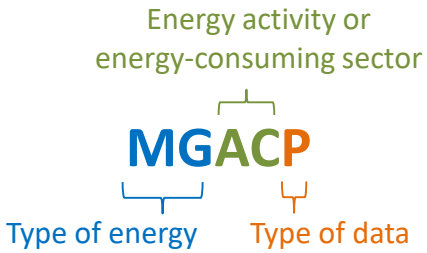
Appendix A. Mnemonic series names (MSN)

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
B1ACB	Renewable diesel consumed by the transportation sector.	Billion Btu	B1ACBZZ = B1ACPZZ * 5.494 B1ACBUS = ΣB1ACBZZ
B1ACP	Renewable diesel consumed by the transportation sector.	Thousand barrels	B1ACPZZ = B1TCPZZ B1ACPUS = ΣB1ACPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
B1SUB	Renewable diesel product supplied.	Billion Btu	B1SUBZZ = B1SUPZZ * 5.494 B1SUBUS = ΣB1SUBZZ
B1SUP	Renewable diesel product supplied.	Thousand barrels	B1SUPZZ = (B1TCPZZ / B1TCPUS) * B1SUPUS B1SUPUS is independent.
B1TCB	Renewable diesel total consumption.	Billion Btu	B1TCBZZ = B1TCPZZ * 5.494 B1TCBUS = ΣB1TCBZZ
B1TCP	Renewable diesel total consumption.	Thousand barrels	B1TCPZZ is independent. B1TCPUS is independent.
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
BDLCB	Energy losses and co-products from the production of biodiesel.	Billion Btu	BDLCBZZ is independent. BDLCBUS is independent.
BDSUB	Biodiesel product supplied.	Billion Btu	BDSUBZZ = BDSUPZZ * 5.359 BDSUBUS = ΣBDSUBZZ
BDSUP	Biodiesel product supplied.	Thousand barrels	BDSUPZZ = (BDTCPZZ / BDTCPUS) * BDSUPUS BDSUPUS is independent.
BDTCB	Biodiesel total consumption.	Biliion 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 + BFLCBZZ + B1TCBZZ + EMTCBZZ BFTCBUS = BDTCBUS + BFLCBUS + BOTCBUS + B1TCBUS + EMTCBUS
BMCAS	Biomass generating units capacity factor.	Percent	BMCASZZ is independent. BMCASUS is independent.
BMTCB	Biomass total consumption.	Billion Btu	BMTCBZZ = BFTCBZZ+ WWTCBZZ BMTCBUS = BFTCBUS + WWTCBUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
BOACBUS	Other biofuels consumed by the transportation sector for the United States.	Billion Btu	BOACBUS = BOACPUS * 5.359
BOACPUS	Other biofuels consumed by the transportation sector for the United States.	Thousand barrels	BOACPUS = BOTCPUS
BOSUBUS	Other biofuels product supplied for the United States.	Billion Btu	BOSUBUS = BOSUPUS * 5.359
BOSUPUS	Other biofuels product supplied for the United States.	Thousand barrels	BOSUPUS is independent.
BOTCBUS	Other biofuels total consumption for the United States.	Billion Btu	BOTCBUS = BOTCPUS * 5.359
BOTCPUS	Other biofuels total consumption for the United States.	Thousand barrels	BOTCPUS is independent.
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.
BTCAS	Battery storage generating units usage factor.	Percent	BTCASZZ is independent. BTCASUS is independent.
BTGBP	Battery storage units net summer capacity in all sectors.	Thousand kilowatts	BTGBPZZ is independent. BTGBPUS is independent.
BTVHN	Battery electric vehicle (BEV) light-duty stocks.	Thousands of registered vehicles	BTVHNZZ is independent. BTVHNUS = ΣBTVHNZZ
BTVHP	Electricity consumed for battery electric vehicle (BEV) use.	Million kilowatthours	BTVHPZZ is independent. BTVHPUS = ΣBTVHPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
BXSUB	Total biofuels (excluding fuel ethanol) product supplied.	Billion Btu	Before 2011: BXSUBZZ = BDSUBZZ BXSUBUS = BDSUBUS 2011 forward: BXSUBZZ = BDSUBZZ + B1SUBZZ 2011 through 2013: BXSUBUS = BDSUBUS + B1SUBUS 2014 forward: BXSUBUS = BDSUBUS + B1SUBUS + BOSUBUS
BXSUP	Total biofuels (excluding fuel ethanol) product supplied.	Thousand barrels	Before 2011: BXSUPZZ = BDSUPZZ 2011 forward: BXSUPZZ = BDSUPZZ + B1SUPZZ 2021 forward: BXSUPUS 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.
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 = ΣCGVAVZZ
CLACB	Coal consumed by the transportation sector.	Billion Btu	CLACBZZ = CLACPZZ * CLACKZZ CLACBUS = ΣCLACBZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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.
CLCAS	Coal generating units capacity factor.	Percent	CLCASZZ is independent. CLCASUS is independent.
CLCCB	Coal consumed by the commercial sector.	Billion Btu	CLCCBZZ = CLCCPZZ * CLHCKZZ CLCCBUS = ΣCLCCBZZ
CLCCP	Coal consumed by the commercial sector.	Thousand short tons	Before 2008: CLCCPZZ = CLHCPZZ - CLRCPZZ CLCCPUS = ΣCLCCPZZ 2008 forward: CLCCPZZ = (CLHDPZZ / CLHDPUS) * CLHCPUS CLCCPUS = ΣCLCCPZZ
CLEIB	Coal consumed by the electric power sector.	Billion Btu	CLEIBZZ = CLEIPZZ * CLEIKZZ CLEIBUS = ΣCLEIBZZ
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 = ΣCLEIPZZ
CLHCB	Coal consumed by the residential and commercial sectors.	Billion Btu	CLHCBZZ = CLCCBZZ + CLRCBZZ CLHCBUS = ΣCLHCBZZ
CLGBP	Coal generating units net summer capacity in all sectors.	Thousand kilowatts	CLGBPZZ is independent. CLGBPUS is independent.
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.
CLHDP	Coal distributed to the residential and commercial sectors (consumed by the commercial sector for 2008 forward).	Thousand short tons	CLHDPZZ is independent. CLHDPUS = ΣCLHDPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
CLICB	Coal consumed by the industrial sector.	Billion Btu	CLICBZZ = CLKCBZZ + CLOCBZZ CLICBUS = ΣCLICBZZ
CLICP	Coal consumed by the industrial sector.	Thousand short tons	CLICPZZ = CLKCPZZ + CLOCPZZ CLICPUS = ΣCLICPZZ
CLKCB	Coal consumed at coke plants (coking coal).	Billion Btu	CLKCBZZ = CLKCPZZ * CLKCKZZ CLKCBUS = ΣCLKCBZZ
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 = ΣCLKDPZZ
CLOCB	Coal consumed by industrial users other than coke plants.	Billion Btu	CLOCBZZ = CLOCPZZ * CLOCKZZ CLOCBUS = ΣCLOCBZZ
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 = ΣCLODPZZ
CLRCB	Coal consumed by the residential sector.	Billion Btu	CLRCBZZ = CLRCPZZ * CLHCKZZ CLRCBUS = ΣCLRCBZZ
CLRCP	Coal consumed by the residential sector.	Thousand short tons	Before 2008: CLRCPZZ = CLHCPZZ * CLRCSUS CLRCPUS = ΣCLRCPZZ 2008 forward: CLRCPZZ = 0 CLRCPUS = 0
CLRCSUS	The share of residential and commercial coal consumed by the residential sector for the United States.	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
CYCAS	Natural gas combined cycle generating units capacity factor.	Percent	CYCASZZ is independent. CYCASUS is independent.
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= ΣDFBKPZZ
DFCCB	Distillate fuel oil consumed by the commercial sector.	Billion Btu	DFCCBZZ = DFCCPZZ * DFTCKUS DFCCBUS = ΣDFCCBZZ
DFCCP	Distillate fuel oil consumed by the commercial sector.	Thousand barrels	DFCCPZZ = (DFCMPZZ / DFNDPZZ) * DFNCPZZ DFCCPUS = ΣDFCCPZZ
DFCMP	Distillate fuel oil sales to the commercial sector.	Thousand barrels	DFCMPZZ is independent. DFCMPUS = ΣDFCMPZZ
DFEIB	Distillate fuel oil consumed by the electric power sector.	Billion Btu	DFEIBZZ = DFEIPZZ * DFTCKUS DFEIBUS = ΣDFEIBZZ
DFEIP	Distillate fuel oil consumed by the electric power sector.	Thousand barrels	DFEIPZZ = DKEIPZZ - JKEUPZZ DFEIPUS = ΣDFEIPZZ
DFIBP	Distillate fuel oil sales for industrial space heating and other industrial use, including farm use.	Thousand barrels	DFIBPZZ is independent. DFIBPUS = ΣDFIBPZZ
DFICB	Distillate fuel oil consumed by the industrial sector.	Billion Btu	DFICBZZ = DFICPZZ * DFTCKUS DFICBUS = ΣDFICBZZ
DFICP	Distillate fuel oil consumed by the industrial sector.	Thousand barrels	DFICPZZ = (DFINPZZ / DFNDPZZ) * DFNCPZZ DFICPUS = ΣDFICPZZ
DFINP	Distillate fuel oil sales to the industrial sector.	Thousand barrels	DFINPZZ = DFIBPZZ + DFOCPZZ + DFOFPZZ + DFOTPZZ DFINPUS = ΣDFINPZZ
DFMIP	Distillate fuel oil sales to the military, regardless of use.	Thousand barrels	DFMIPZZ is independent. DFMIPUS = ΣDFMIPZZ
DFNCP	Distillate fuel oil consumption by all end-use sectors.	Thousand barrels	DFNCPZZ = (DFNDPZZ / DFNDPUS) * DFNCPUS DFNCPUS = DFTCPUS - DFEIPUS
DFNDP	Distillate fuel oil sales to all end-use sectors.	Thousand barrels	DFNDPZZ = DFCMPZZ + DFINPZZ + DFRSPZZ + DFTRPZZ DFNDPUS = ΣDFNDPZZ
DFOCP	Distillate fuel oil sales for use by oil companies.	Thousand barrels	DFOCPZZ is independent. DFOCPUS = ΣDFOCPZZ

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 = ΣDFOFPZZ
DFONP	Distillate fuel oil sales as diesel fuel for on-highway use.	Thousand barrels	DFONPZZ is independent. DFONPUS = ΣDFONPZZ
DFOTP	Distillate fuel oil sales for all other uses not identified in other sales categories.	Thousand barrels	DFOTPZZ is independent. DFOTPUS = ΣDFOTPZZ
DFRCB	Distillate fuel oil consumed by the residential sector.	Billion Btu	DFRCBZZ = DFRCPZZ * DFTCKUS DFRCBUS = ΣDFRCBZZ
DFRCP	Distillate fuel oil consumed by the residential sector.	Thousand barrels	DFRCPZZ = (DFRSPZZ / DFNDPZZ) * DFNCPZZ DFRCPUS = ΣDFRCPZZ
DFRRP	Distillate fuel oil sales for use by railroads.	Thousand barrels	DFRRPZZ is independent. DFRRPUS = ΣDFRRPZZ
DFRSP	Distillate fuel oil sales to the residential sector.	Thousand barrels	DFRSPZZ is independent. DFRSPUS = ΣDFRSPZZ
DFTCB	Distillate fuel oil total consumption.	Billion Btu	DFTCBZZ = DFACBZZ + DFCCBZZ + DFEIBZZ + DFICBZZ + DFRCBZZ DFTCBUS = ΣDFTCBZZ
DFTCKUS	Factor for converting distillate fuel from physical units to Btu.	Million Btu per barrel	DFTCKUS is independent.
DFTCP	Distillate fuel oil total consumption.	Thousand barrels	DFTCPZZ = DFEIPZZ + DFNCPZZ DFTCPUS is independent.
DFTRP	Distillate fuel oil sales to the transportation sector.	Thousand barrels	DFTRPZZ = DFBKPZZ + DFMIPZZ + DFONPZZ + DFRRPZZ DFTRPUS = ΣDFTRPZZ
DFTXB	Distillate fuel oil total end-use consumption.	Billion Btu	DFTXBZZ = DFACBZZ + DFCCBZZ + DFICBZZ + DFRCBZZ DFTXBUS = ΣDFTXBZZ
DFTXP	Distillate fuel oil total end-use consumption.	Thousand barrels	DFTXPZZ = DFACPZZ + DFCCPZZ + DFICPZZ + DFRCPZZ DFTXPUS = ΣDFTXPZZ
DKEIB	Distillate fuel oil (including kerosene-type jet fuel before 2001) consumed by the electric power sector.	Billion Btu	DKEIBZZ = DFEIBZZ + JKEUBZZ DKEIBUS = ΣDKEIBZZ

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 = ΣDKEIPZZ
DMACB	Distillate fuel oil, excluding biodiesel and renewable diesel, consumed by the transportation sector.	Billion Btu	DMACBZZ = DMACPZZ * DMTCKUS
DMACP	Distillate fuel oil, excluding biodiesel and renewable diesel, consumed by the transportation sector.	Thousand barrels	DMACPZZ = (DFACPZZ / DFACPUS) * DMACPUS DMACPUS is independent.
DMTCB	Distillate fuel oil, excluding biodiesel and renewable diesel, total consumption.	Billion Btu	Before 2009: DMTCBZZ = DFTCBZZ DMTCBUS = DFTCBUS 2009 forward: DMTCBZZ = DMTCPZZ * DMTCKUS DMTCBUS = ΣDMTCBZZ
DMTCKUS	Factor for converting distillate fuel, excluding biodiesel and renewable diesel, from physical units to Btu.	Million Btu per barrel	DMTCKUS is independent.
DMTCP	Distillate fuel oil, excluding biodiesel and renewable diesel, total consumption.	Thousand barrels	DMTCPZZ = DMACPZZ + DFCCPZZ + DFEIPZZ + DFICPZZ + DFRCPZZ DMTCPUS = DMACPUS + DFCCPUS + DFEIPUS + DFICPUS + DFRCPUS
ELEXB	Electricity exported from the United States.	Billion Btu	ELEXBZZ = ELEXPZZ * 3.412 ELEXBUS = ΣELEXBZZ
ELEXP	Electricity exported from the United States.	Million kilowatthours	ELEXPZZ is independent. ELEXPUS = ΣELEXPZZ
ELGBP	Total (all fuels) electric generating units net summer capacity in all sectors.	Thousand kilowatts	ELGBPZZ is independent. ELGBPUS is independent.
ELIMB	Electricity imported into the United States.	Billion Btu	ELIMBZZ = ELIMPZZ * 3.412 ELIMBUS = ΣELIMBZZ
ELIMP	Electricity imported into the United States.	Million kilowatthours	ELIMPZZ is independent. ELIMPUS = ΣELIMPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 = ΣELNIBZZ
ELNIP	Net imports of electricity into the United States.	Million kilowatthours	ELNIPZZ = ELIMPZZ - ELEXPZZ ELNIPUS = ΣELNIPZZ
ELVHN	Total electric vehicle (EV) light-duty stocks.	Thousands of registered vehicles	ELVHNZZ = BTVHNZZ + PHVHNZZ ELVHNUS = ΣELVHNZZ
ELVHS	Electric vehicle (EV) share of total light-duty vehicles.	Percent	ELVHSZZ = ELVHNZZ / LDVHNZZ * 100
EMACB	Fuel ethanol, excluding denaturant, consumed by the transportation sector.	Billion Btu	EMACBZZ = (MGACPZZ / MGTCPZZ) * EMTCBZZ EMACBUS = ΣEMACBZZ
EMCCB	Fuel ethanol, excluding denaturant, consumed by the commercial sector.	Billion Btu	EMCCBZZ = (MGCCPZZ / MGTCPZZ) * EMTCBZZ EMCCBUS = ΣEMCCBZZ
EMICB	Fuel ethanol, excluding denaturant, consumed by the industrial sector.	Billion Btu	EMICBZZ = (MGICPZZ / MGTCPZZ) * 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.

Table A1. Consumption variables (cont.)

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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
ESACP	Electricity consumed by (sales to ultimate customers in) the transportation sector.	Million kilowatthours	Before 2003: ESACPZZ = ESTRPZZ ESACPUS = ΣESACPZZ 2003 forward: ESACPZZ is independent. ESACPUS = ΣESACPZZ
ESCCB	Electricity consumed by (sales to ultimate customers in) the commercial sector.	Billion Btu	ESCCBZZ = ESCCPZZ * 3.412 ESCCBUS = ΣESCCBZZ
ESCCP	Electricity consumed by (sales to ultimate customers in) 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 (sales to ultimate customers in) the industrial sector.	Billion Btu	ESICBZZ = ESICPZZ * 3.412 ESICBUS = ΣESICBZZ
ESICP	Electricity consumed by (sales to ultimate customers in) the industrial sector.	Million kilowatthours	ESICPZZ is independent. ESICPUS = ΣESICPZZ
ESOTP	Electricity sold to the “Other” sector (i.e., public street and highway lighting, sales to other public authorities, railroads and railways, and interdepartmental sales) (through 2002).	Million kilowatthours	ESOTPZZ is independent. ESOTPUS = ΣESOTPZZ
ESRCB	Electricity consumed by (sales to ultimate customers in) the residential sector.	Billion Btu	ESRCBZZ = ESRCPZZ * 3.412 ESRCBUS = ΣESRCBZZ
ESRCP	Electricity consumed by (sales to ultimate customers in) the residential sector.	Million kilowatthours	ESRCPZZ is independent. ESRCPUS = ΣESRCPZZ
ESRPP	Electricity consumed by (sales to ultimate customers in) 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 = ΣESTCBZZ ESTCB48 = ESTCBUS - (ESTCBAK + ESTCBHI)

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
ESTCKUS	Electricity conversion factor for the United States.	Thousand Btu per kilowatthour	ESTCKUS = 3.412
ESTCP	Electricity total consumption (electricity sales to ultimate customers).	Million kilowatthours	ESTCPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPZZ ESTCPUS = ΣESTCPZZ
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 = ΣESTRPZZ
ESTRSUS	The share of electricity sold to the "Other" sector (ESOTP) that is used for transportation in the United States (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 = ΣESTXBZZ
ESTXP	Electricity total end-use consumption (electricity sales to ultimate customers).	Million kilowatthours	ESTXPZZ = ESACPZZ + ESCCPZZ + ESICPZZ + ESRCPZZ ESTXPUS = ΣESTXPZZ
ESVHP	Electricity consumed for electric vehicle (EV) use.	Million kilowatthours	ESVHPZZ is independent. ESVHPUS = ΣESVHPZZ
EV0CN	Legacy charging ports for electric vehicles.	Number	EV0CNZZ is independent. EV0CNUS is independent.
EV1CN	Level 1 charging ports for electric vehicles.	Number	EV1CNZZ is independent. EV1CNUS is independent.
EV2CN	Level 2 charging ports for electric vehicles.	Number	EV2CNZZ is independent. EV2CNUS is independent.
EV2CR	Level 2 charging ports per location.	Number	EV2CRZZ is independent. EV2CRUS is independent.
EVCHN	Total charging ports for electric vehicles.	Number	EVCHNZZ is independent. EVCHNUS is independent.
EVCHP	Total electric vehicle charging locations.	Number	EVCHPZZ is independent. EVCHPUS is independent.

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
EVDCN	DC fast charging ports for electric vehicles.	Number	EVDCNZZ is independent. EVDCNUS is independent.
EVDCR	DC fast charging ports per location.	Number	EVDCRZZ is independent. EVDCRUS is independent.
EVNNP	Electric vehicle charging locations with both networked and non-networked ports.	Number	EVNNPZZ is independent. EVNNPUS is independent.
EVNOP	Electric vehicle charging locations with non-networked ports only.	Number	EVNOPZZ is independent. EVNOPUS is independent.
EVNTP	Electric vehicle charging locations with networked ports only.	Number	EVNTPZZ is independent. EVNTPUS is independent.
EVPPP	Electric vehicle charging locations with both public and private ports.	Number	EVPPPZZ is independent. EVPPPUS is independent.
EVPUP	Electric vehicle charging locations with public ports only.	Number	EVPUPZZ is independent. EVPUPUS is independent.
EVPVP	Electric vehicle charging locations with private ports only.	Number	EVPVPZZ is independent. EVPVPUS is independent.
EYICB	Ethylene from refineries consumed by the industrial sector.	Billion Btu	EYICBZZ = EYTCBZZ EYICBUS = EYTCBUS
EYICP	Ethylene from refineries consumed by the industrial sector.	Thousand barrels	EYICPZZ = EYTCPZZ EYICPUS = EYTCPUS
EYTCB	Ethylene from refineries total consumption.	Billion Btu	EYTCBZZ = EYTCPZZ * 2.436 EYTCBUS = ΣEYTCBZZ
EYTCP	Ethylene from refineries total consumption.	Thousand barrels	EYTCPZZ is independent. EYTCPUS is independent.
FFETKUS	Fossil-fueled steam-electric power plant conversion factor.	Thousand Btu per kilowatthour	FFETKUS is independent.
FFGBP	Fossil fuel total generating units net summer capacity in all sectors.	Thousand kilowatts	FFGBPZZ is independent. FFGBPUS 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.

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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
FSTCP	Petrochemical feedstocks, still gas, total consumption (through 1985).	Thousand barrels	FSTCPZZ = (COCAPZZ / COCAPUS) * FSTCPUS FSTCPUS is independent.
GDPRV	Current-dollar gross domestic product (GDP).	Million dollars	GDPRVZZ is independent. GDPRVUS is independent.
GDPRX	Real gross domestic product (GDP).	Million chained (2017) dollars	GDPRXZZ is independent. GDPRXUS is independent.

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
GEC4B	Geothermal energy consumed as direct heat or from heat pumps in the commercial sector.	Billion Btu	GEC4BZZ is independent. GEC4BUS = ΣGEC4BZZ
GEC5B	Geothermal energy consumed for electricity generation at utility-scale commercial CHP and electricity-only facilities.	Billion Btu	GEC5BZZ = GEC5PZZ * 3.412 GEC5BUS = ΣGEC5BZZ
GEC5P	Geothermal electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	GEC5PZZ is independent. GEC5PUS = ΣGEC5PZZ
GECAS	Geothermal generating units capacity factor.	Percent	GECASZZ is independent. GECASUS is independent.
GECCB	Geothermal energy consumed by the commercial sector.	Billion Btu	GECCBZZ = GEC4BZZ + GEC5BZZ GECCBUS = ΣGECCBZZ
GEEGB	Geothermal energy consumed for electricity generation by the electric power sector.	Billion Btu	GEEGBZZ = GEEGPZZ * 3.412 GEEGBUS = ΣGEEGBZZ
GEEGP	Geothermal electricity net generation in the electric power sector.	Million kilowatthours	GEEGPZZ is independent. GEEGPUS = ΣGEEGPZZ
GEGBP	Geothermal generating units net summer capacity in all sectors.	Thousand kilowatts	GEGBPZZ is independent. GEGBPUS is independent.
GEICB	Geothermal energy consumed by the industrial sector.	Billion Btu	GEICBZZ is independent. GEICBUS = ΣGEICBZZ
GERCB	Geothermal energy consumed by the residential sector.	Billion Btu	GERCBZZ is independent. GERCBUS = ΣGERCBZZ
GETCB	Geothermal energy total consumption.	Billion Btu	GETCBZZ = GECCBZZ + GEEGBZZ + GEICBZZ + GERCBZZ GETCBUS = ΣGETCBZZ
GETXB	Geothermal energy total end-use consumption.	Billion Btu	GETXBZZ = GECCBZZ + GEICBZZ + GERCBZZ GETXBUS = ΣGETXBZZ
HLACB	Hydrocarbon gas liquids consumed by the transportation sector.	Billion Btu	Before 2010: HLACBZZ = LGACBZZ HLACBUS = ΣHLACBZZ 2010 forward: HLACBZZ = PQACBZZ HLACBUS = ΣHLACBZZ

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 = ΣHLICPZZ for all years.
HLRCB	Hydrocarbon gas liquids consumed by the residential sector.	Billion Btu	Before 2010: HLRCBZZ = LGRCBZZ HLRCBUS = ΣHLRCBZZ 2010 forward: HLRCBZZ = PQRCBZZ HLRCBUS = ΣHLRCBZZ
HLRCP	Hydrocarbon gas liquids consumed by the residential sector.	Thousand barrels	Before 2010: HLRCPZZ = LGRCPZZ HLRCPUS = ΣHLRCPZZ 2010 forward: HLRCPZZ = PQRCPZZ HLRCPUS = ΣHLRCPZZ
HLTCB	Hydrocarbon gas liquids total consumption.	Billion Btu	HLTCBZZ = HLACBZZ + HLCCBZZ + HLICBZZ + HLRCBZZ HLTCBUS = ΣHLTCBZZ
HLTCK	Average factor for converting hydrocarbon gas liquids total consumption from physical unit to Btu.	Million Btu per barrel	HLTCKZZ = HLTCBZZ / 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
HPCAS	Hydroelectric pumped storage generating units usage factor.	Percent	HPCASZZ is independent. HPCASUS is independent.
HPGBP	Hydroelectric pumped storage generating units net summer capacity in all sectors.	Thousand kilowatts	HPGBPZZ is independent. HPGBPUS is independent.
HVC5P	Conventional hydroelectricity net generation at commercial CHP and electricity-only facilities.	Million kilowatthours	HVC5PZZ is independent. HVC5PUS = ΣHVC5PZZ
HVCAS	Conventional hydroelectric generating units capacity factor.	Percent	HVCASZZ is independent. HVCASUS is independent.
HVEGP	Conventional hydroelectricity net generation in the electric power sector.	Million kilowatthours	HVEGPZZ is independent. HVEGPUS = ΣHVEGPZZ
HVGBP	Conventional hydroelectric power generating units net summer capacity in all sectors.	Thousand kilowatts	HVGBPZZ is independent. HVGBPUS is independent.
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 * 3.412 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 = HYEGPZZ * 3.412 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 * 3.412 HYICBUS = ΣHYICBZZ
HYICP	Hydroelectricity net generation in the industrial sector.	Million kilowatthours	HYICPZZ = HVI5PZZ HYICPUS = ΣHYICPZZ

Table A1. Consumption variables (cont.)

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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
JFTCB	Jet fuel total consumption.	Billion Btu	JFTCBZZ = JFACBZZ + JFEUBZZ JFTCBUS = ΣJFTCBZZ
JFTCP	Jet fuel total consumption.	Thousand barrels	JFTCPZZ = JFACPZZ + JFEUPZZ JFTCPUS = ΣJFTCPZZ
JFTXB	Jet fuel total end-use consumption.	Billion Btu	JFTXBZZ = JFACBZZ JFTXBUS = ΣJFTXBZZ
JFTXP	Jet fuel total end-use consumption.	Thousand barrels	JFTXPZZ = JFACPZZ JFTXPUS = ΣJFTXPZZ
JKACB	Kerosene-type jet fuel consumed by the transportation sector.	Billion Btu	JKACBZZ = JKACPZZ * 5.670 JKACBUS = ΣJKACBZZ
JKACP	Kerosene-type jet fuel consumed by the transportation sector.	Thousand barrels	Before 2010: JKACPZZ = (JKTTPZZ / JKTTPUS) * JKACPUS JKACPUS = JKTCPUS - JKEUPUS 2010 forward: JKACPZZ is independent. JKACPUS = ΣJKACPZZ
JKEUB	Kerosene-type jet fuel consumed by the electric power sector (through 1982).	Billion Btu	JKEUBZZ = JKEUPZZ * 5.670 JKEUBUS = ΣJKEUBZZ
JKEUP	Kerosene-type jet fuel consumed by the electric power sector (through 1982).	Thousand barrels	JKEUPZZ is independent. JKEUPUS = ΣJKEUPZZ
JKTCB	Kerosene-type jet fuel total consumption.	Billion Btu	JKTCBZZ = JKTCPZZ * 5.670 JKTCBUS = ΣJKTCBZZ
JKTCP	Kerosene-type jet fuel total consumption.	Thousand barrels	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 = ΣJKTTPZZ
JNACB	Naphtha-type jet fuel consumed by the transportation sector.	Billion Btu	JNACBZZ = JNTCBZZ JNACBUS = JNTCBUS
JNACP	Naphtha-type jet fuel consumed by the transportation sector.	Thousand barrels	JNACPZZ = JNTCPZZ JNACPUS = JNTCPUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
JNMIP	Naphtha-type jet fuel issued to the military.	Thousand barrels	JNMIPZZ is independent. JNMIPUS = ΣJNMIPZZ
JNTCB	Naphtha-type jet fuel total consumption.	Billion Btu	JNTCBZZ = JNTCPZZ * 5.355 JNTCBUS = ΣJNTCBZZ
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 = ΣKSCCBZZ
KSCCP	Kerosene consumed by the commercial sector.	Thousand barrels	KSCCPZZ = (KSCMPZZ / KSTTPZZ) * KSTCPZZ KSCCPUS = ΣKSCCPZZ
KSCMP	Kerosene sold to the commercial sector.	Thousand barrels	KSCMPZZ is independent. KSCMPUS = ΣKSCMPZZ
KSICB	Kerosene consumed by the industrial sector.	Billion Btu	KSICBZZ = KSICPZZ * 5.670 KSICBUS = ΣKSICBZZ
KSICP	Kerosene consumed by the industrial sector.	Thousand barrels	KSICPZZ = (KSINPZZ / KSTTPZZ) * KSTCPZZ KSICPUS = ΣKSICPZZ
KSIHP	Kerosene sold for industrial heating and processing.	Thousand barrels	KSIHPZZ is independent. KSIHPUS = ΣKSIHPZZ
KSINP	Kerosene sold to the industrial sector.	Thousand barrels	KSINPZZ = KSIHPZZ + KSOTPZZ KSINPUS = ΣKSINPZZ
KSOTP	Kerosene sold for all other uses, including farm use.	Thousand barrels	KSOTPZZ is independent. KSOTPUS = ΣKSOTPZZ
KSRCB	Kerosene consumed by the residential sector.	Billion Btu	KSRCBZZ = KSRCPZZ * 5.670 KSRCBUS = ΣKSRCBZZ
KSRCP	Kerosene consumed by the residential sector.	Thousand barrels	KSRCPZZ = (KSRSPZZ / KSTTPZZ) * KSTCPZZ KSRCPUS = ΣKSRCPZZ
KSRSP	Kerosene sold to the residential sector.	Thousand barrels	KSRSPZZ is independent. KSRSPUS = ΣKSRSPZZ
KSTCB	Kerosene total consumption.	Billion Btu	KSTCBZZ = KSCCBZZ + KSICBZZ + KSRCBZZ KSTCBUS = ΣKSTCBZZ
KSTCP	Kerosene total consumption.	Thousand barrels	KSTCPZZ = (KSTTPZZ / KSTTPUS) * KSTCPUS KSTCPUS is independent.

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
KSTTP	Kerosene total sold.	Thousand barrels	KSTTPZZ = KSCMPZZ + KSINPZZ + KSRSPZZ KSTTPUS = ΣKSTTPZZ
KSTXB	Kerosene total end-use consumption.	Billion Btu	KSTXBZZ = KSCCBZZ + KSICBZZ + KSRCBZZ KSTXBUS = ΣKSTXBZZ
KSTXP	Kerosene total end-use consumption.	Thousand barrels	KSTXPZZ = KSCCPZZ + KSICPZZ + KSRCPZZ KSTXPUS = ΣKSTXPZZ
LDVHN	Total (all fuels) vehicle light-duty stocks.	Thousands of registered vehicles	LDVHNZZ is independent. LDVHNUS is independent.
LGACB	LPG consumed by the transportation sector (through 2009).	Billion Btu	LGACBZZ = LGACPZZ * 3.841 LGACBUS = ΣLGACBZZ
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)
LGICKUS	Average conversion factor for industrial consumption of LPG for the United States (through 2009).	Million Btu per barrel	LGICKUS = LGICBUS / LGICPUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
LGICP	LPG consumed by the industrial sector (through 2009).	Thousand barrels	Before 2008: LGICPZZ = LGTCPZZ - (LGACPZZ + LGCCPZZ + LGRCPZZ) 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
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 for the United States (through 2009).	Million Btu per barrel	LGTCKUS is independent.
LGTCP	LPG total consumption (through 2009).	Thousand barrels	Before 2008: LGTCPZZ = (LGTTPZZ / LGTTPUS) * 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 for the United States (through 2009).	Fraction	LGTRSUS is independent.
LGTTP	LPG total sold (through 2009).	Thousand gallons	LGTTPZZ is independent. LGTTPUS = ΣLGTTPZZ
LGTXB	LPG total end-use consumption (through 2009).	Billion Btu	LGTXBZZ = LGACBZZ + LGCCBZZ + LGICBZZ + LGRCBZZ LGTXBUS = ΣLGTXBZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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
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 = ΣLOTXBZZ
LUACB	Lubricants consumed by the transportation sector.	Billion Btu	LUACBZZ = LUACPZZ * 6.065 LUACBUS = ΣLUACBZZ
LUACP	Lubricants consumed by the transportation sector.	Thousand barrels	Before 2010: LUACPZZ = (LUTRPZZ / LUTTPZZ) * LUTCPZZ LUACPUS = ΣLUACPZZ 2010 forward: LUACPZZ is independent. LUACPUS is independent.
LUICB	Lubricants consumed by the industrial sector.	Billion Btu	LUICBZZ = LUICPZZ * 6.065 LUICBUS = ΣLUICBZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
LUICP	Lubricants consumed by the industrial sector.	Thousand barrels	Before 2010: LUICPZZ = (LUINPZZ / LUTTPZZ) * LUTCPZZ LUICPUS = ΣLUICPZZ 2010 forward: LUICPZZ is independent. LUICPUS is independent.
LUINP	Lubricants sold to the industrial sector (through 2009).	Thousand barrels	LUINPZZ is independent. LUINPUS = ΣLUINPZZ
LUTCB	Lubricants total consumption.	Billion Btu	LUTCBZZ = LUACBZZ + LUICBZZ LUTCBUS = ΣLUTCBZZ
LUTCP	Lubricants total consumption.	Thousand barrels	Before 2010: LUTCPZZ = (LUTTPZZ / LUTTPUS) * LUTCPUS LUTCPUS is independent. 2010 forward: LUTCPZZ = LUACPZZ + LUICPZZ LUTCPUS is independent.
LUTRP	Lubricants sold to the transportation sector (through 2009).	Thousand barrels	LUTRPZZ is independent. LUTRPUS = ΣLUTRPZZ
LUTTP	Lubricants total sold (through 2009).	Thousand barrels	LUTTPZZ = LUINPZZ + LUTRPZZ LUTTPUS = ΣLUTTPZZ
LUTXB	Lubricants total end-use consumption.	Billion Btu	LUTXBZZ = LUACBZZ + LUICBZZ LUTXBUS = ΣLUTXBZZ
LUTXP	Lubricants total end-use consumption.	Thousand barrels	LUTXPZZ = LUACPZZ + LUICPZZ LUTXPUS = ΣLUTXPZZ
MBICB	Motor gasoline blending components consumed by the industrial sector.	Billion Btu	MBICBZZ = MBTCBZZ MBICBUS = MBTCBUS
MBICP	Motor gasoline blending components consumed by the industrial sector.	Thousand barrels	MBICPZZ = MBTCPZZ MBICPUS = MBTCPUS
MBTCB	Motor gasoline blending components total consumption.	Billion Btu	MBTCBZZ = MBTCPZZ * MBTCKUS MBTCBUS = ΣMBTCBZZ
MBTCKUS	Factor for converting motor gasoline blending components from physical units to Btu.	Million Btu per barrel	MBTCKUS is independent.
MBTCP	Motor gasoline blending components total consumption.	Thousand barrels	MBTCPZZ = (COCAPZZ / COCAPUS) * MBTCPUS MBTCPUS is independent.

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
MGACB	Motor gasoline consumed by the transportation sector.	Billion Btu	MGACBZZ = MGACPZZ * MGTCKUS MGACBUS = ΣMGACBZZ
MGACP	Motor gasoline consumed by the transportation sector.	Thousand barrels	MGACPZZ = (MGTRPZZ / MGTTPZZ) *MGTCPZZ MGACPUS = ΣMGACPZZ
MGAGP	Motor gasoline sold for agricultural use.	Thousand gallons	MGAGPZZ is independent. MGAGPUS = ΣMGAGPZZ
MGBTP	Motor gasoline sold for boating use (2015 forward).	Thousand gallons	MGBTPZZ is independent. MGBTPUS = ΣMGBTPZZ
MGCCB	Motor gasoline consumed by the commercial sector.	Billion Btu	MGCCBZZ = MGCCPZZ * MGTCKUS MGCCBUS = ΣMGCCBZZ
MGCCP	Motor gasoline consumed by the commercial sector.	Thousand barrels	MGCCPZZ = (MGCMPZZ / MGTTPZZ) *MGTCPZZ MGCCPUS = ΣMGCCPZZ
MGCMP	Motor gasoline sold to the commercial sector.	Thousand gallons	Before 2015: MGCMPZZ = MGMSPZZ + MGPNPZZ MGCMPUS = ΣMGCMPZZ 2015 forward: MGCMPZZ = MGLGPZZ + MGMSPZZ + MGPNPZZ 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 * MGTCKUS MGICBUS = ΣMGICBZZ
MGICP	Motor gasoline consumed by the industrial sector.	Thousand barrels	MGICPZZ = (MGINPZZ / MGTTPZZ) * MGTCPZZ 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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
MGMRP	Motor gasoline sold for marine use (through 2014).	Thousand gallons	MGMRPZZ is independent. MGMRPUS = ΣMGMRPZZ
MGMSP	Motor gasoline sold for miscellaneous and unclassified uses.	Thousand gallons	MGMSPZZ is independent. MGMSPUS = ΣMGMSPZZ
MGPNP	Motor gasoline sold for public nonhighway use.	Thousand gallons	MGPNPZZ is independent. MGPNPUS = ΣMGPNPZZ
MGRVP	Motor gasoline sold for recreational vehicle use (2015 forward).	Thousand gallons	MGRVPZZ is independent. MGRVPUS = ΣMGRVPZZ
MGSFP	Special fuels sold (Federal Highway Administration terminology; primarily diesel fuel with small amounts of liquefied petroleum gases).	Thousand gallons	MGSFPZZ is independent. MGSFPUS = ΣMGSFPZZ
MGTCB	Motor gasoline total consumption.	Billion Btu	MGTCBZZ = MGACBZZ + MGCCBZZ + MGICBZZ MGTCBUS = ΣMGTCBZZ
MGTCKUS	Factor for converting motor gasoline from physical units to Btu.	Million Btu per barrel	MGTCKUS is independent.
MGTCP	Motor gasoline total consumption.	Thousand barrels	MGTCPZZ = (MGTTPZZ / MGTTPUS) * MGTCPUS MGTCPUS is independent.
MGTRP	Motor gasoline sold to the transportation sector.	Thousand gallons	Before 2015: MGTRPZZ = MGMFPZZ + MGMRPZZ - MGSFPZZ MGTRPUS = ΣMGTRPZZ 2015 forward: MGTRPZZ = MGBTPZZ + MGMFPZZ + MGRVPZZ - MGSFPZZ MGTRPUS = ΣMGTRPZZ
MGTTP	Motor gasoline total sold.	Thousand gallons	MGTTPZZ = MGCMPZZ + MGINPZZ + MGTRPZZ MGTTPUS = ΣMGTTPZZ
MGTXB	Motor gasoline total end-use consumption.	Billion Btu	MGTXBZZ = MGACBZZ + MGCCBZZ + MGICBZZ MGTXBUS = ΣMGTXBZZ
MGTXP	Motor gasoline total end-use consumption.	Thousand barrels	MGTXPZZ = MGACPZZ + MGCCPZZ + MGICPZZ MGTXPUS = ΣMGTXPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
MMACB	Motor gasoline, excluding fuel ethanol, consumed by the transportation sector.	Billion Btu	Before 1993: MMACBZZ = MGACBZZ MMACBUS = MGACBUS 1993 forward: MMACBZZ = MGACBZZ - EMACBZZ MMACBUS = MGACBUS - EMACBUS
MMCCB	Motor gasoline, excluding fuel ethanol, consumed by the commercial sector.	Billion Btu	Before 1993: MMCCBZZ = MGCCBZZ MMCCBUS = MGCCBUS 1993 forward: MMCCBZZ = MGCCBZZ - EMCCBZZ MMCCBUS = MGCCBUS - EMCCBUS
MMICB	Motor gasoline, excluding fuel ethanol, consumed by the industrial sector.	Billion Btu	Before 1993: MMICBZZ = MGICBZZ MMICBUS = MGICBUS 1993 forward: MMICBZZ = MGICBZZ - EMICBZZ MMICBUS = MGICBUS - EMICBUS
MMTCB	Motor gasoline, excluding fuel ethanol, total consumption.	Billion Btu	Before 1993: MMTCBZZ = MGTCBZZ MMTCBUS = MGTCBUS 1993 forward: MMTCBZZ = MGTCBZZ - EMTCBZZ MMTCBUS = MGTCBUS - EMTCBUS
MSICB	Miscellaneous petroleum products consumed by the industrial sector.	Billion Btu	MSICBZZ = MSTCBZZ MSICBUS = MSTCBUS
MSICP	Miscellaneous petroleum products consumed by the industrial sector.	Thousand barrels	MSICPZZ = MSTCPZZ MSICPUS = MSTCPUS
MSTCB	Miscellaneous petroleum products total consumption.	Billion Btu	MSTCBZZ = MSTCPZZ * 5.796 MSTCBUS = ΣMSTCBZZ
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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 = ΣNATCBZZ
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 = ΣNGACBZZ
NGACP	Natural gas consumed by the transportation sector.	Million cubic feet	NGACPZZ = NGPZPZZ + NGVHPZZ NGACPUS = ΣNGACPZZ
NGCCB	Natural gas delivered to the commercial sector, used as consumption (including supplemental gaseous fuels).	Billion Btu	NGCCBZZ = NGCCPZZ * NGTXKZZ NGCCBUS = ΣNGCCBZZ
NGCCP	Natural gas delivered to the commercial sector, used as consumption (including supplemental gaseous fuels).	Million cubic feet	NGCCPZZ is independent. NGCCPUS = ΣNGCCPZZ
NGEIB	Natural gas consumed by the electric power sector (including supplemental gaseous fuels).	Billion Btu	Before 2010: NGEIBZZ = NGEIPZZ * NGEIKZZ NGEIBUS = ΣNGEIBZZ 2010 forward: NGEIBZZ is independent. NGEIBUS = ΣNGEIBZZ
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 = ΣNGEIPZZ
NGGBP	Natural gas generating units net summer capacity in all sectors.	Thousand kilowatts	NGGBPZZ is independent. NGGBPUS is independent.
NGICB	Natural gas consumed by the industrial sector (including supplemental gaseous fuels).	Billion Btu	NGICBZZ = NGICPZZ * NGTXKZZ NGICBUS = ΣNGICBZZ
NGICP	Natural gas consumed by the industrial sector (including supplemental gaseous fuels).	Million cubic feet	NGICPZZ = NGINPZZ + NGLEPZZ + NGPLPZZ NGICPUS = ΣNGICPZZ

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 = ΣNGINPZZ
NGLEP	Natural gas consumed as lease fuel.	Million cubic feet	NGLEPZZ is independent. NGLEPUS = ΣNGLEPZZ
NGLPB	Natural gas consumed as lease and plant fuel.	Billion Btu	NGLPBZZ = NGLPPZZ * NGTXKZZ NGLPBUS = ΣNGLPBZZ
NGLPP	Natural gas consumed as lease and plant fuel.	Million cubic feet	NGLPPZZ = NGLEPZZ + NGPLPZZ NGLPPUS = ΣNGLPPZZ
NGPLP	Natural gas consumed as plant fuel.	Million cubic feet	NGPLPZZ is independent. NGPLPUS = ΣNGPLPZZ
NGPZB	Natural gas for pipeline and distribution use.	Billion Btu	NGPZBZZ = NGPZPZZ * NGTXKZZ NGPZBUS = ΣNGPZBZZ
NGPZP	Natural gas for pipeline and distribution use.	Million cubic feet	NGPZPZZ is independent. NGPZPUS = ΣNGPZPZZ
NGRCB	Natural gas delivered to the residential sector, used as consumption (including supplemental gaseous fuels).	Billion Btu	NGRCBZZ = NGRCPZZ * NGTXKZZ NGRCBUS = ΣNGRCBZZ
NGRCP	Natural gas delivered to the residential sector, used as consumption (including supplemental gaseous fuels).	Million cubic feet	NGRCPZZ is independent. NGRCPUS = ΣNGRCPZZ
NGSFP	Supplemental gaseous fuels supplies.	Million cubic feet	NGSFPZZ is independent. NGSFPUS = ΣNGSFPZZ
NGTCB	Natural gas total consumption (including supplemental gaseous fuels).	Billion Btu	NGTCBZZ = NGTCPZZ * NGTCKZZ NGTCBUS = ΣNGTCBZZ
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 = ΣNGTCPZZ
NGTPB	Natural gas total consumption (including supplemental gaseous fuels) per capita.	Million Btu	NGTPB = NGTCB / TPOPP
NGTPP	Natural gas total consumption (including supplemental gaseous fuels) 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 used by end-use sectors 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
NTCAS	Natural gas turbine generating units capacity factor.	Percent	NTCASZZ is independent. NTCASUS is independent.
NUCAS	Nuclear generating units capacity factor.	Percent	NUCASZZ is independent. NUCASUS is independent.

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
NUEGB	Nuclear energy consumed for electricity generation by the electric power sector.	Billion Btu	NUEGBZZ = NUEGPZZ * NUETKUS NUEGBUS = ΣNUEGBZZ
NUEGP	Nuclear electricity net generation in the electric power sector.	Million kilowatthours	NUEGPZZ is independent. NUEGPUS = ΣNUEGPZZ
NUETB	Nuclear energy consumed for electricity generation, total.	Billion Btu	NUETBZZ = NUEGBZZ NUETBUS = NUEGBUS
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
NUGBP	Nuclear generating units net summer capacity in all sectors.	Thousand kilowatts	NUGBPZZ is independent. NUGBPUS is independent.
NYCAS	Natural gas conventional steam generating units capacity factor.	Percent	NYCASZZ is independent. NYCASUS is independent.
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
OJGBP	Other gases generating units net summer capacity in all sectors.	Thousand kilowatts	OJGBPZZ is independent. OJGBPUS is independent.
OMTCB	Other petroleum products consumption, excluding biofuels.	Billion Btu	OMTCBZZ = OPTCBZZ - BXSUBZZ OMTCBUS = OPTCBUS - BXSUBUS
OPACB	Other petroleum products consumed by the transportation sector.	Billion Btu	OPACBZZ = BXSUBZZ OPACBUS = BXSUBUS
OPACP	Other petroleum products consumed by the transportation sector.	Thousand barrels	OPACPZZ = BXSUPZZ OPACPUS = BXSUPUS
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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 + BXSUBZZ + COTCBZZ + FNTCBZZ + FOTCBZZ + FSTCBZZ + MBTCBZZ + MSTCBZZ + SGTCBZZ + SNTCBZZ + UOTCBZZ + WXTCBZZ OPTCBUS = ABTCBUS + BXSUBUS + COTCBUS + FNTCBUS + FOTCBUS + FSTCBUS + MBTCBUS + MSTCBUS + SGTCBUS + SNTCBUS + UOTCBUS + WXTCBUS
OPTCP	Other petroleum products total consumption.	Thousand barrels	OPTCPZZ = ABTCPZZ + BXSUPZZ + COTCPZZ + FNTCPZZ + FOTCPZZ + FSTCPZZ + MBTCPZZ + MSTCPZZ + SGTCPZZ + SNTCPZZ + UOTCPZZ + WXTCPZZ OPTCPUS = ABTCPUS + BXSUPUS + COTCPUS + FNTCPUS + FOTCPUS + FSTCPUS + MBTCPUS + MSTCPUS + SGTCPUS + SNTCPUS + UOTCPUS + WXTCPUS
OPTXB	Other petroleum products total end-use consumption.	Billion Btu	OPTXBZZ = OPACBZZ + OPICBZZ OPTXBUS = OPACBUS + OPICBUS
OPTXP	Other petroleum products total end-use consumption.	Thousand barrels	OPTXPZZ = OPACPZZ + OPICPZZ OPTXPUS = OPACPUS + OPICPUS
OTGBP	Other generating units net summer capacity in all sectors.	Thousand kilowatts	OTGBPZZ is independent. OTGBPUS is independent.
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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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	P1TXB = ARTXB + AVTXB + KSTXB + LUTXB + OPTXB + PCTXB
P1TXP	Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and "other petroleum products" total end-use consumption.	Thousand barrels	P1TXP = ARTXP + AVTXP + KSTXP + LUTXP + OPTXP + PCTXP
PAACB	All petroleum products consumed by the transportation sector.	Billion Btu	PAACBZZ = AVACBZZ + DFACBZZ + HLACBZZ + JFACBZZ + LUACBZZ + MGACBZZ + OPACBZZ + RFACBZZ PAACBUS = AVACBUS + DFACBUS + HLACBUS + JFACBUS + LUACBUS + MGACBUS + OPACBUS + RFACBUS
PAACKUS	Factor for converting all petroleum products consumed by the transportation sector from physical units to Btu for the United States.	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 + OPACPZZ + RFACPZZ PAACPUS = AVACPUS + DFACPUS + HLACPUS + JFACPUS + LUACPUS + MGACPUS + OPACPUS + RFACPUS
PACAS	Petroleum generating units capacity factor.	Percent	PACASZZ is independent. PACASUS is independent.
PACCB	All petroleum products consumed by the commercial sector.	Billion Btu	PACCBZZ = DFCCBZZ + HLCCBZZ + KSCCBZZ + MGCCBZZ + PCCCBZZ + RFCCBZZ PACCBUS = ΣPACCBZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
PACCKUS	Factor for converting all petroleum products consumed by the commercial sector from physical units to Btu for the United States.	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 = ΣPACCPZZ
PAEIB	All petroleum products consumed by the electric power sector.	Billion Btu	PAEIBZZ = DFEIBZZ + JKEUBZZ + PCEIBZZ + RFEIBZZ PAEIBUS = ΣPAEIBZZ
PAEIKUS	Factor for converting all petroleum products consumed by the electric power sector from physical units to Btu for the United States.	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 = ΣPAEIPZZ
PAGBP	Petroleum generating units net summer capacity in all sectors.	Thousand kilowatts	PAGBPZZ is independent. PAGBPUS is independent.
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 for the United States.	Million Btu per barrel	PAHCKUS = PAHCBUS / PAHCPUS
PAHCPUS	All petroleum products consumed by the residential and commercial sectors combined for the United States.	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 = ΣPAICBZZ
PAICKUS	Factor for converting all petroleum products consumed by the industrial sector from physical units to Btu for the United States.	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 = ΣPAICPZZ
PARCB	All petroleum products consumed by the residential sector.	Billion Btu	PARCBZZ = DFRCBZZ + HLRCBZZ + KSRCBZZ PARCBUS = ΣPARCBZZ
PARCKUS	Factor for converting all petroleum products consumed by the residential sector from physical units to Btu for the United States.	Million Btu per barrel	PARCKUS = PARCBUS / PARCPUS
PARCP	All petroleum products consumed by the residential sector.	Thousand barrels	PARCPZZ = DFRCPZZ + HLRCPZZ + KSRCPZZ PARCPUS = ΣPARCPZZ
PATCB	All petroleum products total consumption.	Billion Btu	PATCBZZ = ARTCBZZ + AVTCBZZ + DFTCBZZ + HLTCBZZ + JFTCBZZ + KSTCBZZ + LUTCBZZ + MGTCBZZ + OPTCBZZ + PCTCBZZ + RFTCBZZ PATCBUS = ARTCBUS + AVTCBUS + DFTCBUS + HLTCBUS + JFTCBUS + KSTCBUS + LUTCBUS + MGTCBUS + OPTCBUS + PCTCBUS + RFTCBUS
PATCKUS	Factor for converting all petroleum products consumed by all sectors from physical units to Btu for the United States.	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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
PATXB	All petroleum products total end-use consumption.	Billion Btu	PATXBZZ = ARTXBZZ + AVTXBZZ + DFTXBZZ + HLTXBZZ + JFTXBZZ + KSTXBZZ + LUTXBZZ + MGTXBZZ + OPTXBZZ + PCTXBZZ + RFTXBZZ PATXBUS = ARTXBUS + AVTXBUS + DFTXBUS + HLTXBUS + JFTXBUS + KSTXBUS + LUTXBUS + MGTXBUS + OPTXBUS + PCTXBUS + RFTXBUS
PATXP	All petroleum products total end-use consumption.	Thousand barrels	PATXPZZ = ARTXPZZ + AVTXPZZ + DFTXPZZ + HLTXPZZ + JFTXPZZ + KSTXPZZ + LUTXPZZ + MGTXPZZ + OPTXPZZ + PCTXPZZ + RFTXPZZ PATXPUS = ARTXPUS + AVTXPUS + DFTXPUS + HLTXPUS + JFTXPUS + KSTXPUS + LUTXPUS + MGTXPUS + OPTXPUS + PCTXPUS + RFTXPUS
PCC3M	Petroleum coke consumed for combined-heat-and-power in the commercial sector.	Thousand tons	PCC3MZZ is independent. PCC3MUS = ΣPCC3MZZ
PCCCB	Petroleum coke consumed by the commercial sector.	Billion Btu	PCCCBZZ = PCCCPZZ * PCMKKUS PCCCBUS = ΣPCCCBZZ
PCCCP	Petroleum coke consumed by the commercial sector.	Thousand barrels	PCCCPZZ = PCC3MZZ * 5 PCCCPUS = ΣPCCCPZZ
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 = ΣPCEIBZZ
PCEIM	Petroleum coke consumed by the electric power sector.	Thousand tons	PCEIMZZ is independent. PCEIMUS = ΣPCEIMZZ
PCEIP	Petroleum coke consumed by the electric power sector.	Thousand barrels	PCEIPZZ = PCEIMZZ * 5 PCEIPUS = ΣPCEIPZZ
PCI3B	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Billion Btu	PCI3BZZ = PCI3PZZ * PCMKKUS PCI3BUS = ΣPCI3BZZ
PCI3M	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Thousand tons	PCI3MZZ is independent. PCI3MUS = ΣPCI3MZZ
PCI3P	Petroleum coke consumed for combined-heat-and-power in the industrial sector.	Thousand barrels	PCI3PZZ = PCI3MZZ * 5 PCI3PUS = ΣPCI3PZZ
PCICB	Petroleum coke consumed in the industrial sector.	Billion Btu	PCICBZZ = PCI3BZZ + PCOCBZZ + PCRFBZZ PCICBUS = ΣPCICBZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 = ΣPCOCBZZ
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) * PCRFPPZ 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
PHVHN	Plug-in hybrid electric vehicle (PHEV) light-duty stocks.	Thousands of registered vehicles	PHVHNZZ is independent. PHVHNUS = ΣPHVHNZZ
PHVHP	Electricity consumed for plug-in hybrid electric vehicle (PHEV) use.	Million kilowatthours	PHVHPZZ is independent. PHVHPUS = ΣPHVHPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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.
PMACB	All petroleum products, excluding biofuels, consumed by the transportation sector.	Billion Btu	PMACBZZ = AVACBZZ + DMACBZZ + JFACBZZ + HLACBZZ + LUACBZZ + MMACBZZ + RFACBZZ PMACBUS = AVACBUS + DMACBUS + JFACBUS + HLACBUS + LUACBUS + MMACBUS + RFACBUS
PMCCB	All petroleum products, excluding biofuels, consumed by the commercial sector.	Billion Btu	PMCCBZZ = DFCCBZZ + HLCCBZZ + KSCCBZZ + MMCCBZZ + PCCCBZZ + RFCCBZZ PMCCBUS = DFCCBUS + HLCCBUS + KSCCBUS + MMCCBUS + PCCCBUS + RFCCBUS
PMICB	All petroleum products, excluding biofuels, consumed by the industrial sector.	Billion Btu	PMICBZZ = ARICBZZ + DFICBZZ + HLICBZZ+ KSICBZZ + LUICBZZ + MMICBZZ + OPICBZZ + PCICBZ + RFICBZZ PMICBUS = ARICBUS + DFICBUS + HLICBUS + KSICBUS + LUICBUS + MMICBUS + OPICBUS + PCICBUS + RFICBUS
PMTCB	All petroleum products, excluding biofuels, total consumption.	Billion Btu	PMTCBZZ = ARTCBZZ + AVTCBZZ + DMTCBZZ + HLTCBZZ + JFTCBZZ + KSTCBZZ + LUTCBZZ + MMTCBZZ + OMTCBZZ + PCTCBZZ + RFTCBZZ PMTCBUS = ARTCBUS + AVTCBUS + DMTCBUS + HLTCBUS + JFTCBUS + KSTCBUS + LUTCBUS + MMTCBUS + OMTCBUS + PCTCBUS + RFTCBUS
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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
PPTCB	Natural gasoline (pentanes plus) total consumption.	Billion Btu	PPTCBZZ = PPTCPZZ * 4.638 PPTCBUS = ΣPPTCBZZ
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 = ΣPQACBZZ
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 = ΣPQCCBZZ
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 = ΣPQICBZZ
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 = ΣPQRCBZZ
PQRCP	Propane consumed by the residential sector.	Thousand barrels	PQRCPZZ is independent. PQRCPUS is independent.
PQTCB	Propane total consumption.	Billion Btu	PQTCBZZ = PQACBZZ + PQCCBZZ + PQICBZZ + PQRCBZZ PQTCBUS = ΣPQTCBZZ
PQTCP	Propane total consumption.	Thousand barrels	PQTCPZZ = PQACPZZ + PQCCPZZ + PQICPZZ + PQRCPZZ PQTCPUS is independent.
PQTXB	Propane total end-use consumption.	Billion Btu	PQTXBZZ = PQACBZZ + PQCCBZZ + PQICBZZ + PQRCBZZ PQTXBUS = ΣPQTXBZZ
PQTXP	Propane total end-use consumption.	Thousand barrels	PQTXPZZ = PQTCPZZ PQTXPUS = ΣPQTXPZZ
PYICB	Propylene from refineries consumed by the industrial sector.	Billion Btu	PYICBZZ = PYTCBZZ PYICBUS = PYTCBUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 = ΣPYTCBZZ
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 = ΣRDICPZZ
RDINP	Road oil sold to the industrial sector (through 1982).	Short tons	RDINPZZ is independent. RDINPUS = ΣRDINPZZ
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 + B1ACBZZ + EMACBZZ REACBUS = BDACBUS + BOACBUS + B1ACBUS + EMACBUS
RECCB	Renewable energy sources consumed by the commercial sector.	Billion Btu	RECCBZZ = EMCCBZZ + GECCBZZ + HYCCBZZ + SOCCBZZ + WWCCBZZ + WYCCBZZ RECCBUS = EMCCBUS + GECCBUS + HYCCBUS + SOCCBUS + WWCCBUS + WYCCBUS
REEIB	Renewable energy sources consumed by the electric power sector.	Billion Btu	REEIBZZ = GEEGBZZ + HYEGBZZ + SOEGBZZ + WWEIBZZ + WYEGBZZ REEIBUS = GEEGBUS + HYEGBUS + SOEGBUS + WWEIBUS + WYEGBUS
REGBP	Renewable energy total generating units net summer capacity in all sectors.	Thousand kilowatts	REGBPZZ is independent. REGBPUS is independent.
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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
RETCB	Renewable energy total consumption.	Billion Btu	RETCBZZ = BDLCBZZ + BDTCBZZ + B1TCBZZ + EMLCBZZ + EMTCBZZ + GETCBZZ + HYTCBZZ + SOTCBZZ + WWTCBZZ + WYTCBZZ RETCBUS = BDLCBUS + BDTCBUS + BOTCBUS + B1TCBUS + 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
RFICP	Residual fuel oil consumed by the industrial sector.	Thousand barrels	RFICPZZ = (RFINPZZ / RFNDPZZ) * RFNCPZZ RFICPUS = ΣRFICPZZ
RFINP	Residual fuel oil sold to the industrial sector.	Thousand barrels	RFINPZZ = RFIBPZZ + RFMSPZZ + RFOCPZZ RFINPUS = ΣRFINPZZ
RFMIP	Residual fuel oil sold to the military, regardless of use.	Thousand barrels	RFMIPZZ is independent. RFMIPUS = ΣRFMIPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
RFMSP	Residual fuel oil sold for miscellaneous uses.	Thousand barrels	RFMSPZZ is independent. RFMSPUS = ΣRFMSPZZ
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 = ΣRFNDPZZ
RFOCP	Residual fuel oil sold for use by oil companies.	Thousand barrels	RFOCPZZ is independent. RFOCPUS = ΣRFOCPZZ
RFRRP	Residual fuel oil sold for use by railroads.	Thousand barrels	RFRRPZZ is independent. RFRRPUS = ΣRFRRPZZ
RFTCB	Residual fuel oil total consumption.	Billion Btu	RFTCBZZ = RFACBZZ + RFCCBZZ + RFEIBZZ + RFICBZZ RFTCBUS = ΣRFTCBZZ
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 = SRFTRPZZ
RFTXB	Residual fuel oil total end-use consumption.	Billion Btu	RFTXBZZ = RFACBZZ + RFCCBZZ + RFICBZZ RFTXBUS = ΣRFTXBZZ
RFTXP	Residual fuel oil total end-use consumption.	Thousand barrels	RFTXPZZ = RFACPZZ + RFCCPZZ + RFICPZZ RFTXPUS = ΣRFTXPZZ
SFCCB	Supplemental gaseous fuels consumed by the commercial sector.	Billion Btu	SFCCBZZ = SFCCPZZ * NGTXKZZ SFCCBUS = ΣSFCCBZZ
SFCCP	Supplemental gasesous fuels consumed by the commercial sector.	Million cubic feet	SFCCPZZ = NGSFPZZ * (NGCCPZZ / NGTZPZZ) SFCCPUS = ΣSFCCPZZ
SFEIB	Supplemental gaseous fuels consumed by the electric power sector.	Billion Btu	SFEIBZZ = SFEIPZZ * NGEIKZZ SFEIBUS = ΣSFEIBZZ
SFEIP	Supplemental gaseous fuels consumed by the electric power sector.	Million cubic feet	SFEIPZZ = NGSFPZZ * (NGEIPZZ / NGTZPZZ) SFEIPUS = ΣSFEIPZZ
SFINB	Supplemental gaseous fuels consumed by the industrial sector.	Billion Btu	SFINBZZ = SFINPZZ * NGTXKZZ SFINBUS = ΣSFINBZZ
SFINP	Supplemental gaseous fuels consumed by the industrial sector.	Million cubic feet	SFINPZZ = NGSFPZZ * (NGINPZZ / NGTZPZZ) SFINPUS = ΣSFINPZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
SFRCB	Supplemental gaseous fuels consumed by the residential sector.	Billion Btu	SFRCBZZ = SFRCPZZ * NGTXKZZ SFRCBUS = ΣSFRCBZZ
SFRCP	Supplemental gaseous fuels consumed by the residential sector.	Million cubic feet	SFRCPZZ = NGSFPZZ * (NGRCPZZ / NGTZPZZ) SFRCPUS = ΣSFRCPZZ
SFTCB	Supplemental gaseous fuels total consumption.	Billion Btu	SFTCBZZ = SFCCBZZ + SFEIBZZ + SFINBZZ + SFRCBZZ SFTCBUS = ΣSFTCBZZ
SFTCP	Supplemental gaseous fuels total consumption.	Million cubic feet	SFTCPZZ = SFCCPZZ + SFEIPZZ + SFINPZZ + SFRCPZZ SFTCPUS = ΣSFTCPZZ
SGICB	Still gas consumed by the industrial sector.	Billion Btu	SGICBZZ = SGTCBZZ SGICBUS = SGTCBUS
SGICP	Still gas consumed by the industrial sector.	Thousand barrels	SGICPZZ = SGTCPZZ SGICPUS = SGTCPUS
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.
SHCAS	Solar thermal generating units capacity factor.	Percent	SHCASZZ is independent. SHCASUS is independent.
SNICB	Special naphthas consumed by the industrial sector.	Billion Btu	SNICBZZ = SNTCBZZ SNICBUS = SNTCBUS
SNICP	Special naphthas consumed by the industrial sector.	Thousand barrels	SNICPZZ = SNTCPZZ SNICPUS = SNTCPUS
SNTCB	Special naphthas total consumption.	Billion Btu	SNTCBZZ = SNTCPZZ * 5.248 SNTCBUS = ΣSNTCBZZ
SNTCP	Special naphthas total consumption.	Thousand barrels	SNTCPZZ = (PIVAVZZ / PIVAVUS) * SNTCPUS SNTCPUS is independent.
SOC5B	Solar energy consumed for electricity generation at utility-scale commercial CHP and electricity-only facilities.	Billion Btu	SOC5BZZ = SOC5PZZ * 3.412 SOC5BUS = ΣSOC5BZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
SOC5P	Solar thermal and photovoltaic electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	SOC5PZZ is independent. SOC5PUS = ΣSOC5PZZ
SOC7B	Solar energy consumed for electricity generation at small-scale commercial facilities.	Billion Btu	SOC7BZZ = SOC7PZZ * 3.412 SOC7BUS = ΣSOC7BZZ
SOC7P	Photovoltaic electricity generation at small-scale commercial facilities.	Million kilowatthours	SOC7PZZ is independent. SOC7PUS = ΣSOC7PZZ
SOCCB	Solar energy consumed by the commercial sector.	Billion Btu	SOCCBZZ = SOC5BZZ + SOC7BZZ SOCCBUS = ΣSOCCBZZ
SOCCP	Solar thermal and photovoltaic electricity net generation in the commercial sector.	Million kilowatthours	SOCCPZZ = SOC5PZZ + SOC7PZZ SOCCPUS = ΣSOCCPZZ
SOEGB	Solar energy consumed for electricity generation by the electric power sector.	Billion Btu	SOEGBZZ = SOEGPZZ * 3.412 SOEGBUS = ΣSOEGBZZ
SOEGP	Solar thermal and photovoltaic electricity net generation in the electric power sector.	Million kilowatthours	SOEGPZZ is independent. SOEGPUS = ΣSOEGPZZ
SOGBP	Solar generating units net summer capacity in all sectors.	Thousand kilowatts	SOGBPZZ is independent. SOGBPUS is independent.
SOI5B	Solar energy consumed for electricity generation at utility-scale industrial CHP and electricity-only facilities.	Billion Btu	SOI5BZZ = SOI5PZZ * 3.412 SOI5BUS = ΣSOI5BZZ
SOI5P	Solar thermal and photovoltaic electricity net generation at utility-scale industrial CHP and electricity-only facilities.	Million kilowatthours	SOI5PZZ is independent. SOI5PUS = ΣSOI5PZZ
SOI7B	Solar energy consumed for electricity generation at small-scale industrial facilities.	Billion Btu	SOI7BZZ = SOI7PZZ * 3.412 SOI7BUS = ΣSOI7BZZ
SOI7P	Photovoltaic electricity generation at small-scale industrial facilities.	Million kilowatthours	SOI7PZZ is independent. SOI7PUS = ΣSOI7PZZ
SOICB	Solar energy consumed by the industrial sector.	Billion Btu	SOICBZZ = SOI5BZZ + SOI7BZZ SOICBUS = ΣSOICBZZ
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 * 3.412 SOR7BUS = ΣSOR7BZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
SOR7P	Solar 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
SPCAS	Solar photovoltaic generating units capacity factor.	Percent	SPCASZZ is independent. SPCASUS is independent.
TEACB	Total energy consumption in the transportation sector.	Billion Btu	Before 1993: TEACBZZ = CLACBZZ + EMACBZZ + ESACBZZ + LOACBZZ + NGACBZZ + PAACBZZ TEACBUS = CLACBUS + EMACBUS + ESACBUS + LOACBUS + NGACBUS + PAACBUS 1993 through 2008: TEACBZZ = BDACBZZ + CLACBZZ + ESACBZZ + LOACBZZ + NGACBZZ + PAACBZZ TEACBUS = BDACBUS + CLACBUS + ESACBUS + LOACBUS + NGACBUS + PAACBUS 2009 forward: TEACBZZ = CLACBZZ + ESACBZZ + LOACBZZ + NGACBZZ + PAACBZZ TEACBUS = CLACBUS + ESACBUS + LOACBUS + NGACBUS + PAACBUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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	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 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
TECPB	Total energy consumption per capita in the commercial sector.	Million Btu	TECPBZZ = TECCBZZ / TPOPPZZ TECPBUS = TECCBUS / TPOPPUS
TEEIB	Total energy consumption in the electric power sector plus net imports of electricity into the United States.	Billion Btu	TEEIBZZ = CLEIBZZ + ELNIBZZ + GEEGBZZ + HYEGBZZ + NGEIBZZ + NUEGBZZ + PAEIBZZ + SOEGBZZ + WWEIBZZ + WYEGBZZ - SFEIBZZ TEEIBUS = ΣTEEIBZZ
TEESB	Total energy used to generate the electricity consumed in a state.	Billion Btu	TEESBZZ = ELISBZZ + TEEIBZZ TEESBUS = TEEIBUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
TEICB	Total energy consumption in the industrial sector.	Billion Btu	Before 1993: TEICBZZ = CLICBZZ + NGICBZZ + PAICBZZ + EMICBZZ + EMLCBZZ + GEICBZZ + HYICBZZ + SOICBZZ + WWICBZZ + ESICBZZ + LOICBZZ - SFINBZZ TEICBUS = CLICBUS + CCNIBUS + NGICBUS + PAICBUS + EMICBUS + EMLCBUS + GEICBUS + HYICBUS + SOICBUS + WWICBUS + ESICBUS + LOICBUS - SFINBUS 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 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
TEIPB	Total energy consumption per capita in the industrial sector.	Million Btu	TEIPBZZ = TEICBZZ / TPOPPZZ TEIPBUS = TEICBUS / TPOPPUS
TERCB	Total energy consumption in the residential sector.	Billion Btu	TERCBZZ = CLRCBZZ + ESRCBZZ + GERCBZZ + LORCBZZ + NGRCBZZ + PARCBZZ + SORCBZZ + WDRCBZZ - SFRCBZZ TERCBUS = CLRCBUS + ESRCBUS + GERCBUS + LORCBUS + NGRCBUS + PARCBUS + SORCBUS + WDRCBUS - SFRCBUS
TERPB	Total energy consumption per capita in the residential sector.	Million Btu	TERPBZZ = TERCBZZ / TPOPPZZ TERPBUS = TERCBUS / TPOPPUS

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 (GDP).	Thousand Btu per chained (2017) dollars	TETGRZZ = TETCBZZ / GDPRXZZ TETGRUS = TETCBUS / GDPRXUS
TETPB	Total energy consumption per capita.	Million Btu	TETPBZZ = TETCBZZ / TPOPPZZ TETPBUS = TETCBUS / TPOPPUS
TETXB	Total end-use sector energy consumption.	Billion Btu	TETXB = TEACB + TECCB + TEICB + TERCB
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	TNTCB = TNRCB + TNCCB + TNICB + TNACB
TPOPP	Resident population including Armed Forces.	Thousand population	TPOPPZZ is independent. TPOPPUS is independent.
UOICB	Unfinished oils consumed by the industrial sector.	Billion Btu	UOICBZZ = UOTCBZZ UOICBUS = UOTCBUS
UOICP	Unfinished oils consumed by the industrial sector.	Thousand barrels	UOICPZZ = UOTCPZZ UOICPUS = UOTCPUS
UOTCB	Unfinished oils total consumption.	Billion Btu	UOTCBZZ = UOTCPZZ * 5.825 UOTCBUS = ΣUOTCBZZ
UOTCP	Unfinished oils total consumption.	Thousand barrels	UOTCPZZ = (COCAPZZ / COCAPUS) * UOTCPUS UOTCPUS is independent.
USICB	Unfractionated streams consumed by the industrial sector (through 1983).	Billion Btu	USICBZZ = USTCBZZ USICBUS = USTCBUS
USICP	Unfractionated streams consumed by the industrial sector (through 1983).	Thousand barrels	USICPZZ = USTCPZZ USICPUS = USTCPUS

Table A1. Consumption variables (cont.)

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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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
WSGBP	Waste generating units net summer capacity in all sectors.	Thousand kilowatts	WSGBPZZ is independent. WSGBPUS is independent.
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
WXTCB	Waxes total consumption.	Billion Btu	WXTCBZZ = WXTCPZZ * 5.537 WXTCBUS = ΣWXTCBZZ

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
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 * 3.412 WYC5BUS = ΣWYC5BZZ
WYC5P	Wind electricity net generation at utility-scale commercial CHP and electricity-only facilities.	Million kilowatthours	WYC5PZZ is independent. WYC5PUS = ΣWYC5PZZ
WYCAS	Wind generating units capacity factor.	Percent	WYCASZZ is independent. WYCASUS is independent.
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 * 3.412 WYEGBUS = ΣWYEGBZZ
WYEGP	Wind electricity net generation in the electric power sector.	Million kilowatthours	WYEGPZZ is independent. WYEGPUS = ΣWYEGPZZ
WYGBP	Wind generating units net summer capacity in all sectors.	Thousand kilowatts	WYGBPZZ is independent. WYGBPUS is independent.
WYI5B	Wind energy consumed for electricity generation at industrial CHP and electricity-only facilities.	Billion Btu	WYI5BZZ = WYI5PZZ * 3.412 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

Table A1. Consumption variables (cont.)

MSN	Description	Unit	Formula
WYTXP	Wind energy total end-use net generation.	Million kilowatthours	WYTXPZZ = WYCCPZZ + WYICPZZ WYTXPUS = ΣWYTXPZZ
ZWCDP	Cooling degree days (CDD).	Cooling degree days	ZWCDPZZ is independent. ZWCDPUS is independent.
ZWHDP	Heating degree days (HDD).	Heating degree days	ZWHDPZZ is independent. ZWHDPUS is independent.