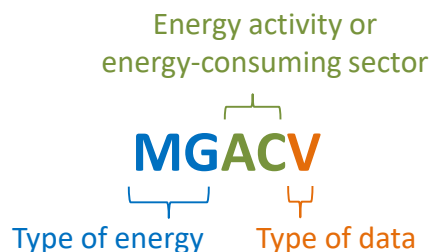


## Appendix A. Mnemonic series names (MSN)

This appendix contains alphabetical listings of the State Energy Data System (SEDS) energy price and expenditure variables, called MSNs. Table A1 presents the price and expenditure variables and Table A2 presents the consumption adjustment variables as described in Section 7, “Consumption adjustments for calculating expenditures.”

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.

In general, state-level price estimates are independent variables in dollars per million Btu. Estimates of state-level expenditures are equal to the product of the appropriate SEDS consumption estimates by the corresponding prices, in million dollars. The SEDS price and expenditure estimates are in current U.S. dollars and are not adjusted for inflation. For the expenditure calculations, the SEDS consumption data are adjusted for process fuel, intermediate products, and fuels with no direct cost (see discussion in Section 7). Expenditures for the United States are the sum

of the 50 states and the District of Columbia. Prices for the United States are the sum of the states’ expenditures divided by the sum of the states’ consumption or adjusted consumption, converted to dollars per million Btu.

If the consumption variables in a formula are taken directly from the SEDS consumption module (and not adjusted for expenditure calculations), they are listed in Appendix A of the consumption technical notes ([https://www.eia.gov/state/seds/sep\\_use/notes/use\\_a.pdf](https://www.eia.gov/state/seds/sep_use/notes/use_a.pdf)) and are not reproduced in this appendix. Generally, if the third and fourth letters of the consumption variables are the same as the corresponding price and expenditure variables, they are from the consumption module. Examples are: TC (total consumption in all energy-consuming sectors), TX (total consumption in all end-use sectors), RC (residential consumption), CC (commercial consumption), IC (industrial consumption), AC (transportation consumption), and EI (electric power sector consumption).

Table A1. Price and expenditure variables

MSN	Description	Unit	Formula
ARICD	Asphalt and road oil price in the industrial sector.	Dollars per million Btu	ARICDZZ is independent. $ARICDUS = ARICVUS / ARICBUS * 1000$
ARICV	Asphalt and road oil expenditures in the industrial sector.	Million dollars	$ARICVZZ = ARICBZZ * ARICDZZ / 1000$ $ARICVUS = \Sigma ARICVZZ$
ARTCD	Asphalt and road oil average price, all sectors.	Dollars per million Btu	$ARTCD = ARICD$
ARTCV	Asphalt and road oil total expenditures.	Million dollars	$ARTCV = ARICV$
ARTXD	Asphalt and road oil average price, all end-use sectors.	Dollars per million Btu	$ARTXD = ARTXV / ARTXB * 1000$
ARTXV	Asphalt and road oil total end-use expenditures.	Million dollars	$ARTXV = ARICV$
AVACD	Aviation gasoline price in the transportation sector.	Dollars per million Btu	AVACDZZ is independent. $AVACDUS = AVACVUS / AVACBUS * 1000$
AVACV	Aviation gasoline expenditures in the transportation sector.	Million dollars	$AVACVZZ = AVACBZZ * AVACDZZ / 1000$ $AVACVUS = \Sigma AVACVZZ$
AVTCD	Aviation gasoline average price, all sectors.	Dollars per million Btu	$AVTCD = AVACD$
AVTCV	Aviation gasoline total expenditures.	Million dollars	$AVTCV = AVACV$
AVTXD	Aviation gasoline average price, all end-use sectors.	Dollars per million Btu	$AVTXD = AVTXV / AVTXB * 1000$
AVTXV	Aviation gasoline total end-use expenditures.	Million dollars	$AVTXV = AVACV$
BMCAS	Biomass generating units capacity factor.	Percent	BMCASZZ is independent. BMCASUS 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 is independent.
CCEXDUS	Coal coke exports average price, United States.	Dollars per million Btu	CCEXDUS is independent.
CCEXVUS	Coal coke exports expenditures, United States.	Million dollars	$CCEXVUS = CCEXBUS * CCEXDUS / 1000$
CCIMDUS	Coal coke imports average price, United States.	Dollars per million Btu	CCIMDUS is independent.

**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
CCIMVUS	Coal coke imports expenditures, United States.	Million dollars	$CCIMVUS = CCIMBUS * CCIMDUS / 1000$
CCNIVUS	Coal coke net imports expenditures, United States.	Million dollars	$CCNIVUS = CCIMVUS - CCEXVUS$
CLACD	Coal price in the transportation sector.	Dollars per million Btu	CLACDZZ is independent. $CLACDUS = CLACVUS / CLACBUS * 1000$
CLACV	Coal expenditures in the transportation sector.	Million dollars	$CLACVZZ = CLACBZZ * CLACDZZ / 1000$ $CLACVUS = \Sigma CLACVZZ$
CLCAS	Coal generating units capacity factor.	Percent	CLCASZZ is independent. CLCASUS is independent.
CLCCD	Coal price in the commercial sector.	Dollars per million Btu	CLCCDZZ is independent. $CLCCDUS = CLCCVUS / CLCCBUS * 1000$
CLCCV	Coal expenditures in the commercial sector.	Million dollars	$CLCCVZZ = CLCCBZZ * CLCCDZZ / 1000$ $CLCCVUS = \Sigma CLCCVZZ$
CLEID	Coal price in the electric power sector.	Dollars per million Btu	CLEIDZZ is independent. $CLEIDUS = CLEIVUS / CLEIBUS * 1000$
CLEIV	Coal expenditures in the electric power sector.	Million dollars	$CLEIVZZ = CLEIBZZ * CLEIDZZ / 1000$ $CLEIVUS = \Sigma CLEIVZZ$
CLGBP	Coal generating units net summer capacity in all sectors.	Thousand kilowatts	CLGBPZZ is independent. CLGBPUS is independent.
CLICD	Coal price in the industrial sector.	Dollars per million Btu	$CLICD = CLICV / CLISB * 1000$
CLICV	Coal expenditures in the industrial sector.	Million dollars	$CLICVZZ = CLKCVZZ + CLOCVZZ$ $CLICVUS = \Sigma CLICVZZ$
CLKCD	Coal price at coke plants.	Dollars per million Btu	CLKCDZZ is independent. $CLKCDUS = CLKCVUS / CLKCBUS * 1000$
CLKCV	Coal expenditures at coke plants.	Million dollars	$CLKCVZZ = CLKCBZZ * CLKCDZZ / 1000$ $CLKCVUS = \Sigma CLKCVZZ$
CLOCD	Coal price in the industrial sector other than coke plants.	Dollars per million Btu	CLOCDZZ is independent. $CLOCDUS = CLOCVUS / CLOSBUS * 1000$
CLOCV	Coal expenditures in the industrial sector other than coke plants.	Million dollars	$CLOCVZZ = CLOSBZZ * CLOCDZZ / 1000$ $CLOCVUS = \Sigma CLOCVZZ$
CLRCD	Coal price in the residential sector.	Dollars per million Btu	CLRCDZZ is independent. $CLRCDUS = CLRCVUS / CLRCBUS * 1000$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
CLRCV	Coal expenditures in the residential sector.	Million dollars	$CLRCVZZ = CLRCBZZ * CLRCDZZ / 1000$ $CLRCVUS = \Sigma CLRCVZZ$
CLTCD	Coal average price, all sectors.	Dollars per million Btu	$CLTCD = CLTCV / CLSCB * 1000$
CLTCV	Coal total expenditures.	Million dollars	$CLTCV = CLKCV + CLXCV$
CLTXD	Coal average price, all end-use sectors.	Dollars per million Btu	$CLTXD = (CLTXV / (CLSCB - CLEIB)) * 1000$
CLTXV	Coal total end-use expenditures.	Million dollars	$CLTXVZZ = CLACVZZ + CLCCVZZ + CLICVZZ + CLRCVZZ$ $CLTXVUS = \Sigma CLTXVZZ$
CLXCD	Coal average price for all sectors excluding coke plants and refineries.	Dollars per million Btu	$CLXCD = CLXCV / CLXCB * 1000$
CLXCV	Coal expenditures for all sectors excluding coke plants and refineries.	Million dollars	$CLXCVZZ = CLACVZZ + CLCCVZZ + CLEIVZZ + CLOCVZZ + CLRCVZZ$ $CLXCVUS = \Sigma CLXCVZZ$
CYCAS	Natural gas combined cycle generating units capacity factor.	Percent	CYCASZZ is independent. CYCASUS is independent.
DFACD	Distillate fuel oil price in the transportation sector.	Dollars per million Btu	DFACDZZ is independent. $DFACDUS = DFACVUS / DFASBUS * 1000$
DFACV	Distillate fuel oil expenditures in the transportation sector.	Million dollars	$DFACVZZ = DFASBZZ * DFACDZZ / 1000$ $DFACVUS = \Sigma DFACVZZ$
DFCCD	Distillate fuel oil price in the commercial sector.	Dollars per million Btu	DFCCDZZ is independent. $DFCCDUS = DFCCVUS / DFCSBUS * 1000$
DFCCV	Distillate fuel oil expenditures in the commercial sector.	Million dollars	$DFCCVZZ = DFCSBZZ * DFCCDZZ / 1000$ $DFCCVUS = \Sigma DFCCVZZ$
DFEID	Distillate fuel oil price in the electric power sector.	Dollars per million Btu	DFEIDZZ is independent. $DFEIDUS = DFEIVUS / DFEIBUS * 1000$
DFEIV	Distillate fuel oil expenditures in the electric power sector.	Million dollars	$DFEIVZZ = DFEIBZZ * DFEIDZZ / 1000$ $DFEIVUS = \Sigma DFEIVZZ$
DFICD	Distillate fuel oil price in the industrial sector.	Dollars per million Btu	DFICDZZ is independent. $DFICDUS = DFICVUS / DFISBUS * 1000$
DFICV	Distillate fuel oil expenditures in the industrial sector.	Million dollars	$DFICVZZ = DFISBZZ * DFICDZZ / 1000$ $DFICVUS = \Sigma DFICVZZ$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
DFRCD	Distillate fuel oil price in the residential sector.	Dollars per million Btu	DFRCDZZ is independent. $DFRCDUS = DFRCVUS / DFRSBUS * 1000$
DFRCV	Distillate fuel oil expenditures in the residential sector.	Million dollars	$DFRCVZZ = DFRSBZZ * DFRCDZZ / 1000$ $DFRCVUS = \Sigma DFRCVZZ$
DFTCD	Distillate fuel oil average price, all sectors.	Dollars per million Btu	$DFTCD = DFTCV / DFSCB * 1000$
DFTCV	Distillate fuel oil total expenditures.	Million dollars	$DFTCVZZ = DFACVZZ + DFCCVZZ + DFEIVZZ + DFICVZZ + DFRCVZZ$ $DFTCVUS = \Sigma DFTCVZZ$
DFTXD	Distillate fuel oil average price, all end-use sectors.	Dollars per million Btu	$DFTXD = (DFTXV / (DFSCB - DFEIB)) * 1000$
DFTXV	Distillate fuel oil total end-use expenditures.	Million dollars	$DFTXVZZ = DFACVZZ + DFCCVZZ + DFICVZZ + DFRCVZZ$ $DFTXVUS = \Sigma DFTXVZZ$
DKEID	Distillate fuel oil (including kerosene-type jet fuel before 2001) average price in the electric power sector.	Dollars per million Btu	$DKEID = DKEIV / DKEIB * 1000$
DKEIV	Distillate fuel oil (including kerosene-type jet fuel before 2001) expenditures in the electric power sector.	Million dollars	$DKEIVZZ = DFEIVZZ + JFEUVZZ$ $DKEIVUS = \Sigma DKEIVZZ$
ELEXD	Electricity exports average price.	Dollars per million Btu	ELEXD is independent.
ELEXV	Electricity exports expenditures.	Million dollars	$ELEXVZZ = ELEXBZZ * ELEXDZZ / 1000$ $ELEXVUS = \Sigma ELEXVZZ$
ELGBP	Total (all fuels) electric generating units net summer capacity in all sectors.	Thousand kilowatts	ELGBPZZ is independent. ELGBPUS is independent.
ELIMD	Electricity imports average price.	Dollars per million Btu	ELIMD is independent.
ELIMV	Electricity imports expenditures.	Million dollars	$ELIMVZZ = ELIMBZZ * ELIMDZZ / 1000$ $ELIMVUS = \Sigma ELIMVZZ$
ELVHN	Total electric vehicle (EV) light-duty stocks.	Thousands of registered vehicles	$ELVHNZZ = BTVHNZZ + PHVHNZZ$
ELVHS	Electric vehicle (EV) share of total light-duty vehicles.	Percent	$ELVHSZZ = ELVHNZZ / LDVHNZZ * 100$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
EMACV	Fuel ethanol, excluding denaturant, expenditures in the transportation sector (through 1992).	Million dollars	EMACVZZ = EMACBZZ * MGACDZZ / 1000 EMACVUS = ΣEMACVZZ
EMCCV	Fuel ethanol, excluding denaturant, expenditures in the commercial sector (through 1992).	Million dollars	EMCCVZZ = EMCCBZZ * MGCCDZZ / 1000 EMCCVUS = ΣEMCCVZZ
EMICV	Fuel ethanol, excluding denaturant, expenditures in the industrial sector (through 1992).	Million dollars	EMICVZZ = EMICBZZ * MGACDZZ / 1000 EMICVUS = ΣEMICVZZ
EMTCV	Fuel ethanol, excluding denaturant, total expenditures (through 1992).	Million dollars	EMTCVZZ = EMACVZZ + EMCCVZZ + EMICVZZ EMTCVUS = ΣEMTCVZZ
ESACD	Electricity price in the transportation sector.	Dollars per million Btu	ESACDZZ is independent. ESACDUS = ESACVUS / ESACBUS * 1000
ESACV	Electricity expenditures in the transportation sector.	Million dollars	ESACVZZ = ESACBZZ * ESACDZZ / 1000 ESACVUS = ΣESACVZZ
ESCCD	Electricity price in the commercial sector.	Dollars per million Btu	ESCCDZZ is independent. ESCCDUS = ESCCVUS / ESCCBUS * 1000
ESCCV	Electricity expenditures in the commercial sector.	Million dollars	ESCCVZZ = ESCCBZZ * ESCCDZZ / 1000 ESCCVUS = ΣESCCVZZ
ESICD	Electricity price in the industrial sector.	Dollars per million Btu	ESICDZZ is independent. ESICDUS = ESICVUS / ESISBUS * 1000
ESICV	Electricity expenditures in the industrial sector.	Million dollars	ESICVZZ = ESISBZZ * ESICDZZ / 1000 ESICVUS = ΣESICVZZ
ESRCD	Electricity price in the residential sector.	Dollars per million Btu	ESRCDZZ is independent. ESRCDUS = ESRCVUS / ESRCBUS * 1000
ESRCV	Electricity expenditures in the residential sector.	Million dollars	ESRCVZZ = ESRCBZZ * ESRCDZZ / 1000 ESRCVUS = ΣESRCVZZ
ESTCD	Electricity average price, all sectors.	Dollars per million Btu	ESTCD = ESTCV / ESSCB * 1000
ESTCV	Electricity total expenditures.	Million dollars	ESTCVZZ = ESACVZZ + ESCCVZZ + ESICVZZ + ESRCVZZ ESTCVUS = ΣESTCVZZ
ESTXD	Electricity average price, all end-use sectors.	Dollars per million Btu	ESTXD = ESTXV / ESSCB * 1000

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
ESTXV	Electricity total end-use expenditures.	Million dollars	ESTXVZZ = ESACVZZ + ESCCVZZ + ESICVZZ + ESRCVZZ ESTXVUS = $\Sigma$ ESTXVZZ
FFGBP	Fossil fuel total generating units net summer capacity in all sectors.	Thousand kilowatts	FFGBPZZ is independent. FFGBPUS is independent.
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.
EVDN	DC fast charging ports for electric vehicles.	Number	EVDNZZ is independent. EVDNUS is independent.
EVDNCR	DC fast charging ports per location.	Number	EVDNCRZZ is independent. EVDNCRUS 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.

**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
FNICD	Petrochemical feedstocks, naphtha less than 401° F, price in the industrial sector.	Dollars per million Btu	FNICDZZ is independent. FNICDUS = FNICVUS / FNICBUS * 1000
FNICV	Petrochemical feedstocks, naphtha less than 401° F, expenditures in the industrial sector.	Million dollars	FNICVZZ = FNICBZZ * FNICDZZ / 1000 FNICVUS = ΣFNICVZZ
FOICD	Petrochemical feedstocks, other oils equal to or greater than 401° F, price in the industrial sector.	Dollars per million Btu	FOICDZZ is independent. FOICDUS = FOICVUS / FOICBUS * 1000
FOICV	Petrochemical feedstocks, other oils equal to or greater than 401° F, expenditures in industrial sector.	Million dollars	FOICVZZ = FOICBZZ * FOICDZZ / 1000 FOICVUS = ΣFOICVZZ
FSICD	Petrochemical feedstocks, still gas, price in the industrial sector (through 1985).	Dollars per million Btu	FSICDZZ is independent. FSICDUS = FSICVUS / FSICBUS * 1000
FSICV	Petrochemical feedstocks, still gas, expenditures in the industrial sector (through 1985).	Million dollars	FSICVZZ = FSICBZZ * FSICDZZ / 1000 FSICVUS = ΣFSICVZZ
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.
GECAS	Geothermal generating units capacity factor.	Percent	GECASZZ is independent. GECASUS is independent.
GEGBP	Geothermal generating units net summer capacity in all sectors.	Thousand kilowatts	GEGBPZZ is independent. GEGBPUS is independent.
HLACD	Hydrocarbon gas liquids price in the transportation sector.	Dollars per million Btu	Before 2010: HLACDZZ is independent. HLACDUS = HLACVUS / HLACBUS * 1000 2010 forward: HLACDZZ = PQACDZZ HLACDUS = HLACVUS / HLACBUS * 1000
HLACV	Hydrocarbon gas liquids expenditures in the transportation sector.	Million dollars	HLACVZZ = HLACBZZ * HLACDZZ / 1000 HLACVUS = ΣHLACVZZ



**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
HLCCD	Hydrocarbon gas liquids price in the commercial sector.	Dollars per million Btu	Before 2010: HLCCDZZ is independent. $HLCCDUS = HLCCVUS / HLCCBUS * 1000$ 2010 forward: $HLCCDZZ = PQCCDZZ$ $HLCCDUS = HLCCVUS / HLCCBUS * 1000$
HLCCV	Hydrocarbon gas liquids expenditures in the commercial sector.	Million dollars	$HLCCVZZ = HLCCBZZ * HLCCDZZ / 1000$ $HLCCVUS = \Sigma HLCCVZZ$
HLICD	Hydrocarbon gas liquids price in the industrial sector.	Dollars per million Btu	Before 2010: HLICDZZ is independent. $HLICDUS = HLICVUS / HLISBUS * 1000$ 2010 forward: $HLICD = HLICV / HLISB * 1000$
HLICV	Hydrocarbon gas liquids expenditures in the industrial sector.	Million dollars	Before 2010: $HLICVZZ = HLISBZZ * HLICDZZ$ $HLICVUS = \Sigma HLICVZZ$ 2010 forward: $HLICVZZ = OHICVZZ + PQICVZZ$ $HLICVUS = \Sigma HLICVZZ$
HLRCD	Hydrocarbon gas liquids price in the residential sector.	Dollars per million Btu	Before 2010: HLRCDZZ is independent. $HLRCDUS = HLRCVUS / HLRCBUS * 1000$ 2010 forward: $HLRCDZZ = PQRCDZZ$ $HLRCDUS = HLRCVUS / HLRCBUS * 1000$
HLRCV	Hydrocarbon gas liquids expenditures in the residential sector.	Million dollars	$HLRCVZZ = HLRCBZZ * HLRCDZZ / 1000$ $HLRCVUS = \Sigma HLRCVZZ$
HLTCD	Hydrocarbon gas liquids average price, all sectors.	Dollars per million Btu	$HLTCD = HLTCV / HLSCB * 1000$
HLTCV	Hydrocarbon gas liquids total expenditures.	Million dollars	$HLTCVZZ = HLACVZZ + HLCCVZZ + HLICVZZ + HLRCVZZ$ $HLTCVUS = \Sigma HLTCVZZ$
HLTXD	Hydrocarbon gas liquids average price, all end-use sectors.	Dollars per million Btu	$HLTXD = HLTXV / HLSCB * 1000$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
HLTXV	Hydrocarbon gas liquids total end-use expenditures.	Million dollars	HLTXVZZ = HLACVZZ + HLCCVZZ + HLICVZZ + HLRCVZZ HLTXVUS = $\Sigma$ HLTXVZZ
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.
HVCAS	Conventional hydroelectric generating units capacity factor.	Percent	HVCASZZ is independent. HVCASUS is independent.
HVGBP	Conventional hydroelectric power generating units net summer capacity in all sectors.	Thousand kilowatts	HVGBPZZ is independent. HVGBPUS is independent.
JFACD	Jet fuel price in the transportation sector.	Dollars per million Btu	JFACDZZ is independent. JFACDUS = JFACVUS / JFACBUS * 1000
JFACV	Jet fuel expenditures in the transportation sector.	Million dollars	JFACVZZ = JFACBZZ * JFACDZZ / 1000 JFACVUS = $\Sigma$ JFACVZZ
JFEUD	Jet fuel price in the electric power sector (1972 through 1982 only).	Dollars per million Btu	JFEUDZZ is independent. JFEUDUS = JFEUVUS / JFEUBZZ * 1000
JFEUV	Jet fuel expenditures in the electric power sector (1972 through 1982 only).	Million dollars	JFEUVZZ = JFEUBZZ * JFEUDZZ / 1000 JFEUVUS = $\Sigma$ JFEUVZZ
JFTCD	Jet fuel average price, all sectors.	Dollars per million Btu	JFTCD = JFTCV / JFTCB * 1000
JFTCV	Jet fuel total expenditures.	Million dollars	JFTCVZZ = JFACVZZ + JFEUVZZ JFTCVUS = $\Sigma$ JFTCVZZ
JFTXD	Jet fuel average price, all end-use sectors.	Dollars per million Btu	JFTXD = JFTXV / JFTXB * 1000
JFTXV	Jet fuel total end-use expenditures.	Million dollars	JFTXVZZ = JFACVZZ JFTXVUS = $\Sigma$ JFTXVZZ
KSCCD	Kerosene price in the commercial sector.	Dollars per million Btu	KSCCDZZ is independent. KSCCDUS = KSCCVUS / KSCCBUS * 1000
KSCCV	Kerosene expenditures in the commercial sector.	Million dollars	KSCCVZZ = KSCCBZZ * KSCCDZZ / 1000 KSCCVUS = $\Sigma$ KSCCVZZ
KSICD	Kerosene price in the industrial sector.	Dollars per million Btu	KSICDZZ is independent. KSICDUS = KSICVUS / KSICBUS * 1000

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
KSICV	Kerosene expenditures in the industrial sector.	Million dollars	$KSICVZZ = KSICBZZ * KSICDZZ / 1000$ $KSICVUS = \sum KSICVZZ$
KSRCD	Kerosene price in the residential sector.	Dollars per million Btu	KSRCDZZ is independent. $KSRCDUS = KSRCVUS / KSRCBUS * 1000$
KSRCV	Kerosene expenditures in the residential sector.	Million dollars	$KSRCVZZ = KSRCBZZ * KSRCDZZ / 1000$ $KSRCVUS = \sum KSRCVZZ$
KSTCD	Kerosene average price, all sectors.	Dollars per million Btu	$KSTCD = KSTCV / KSTCB * 1000$
KSTCV	Kerosene total expenditures.	Million dollars	$KSTCVZZ = KSCCVZZ + KSICVZZ + KSRCVZZ$ $KSTCVUS = \sum KSTCVZZ$
KSTXD	Kerosene average price, all end-use sectors.	Dollars per million Btu	$KSTXD = KSTXV / KSTXB * 1000$
KSTXV	Kerosene total end-use expenditures.	Million dollars	$KSTXVZZ = KSCCVZZ + KSICVZZ + KSRCVZZ$ $KSTXVUS = \sum KSTXVZZ$
LDVHN	Total (all fuels) vehicle light-duty stocks.	Thousands of registered vehicles	LDVHNZZ is independent. LDVHNUS is independent.
LUACD	Lubricants price in the transportation sector.	Dollars per million Btu	LUACDZZ is independent. $LUACDUS = LUACVUS / LUACBUS * 1000$
LUACV	Lubricants expenditures in the transportation sector.	Million dollars	$LUACVZZ = LUACBZZ * LUACDZZ / 1000$ $LUACVUS = \sum LUACVZZ$
LUICD	Lubricants price in the industrial sector.	Dollars per million Btu	LUICDZZ is independent. $LUICDUS = LUICVUS / LUICBUS * 1000$
LUICV	Lubricants expenditures in the industrial sector.	Million dollars	$LUICVZZ = LUICBZZ * LUICDZZ / 1000$ $LUICVUS = \sum LUICVZZ$
LUTCD	Lubricants average price, all sectors.	Dollars per million Btu	$LUTCD = LUTCV / LUTCB * 1000$
LUTCV	Lubricants total expenditures.	Million dollars	$LUTCVZZ = LUACVZZ + LUICVZZ$ $LUTCVUS = \sum LUTCVZZ$
LUTXD	Lubricants average price, all end-use sectors.	Dollars per million Btu	$LUTXD = LUTXV / LUTXB * 1000$
LUTXV	Lubricants total end-use expenditures.	Million dollars	$LUTXVZZ = LUACVZZ + LUICVZZ$ $LUTXVUS = \sum LUTXVZZ$
MGACD	Motor gasoline price in the transportation sector.	Dollars per million Btu	MGACDZZ is independent. $MGACDUS = MGACVUS / MGACBUS * 1000$
MGACV	Motor gasoline expenditures in the transportation sector.	Million dollars	$MGACVZZ = MGACBZZ * MGACDZZ / 1000$ $MGACVUS = \sum MGACVZZ$

**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
MGCCD	Motor gasoline price in the commercial sector.	Dollars per million Btu	MGCCDZZ is independent. $MGCCDUS = MGCCVUS / MGCCBUS * 1000$
MGCCV	Motor gasoline expenditures in the commercial sector.	Million dollars	$MGCCVZZ = MGCCBZZ * MGCCDZZ / 1000$ $MGCCVUS = \Sigma MGCCVZZ$
MGICD	Motor gasoline price in the industrial sector.	Dollars per million Btu	MGICDZZ is independent. $MGICDUS = MGICVUS / MGICBUS * 1000$
MGICV	Motor gasoline expenditures in the industrial sector.	Million dollars	$MGICVZZ = MGICBZZ * MGICDZZ / 1000$ $MGICVUS = \Sigma MGICVZZ$
MGTC	Motor gasoline average price, all sectors.	Dollars per million Btu	$MGTC = MGTCV / MGTCB * 1000$
MGTCV	Motor gasoline total expenditures.	Million dollars	$MGTCVZZ = MGACVZZ + MGCCVZZ + MGICVZZ$ $MGTCVUS = \Sigma MGTCVZZ$
MGTPV	Motor gasoline expenditures per capita.	Million dollars	$MGTPV = MGTCV / TPOPP * 1000$
MGTXD	Motor gasoline average price, all end-use sectors.	Dollars per million Btu	$MGTXD = MGTXV / MGTXB * 1000$
MGTXV	Motor gasoline total end-use expenditures.	Million dollars	$MGTXVZZ = MGACVZZ + MGCCVZZ + MGICVZZ$ $MGTXVUS = \Sigma MGTXVZZ$
MSICD	Miscellaneous petroleum products price in the industrial sector.	Dollars per million Btu	MSICDZZ is independent. $MSICDUS = MSICVUS / MSICBUS * 1000$
MSICV	Miscellaneous petroleum products expenditures in the industrial sector.	Million dollars	$MSICVZZ = MSICBZZ * MSICDZZ / 1000$ $MSICVUS = \Sigma MSICVZZ$
NGACD	Natural gas price in the transportation sector.	Dollars per million Btu	NGACDZZ is independent. $NGACDUS = NGACVUS / NGASBUS * 1000$
NGACV	Natural gas expenditures in the transportation sector.	Million dollars	$NGACVZZ = NGASBZZ * NGACDZZ / 1000$ $NGACVUS = \Sigma NGACVZZ$
NGCCD	Natural gas price in the commercial sector (including supplemental gaseous fuels).	Dollars per million Btu	NGCCDZZ is independent. $NGCCDUS = NGCCVUS / NGCCBUS * 1000$
NGCCV	Natural gas expenditures in the commercial sector (including supplemental gaseous fuels).	Million dollars	$NGCCVZZ = NGCCBZZ * NGCCDZZ / 1000$ $NGCCVUS = \Sigma NGCCVZZ$
NGEID	Natural gas price in the electric power sector (including supplemental gaseous fuels).	Dollars per million Btu	NGEIDZZ is independent. $NGEIDUS = NGEIVUS / NGEIBUS * 1000$
NGEIV	Natural gas expenditures in the electric power sector (including supplemental gaseous fuels).	Million dollars	$NGEIVZZ = NGEIBZZ * NGEIDZZ / 1000$ $NGEIVUS = \Sigma NGEIVZZ$

**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
NGGBP	Natural gas generating units net summer capacity in all sectors.	Thousand kilowatts	NGGBPZZ is independent. NGGBPUS is independent.
NGICD	Natural gas price in the industrial sector (including supplemental gaseous fuels).	Dollars per million Btu	NGICDZZ is independent. $NGICDUS = NGICVZZ / NGISBZZ * 1000$
NGICV	Natural gas expenditures in the industrial sector (including supplemental gaseous fuels).	Million dollars	$NGICVZZ = NGISBZZ * NGICDZZ / 1000$ $NGICVUS = \Sigma NGICVZZ$
NGRCD	Natural gas price in the residential sector (including supplemental gaseous fuels).	Dollars per million Btu	NGRCDZZ is independent. $NGRCDUS = NGRCVZZ / NGRCBZZ * 1000$
NGRCV	Natural gas expenditures in the residential sector (including supplemental gaseous fuels).	Million dollars	$NGRCVZZ = NGRCBZZ * NGRCDZZ / 1000$ $NGRCVUS = \Sigma NGRCVZZ$
NGTCD	Natural gas average price, all sectors (including supplemental gaseous fuels).	Dollars per million Btu	$NGTCD = NGTCV / NGSCB * 1000$
NGTCV	Natural gas total expenditures (including supplemental gaseous fuels).	Million dollars	$NGTCVZZ = NGACVZZ + NGCCVZZ + NGEIVZZ + NGICVZZ + NGRCVZZ$ $NGTCVUS = \Sigma NGTCVZZ$
NGTXD	Natural gas average price, all end-use sectors (including supplemental gaseous fuels).	Dollars per million Btu	$NGTXD = (NGTXV / (NGSCB - NGEIB)) * 1000$
NGTXV	Natural gas total end-use expenditures (including supplemental gaseous fuels).	Million dollars	$NGTXVZZ = NGACVZZ + NGCCVZZ + NGICVZZ + NGRCVZZ$ $NGTXVUS = \Sigma NGTXVZZ$
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.
NUEGD	Nuclear fuel price in the electric power sector.	Dollars per million Btu	NUEGDZZ is independent. $NUEGDUS = NUEGVUS / NUEGBUS * 1000$
NUEGV	Nuclear fuel expenditures in the electric power sector.	Million dollars	$NUEGVZZ = NUEGBZZ * NUEGDZZ / 1000$ $NUEGVUS = \Sigma NUEGVZZ$
NUETD	Nuclear fuel average price, all sectors.	Dollars per million Btu	$NUETD = NUETV / NUETB * 1000$
NUETV	Nuclear fuel total expenditures.	Million dollars	$NUETVZZ = NUEGVZZ$ $NUETVUS = \Sigma NUETVZZ$
NUGBP	Nuclear generating units net summer capacity in all sectors.	Thousand kilowatts	NUGBPZZ is independent. NUGBPUS is independent.

**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
NYCAS	Natural gas conventional steam generating units capacity factor.	Percent	NYCASZZ is independent. NYCASUS is independent.
OHICD	Other hydrocarbon gas liquids (other than propane) price in the industrial sector.	Dollars per million Btu	OHICDZZ is independent. $OHICDUS = OHICVUS / OHICBZZ * 1000$
OHICV	Other hydrocarbon gas liquids (other than propane) expenditures in the industrial sector.	Million dollars	$OHICVZZ = OHICBZZ * OHICDZZ / 1000$ $OHICVUS = \Sigma OHICVZZ$
OJGBP	Other gases generating units net summer capacity in all sectors.	Thousand kilowatts	OJGBPZZ is independent. OJGBPUS is independent.
OPICD	Other petroleum products average price in the industrial sector.	Dollars per million Btu	$OPICD = OPICV / OPISB * 1000$
OPICV	Other petroleum products total expenditures in the industrial sector.	Million dollars	$OPICVZZ = FNICVZZ + FOICVZZ + FSICVZZ + MSICVZZ + SNICVZZ + WXICVZZ$ $OPICVUS = \Sigma OPICVZZ$
OPTCD	Other petroleum products average price, all sectors.	Dollars per million Btu	$OPTCD = OPTCV / OPSCB * 1000$
OPTCV	Other petroleum products total expenditures.	Million dollars	$OPTCVZZ = OPICVZZ$ $OPTCVUS = \Sigma OPTCVZZ$
OPTXD	Other petroleum products average price, all end-use sectors.	Dollars per million Btu	$OPTXD = OPTXV / OPSCB * 1000$
OPTXV	Other petroleum products total end-use expenditures.	Million dollars	$OPTXVZZ = OPICVZZ$ $OPTXVUS = \Sigma OPTXVZZ$
OTGBP	Other generating units net summer capacity in all sectors.	Thousand kilowatts	OTGBPZZ is independent. OTGBPUS is independent.
P1ICD	Asphalt and road oil, kerosene, lubricants, petroleum coke, and “other petroleum products” average price in the industrial sector.	Dollars per million Btu	$P1ICD = P1ICV / P1ISB * 1000$
P1ICV	Asphalt and road oil, kerosene, lubricants, petroleum coke, and “other petroleum products” expenditures in the industrial sector.	Million dollars	$P1ICVZZ = ARICVZZ + KSICVZZ + LUICVZZ + OPICVZZ + PCICVZZ$ $P1ICVUS = \Sigma P1ICVZZ$
P1TCD	Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” average price, all sectors.	Dollars per million Btu	$P1TCD = P1TCV / P1SCB * 1000$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
P1TCV	Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” total expenditures.	Million dollars	$P1TCVZZ = ARTCVZZ + AVTCVZZ + KSTCVZZ + LUTCVZZ + OPTCVZZ + PCTCVZZ$ $P1TCVUS = \Sigma P1TCVZZ$
P1TXD	Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” average price, all end-use sectors.	Dollars per million Btu	$P1TXD = (P1TXV / (P1SCB - PCEIB)) * 1000$
P1TXV	Asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and “other petroleum products” total end-use expenditures.	Million dollars	$P1TXVZZ = P1TCVZZ - PCEIVZZ$ $P1TXVUS = \Sigma P1TXVZZ$
PAACD	All petroleum products average price in the transportation sector.	Dollars per million Btu	$PAACD = PAACV / PAASB * 1000$
PAACV	All petroleum products total expenditures in the transportation sector.	Million dollars	$PAACVZZ = AVACVZZ + DFACVZZ + HLACVZZ + JFACVZZ + LUACVZZ + MGACVZZ + RFACVZZ$ $PAACVUS = \Sigma PAACVZZ$
PACAS	Petroleum generating units capacity factor.	Percent	PACASZZ is independent. PACASUS is independent.
PACCD	All petroleum products average price in the commercial sector.	Dollars per million Btu	$PACCD = PACCV / PACCB * 1000$
PACCV	All petroleum products total expenditures in the commercial sector.	Million dollars	$PACCVZZ = DFCCVZZ + HLCCVZZ + KSCCVZZ + MGCCVZZ + PCCCVZZ + RFCCVZZ$ $PACCVUS = \Sigma PACCVZZ$
PAEID	All petroleum products average price in the electric power sector.	Dollars per million Btu	$PAEID = PAEIV / PAEIB * 1000$
PAEIV	All petroleum products total expenditures in the electric power sector.	Million dollars	$PAEIVZZ = DKEIVZZ + PCEIVZZ + RFEIVZZ$ $PAEIVUS = \Sigma PAEIVZZ$
PAGBP	Petroleum generating units net summer capacity in all sectors.	Thousand kilowatts	PAGBPZZ is independent. PAGBPUS is independent.
PAICD	All petroleum products average price in the industrial sector.	Dollars per million Btu	$PAICD = PAICV / PAISB * 1000$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
PAICV	All petroleum products total expenditures in the industrial sector.	Million dollars	$PAICVZZ = ARICVZZ + DFICVZZ + HLICVZZ + KSICVZZ + LUICVZZ + MGICVZZ + OPICVZZ + PCICVZZ + RFICVZZ$ $PAICVUS = \Sigma PAICVZZ$
PARCD	All petroleum products average price in the residential sector.	Dollars per million Btu	$PARCD = PARCV / PARCB * 1000$
PARCV	All petroleum products total expenditures in the residential sector.	Million dollars	$PARCVZZ = DFRCVZZ + HLRCVZZ + KSRCVZZ$ $PARCVUS = \Sigma PARCVZZ$
PATCD	All petroleum products average price, all sectors.	Dollars per million Btu	$PATCD = PATCV / PASCB * 1000$
PATCV	All petroleum products total expenditures.	Million dollars	$PATCVZZ = ARTCVZZ + AVTCVZZ + DFTCVZZ + HLTVCVZZ + JFTCVZZ + KSTCVZZ + LUTCVZZ + MGTCVZZ + OPTCVZZ + PCTCVZZ + RFTCVZZ$ $PATCVUS = \Sigma PATCVZZ$
PATXD	All petroleum products average price, all end-use sectors.	Dollars per million Btu	$PATXD = (PATXV / (PASCB - PAEIB)) * 1000$
PATXV	All petroleum products total end-use expenditures.	Million dollars	$PATXVZZ = ARTXVZZ + AVTXVZZ + DFTXVZZ + HLTXVZZ + JFTXVZZ + KSTXVZZ + LUTXVZZ + MGTXVZZ + OPTXVZZ + PCTXVZZ + RFTXVZZ$ $PATXVUS = \Sigma PATXVZZ$
PCCCD	Petroleum coke price in the commercial sector.	Dollars per million Btu	PCCCDZZ is independent. $PCCCDUS = PCCCVUS / PCCCBUS * 1000$
PCCCV	Petroleum coke expenditures in the commercial sector.	Million dollars	$PCCCVZZ = PCCCBZZ * PCCCDZZ / 1000$ $PCCCVUS = \Sigma PCCCVZZ$
PCEID	Petroleum coke price in the electric power sector.	Dollars per million Btu	PCEIDZZ is independent. $PCEIDUS = PCEIVUS / PCEIBUS * 1000$
PCEIV	Petroleum coke expenditures in the electric power sector.	Million dollars	$PCEIVZZ = PCEIBZZ * PCEIDZZ / 1000$ $PCEIVUS = \Sigma PCEIVZZ$
PCI3D	Price of petroleum coke consumed by the industrial CHP and electricity-only plants.	Dollars per million Btu	PCI3DZZ is independent. $PCI3DUS = PCI3VUS / PCI3BUS * 1000$
PCI3V	Expenditures of petroleum coke consumed by the industrial CHP and electricity-only plants.	Million dollars	$PCI3VZZ = PCI3BZZ * PCI3DZZ / 1000$ $PCI3VUS = \Sigma PCI3VZZ$
PCICD	Petroleum coke price in the industrial sector.	Dollars per million Btu	$PCICD = PCICV / PCISB * 1000$



Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
PCICV	Petroleum coke expenditures in the industrial sector.	Million dollars	PCICVZZ = PCI3VZZ + PCOCVZZ PCICVUS = $\Sigma$ PCICVZZ
PCOCD	Petroleum coke price in the industrial sector other than for refinery use and CHP.	Dollars per million Btu	PCOCDZZ is independent. PCOCDUS = PCOCVUS / PCOCBUS * 1000
PCOCV	Petroleum coke expenditures in the industrial sector other than for refinery use and CHP.	Million dollars	PCOCVZZ = PCOCBZZ * PCOCDZZ / 1000 PCOCVUS = $\Sigma$ PCOCVZZ
PCTCD	Petroleum coke average price, all sectors.	Dollars per million Btu	PCTCD = PCTCV / PCSCB * 1000
PCTCV	Petroleum coke total expenditures.	Million dollars	PCTCVZZ = PCCCVZZ + PCEIVZZ + PCICVZZ PCTCVUS = $\Sigma$ PCTCVZZ
PCTXD	Petroleum coke average price, all end-use sectors.	Dollars per million Btu	PCTXD = PCTXV / (PCSCB - PCEIB) * 1000
PCTXV	Petroleum coke total end-use expenditures.	Million dollars	PCTXVZZ = PCCCVZZ + PCICVZZ PCTXVUS = $\Sigma$ PCTXVZZ
PEACD	Primary energy average price in the transportation sector.	Dollars per million Btu	PEACD = PEACV / PEASB * 1000
PEACV	Primary energy total expenditures in the transportation sector.	Million dollars	Before 1993: PEACVZZ = CLACVZZ + EMACVZZ + NGACVZZ + PAACVZZ PEACVUS = $\Sigma$ PEACVZZ 1993 forward: PEACVZZ = CLACVZZ + NGACVZZ + PAACVZZ PEACVUS = $\Sigma$ PEACVZZ
PECCD	Primary energy average price in the commercial sector.	Dollars per million Btu	PECCD = PECCV / PECSB * 1000
PECCV	Primary energy total expenditures in the commercial sector.	Million dollars	Before 1993: PECCVZZ = CLCCVZZ + EMCCVZZ + NGCCVZZ + PACCVZZ + WWCCVZZ PECCVUS = $\Sigma$ PECCVZZ 1993 forward: PECCVZZ = CLCCVZZ + NGCCVZZ + PACCVZZ + WWCCVZZ PECCVUS = $\Sigma$ PECCVZZ
PEEIB	Primary energy consumed by the electric power sector.	Billion Btu	PEEIBZZ = CLEIBZZ + NGEIBZZ + NUEGBZZ + PAEIBZZ + WWEIBZZ + ELIMBZZ PEEIBUS = $\Sigma$ PEEIBZZ

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
PEEID	Primary energy average price in the electric power sector.	Dollars per million Btu	$PEEID = PEEIV / PEEIB * 1000$
PEEIV	Primary energy total expenditures in the electric power sector.	Million dollars	$PEEIVZZ = CLEIVZZ + ELIMVZZ + NGEIVZZ + NUEGVZZ + PAEIVZZ + WWEIVZZ$ $PEEIVUS = \Sigma PEEIVZZ$
PEICD	Primary energy average price in the industrial sector.	Dollars per million Btu	$PEICD = PEICV / PEISB * 1000$
PEICV	Primary energy total expenditures in the industrial sector.	Million dollars	Before 1993: $PEICVZZ = CLICVZZ + EMICVZZ + NGICVZZ + PAICVZZ + WWICVZZ$ $PEICVUS = \Sigma PEICVZZ + CCNIVUS$ 1993 forward: $PEICVZZ = CLICVZZ + NGICVZZ + PAICVZZ + WWICVZZ$ $PEICVUS = \Sigma PEICVZZ + CCNIVUS$
PERCD	Primary energy average price in the residential sector.	Dollars per million Btu	$PERCD = PERCV / PERSB * 1000$
PERCV	Primary energy total expenditures in the residential sector.	Million dollars	$PERCVZZ = CLRCVZZ + NGRCVZZ + PARCVZZ + WDRCVZZ$ $PERCVUS = \Sigma PERCVZZ$
PESSD	Primary energy average price, all end-use sectors.	Dollars per million Btu	$PESSD = PESSV / PESSB * 1000$
PESSV	Primary energy total end-use expenditures.	Million dollars	$PESSVZZ = PEACVZZ + PECCVZZ + PEICVZZ + PERCVZZ$ $PESSVUS = \Sigma PESSVZZ + CCNIVUS$
PETCD	Primary energy average price, all sectors.	Dollars per million Btu	$PETCD = PETCV / PESCB * 1000$
PETCV	Primary energy total expenditures.	Million dollars	$PETCVZZ = PEEIVZZ + PESSVZZ$ $PETCVUS = \Sigma PETCVZZ + CCNIVUS$
PETXD	Primary energy average price, all end-use sectors.	Dollars per million Btu	$PETXD = (PETXV / (PESCB - PEEIB)) * 1000$
PETXV	Primary energy total end-use expenditures.	Million dollars	$PETXVZZ = PEACVZZ + PECCVZZ + PEICVZZ + PERCVZZ$ $PETXVUS = \Sigma PETXVZZ + CCNIVUS$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
PHVHN	Plug-in hybrid electric vehicle (PHEV) light-duty stocks.	Thousands of registered vehicles	PHVHNZZ is independent. PHVHNUS is independent.
PQACD	Propane price in the transportation sector.	Dollars per million Btu	PQACDZZ is independent. $PQACDUS = PQACVUS / PQACBUS * 1000$
PQACV	Propane expenditures in the transportation sector.	Million dollars	$PQACVZZ = PQACBZZ * PQACDZZ / 1000$ $PQACVUS = \Sigma PQACVZZ$
PQCCD	Propane price in the commercial sector.	Dollars per million Btu	PQCCDZZ is independent. $PQCCDUS = PQCCVUS / PQCCBUS * 1000$
PQCCV	Propane expenditures in the commercial sector.	Million dollars	$PQCCVZZ = PQCCBZZ * PQCCDZZ / 1000$ $PQCCVUS = \Sigma PQCCVZZ$
PQICD	Propane price in the industrial sector.	Dollars per million Btu	PQICDZZ is independent. $PQICDUS = PQICVUS / PQISBUS * 1000$
PQICV	Propane expenditures in the industrial sector.	Million dollars	$PQICVZZ = PQISBZZ * PQICDZZ / 1000$ $PQICVUS = \Sigma PQICVZZ$
PQRCD	Propane price in the residential sector.	Dollars per million Btu	PQRCDZZ is independent. $PQRCDUS = PQRCVUS / PQRCBUS * 1000$
PQRCV	Propane expenditures in the residential sector.	Million dollars	$PQRCVZZ = PQRCBZZ * PQRCDZZ / 1000$ $PQRCVUS = \Sigma PQRCVZZ$
PQTCV	Propane average price, all sectors.	Dollars per million Btu	$PQTCV = PQTCV / PQSCB * 1000$
PQTCV	Propane total expenditures.	Million dollars	$PQTCVZZ = PQACVZZ + PQCCVZZ + PQICVZZ + PQRCVZZ$ $PQTCVUS = \Sigma PQTCVZZ$
PQTXD	Propane average price, all end-use sectors.	Dollars per million Btu	$PQTXD = PQTXV / PQSCB * 1000$
PQTXV	Propane total end-use expenditures.	Million dollars	$PQTXVZZ = PQACVZZ + PQCCVZZ + PQICVZZ + PQRCVZZ$ $PQTXVUS = \Sigma PQTXVZZ$
REGBP	Renewable energy total generating units net summer capacity in all sectors.	Thousand kilowatts	REGBPZZ is independent. REGBPUS is independent.
RFACD	Residual fuel oil price in the transportation sector.	Dollars per million Btu	RFACDZZ is independent. $RFACDUS = RFACVUS / RFACBUS * 1000$
RFACV	Residual fuel oil expenditures in the transportation sector.	Million dollars	$RFACVZZ = RFACBZZ * RFACDZZ / 1000$ $RFACVUS = \Sigma RFACVZZ$

**Table A1. Price and expenditure variables (cont.)**

MSN	Description	Unit	Formula
RFCCD	Residual fuel oil price in the commercial sector.	Dollars per million Btu	RFCCDZZ is independent. RFCCDUS = RFCCVUS / RFCCBUS * 1000
RFCCV	Residual fuel oil expenditures in the commercial sector.	Million dollars	RFCCVZZ = RFCCBZZ * RFCCDZZ / 1000 RFCCVUS = ΣRFCCVZZ
RFEID	Residual fuel oil price in the electric power sector.	Dollars per million Btu	RFEIDZZ is independent. RFEIDUS = RFEIVUS / RFEIBUS * 1000
RFEIV	Residual fuel oil expenditures in the electric power sector.	Million dollars	RFEIVZZ = RFEIBZZ * RFEIDZZ / 1000 RFEIVUS = ΣRFEIVZZ
RFICD	Residual fuel oil price in the industrial sector.	Dollars per million Btu	RFICDZZ is independent. RFICDUS = RFICVUS / RFISBUS * 1000
RFICV	Residual fuel oil expenditures in the industrial sector.	Million dollars	RFICVZZ = RFISBZZ * RFICDZZ / 1000 RFICVUS = ΣRFICVZZ
RFTCD	Residual fuel oil average price, all sectors.	Dollars per million Btu	RFTCD = RFTCV / RFSCB * 1000
RFTCV	Residual fuel oil total expenditures.	Million dollars	RFTCVZZ = RFACVZZ + RFCCVZZ + RFEIVZZ + RFICVZZ RFTCVUS = ΣRFTCVZZ
RFTXD	Residual fuel oil average price, all end-use sectors.	Dollars per million Btu	RFTXD = (RFTXV / (RFSCB - RFEIB)) * 1000
RFTXV	Residual fuel oil total end-use expenditures.	Million dollars	RFTXVZZ = RFACVZZ + RFCCVZZ + RFICVZZ RFTXVUS = ΣRFTXVZZ
SHCAS	Solar thermal generating units capacity factor.	Percent	SHCASZZ is independent. SHCASUS is independent.
SNICD	Special naphthas price in the industrial sector.	Dollars per million Btu	SNICDZZ is independent. SNICDUS = SNICVUS / SNICBUS * 1000
SNICV	Special naphthas expenditures in the industrial sector.	Million dollars	SNICVZZ = SNICBZZ * SNICDZZ / 1000 SNICVUS = ΣSNICVZZ
SOGBP	Solar generating units net summer capacity in all sectors.	Thousand kilowatts	SOGBPZZ is independent. SOGBPUS is independent.
SPCAS	Solar photovoltaic generating units capacity factor.	Percent	SPCASZZ is independent. SPCASUS is independent.
TEACD	Total energy average price in the transportation sector.	Dollars per million Btu	TEACD = TEACV / TNASB * 1000

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
TEACV	Total energy expenditures in the transportation sector.	Million dollars	TEACVZZ = ESACVZZ + PEACVZZ TEACVUS = $\Sigma$ TEACVZZ
TECCD	Total energy average price in the commercial sector.	Dollars per million Btu	TECCD = TECCV / TNCSB * 1000
TECCV	Total energy expenditures in the commercial sector.	Million dollars	TECCVZZ = ESCCVZZ + PECCVZZ TECCVUS = $\Sigma$ TECCVZZ
TEGDS	Energy expenditures as percent of current-dollar GDP.	Percent	TEGDS = TETCV / GDPRV * 100
TEICD	Total energy average price in the industrial sector.	Dollars per million Btu	TEICD = TEICV / TNISB * 1000
TEICV	Total energy expenditures in the industrial sector.	Million dollars	TEICVZZ = ESICVZZ + PEICVZZ TEICVUS = $\Sigma$ TEICVZZ + CCNIVUS
TERCD	Total energy average price in the residential sector.	Dollars per million Btu	TERCD = TERCV / TNRSB * 1000
TERCV	Total energy expenditures in the residential sector.	Million dollars	TERCVZZ = ESRCVZZ + PERCVZZ TERCVUS = $\Sigma$ TERCVZZ
TETCD	Total energy average price.	Dollars per million Btu	TETCD = TETCV / TNSCB * 1000
TETCV	Total energy expenditures.	Million dollars	TETCV = ESTCV + PESSV
TETPV	Total energy expenditures per capita.	Dollars	TETPV = TETCV / TPOPP * 1000
TETXD	Total end-use energy average price.	Dollars per million Btu	TETXD = TETXV / TNSCB * 1000
TETXV	Total end-use energy expenditures.	Million dollars	TETXV = TEACV + TECCV + TEICV + TERCV
TPOPP	Resident population including Armed Forces.	Thousand population	TPOPPZZ is independent. TPOPPUS is independent.
WDC3DUS	Wood price, commercial CHP and electricity-only plants, U.S. only.	Dollars per million Btu	WDC3DUS = WDC3VUS / WDCYBUS * 1000
WDC3V	Wood expenditures, commercial CHP and electricity-only plants.	Million dollars	WDC3VZZ = WDCYBZZ * WDEIDUS / 1000 WDC3VUS = $\Sigma$ WDC3VZZ
WDC4D	Wood price, commercial sector other than CHP and electricity-only plants.	Dollars per million Btu	WDC4D is independent.
WDC4V	Wood expenditures, commercial sector other than CHP and electricity-only plants.	Million dollars	WDC4VZZ = WDCVBZZ * WDC4DZZ / 1000 WDC4VUS = $\Sigma$ WDC4VZZ

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
WDEIDUS	Wood price in the electric power sector, U.S. only.	Dollars per million Btu	WDEIDUS is independent.
WDGBP	Wood generating units net summer capacity in all sectors.	Thousand kilowatts	WDGBPZZ is independent. WDGBPUS is independent.
WDI3DUS	Wood price, industrial CHP and electricity-only plants, U.S. only.	Dollars per million Btu	$WDI3DUS = WDI3VUS / WDIYBUS * 1000$
WDI3V	Wood expenditures, industrial CHP and electricity-only plants.	Million dollars	$WDI3VZZ = WDIYBZZ * WDEIDUS / 1000$ $WDI3VUS = \Sigma WDI3VZZ$
WDRCD	Wood price in the residential sector.	Dollars per million Btu	WDRCDZZ is independent. $WDRCDUS = WDRCVUS / WDRSBUS * 1000$
WDRCV	Wood expenditures in the residential sector.	Million dollars	$WDRCVZZ = WDRSBZZ * WDRCDZZ / 1000$ $WDRCVUS = \Sigma WDRCVZZ$
WSC3DUS	Waste price, commercial CHP and electricity-only plants, U.S. only.	Dollars per million Btu	$WSC3DUS = WSC3VUS / WSCYBUS * 1000$
WSC3V	Waste expenditures, commercial CHP and electricity-only plants.	Million dollars	$WSC3VZZ = WSCYBZZ * WSEIDUS / 1000$ $WSC3VUS = \Sigma WSC3VZZ$
WSEIDUS	Waste price in the electric power sector, U.S. only.	Dollars per million Btu	WSEIDUS is independent.
WSGBP	Waste generating units net summer capacity in all sectors.	Thousand kilowatts	WSGBPZZ is independent. WSGBPUS is independent.
WSI3DUS	Waste price, industrial CHP and electricity-only plants, U.S. only.	Dollars per million Btu	$WSI3DUS = WSI3VUS / WSIYBUS * 1000$
WSI3V	Waste expenditures, industrial CHP and electricity-only plants.	Million dollars	$WSI3VZZ = WSIYBZZ * WSEIDUS / 1000$ $WSI3VUS = \Sigma WSI3VZZ$
WWCCD	Wood and waste price in the commercial sector.	Dollars per million Btu	$WWCCD = WWCCV / WWCSB * 1000$
WWCCV	Wood and waste expenditures in the commercial sector.	Million dollars	$WWCCVZZ = WDC3VZZ + WDC4VZZ + WSC3VZZ$ $WWCCVUS = \Sigma WWCCVZZ$
WWEID	Wood and waste price in the electric power sector.	Dollars per million Btu	WWEIDZZ is independent. $WWEIDUS = WWEIVUS / WWEIBUS * 1000$
WWEIV	Wood and waste expenditures in the electric power sector.	Million dollars	$WWEIVZZ = WWEIBZZ * WWEIDZZ / 1000$ $WWEIVUS = \Sigma WWEIVZZ$

Table A1. Price and expenditure variables (cont.)

MSN	Description	Unit	Formula
WWI4D	Wood and waste prices in the industrial sector other than CHP and electricity-only plants.	Dollars per million Btu	WWI4DZZ is independent. WWI4DUS = WWI4VUS / WWIVBUS
WWI4V	Wood and waste expenditures in the industrial sector other than CHP and electricity-only plants.	Million dollars	WWI4VZZ = WWIVBZZ * WWI4DZZ / 1000 WWI4VUS = $\Sigma$ WWI4VZZ
WWICD	Wood and waste price in the industrial sector.	Dollars per million Btu	WWICD = WWICV / WWISB * 1000
WWICV	Wood and waste expenditures in the industrial sector.	Million dollars	WWICVZZ = WDI3VZZ + WSI3VZZ + WWI4VZZ WWICVUS = $\Sigma$ WWICVZZ
WWSSV	Wood and waste total end-use expenditures.	Million dollars	WWSSVZZ = WDRCVZZ + WWCCVZZ + WWICVZZ WWSSVUS = $\Sigma$ WWSSVZZ
WWTCD	Wood and waste average price, all sectors.	Dollars per million Btu	WWTCD = WWTCV / WWSCB * 1000
WWTCV	Wood and waste total expenditures.	Million dollars	WWTCVZZ = WWEIVZZ + WWSSVZZ WWTCVUS = $\Sigma$ WWTCVZZ
WWTXD	Wood and waste average price, all end-use sectors.	Dollars per million Btu	WWTXD = WWTXV / WWSSB * 1000
WWTXV	Wood and waste total end-use expenditures.	Million dollars	WWTXVZZ = WDRCVZZ + WWCCVZZ + WWICVZZ WWTXVUS = $\Sigma$ WWTXVZZ
WXICD	Waxes price in the industrial sector.	Dollars per million Btu	WXICDZZ is independent. WXICDUS = WXICVUS / WXICBUS * 1000
WXICV	Waxes expenditures in the industrial sector.	Million dollars	WXICVZZ = WXICBZZ * WXICDZZ / 1000 WXICVUS = $\Sigma$ WXICVZZ
WYCAS	Wind generating units capacity factor.	Percent	WYCASZZ is independent. WYCASUS is independent.
WYGBP	Wind generating units net summer capacity in all sectors.	Thousand kilowatts	WYGBPZZ is independent. WYGBPUS is independent.
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.

**Table A2. Consumption adjustment variables**

MSN	Description	Unit	Formula
B1AUB	Renewable diesel product supplied portion to the transportation sector.	Billion Btu	SEDS consumption variable
B1SUB	Renewable diesel product supplied.	Billion Btu	SEDS consumption variable
BDAUB	Biodiesel product supplied portion to the transportation sector.	Billion Btu	SEDS consumption variable
BDCUB	Biodiesel product supplied portion to the commercial sector.	Billion Btu	SEDS consumption variable
BDRUB	Biodiesel product supplied portion to the residential sector.	Billion Btu	SEDS consumption variable
BDLCB	Energy losses and co-products from the production of biodiesel.	Billion Btu	SEDS consumption variable
BDSUB	Biodiesel product supplied.	Billion Btu	SEDS consumption variable
BFLCB	Energy losses and co-products from the production of biofuels.	Billion Btu	SEDS consumption variable
BOSUBUS	Other biofuels product supplied for the United States.	Billion Btu	SEDS consumption variable
CLISB	Coal consumed by the industrial sector excluding refinery fuel.	Billion Btu	$CLISB = CLKCB + CLOSB$
CLOCB	Coal consumed by industrial users other than coke plants.	Billion Btu	SEDS consumption variable
CLOCK	Factor for converting coal consumed by industrial users other than coke plants from physical units to Btu.	Million Btu per short ton	SEDS consumption variable
CLOSB	Coal consumed by the industrial sector other than coke plants excluding refinery fuel.	Billion Btu	$CLOSB = CLOCB - CLRFB$
CLRFB	Coal consumed as refinery fuel.	Billion Btu	$CLRFBZZ = CLRFPZZ * CLOCKZZ$ $CLRFBUS = \sum CLRFBZZ$



**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
CLRFP	Coal consumed as refinery fuel.	Thousand short tons	Before 1981: CLRFPZZ is independent for selected states. CLRFPZZ = (CLOCPZZ / CLOCPGZ) * CLRFPGZ for states belonging to a specific state group, GZ. 1981 through 2012: CLRFPZZ = (CLOCPZZ / CLOCPPZ) * CLRFPZ for states belonging to a specific PADD, PZ. 2013 forward: CLRFPZZ is independent.
CLSCB	Coal total consumption adjusted for process fuel.	Billion Btu	CLSCB = CLACB + CLCCB + CLEIB + CLISB + CLRCB
CLXCB	Coal consumed by all sectors excluding coke plants and refineries.	Billion Btu	CLXCB = CLACB + CLCCB + CLEIB + CLOSB + CLRCB
DFASB	Distillate fuel oil consumed by the transportation sector including biofuels product supplied.	Billion Btu	Before 2021: DFASBZZ = DFACBZZ DFASBUS = ΣDFASBZZ 2021 forward: DFASBZZ = DFACBZZ + BDAUBZZ + B1AUBZZ DFASBUS = ΣDFASBZZ
DFCSB	Distillate fuel oil consumed by the commercial sector including biofuels product supplied.	Billion Btu	Before 2021: DFCSBZZ = DFCCBZZ DFCSBUS = ΣDFCSBZZ 2021 forward: DFCSBZZ = DFCCBZZ + BDCUBZZ DFCSBUS = ΣDFCSBZZ
DFISB	Distillate fuel oil consumed by the industrial sector excluding refinery fuel.	Billion Btu	DFISB = DFICB - DFRFB
DFRFB	Distillate fuel oil consumed as refinery fuel.	Billion Btu	DFRFBZZ = DFRFPZZ * DFTCKUS DFRFBUS = ΣDFRFBZZ

**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
DFRFP	Distillate fuel oil consumed as refinery fuel.	Thousand barrels	Before 1981: DFRFPZZ is independent for selected states. DFRFPZZ = (DFICPZZ / DFICPGZ) * DFRFPGZ for states belonging to a specific state group, GZ. 1981 through 2012: DFRFPZZ = (DFICPZZ / DFICPPZ) * DFRFPPZ for states belonging to a specific PADD, PZ. 2013 forward: DFRFPZZ is independent.
DFRSB	Distillate fuel oil consumed by the residential sector including biofuels product supplied.	Billion Btu	Before 2021: DFRSBZZ = DFRCBZZ DFRSBUS = ΣDFRSBZZ 2021 forward: DFRSBZZ = DFRCBZZ + BDRUBZZ DFRSBUS = ΣDFRSBZZ
DFSCB	Distillate fuel oil total consumption adjusted for process fuel.	Billion Btu	DFSCBZZ = DFASBZZ + DFCSBZZ + DFEIBZZ + DFISBZZ + DFRSBZZ DFSCBUS = ΣDFSCBZZ
EMLCB	Energy losses and co-products from the production of fuel ethanol.	Billion Btu	SEDS consumption variable
ESISB	Electricity consumed by the industrial sector excluding refinery use.	Billion Btu	ESISB = ESICB - ESRFB
ESRFB	Electricity consumed by refineries.	Billion Btu	ESRFBZZ = ESRFPZZ * 3.412 ESRFBUS = ΣESRFBZZ
ESRFP	Electricity consumed by refineries.	Million kilowatthours	Before 1981: ESRFPZZ is independent for selected states. ESRFPZZ = (ESICPZZ / ESICPGZ) * ESRFPGZ for states belonging to a specific state group, GZ. 1981 through 2012: ESRFPZZ = (ESICPZZ / ESICPPZ) * ESRFPPZ for states belonging to a specific PADD, PZ. 2013 forward: ESRFPZZ is independent.
ESSCB	Electricity total consumption adjusted for process fuel.	Billion Btu	ESSCB = ESACB + ESCCB + ESISB + ESRCB

**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
HLISB	Hydrocarbon gas liquids consumed by the industrial sector adjusted for processed fuel.	Billion Btu	$HLISB = HLICB - HLRFB$
HLRFB	Hydrocarbon gas liquids consumed as refinery fuel and intermediate products.	Billion Btu	Before 2010: HLRFBZZ is independent. $HLRFBUS = \Sigma HLRFBZZ$ 2010 forward: $HLRFBZZ = PQRFBZZ$ $HLRFBUS = \Sigma HLRFBZZ$
HLRFP	Hydrocarbon gas liquids consumed as refinery fuel and intermediate products.	Thousand barrels	Before 2010: HLRFPZZ is independent. 2010 forward: $HLRFPZZ = PQRFPZZ$
HLSCB	Hydrocarbon gas liquids total consumption adjusted for processed fuel.	Billion Btu	$HLSCB = HLACB + HLCCB + HLISB + HLRCB$
NGASB	Natural gas consumed by the transportation sector adjusted for process fuel.	Billion Btu	$NGASB = NGACB - NGPZB$
NGISB	Natural gas consumed by the industrial sector excluding refinery fuel and lease and plant fuels (including supplemental gaseous fuels).	Billion Btu	$NGISB = NGICB - NGRFB - NGLPB$
NGLPB	Natural gas consumed as lease and plant fuel.	Billion Btu	SEDS consumption variable
NGPZB	Natural gas for pipeline and distribution use.	Billion Btu	SEDS consumption variable
NGRFB	Natural gas consumed as refinery fuel (including supplemental gaseous fuels).	Billion Btu	$NGRFBZZ = NGRFPZZ * NGTXKZZ$ $NGRFBUS = \Sigma NGRFBZZ$
NGRFP	Natural gas consumed as refinery fuel (including supplemental gaseous fuels).	Million cubic feet	Before 1981: NGRFPZZ is independent for selected states. $NGRFPZZ = (NGICPZZ / NGICPGZ) * NGRFPZ$ for states belonging to a specific state group, GZ. 1981 through 2012: $NGRFPZZ = (NGICPZZ / NGICPPZ) * NGRFPZ$ for states belonging to a specific PADD, PZ. 2013 forward: NGRFPZZ is independent.
NGSCB	Natural gas total consumption adjusted for process fuel.	Billion Btu	$NGSCB = NGASB + NGCCB + NGEIB + NGISB + NGRCB$

**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
NGTXK	Factor for converting natural gas used by end-use sectors from physical units to Btu.	Thousand Btu per cubic foot	SEDS consumption variable
OHICB	Other hydrocarbon gas liquids (other than propane) consumed by the industrial sector.	Billion Btu	$OHICB = HLICB - PQICB$
OPISB	Other petroleum products consumed by the industrial sector excluding refinery fuel and intermediate products.	Billion Btu	$OPISB = FNICB + FOICB + FSICB + MSICB + SNICB + WXICB$
OPSCB	Other petroleum products total consumption adjusted for refinery fuel and intermediate products.	Billion Btu	$OPSCB = OPISB$
P1ISB	Asphalt and road oil, kerosene, lubricants, petroleum coke, and other petroleum products consumed by the industrial sector excluding refinery fuel and intermediate products.	Billion Btu	$P1ISB = ARICB + KSICB + LUICB + OPISB + PCISB$
P1SCB	Asphalt and road oil, kerosene, lubricants, petroleum coke, and other petroleum products total consumption adjusted for process fuel and intermediate products.	Billion Btu	$P1SCB = ARTCB + AVTCB + KSTCB + LUTCB + OPSCB + PCSCB$
P5RFB	Other petroleum products consumed as refinery fuel and intermediate products.	Billion Btu	$P5RFBZZ = ABICBZZ + MBICBZZ + SGICBZZ + UOICBZZ$ $P5RFBUS = ABICBUS + BOSUBUS + MBICBUS + SGICBUS + UOICBUS$
PAASB	All petroleum products consumed by the transportation sector excluding other biofuels product supplied for the United States.	Billion Btu	$PAASBZZ = PAACBZZ$ $PAASBUS = PAACBUS - BOSUBUS$
PAISB	All petroleum products consumed by the industrial sector excluding process fuel and intermediate products.	Billion Btu	$PAISB = ARICB + DFISB + HLISB + KSICB + LUICB + MGICB + OPISB + PCISB + RFISB$
PASCB	All petroleum products total consumption adjusted for process fuel and intermediate products.	Billion Btu	$PASCB = ARTCB + AVTCB + DFSCB + HLSCB + JFTCB + KSTCB + LUTCB + MGTCB + OPSCB + PCSCB + RFSCB$
PCISB	Petroleum coke consumed by the industrial sector excluding refinery fuel.	Billion Btu	$PCISB = PCICB - PCRFB$
PCRFB	Petroleum coke consumed as refinery fuel.	Billion Btu	SEDS consumption variable

**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
PCSCB	Petroleum coke total consumption adjusted for process fuel.	Billion Btu	$PCSCB = PCCCB + PCEIB + PCISB$
PEASB	Primary energy consumed by the transportation sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	Before 1993: $PEASB = CLACB + EMACB + NGASB + PAACB$ 1993 forward: $PEASB = CLACB + NGASB + PAASB$
PECSB	Primary energy consumed by the commercial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	Before 1993: $PECSB = CLCCB + EMCCB + NGCCB + PACCB + WWCSB$ 1993 forward: $PECSB = CLCCB + NGCCB + PACCB + WWCSB$
PEISB	Primary energy consumed by the industrial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	Before 1993: $PEISBZZ = CLISBZZ + EMICBZZ + NGISBZZ + PAISBZZ + WWISBZZ$ $PEISBUS = \Sigma PEISBZZ + CCNIBUS$ 1993 forward: $PEISBZZ = CLISBZZ + NGISBZZ + PAISBZZ + WWISBZZ$ $PEISBUS = \Sigma PEISBZZ + CCNIBUS$
PERSB	Primary energy consumed by the residential sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PERSB = CLRCB + NGRCB + PARCB + WDRSB$
PESCB	Primary energy total consumption, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PESCB = PEEIB + PESSB$
PESSB	Primary energy total end-use consumption, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PESSB = PEASB + PECSB + PEISB + PERSB$
PQISB	Propane consumed by the industrial sector excluding refinery fuel.	Billion Btu	$PQISB = PQICB - PQRFB$
PQRFB	Propane consumed as refinery fuel.	Billion Btu	$PQRFBZZ = PQRFPZZ * 3.841$ $PQRFBUS = \Sigma PQRFBZZ$
PQRFP	Propane consumed as refinery fuel.	Thousand barrels	PQRFPZZ is independent.
PQSCB	Propane total consumption adjusted for process fuel.	Billion Btu	$PQSCB = PQTCB - PQRFB$

Table A2. Consumption adjustment variables (cont.)

MSN	Description	Unit	Formula
RFISB	Residual fuel oil consumed by the industrial sector excluding refinery fuel.	Billion Btu	$RFISB = RFICB - RFRFB$
RFRFB	Residual fuel oil consumed as refinery fuel.	Billion Btu	$RFRFBZZ = RFRFPZZ * 6.287$ $RFRFBUS = \sum RFRFBZZ$
RFRFP	Residual fuel oil consumed as refinery fuel.	Thousand barrels	Before 1981: RFRFPZZ is independent for selected states. $RFRFPZZ = (RFICPZZ / RFICPGZ) * RFRFPZ$ for states belonging to a specific state group, GZ. 1981 through 2012: $RFRFPZZ = (RFICPZZ / RFICPPZ) * RFRFPZ$ for states belonging to a specific PADD, PZ. 2013 forward: RFRFPZZ is independent.
RFSCB	Residential fuel oil total consumption excluding process fuel.	Billion Btu	$RFSCB = RFACB + RFCCB + RFEIB + RFISB$
SFINB	Supplemental gaseous fuels consumed by the industrial sector.	Billion Btu	SEDS consumption variable
TEPFB	Total energy used as process fuel and other consumption that has no direct fuel costs.	Billion Btu	$TEPFBZZ = BDLCBZZ + COICBZZ + EMLCBZZ + GECCBZZ + GEICBZZ + GERCBZZ + HYCCBZZ + HYICBZZ + LOTCBZZ + NGLPBZZ + NGPZBZZ + SOCCBZZ + SOICBZZ + SORCBZZ + TERFBZZ + WDRXBZZ + WWCXBZZ + WWIXBZZ + WYCCBZZ + WYICBZZ$ $TEPFBUS = BDLCBUS + COICBUS + EMLCBUS + GECCBUS + GEICBUS + GERCBUS + HYCCBUS + HYICBUS + LOTCBUS + NGLPBUS + NGPZBUS + SOCCBUS + SOICBUS + SORCBUS + TERFBUS + WDRXBUS + WWCXBUS + WWIXBUS + WYCCBUS + WYICBUS$
TERFB	Total energy used as refinery fuel and intermediate products.	Billion Btu	$TERFB = CLRFB + DFRFB + ESRFB + HLRFB + NGRFB + P5RFB + PCRFB + RFRFB$
TNASB	Total end-use energy consumed by the transportation sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNASB = ESACB + PEASB$

**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
TNCSB	Total end-use energy consumed by the commercial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNCSB = ESCCB + PECSB$
TNISB	Total end-use energy consumed by the industrial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNISB = ESISB + PEISB$
TNRSB	Total end-use energy consumed by the residential sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNRSB = ESRCB + PERSB$
TNSCB	Total end-use energy consumption, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNSCB = ESSCB + PESSB$
WDCUB	Wood consumed by the commercial sector other than CHP and electricity-only plants, at no cost.	Billion Btu	$WDCUB = WDC4B - WDCVB$
WDCVB	Wood consumed by the commercial sector other than CHP and electricity-only plants, costed.	Billion Btu	$WDCVBZZ = WDC4BZZ * WDPHSZZ$ $WDCVBUS = \Sigma WDCVBZZ$
WDCYB	Wood consumed by commercial CHP and electricity-only plants, costed.	Billion Btu	$WDCYBZZ = WDC3BZZ * WDEISUS$ $WDCYBUS = \Sigma WDCYBZZ$
WDCZB	Wood consumed by commercial CHP and electricity-only plants, at no cost.	Billion Btu	$WDCZB = WDC3B - WDCYB$
WDEISUS	Purchased wood as a percentage of all wood consumed by the electric power sector, U.S. only.	Percent	WDEISUS is independent.
WDIYB	Wood consumed by industrial CHP and electricity-only plants, costed.	Billion Btu	$WDIYBZZ = WDI3BZZ * WDEISUS$ $WDIYBUS = \Sigma WDIYBZZ$
WDIZB	Wood consumed by industrial CHP and electricity-only plants, at no cost.	Billion Btu	$WDIZB = WDI3B - WDIYB$
WDPHS	Purchased wood as a percentage of all wood consumed by the residential sector.	Percent	WDPHS is independent.

**Table A2. Consumption adjustment variables (cont.)**

MSN	Description	Unit	Formula
WDRSB	Wood consumed by the residential sector, costed.	Billion Btu	WDRSBZZ = WDRCBZZ * WDPHSZZ WDRSBUS = $\Sigma$ WDRSBZZ
WDRXB	Wood consumed by the residential sector, at no cost.	Billion Btu	WDRXB = WDRCB - WDRSB
WSCYB	Waste consumed by commercial CHP and electricity-only plants, costed.	Billion Btu	WSCYBZZ = WSC3BZZ * WSEISUS WSCYBUS = $\Sigma$ WSCYBZZ
WSCZB	Waste consumed by commercial CHP and electricity-only plants, at no cost.	Billion Btu	WSCZB = WSC3B - WSCYB
WSEISUS	Purchased waste as a percentage of all waste consumed by the electric power sector, U.S. only.	Percent	WSEISUS is independent.
WSIYB	Waste consumed by industrial CHP and electricity-only plants, costed.	Billion Btu	WSIYBZZ = WSI3BZZ * WSEISUS WSIYBUS = $\Sigma$ WSIYBZZ
WSIZB	Waste consumed by industrial CHP and electricity-only plants, at no cost.	Billion Btu	WSIZB = WSI3B - WSIYB
WWCSB	Wood and waste consumed by the commercial sector, costed.	Billion Btu	WWCSB = WDCVB + WDCYB + WSCYB
WWCXB	Wood and waste consumed by the commercial sector, at no cost.	Billion Btu	WWCXB = WDCUB + WDCZB + WSCZB
WWISB	Wood and waste consumed by the industrial sector, costed.	Billion Btu	WWISB = WDIYB + WSIYB + WWIVB
WWIUB	Wood and waste consumed by the industrial sector other than CHP and electricity-only plants, at no cost.	Billion Btu	WWIUB = WWI4B - WWIVB
WWIVB	Wood and waste consumed by the industrial sector other than CHP and electricity-only plants, costed.	Billion Btu	WWIVB is independent.
WWIXB	Wood and waste consumed by the industrial sector, at no cost.	Billion Btu	WWIXB = WDIZB + WSIZB + WWIUB
WWSCB	Wood and waste total consumption, adjusted for fuels with no direct cost.	Billion Btu	WWSCB = WWSSB + WWEIB
WWSSB	Wood and waste consumed by the end-use sectors, costed.	Billion Btu	WWSSB = WDRSB + WWCSB + WWISB