMSPUS = \sum RFMSPZZ$
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	$RFNDPZZ = RFCMPZZ + RFINPZZ + RFTRPZZ$ $RFNDPUS = \sum RFNDPZZ$
RFOCP	Residual fuel oil sold for use by oil companies.	Thousand barrels	RFOCPZZ is independent. $RFOCPUS = \sum RFOCPZZ$
RFRRP	Residual fuel oil sold for use by railroads.	Thousand barrels	RFRRPZZ is independent. $RFRRPUS = \sum RFRRPZZ$
RFTCB	Residual fuel oil total consumption.	Billion Btu	$RFTCBZZ = RFACBZZ + RFCCBZZ + RFEIBZZ + RFICBZZ$ $RFTCBUS = \sum RFTCBZZ$
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	$RFTRPZZ = RFBKPZZ + RFMIPZZ + RFRRPZZ$ $RFTRPUS = \sum RFTRPZZ$
RFTXB	Residual fuel oil total end-use consumption.	Billion Btu	$RFTXBZZ = RFACBZZ + RFCCBZZ + RFICBZZ$ $RFTXBUS = \sum RFTXBZZ$
RFTXP	Residual fuel oil total end-use consumption.	Thousand barrels	$RFTXPZZ = RFACPZZ + RFCCPZZ + RFICPZZ$ $RFTXPUS = \sum RFTXPZZ$
SFCCB	Supplemental gaseous fuels consumed by the commercial sector.	Billion Btu	$SFCCBZZ = SFCCPZZ * NGTXKZZ$ $SFCCBUS = \sum SFCCBZZ$
SFCCP	Supplemental gaseous fuels consumed by the commercial sector.	Million cubic feet	$SFCCPZZ = NGSFPZZ * (NGCCPZZ / NGTZPZZ)$ $SFCCPUS = \sum SFCCPZZ$
SFEIB	Supplemental gaseous fuels consumed by the electric power sector.	Billion Btu	$SFEIBZZ = SFEIPZZ * NGEIKZZ$ $SFEIBUS = \sum SFEIBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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 = SFRCPPZZ * 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
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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	$SOC5BZZ = SOC5PZZ * FFETKUS$ $SOC5BUS = \Sigma SOC5BZZ$
SOC5P	Solar thermal and photovoltaic electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	SOC5PZZ is independent. $SOC5PUS = \Sigma SOC5PZZ$
SOC7B	Solar energy consumed for electricity generation at small-scale commercial facilities.	Billion Btu	$SOC7BZZ = SOC7PZZ * FFETKUS$ $SOC7BUS = \Sigma SOC7BZZ$
SOC7P	Photovoltaic electricity generation at small-scale commercial facilities.	Million kilowatthours	SOC7PZZ is independent. $SOC7PUS = \Sigma SOC7PZZ$
SOCCB	Solar energy consumed by the commercial sector.	Billion Btu	$SOCCBZZ = SOC5BZZ + SOC7BZZ$ $SOCCBUS = \Sigma SOCCBZZ$
SOCCP	Solar thermal and photovoltaic electricity net generation in the commercial sector.	Million kilowatthours	$SOCCPZZ = SOC5PZZ + SOC7PZZ$ $SOCCPUS = \Sigma SOCCPZZ$
SOEGB	Solar energy consumed for electricity generation by the electric power sector.	Billion Btu	$SOEGBZZ = SOEGPZZ * FFETKUS$ $SOEGBUS = \Sigma SOEGBZZ$
SOEGP	Solar thermal and photovoltaic electricity net generation in the electric power sector.	Million kilowatthours	SOEGPZZ is independent. $SOEGPUS = \Sigma SOEGPZZ$
SOI5B	Solar energy consumed for electricity generation at utility-scale industrial CHP and electricity-only facilities.	Billion Btu	$SOI5BZZ = SOI5PZZ * FFETKUS$ $SOI5BUS = \Sigma SOI5BZZ$
SOI5P	Solar thermal and photovoltaic electricity net generation at utility-scale industrial CHP and electricity-only facilities.	Million kilowatthours	SOI5PZZ is independent. $SOI5PUS = \Sigma SOI5PZZ$
SOI7B	Solar energy consumed for electricity generation at small-scale industrial facilities.	Billion Btu	$SOI7BZZ = SOI7PZZ * FFETKUS$ $SOI7BUS = \Sigma SOI7BZZ$
SOI7P	Photovoltaic electricity generation at small-scale industrial facilities.	Million kilowatthours	SOI7PZZ is independent. $SOI7PUS = \Sigma SOI7PZZ$
SOICB	Solar energy consumed by the industrial sector.	Billion Btu	$SOICBZZ = SOI5BZZ + SOI7BZZ$ $SOICBUS = \Sigma SOICBZZ$

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
SOICP	Solar thermal and photovoltaic electricity net generation in the industrial sector.	Million kilowatthours	SOICPZZ = SOI5PZZ + SOI7PZZ SOICPUS = ΣSOICPZZ
SOR7B	Solar energy consumed for electricity generation by small-scale applications in the residential sector.	Billion Btu	SOR7BZZ = SOR7PZZ * FFETKUS SOR7BUS = ΣSOR7BZZ
SOR7P	Photovoltaic electricity generation by small-scale applications in the residential sector.	Million kilowatthours	SOR7PZZ is independent. SOR7PUS = ΣSOR7PZZ
SORCB	Solar energy consumed by the residential sector.	Billion Btu	SORCBZZ = SOR7BZZ + SOT8BZZ SORCBUS = ΣSORCBZZ
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 = ΣSOTCBZZ
SOTGP	Solar thermal and photovoltaic electricity total net generation.	Million kilowatthours	SOTGPZZ = SOCCPZZ + SOEGPZZ + SOICPZZ + SOR7PZZ SOTGPUS = ΣSOTGPZZ
SOTTP	Rolling 20-year accumulation of shipments of solar thermal energy collectors.	Square feet	SOTTPZZ is independent. SOTTPUS = ΣSOTTPZZ
SOTXB	Solar energy total end-use consumption.	Billion Btu	SOTXBZZ = SOCCBZZ + SOICBZZ + SORCBZZ SOTXBUS = ΣSOTXBZZ

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>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	$TEEIBZZ = CLEIBZZ + ELNIBZZ + GEEGBZZ + HYEGBZZ + NGEIBZZ + NUEGBZZ + PAEIBZZ + SOEGBZZ + WVEIBZZ + WYEGBZZ - SFEIBZZ$ $TEEIBUS = \sum TEEIBZZ$

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	<p>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</p> <p>1993 through 2000: TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ + ESICBZZ + LOICBZZ - SFINBZZ TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS + ESICBUS + LOICBUS - SFINBUS</p> <p>2001 forward: TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + BFLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + WYICBZZ + ESICBZZ + LOICBZZ - SFINBZZ TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + BFLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + WYICBUS + ESICBUS + LOICBUS - SFINBUS</p>
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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 / GDPXZZ TETGRUS = TETCBUS / GDPXUS
TETPB	Total energy consumption per capita.	Million Btu	TETPBZZ = TETCBZZ / TPOPPZZ TETPBUS = TETCBUS / TPOPPUS
TETXB	Total end-use sector energy consumption.	Billion Btu	TETXBZZ = TEACBZZ + TECCBZZ + TEICBZZ + TERCBZZ TETXBUS = ΣTETXBZZ
TNACB	End-use energy consumption in the transportation sector.	Billion Btu	TNACBZZ = TEACBZZ - LOACBZZ TNACBUS = TEACBUS - LOACBUS
TNCCB	End-use energy consumption in the commercial sector.	Billion Btu	TNCCBZZ = TECCBZZ - LOCCBZZ TNCCBUS = TECCBUS - LOCCBUS
TNICB	End-use energy consumption in the industrial sector.	Billion Btu	TNICBZZ = TEICBZZ - LOICBZZ TNICBUS = TEICBUS - LOICBUS
TNRCB	End-use energy consumption in the residential sector.	Billion Btu	TNRCBZZ = TERCBZZ - LORCBZZ TNRCBUS = TERCBUS - LORCBUS
TNTCB	Total end-use energy consumption.	Billion Btu	TNTCBZZ = TNACBZZ + TNCCBZZ + TNICBZZ + TNRCBZZ TNTCBUS = ΣTNTCBZZ
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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
USTCB	Unfractionated streams total consumption (through 1983).	Billion Btu	USTCBZZ = USTCPZZ * 5.418 USTCBUS = Σ USTCBZZ
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 = Σ WDC3BZZ
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 = Σ WDEIBZZ
WDI3B	Wood consumed by CHP and electricity-only facilities in the industrial sector.	Billion Btu	WDI3BZZ is independent. WDI3BUS = Σ WDI3BZZ
WDI4B	Wood energy consumed for other uses in the industrial sector.	Billion Btu	WDI4BZZ is independent. WDI4BUS = Σ WDI4BZZ
WDICB	Wood energy consumed by the industrial sector.	Billion Btu	WDICBZZ = WDI3BZZ + WDI4BZZ WDICBUS = Σ WDICBZZ
WDRCB	Wood energy consumed by the residential sector.	Billion Btu	Before 2015: WDRCBZZ = WDRCPZZ * 20 2015 forward: WDRCBZZ is independent. WDRCBUS = Σ WDRCBZZ for all years.
WDRCP	Wood energy consumed by the residential sector (through 2014).	Thousand cords	WDRCPZZ is independent. WDRCPUS = Σ WDRCPZZ

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
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
WSI3B	Waste consumed by CHP and electricity-only facilities in the industrial sector.	Billion Btu	WSI3BZZ is independent. WSI3BUS = ΣWSI3BZZ
WSI4B	Waste energy consumed for other uses in the industrial sector.	Billion Btu	WSI4BZZ is independent. WSI4BUS = ΣWSI4BZZ
WSICB	Waste energy consumed by the industrial sector.	Billion Btu	WSICBZZ = WSI3BZZ + WSI4BZZ WSICBUS = ΣWSICBZZ
WSTCB	Waste energy total consumption.	Billion Btu	WSTCBZZ = WSCCBZZ + WSEIBZZ + WSICBZZ WSTCBUS = ΣWSTCBZZ
WWCCB	Wood and waste consumed in the commercial sector.	Billion Btu	WWCCBZZ = WDCCBZZ + WSCCBZZ WWCCBUS = ΣWWCCBZZ
WWEIB	Wood and waste consumed by the electric power sector.	Billion Btu	WWEIBZZ = WDEIBZZ + WSEIBZZ WWEIBUS = ΣWWEIBZZ
WWI4B	Wood and waste consumed in manufacturing processes in the industrial sector.	Billion Btu	WWI4BZZ = WDI4BZZ + WSI4BZZ WWI4BUS = ΣWWI4BZZ
WWICB	Wood and waste consumed in the industrial sector.	Billion Btu	WWICBZZ = WDICBZZ + WSICBZZ WWICBUS = ΣWWICBZZ
WWTCB	Wood and waste total consumption.	Billion Btu	WWTCBZZ = WDTCBZZ + WSTCBZZ WWTCBUS = ΣWWTCBZZ
WWTXB	Wood and waste total end-use consumption.	Billion Btu	WWTXBZZ = WDCCBZZ + WDICBZZ + WDRCBZZ + WSCCBZZ + WSICBZZ WWTXBUS = ΣWWTXBZZ
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

Table A1. Consumption Variables (cont.)

MSN	Description	Unit	Formula
WXTCB	Waxes total consumption.	Billion Btu	WXTCBZZ = WXTCPZZ * 5.537 WXTCBUS = ΣWXTCBZZ
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 = ΣWYC5BZZ
WYC5P	Wind electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	WYC5PZZ is independent. WYC5PUS = ΣWYC5PZZ
WYCCB	Wind energy consumed by the commercial sector.	Billion Btu	WYCCBZZ = WYC5BZZ WYCCBUS = ΣWYCCBZZ
WYCCP	Wind electricity net generation in the commercial sector.	Million kilowatthours	WYCCPZZ = WYC5PZZ WYCCPUS = ΣWYCCPZZ
WYEGB	Wind energy consumed for electricity generation by the electric power sector.	Billion Btu	WYEGBZZ = WYEGPZZ * FFETKUS WYEGBUS = ΣWYEGBZZ
WYEGP	Wind electricity net generation in the electric power sector.	Million kilowatthours	WYEGPZZ is independent. WYEGPUS = ΣWYEGPZZ
WYI5B	Wind energy consumed for electricity generation at industrial CHP and electricity-only facilities.	Billion Btu	WYI5BZZ = WYI5PZZ * FFETKUS WYI5BUS = ΣWYI5BZZ
WYI5P	Wind electricity net generation at utility-scale industrial CHP and electricity-only facilities.	Million kilowatthours	WYI5PZZ is independent. WYI5PUS = ΣWYI5PZZ
WYICB	Wind energy consumed by the industrial sector.	Billion Btu	WYICBZZ = WYI5BZZ WYICBUS = ΣWYICBZZ
WYICP	Wind electricity net generation in the industrial sector.	Million kilowatthours	WYICPZZ = WYI5PZZ WYICPUS = ΣWYICPZZ
WYTCB	Wind energy total consumption.	Billion Btu	WYTCBZZ = WYCCBZZ + WYEGBZZ + WYICBZZ WYTCBUS = ΣWYTCBZZ
WYTCP	Wind electricity total net generation.	Million kilowatthours	WYTCPZZ = WYCCPZZ + WYEGPZZ + WYICPZZ WYTCPUS = ΣWYTCPZZ
WYTXB	Wind energy total end-use consumption.	Billion Btu	WYTXBZZ = WYCCBZZ + WYICBZZ WYTXBUS = ΣWYTXBZZ
WYTXP	Wind energy total end-use net generation.	Million kilowatthours	WYTXPZZ = WYCCPZZ + WYICPZZ WYTXPUS = ΣWYTXPZZ