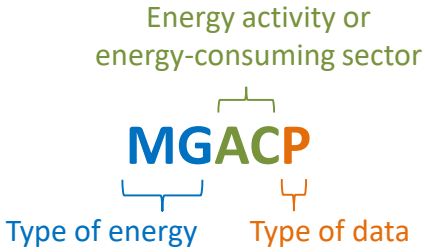
Appendix A. Mnemonic series names (MSN)

This appendix contains an alphabetical listing of the State Energy Data System (SEDS) energy production variables, called MSNs. For each variable, SEDS provides: a brief description; unit of measure; and the formulas used to create the variable. Variables that are entered directly from other sources, but not calculated by SEDS, are independent variables. Formulas for the state calculations have "ZZ" following the variable name, where "ZZ" represents the two-letter state code and in some cases, federal offshore region code (X3 for Gulf of Mexico and X5 for Pacific). The formulas for the United States have "US" following the variable name. If the formula for the states, federal offshore regions, 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 consumption technical notes for explanation of the five-character MSN code descriptions.

Table A1. Production variables

MSN	Description	Unit	Formula
B1PRB	Renewable diesel production.	Billion Btu	B1PRBZZ = B1PRPZZ * 5.494 B1PRBUS = ΣB1PRBZZ
B1PRP	Renewable diesel production.	Thousand barrels	B1PRPZZ is independent. B1PRPUS is independent.
BDFDB	Biodiesel production (total biomass inputs as feedstock), including liquids and losses & co-products.	Billion Btu	BDFDBZZ = BDPRBZZ + BDLCBZZ BDFDBUS = ΣBDFDBZZ
BDLCB	Energy losses and co-products from the production of biodiesel.	Billion Btu	BDLCBZZ = BDLCBUS * (BDPRBZZ / BDPRBUS) BDLCBUS is independent.
BDPRB	Biodiesel liquids production.	Billion Btu	BDPRBZZ = BDPRPZZ * 5.359 BDPRBUS = ΣBDPRBZZ
BDPRP	Biodiesel liquids production.	Thousand barrels	BDPRPZZ is independent. BDPRPUS is independent.
BFPRB	Biofuels production (total biomass inputs as feedstock), including liquids and losses & co-products.	Billion Btu	BFPRBZZ = BDFDBZZ + EMFDBZZ + B1PRBZZ BFPRBUS = BDFDBUS + EMFDBUS + B1PRBUS + BOPRBUS
BFPRP	Biofuels liquid production.	Thousand barrels	BFPRPZZ = BDPRPZZ + ENPRPZZ + B1PRPZZ BFPRPUS = BDPRPUS + ENPRPUS + B1PRPUS + BOPRPUS
BOPRBUS	Other biofuels total production for the United States.	Billion Btu	BOPRBUS = BOPRPUS * 5.359
BOPRPUS	Other biofuels total production for the United States.	Thousand barrels	BOPRPUS is independent.
CLPRB	Coal production.	Billion Btu	CLPRBZZ = CLPRPZZ * CLPRKZZ CLPRBUS = ΣCLPRBZZ
CLPRK	Factor for converting coal production from physical units to Btu.	Million Btu per short ton	CLPRKZZ is independent. CLPRKUS = CLPRBUS / CLPRPUS
CLPRP	Coal production.	Thousand short tons	CLPRPZZ is independent. CLPRPUS = ΣCLPRPZZ
COPRKUS	Factor for converting crude oil production from physical units to Btu for the United States.	Million Btu per barrel	COPRKUS is independent.
EMFDB	Fuel ethanol production (total biomass inputs as feedstock), including liquids and losses & co-products.	Billion Btu	EMFDBZZ = EMPRBZZ + EMLCBZZ EMFDBUS = ΣEMFDBZZ
EMLCB	Energy losses and co-products from the production of fuel ethanol.	Billion Btu	EMLCBZZ = (EMPRBZZ / EMPRBUS) * EMLCBUS EMLCBUS is independent.

Table A1. Production variables (cont.)

MSN	Description	Unit	Formula
EMPRB	Fuel ethanol production, excluding denaturant.	Billion Btu	EMPRBZZ = EMPRPZZ * 3.539 EMPRBUS = ΣEMPRBZZ
EMPRP	Fuel ethanol production, excluding denaturant.	Thousand barrels	EMPRPZZ = ENPRPZZ * (EMPRPUS / ENPRPUS) EMPRPUS is independent.
ENPRP	Fuel ethanol production, including denaturant.	Thousand barrels	ENPRPZZ is independent. ENPRPUS is independent.
GETCB	Geothermal energy total consumption.	Billion Btu	GETCBZZ = GECCBZZ + GEEGBZZ + GEICBZZ + GERCBZZ GETCBUS = ΣGETCBZZ
HYTCB	Hydropower total consumption.	Billion Btu	HYTCBZZ = HYCCBZZ + HYEGBZZ + HYICBZZ HYTCBUS = ΣHYTCBZZ
NCPRB	Noncombustible renewable energy production.	Billion Btu	NCPRBZZ = GETCBZZ + HYTCBZZ + SOTCBZZ + WYTCBZZ NCPRBUS = ΣNCPRBZZ
NGELB	NGPL production, gaseous equivalent.	Billion Btu	NGELB = NGELP * NGELK
NGELK	Factor for converting NGPL production, gaseous equivalent, from physical units to Btu.	Thousand Btu per cubic foot	NGLEKZZ is independent. NGLEKUS is independent.
NGELP	NGPL production, gaseous equivalent.	Million cubic feet	NGELPZZ is independent. NGELPUS = ΣNGELPZZ
NGMPB	Natural gas marketed production.	Billion Btu	Before 1970: NGMPBZZ = NGMPPZZ * 1970's NGMPKZZ 1970 forward: NGMPBZZ = NGPRBZZ + NGELBZZ NGMPBUS = ΣNGMPBZZ for all years.
NGMPK	Factor for converting marketed natural gas production from physical units to Btu.	Thousand Btu per cubic foot	NGMPKZZ = NGMPBZZ / NGMPPZZ NGMPKUS = NGMPBUS / NGMPPUS
NGMPP	Natural gas marketed production.	Million cubic feet	NGMPPZZ = NGPRPZZ + NGELPZZ NGMPPUS = ΣNGMPPZZ
NGPRB	Natural gas dry production.	Billion Btu	NGPRBZZ = NGPRPZZ * NGPRKZZ NGPRBUS = ΣNGPRBZZ
NGPRK	Factor for converting dry natural gas production from physical units to Btu.	Thousand Btu per cubic foot	For 50 states & DC: NGPRKZZ = NGTCKZZ For Federal Offshore: NGPRK is independent. NGPRKUS is independent.

Table A1. Production variables (cont.)

MSN	Description	Unit	Formula
NGPRP	Natural gas dry production.	Million cubic feet	NGPRPZZ is independent. NGPRPUS = ΣNGPRPZZ
NUEGP	Nuclear electricity net generation in the electric power sector.	Million kilowatthours	NUEGPZZ is independent. NUEGPUS = ΣNUEGPZZ
NUETB	Nuclear energy consumed for electricity generation, total.	Billion Btu	NUETBZZ = NUEGBZZ NUETBUS = NUEGBUS
PAPRB	Crude oil production (including lease condensate).	Billion Btu	PAPRBZZ = PAPRPZZ * COPRKUS PAPRBUS = ΣPAPRBZZ
PAPRP	Crude oil production (including lease condensate).	Thousand barrels	PAPRPZZ is independent. PAPRPUS = ΣPAPRPZZ
REPRB	Renewable energy production.	Billion Btu	REPRBZZ = BFPRBZZ + WWPRBZZ + NCPRBZZ REPRBUS = BFPRBUS + WWPRBUS + NCPRBUS
SOTCB	Solar energy total consumption.	Billion Btu	SOTCBZZ = SOCCBZZ + SOEGBZZ + SOICBZZ + SORCBZZ SOTCBUS = ΣSOTCBZZ
TEPRB	Total primary energy production.	Billion Btu	TEPRBZZ = CLPRBZZ + PAPRBZZ + NGMPBZZ + NUETBZZ + REPRBZZ TEPRBUS = CLPRBUS + PAPRBUS + NGMPBUS + NUETBUS + REPRBUS
TETCB	Total energy consumption.	Billion Btu	TETCBZZ = ELISBZZ + ELNIBZZ + FFTCBZZ + NUETBZZ + RETCBZZ TETCBUS = ELNIBUS + FFTCBUS + NUETBUS + RETCBUS
WDEXB	Densified biomass exports (available for 2016 forward).	Billion Btu	WDEXBZZ is independent. WDEXBUS is independent.
WDPRB	Wood energy production.	Billion Btu	Before 2016: WDPRBZZ = WDTCBZZ 2016 forward: WDPRBZZ = WDTCBZZ + WDEXBZZ WDPRBUS = ΣWDPRBZZ for all years.
WDTCB	Wood energy total consumption.	Billion Btu	WDTCBZZ = WDCCBZZ + WDEIBZZ + WDICBZZ + WDRCBZZ WDTCBUS = ΣWDTCBZZ
WSTCB	Waste energy total consumption.	Billion Btu	WSTCBZZ = WSCCBZZ + WSEIBZZ + WSICBZZ WSTCBUS = ΣWSTCBZZ

Table A1. Production variables (cont.)

MSN	Description	Unit	Formula
WWPRB	Wood and waste energy production.	Billion Btu	WWPRBZZ = WDPRBZZ + WSTCBZZ WWPRBUS = ΣWWPRBZZ
WYTCB	Wind energy total consumption.	Billion Btu	WYTCBZZ = WYCCBZZ + WYEGBZZ + WYICBZZ WYTCBUS = ΣWYTCBZZ