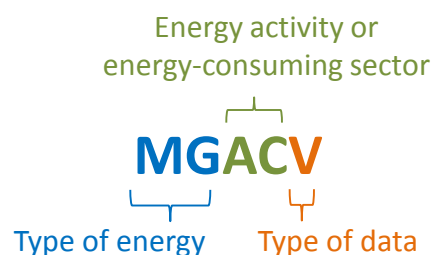


## Appendix A. Mnemonic Series Names (MSN)

This appendix contains alphabetical listings of the variables used in the price and expenditure module of the State Energy Data System (SEDS). The first list presents the price and expenditure variables, and the second presents the consumption adjustment variables as described in Section 7, "Consumption Adjustments for Calculating Expenditures."

Provided for each variable are: a brief description; unit of measure; and the formulas used to create the variable. If a variable is not one calculated in SEDS but is entered into the system, it is described as an independent variable. Formulas for the state calculations have "ZZ" following the variable name, where "ZZ" represents the two-letter postal code of a state, and 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.

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



For a detailed explanation of the naming convention, see Section 1, "Documentation Guide."

In general, state-level price estimates are independent variables and are expressed in dollars per million Btu. Estimates of state-level expenditures are calculated by multiplying the appropriate consumption estimates by the corresponding prices and converting to million dollars. The consumption variables are taken from the SEDS consumption module and some 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 (i.e., not adjusted), they are listed in Appendix A of the Consumption Technical Notes ([http://www.eia.gov/state/seds/sep\\_prices/notes/pr\\_a.pdf](http://www.eia.gov/state/seds/sep_prices/notes/pr_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), TX (total end-use consumption), RC (residential consumption), CC (commercial consumption), IC (industrial consumption), AC (transportation consumption), and EI (electric power sector consumption). Variables related to consumption adjustments are listed from page 140 onwards.

**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	$AVTXV = AVACV$
CCEXD	Coal coke exports average price, United States.	Dollars per million Btu	CCEXDUS is independent.
CCEXV	Coal coke exports expenditures, United States.	Million dollars	$CCEXVUS = CCEXBUS * CCEXDUS / 1000$
CCIMD	Coal coke imports average price, United States.	Dollars per million Btu	CCIMDUS is independent.
CCIMV	Coal coke imports expenditures, United States.	Million dollars	$CCIMVUS = CCIMBUS * CCIMDUS / 1000$
CCNIV	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	$CLACVZZ = CLACBZZ * CLACDZZ / 1000$ $CLACVUS = \Sigma CLACVZZ$
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	$CLCCVZZ = CLCCBZZ * CLCCDZZ / 1000$ $CLCCVUS = \Sigma CLCCVZZ$

**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
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	$CLEIVZZ = CLEIBZZ * CLEIDZZ / 1000$ $CLEIVUS = \Sigma CLEIVZZ$
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. $CLRCDUS = CLRCVUS / CLRCBUS * 1000$
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	$CLXCVZZ = CLRCVZZ + CLCCVZZ + CLOCVZZ + CLACVZZ + CLEIVZZ$ $CLXCVUS = \Sigma CLXCVZZ$
DFACD	Distillate fuel oil price in the transportation sector.	Dollars per million Btu	DFACDZZ is independent. $DFACDUS = DFACVUS / DFACBUS * 1000$

**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
DFACV	Distillate fuel oil expenditures in the transportation sector.	Million dollars	$DFACVZZ = DFACBZZ * DFACDZZ / 1000$ $DFACVUS = \Sigma DFACVZZ$
DFCCD	Distillate fuel oil price in the commercial sector.	Dollars per million Btu	DFCCDZZ is independent. $DFCCDUS = DFCCVUS / DFCCBUS * 1000$
DFCCV	Distillate fuel oil expenditures in the commercial sector.	Million dollars	$DFCCVZZ = DFCCBZZ * DFCCDZZ / 1000$ $DFCCVUS = \Sigma DFCCVZZ$
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	$DFICVZZ = DFISBZZ * DFICDZZ / 1000$ $DFICVUS = \Sigma DFICVZZ$
DFRCD	Distillate fuel oil price in the residential sector.	Dollars per million Btu	DFRCDZZ is independent. $DFRCDUS = DFRCVZZ / DFRCBZZ * 1000$
DFRCV	Distillate fuel oil expenditures in the residential sector.	Million dollars	$DFRCVZZ = DFRCBZZ * DFRCDZZ / 1000$ $DFRCVUS = \Sigma DFRCVZZ$
DFTCD	Distillate fuel oil average price, all sectors.	Dollars per million Btu	$DFTCD = DFTCV / DFSCB * 1000$
DFTCV	Distillate fuel oil total expenditures.	Million dollars	$DFTCVZZ = DFRCVZZ + DFCCVZZ + DFICVZZ + DFACVZZ + DFEIVZZ$ $DFTCVUS = \Sigma DFTCVZZ$
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 and kerosene-type jet fuel average price in the electric power sector.	Dollars per million Btu	$DKEID = DKEIV / DKEIB * 1000$
DKEIV	Distillate fuel oil and kerosene-type jet fuel 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	$ELEXVZZ = ELEXBZZ * ELEXDZZ / 1000$ $ELEXVUS = \Sigma ELEXVZZ$

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
ELIMD	Electricity imports average price.	Dollars per million Btu	ELIMD is independent.
ELIMV	Electricity imports expenditures.	Million dollars	ELIMVZZ = ELIMBZZ * ELIMDZZ / 1000 ELIMVUS = ΣELIMVZZ
EMACV	Fuel ethanol, excluding denaturant, expenditures in the transportation sector (compiled for inclusion in total expenditures by end-use sector before 1993).	Million dollars	EMACVZZ = EMACBZZ * MGACDZZ / 1000 EMACVUS = ΣEMACVZZ
EMCCV	Fuel ethanol, excluding denaturant, expenditures in the commercial sector (compiled for inclusion in total expenditures by end use sector before 1993).	Million dollars	EMCCVZZ = EMCCBZZ * MGCCDZZ / 1000 EMCCVUS = ΣEMCCVZZ
EMICV	Fuel ethanol, excluding denaturant, expenditures in the industrial sector (compiled for inclusion in total expenditures by end-use sector before 1993).	Million dollars	EMICVZZ = EMICBZZ * MGACDZZ / 1000 EMICVUS = ΣEMICVZZ
EMTCV	Fuel ethanol, excluding denaturant, total expenditures (compiled for inclusion in total expenditures before 1993).	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 / ESIBBUS * 1000
ESICV	Electricity expenditures in the industrial sector.	Million dollars	ESICVZZ = ESEBZZ * ESICDZZ / 1000 ESICVUS = ΣESICVZZ
ESRCD	Electricity price in the residential sector.	Dollars per million Btu	ESRCDZZ is independent. ESRCDUS = ESRVUS / ESRBUS * 1000
ESRCV	Electricity expenditures in the residential sector.	Million dollars	ESRCVZZ = ESRBZZ * ESRCDZZ / 1000 ESRCVUS = ΣESRCVZZ
ESTCD	Electricity average price, all sectors.	Dollars per million Btu	ESTCD = ESTCV / ESSCB * 1000

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
ESTCV	Electricity total expenditures.	Million dollars	ESTCVZZ = ESRCVZZ + ESCCVZZ + ESICVZZ + ESACVZZ ESTCVUS = $\Sigma$ ESTCVZZ
ESTXD	Electricity average price, all end-use sectors.	Dollars per million Btu	ESTXD = ESTXV / ESSCB * 1000
ESTXV	Electricity total end-use expenditures.	Million dollars	ESTXVZZ = ESACVZZ + ESCCVZZ + ESICVZZ + ESRCVZZ ESTXVUS = $\Sigma$ ESTXVZZ
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 = $\Sigma$ FNICVZZ
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 = $\Sigma$ FOICVZZ
FSICD	Petrochemical feedstocks, still gas, price in the industrial sector.	Dollars per million Btu	FSICDZZ is independent. FSICDUS = FSICVUS / FSICBUS * 1000
FSICV	Petrochemical feedstocks, still gas, expenditures in the industrial sector.	Million dollars	FSICVZZ = FSICBZZ * FSICDZZ / 1000 FSICVUS = $\Sigma$ FSICVZZ
GDPRV	Current-dollar gross domestic product.	Million dollars	GDPRV 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 (1972–1982 only).	Dollars per million Btu	JFEUDZZ is independent.
JFEUV	Jet fuel expenditures in the electric power sector (1972–1982 only).	Million dollars	JFEUVZZ = JFEUBZZ * JFEUDZZ / 1000
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

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
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
KSICV	Kerosene expenditures in the industrial sector.	Million dollars	KSICVZZ = KSICBZZ * KSICDZZ / 1000 KSICVUS = $\Sigma$ 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 = $\Sigma$ KSRCVZZ
KSTCD	Kerosene average price, all sectors.	Dollars per million Btu	KSTCD = KSTCV / KSTCB * 1000
KSTCV	Kerosene total expenditures.	Million dollars	KSTCVZZ = KSRCVZZ + KSCCVZZ + KSICVZZ KSTCVUS = $\Sigma$ 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 = $\Sigma$ KSTXVZZ
LGACD	LPG price in the transportation sector.	Dollars per million Btu	LGACDZZ is independent. LGACDUS = LGACVUS / LGACBUS * 1000
LGACV	LPG expenditures in the transportation sector.	Million dollars	LGACVZZ = LGACBZZ * LGACDZZ / 1000 LGACVUS = $\Sigma$ LGACVZZ
LGCCD	LPG price in the commercial sector.	Dollars per million Btu	LGCCDZZ is independent. LGCCDUS = LGCCVUS / LGCCBUS * 1000
LGCCV	LPG expenditures in the commercial sector.	Million dollars	LGCCVZZ = LGCCBZZ * LGCCDZZ / 1000 LGCCVUS = $\Sigma$ LGCCVZZ
LGICD	LPG price in the industrial sector.	Dollars per million Btu	LGICDZZ is independent. LGICDUS = LGICVUS / LGISBUS * 1000
LGICV	LPG expenditures in the industrial sector.	Million dollars	LGICVZZ = LGISBZZ * LGICDZZ / 1000 LGICVUS = $\Sigma$ LGICVZZ

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
LGRCD	LPG price in the residential sector.	Dollars per million Btu	LGRCDZZ is independent. $LGRCDUS = LGRCVUS / LGRCBUS * 1000$
LGRCV	LPG expenditures in the residential sector.	Million dollars	$LGRCVZZ = LGRCBZZ * LGRCDZZ / 1000$ $LGRCVUS = \Sigma LGRCVZZ$
LGTCV	LPG average price, all sectors.	Dollars per million Btu	$LGTCVZZ = LGACVZZ + LGCCVZZ + LGICVZZ + LGRCVZZ$ $LGTCVUS = \Sigma LGTCVZZ$
LGTCD	LPG total expenditures.	Million dollars	$LGTCD = LGTCV / LGSCB * 1000$
LGTXD	LPG average price, all end-use sectors.	Dollars per million Btu	$LGTXD = LGTXV / LGSCB * 1000$
LGTXV	LPG total end-use expenditures.	Million dollars	$LGTXVZZ = LGACVZZ + LGCCVZZ + LGICVZZ + LGRCVZZ$ $LGTXVUS = \Sigma LGTXVZZ$
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	$LUACVZZ = LUACBZZ * LUACDZZ / 1000$ $LUACVUS = \Sigma LUACVZZ$
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	$LUICVZZ = LUICBZZ * LUICDZZ / 1000$ $LUICVUS = \Sigma LUICVZZ$
LUTCD	Lubricants average price, all sectors.	Dollars per million Btu	$LUTCD = LUTCV / LUTCB * 1000$
LUTCV	Lubricants total end-use expenditures.	Million dollars	$LUTCVZZ = LUACVZZ + LUICVZZ$ $LUTCVUS = \Sigma LUTCVZZ$
LUTXD	Lubricants average price, all end-use sectors.	Dollars per million Btu	$LUTXD = LUTXV / LUTXB * 1000$
LUTXV	Lubricants total end-use expenditures.	Million dollars	$LUTXVZZ = LUACVZZ + LUICVZZ$ $LUTXVUS = \Sigma LUTXVZZ$
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	$MGACVZZ = MGACBZZ * MGACDZZ / 1000$ $MGACVUS = \Sigma MGACVZZ$
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	$MGCCVZZ = MGCCBZZ * MGCCDZZ / 1000$ $MGCCVUS = \Sigma MGCCVZZ$



**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
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 = ΣMGICVZZ
MGTC D	Motor gasoline average price, all sectors.	Dollars per million Btu	MGTC D = MGTCV / MGTCB * 1000
MGTCV	Motor gasoline total expenditures.	Million dollars	MGTCVZZ = MGACVZZ + MGCCVZZ + MGICVZZ MGTCVUS = ΣMGTCVZZ
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 = ΣMGTXVZZ
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 = ΣMSICVZZ
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 = ΣNGACVZZ
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 = ΣNGCCVZZ
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 = ΣNGEIVZZ
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 = ΣNGICVZZ

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
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	$NGTCVZZ = NGRCVZZ + NGCCVZZ + NGICVZZ + NGACVZZ + NGEIVZZ$ $NGTCVUS = \Sigma NGTCVZZ$
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	$NGTXVZZ = NGACVZZ + NGCCVZZ + NGICVZZ + NGRCVZZ$ $NGTXVUS = \Sigma NGTXVZZ$
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	$NUETVZZ = NUEGVZZ$ $NUETVUS = \Sigma NUETVZZ$
P1ICD	Asphalt and road oil, kerosene, lubricants, 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, and "other petroleum products" expenditures in the industrial sector.	Million dollars	$P1ICVZZ = ARICVZZ + KSICVZZ + LUICVZZ + POICVZZ$ $P1ICVUS = \Sigma P1ICVZZ$
P1TCD	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" average price, all sectors.	Dollars per million Btu	$P1TCD = P1TCV / P1SCB * 1000$
P1TCV	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total expenditures.	Million dollars	$P1TCVZZ = ARTCVZZ + AVTCVZZ + KSTCVZZ + LUTCVZZ + POTCVZZ$ $P1TCVUS = \Sigma P1TCVZZ$

**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
P1TXD	Asphalt and road oil, aviation gasoline, kerosene, lubricants, 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, 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	$PAACD = PAACV / PAACB * 1000$
PAACV	All petroleum products total expenditures in the transportation sector.	Million dollars	$PAACVZZ = AVACVZZ + DFACVZZ + JFACVZZ + LGACVZZ + LUACVZZ + MGACVZZ + RFACVZZ$ $PAACVUS = \Sigma PAACVZZ$
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	$PACCVZZ = DFCCVZZ + KSCCVZZ + LGCCVZZ + MGCCVZZ + PCCCVZZ + RFCCVZZ$ $PACCVUS = \Sigma PACCVZZ$
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	$PAEIVZZ = DKEIVZZ + PCEIVZZ + RFEIVZZ$ $PAEIVUS = \Sigma PAEIVZZ$
PAICD	All petroleum products average price in the industrial sector.	Dollars per million Btu	$PAICD = PAICV / PAISB * 1000$
PAICV	All petroleum products total expenditures in the industrial sector.	Million dollars	$PAICVZZ = ARICVZZ + DFICVZZ + KSICVZZ + LGICVZZ + LUICVZZ + MGICVZZ + RFICVZZ + POICVZZ$ $PAICVUS = \Sigma PAICVZZ$
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	$PARCVZZ = DFRCVZZ + KSRCVZZ + LGRCVZZ$ $PARCVUS = \Sigma PARCVZZ$
PATCD	All petroleum products average price, all sectors.	Dollars per million Btu	$PATCD = PATCV / PASCB * 1000$
PATCV	All petroleum products total expenditures.	Million dollars	$PATCVZZ = ARTCVZZ + AVTCVZZ + DFTCVZZ + JFTCVZZ + KSTCVZZ + LGTCVZZ + LUTCVZZ + MGTCVZZ + RFTCVZZ + POTCVZZ$ $PATCVUS = \Sigma PATCVZZ$

**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
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	$PATXVZZ = ARTXVZZ + AVTXVZZ + DFTXVZZ + JFTXVZZ + KSTXVZZ + LGTXVZZ + LUTXVZZ + MGTXVZZ + POTXVZZ + RFTXVZZ$ $PATXVUS = \Sigma PATXVZZ$
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	$PCICD = PCICV / PCISB * 1000$
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	$PCTCVZZ = PCCCVZZ + PCICVZZ + PCEIVZZ$ $PCTCVUS = \Sigma PCTCVZZ$
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	$PEACVZZ = CLACVZZ + NGACVZZ + PAACVZZ$ $PEACVUS = \Sigma PEACVZZ$

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
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	$PECCVZZ = CLCCVZZ + NGCCVZZ + PACCVZZ + WWCCVZZ$ $PECCVUS = \Sigma PECCVZZ$
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	$PEEIVZZ = CLEIVZZ + NGEIVZZ + PAEIVZZ + NUEGVZZ +$ $WWEIVZZ + ELIMVZZ$ $PEEIVUS = \Sigma PEEIVZZ$
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	$PEICVZZ = CLICVZZ + NGICVZZ + PAICVZZ + WWICVZZ$ $PEICVUS = \Sigma PEICVZZ + CCNIVUS$
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	$PESSVZZ = PERCVZZ + PECCVZZ + PEICVZZ + PEACVZZ$ $PESSVUS = \Sigma PESSVZZ + CCNIVUS$
PETCD	Primary energy average price, all sectors.	Dollars per million Btu	$PETCD = PETCV / PESCB * 1000$
PETCV	Primary energy total expenditures.	Million dollars	$PETCVZZ = PESSVZZ + PEEIVZZ$ $PETCVUS = \Sigma PETCVZZ + CCNIVUS$
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	$PETXVZZ = PEACVZZ + PECCVZZ + PEICVZZ + PERCVZZ$ $PETXVUS = \Sigma PETXVZZ + CCIMVUS - CCEXVUS$
POICD	Other petroleum products average price in the industrial sector.	Dollars per million Btu	$POICD = POICV / POISB * 1000$
POICV	Other petroleum products total expenditures in the industrial sector.	Million dollars	$POICVZZ = FNICVZZ + FOICVZZ + FSICVZZ + MSICVZZ +$ $PCICVZZ + SNICVZZ + WXICVZZ$ $POICVUS = \Sigma POICVZZ$
POTCD	Other petroleum products average price, all end-use sectors.	Dollars per million Btu	$POTCD = POTCV / POSCB * 1000$

**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
POTCV	Other petroleum products total expenditures.	Million dollars	POTCVZZ = PCCCVZZ + PCEIVZZ + POICVZZ POTCVUS = ΣPOTCVZZ
POTXD	Other petroleum products average price, all end-use sectors.	Dollars per million Btu	POTXD = (POTXV / (POSCB - PCEIB)) * 1000
POTXV	Other petroleum products total end-use expenditures.	Million dollars	POTXVZZ = PCCCVZZ + POICVZZ POTXVUS = ΣPOTXVZZ
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 = ΣRFACVZZ
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 = RFCCVZZ + RFICVZZ + RFACVZZ + RFEIVZZ 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 consumption.	Million dollars	RFTXVZZ = RFACVZZ + RFCCVZZ + RFICVZZ RFTXVUS = ΣRFTXVZZ
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

Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
TEACD	Total energy average price in the transportation.	Dollars per million Btu	$TEACD = TEACV / TNASB * 1000$
TEACV	Total energy expenditures in the transportation sector.	Million dollars	$TEACVZZ = PEACVZZ + ESACVZZ$ $TEACVUS = \Sigma TEACVZZ$
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	$TECCVZZ = PECCVZZ + ESCCVZZ$ $TECCVUS = \Sigma TECCVZZ$
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	$TEICVZZ = PEICVZZ + ESICVZZ$ $TEICVUS = \Sigma TEICVZZ + CCNIVUS$
TERCD	Total energy average price in the residential sector.	Dollars per million Btu	$TERCD = TERCV / TNRSB * 1000$
TERCV	Total energy total expenditures in the residential sector.	Million dollars	$TERCVZZ = PERCVZZ + ESRCVZZ$ $TERCVUS = \Sigma TERCVZZ$
TETCD	Total energy average price.	Dollars per million Btu	$TETCD = TETCV / TNCSB * 1000$
TETCV	Total energy total expenditures.	Million dollars	$TETCV = PESSV + ESTCV$
TETPV	Total energy expenditures per capita.	Dollars	$TETPV = TETCV / TPOPP * 1000$
TETXD	Total end-use energy average price.	Dollars per million Btu	$TETXD = TETXV / TNCSB * 1000$
TETXV	Total end-use energy expenditures.	Million dollars	$TETXVZZ = TEACVZZ + TECCVZZ + TEICVZZ + TERCVZZ$ $TETXVUS = \Sigma TETXVZZ$
WDC3D	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	$WDC4VZZ = WDCVBZZ * WDC4DZZ / 1000$ $WDC4VUS = \Sigma WDC4VZZ$
WDEID	Wood price in the electric power sector, U.S. only.	Dollars per million Btu	WDEIDUS is independent.

**Table A1. Price and Expenditure Variables (cont.)**

MSN	Description	Unit	Formula
WDI3D	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	$WDRCVZZ = WDRSBZZ * WDRCDZZ / 1000$ $WDRCVUS = \Sigma WDRCVZZ$
WSC3D	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	$WSC3VZZ = WSCYBZZ * WSEIDUS / 1000$ $WSC3VUS = \Sigma WSC3VZZ$
WSEID	Waste price in the electric power sector, U.S. only.	Dollars per million Btu	WSEIDUS is independent.
WSI3D	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	$WWEIVZZ = WWEIBZZ * WWEIDZZ / 1000$ $WWEIVUS = \Sigma WWEIVZZ$
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	$WWICVZZ = WWI4VZZ + WDI3VZZ + WSI3VZZ$ $WWICVUS = \Sigma WWICVZZ$



Table A1. Price and Expenditure Variables (cont.)

MSN	Description	Unit	Formula
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	$WWTCVZZ = WWSSVZZ + WWEIVZZ$ $WWTCVUS = \Sigma WWTCVZZ$
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	$WXICVZZ = WXICBZZ * WXICDZZ / 1000$ $WXICVUS = \Sigma WXICVZZ$

Table A2. Consumption Adjustment Variables

MSN	Description	Unit	Formula
CLISB	Coal consumed by the industrial sector excluding refinery fuel.	Billion Btu	$CLISB = CLOSB + CLKCB$
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	$CLRFBZZ = CLRFPZZ * CLOCKZZ$
CLRFP	Coal consumed as refinery fuel.	Thousand short tons	CLRFPZZ is independent.
CLSCB	Coal total consumption adjusted for process fuel.	Billion Btu	$CLSCB = CLRCB + CLCCB + CLISB + CLACB + CLEIB$
CLXCB	Coal consumed by all sectors excluding coke plants and refineries.	Billion Btu	$CLXCB = CLRCB + CLCCB + CLOSB + CLACB + CLEIB$
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	$DFRFBZZ = DFRFPZZ * DFTCKUS$
DFRFP	Distillate fuel oil consumed as refinery fuel.	Thousand barrels	DFRFPZZ is independent.
DFSCB	Distillate fuel oil total consumption adjusted for process fuel.	Billion Btu	$DFSCB = DFRCB + DFCCB + DFISB + DFACB + DFEIB$
EMLCB	Energy losses and co-products from the production of fuel ethanol.	Billion Btu	SEDS consumption variable
ESISB	Electricity sales to the industrial sector excluding refinery use.	Billion Btu	$ESISB = ESICB - ESRFB$
ESRFB	Electricity consumed by refineries.	Billion Btu	$ESRFBZZ = ESRFPZZ * 3.412$
ESRFP	Electricity consumed by refineries.	Million kilowatthours	ESRFPZZ is independent.
ESSCB	Electricity total consumption adjusted for process fuel.	Billion Btu	$ESSCB = ESRCB + ESCCB + ESISB + ESACB$
LGISB	LPG consumed by the industrial sector excluding refinery fuel.	Billion Btu	$LGISB = LGICB - LGRFB$
LGRFB	LPG consumed as refinery fuel.	Billion Btu	$LGRFBZZ = LGRFPZZ * LGICKUS$

**Table A2. Consumption Adjustment Variables (cont.)**

MSN	Description	Unit	Formula
LGRFP	LPG consumed as refinery fuel.	Thousand barrels	LGRFPZZ is independent.
LGSCB	LPG total consumption adjusted for process fuel.	Billion Btu	$LGSCB = LGRCB + LGCCB + LGISB + LGACB$
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 consumed as pipeline fuel.	Billion Btu	SEDS consumption variable
NGRFB	Natural gas consumed as refinery fuel (including supplemental gaseous fuels).	Billion Btu	$NGRFBZZ = NGRFPZZ * NGTXKZZ$
NGRFP	Natural gas consumed as refinery fuel (including supplemental gaseous fuels).	Million cubic feet	NGRFPZZ is independent.
NGSCB	Natural gas total consumption adjusted for process fuel.	Billion Btu	$NGSCB = NGRCB + NGCCB + NGISB + NGASB + NGEIB$
NGTXK	Factor for converting natural gas consumed by all sectors other than electric power from physical units to Btu.	Thousand Btu per cubic foot	SEDS consumption variable
P1ISB	Asphalt and roal oil, kerosene, lubricants, and other petroleum products consumed by the industrial sector excluding refinery fuel and intermediate products.	Billion Btu	$P1ISB = ARICB + KSICB + LUICB + POISB$
P1SCB	Asphalt and roal oil, kerosene, lubricants, and other petroleum products total consumption adjusted for process fuel and intermediate products.	Billion Btu	$P1SCB = ARTCB + AVTCB + KSTCB + LUTCB + POSCB$
P5RFB	Other petroleum products consumed as refinery fuel and intermediate products.	Billion Btu	$P5RFB = ABICB + MBICB + NAICB + PCRFB + PLICB + PPICB + SGICB + UOICB + USICB$
PAISB	All petroleum products consumed by the industrial sector excluding process fuel and intermediate products.	Billion Btu	$PAISB = ARICB + DFISB + KSICB + LGISB + LUICB + MGICB + RFISB + POISB$
PASCB	All petroleum products total consumption adjusted for process fuel and intermediate products.	Billion Btu	$PASCB = ARTCB + AVTCB + DFSCB + JFTCB + KSTCB + LGSCB + LUTCB + MGTCB + RFSCB + POSCB$

**Table A2. Consumption Adjustment Variables (cont.)**

MSN	Description	Unit	Formula
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
PCSCB	Petroleum coke total consumption adjusted for process fuel.	Billion Btu	$PCSCB = PCCCB + PCISB + PCEIB$
PEASB	Primary energy consumed by the transportation sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PEASB = CLACB + NGASB + PAACB$
PECSB	Primary energy consumed by the commercial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PECSB = CLCCB + NGCCB + PACCB + WWCSB$
PEISB	Primary energy consumed by the industrial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PEISB = CLISB + NGISB + PAISB + WWISB$
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	$PESCB = PESSB + PEEIB$
PESSB	Primary energy total end-use consumption, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$PESSB = PERSB + PECSB + PEISB + PEASB$
POISB	Other petroleum products consumed by the industrial sector excluding refinery fuel and intermediate products.	Billion Btu	$POISB = FNICB + FOICB + FSICB + MSICB + PCISB + SNICB + WXICB$
POSCB	Other petroleum products total consumption adjusted for refinery fuel and intermediate products.	Billion Btu	$POSCB = PCCCB + PCEIB + POISB$
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	$RFRFBZZ = RFRFPZZ * 6.287$
RFRFP	Residual fuel oil consumed as refinery fuel.	Thousand barrels	RFRFPZZ is independent.

Table A2. Consumption Adjustment Variables (cont.)

MSN	Description	Unit	Formula
RFSCB	Residential fuel oil total consumption excluding process fuel.	Billion Btu	$RFSCB = RFCCB + RFISB + RFACB + RFEIB$
SFINB	Supplemental gaseous fuels consumed by the industrial sector.	Billion Btu	SEDS consumption variable
SOHCB	Photovoltaic and solar thermal energy consumed in the residential, commercial, and industrial sectors (excluding power generated at commercial and industrial facilities with capacity of 1 megawatt or greater).	Billion Btu	SEDS consumption variable
TEPFB	Total energy used as process fuel and other consumption that has no direct fuel costs.	Billion Btu	$TEPFB = COICB + EMLCB + GECCB + GEICB + GERCB + HYCCB + HYICB + LOTCB + NGLPB + NGPZB + SOCCB + SOHCB + SOICB + TERFB + WDRXB + WWCXB + WWIXB + WYCCB + WYICB$
TERFB	Total energy used as refinery fuel and intermediate products.	Billion Btu	$TERFB = CLRFB + DFRFB + ESRFB + LGRFB + NGRFB + P5RFB + RFRFB$
TNASB	Total net energy consumed by the transportation sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNASB = PEASB + ESACB$
TNCSB	Total net energy consumed by the commercial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNCSB = PECSB + ESSCB$
TNISB	Total net energy consumed by the industrial sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNISB = PEISB + ESISB$
TNRSB	Total net energy consumed by the residential sector, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNRSB = PERSB + ESRCB$
TNSCB	Total net energy consumption, adjusted for process fuel, intermediate products, and fuels with no direct cost.	Billion Btu	$TNSCB = PESSB + ESSCB$
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	$WDCVBZZ = WDC4BZZ * WDPHSZZ$ $WDCVBUS = \sum WDCVBZZ$

**Table A2. Consumption Adjustment Variables (cont.)**

MSN	Description	Unit	Formula
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
WDEIS	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.
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
WSEIS	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 = WWIVB + WDIYB + WSIYB

**Table A2. Consumption Adjustment Variables (cont.)**

MSN	Description	Unit	Formula
WWIXB	Wood and waste consumed by the industrial sector, at no cost.	Billion Btu	$WWIXB = WWIUB + WDIZB + WSIZEB$
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.
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	$WWSSB = WDRSB + WWCSB + WWISB$