# Appendix A. Mnemonic series names (MSN)

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

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

Energy activity or
energy-consuming sector

MGACP

Type of energy   Type of data
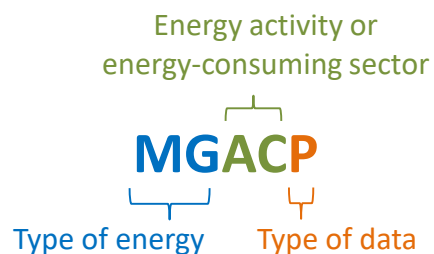
See Section 1 of the SEDS consumption technical notes for explanation of the five-character MSN code descriptions.

Table A1. Energy indicators variables

MSN	Description	Unit	Formula
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 = ΣBTVHNZZ
BTVHP	Electricity consumed for battery electric vehicle (BEV) use.	Million kilowatthours	BTVHPZZ is independent. BTVHPUS = ΣBTVHPZZ
CLCAS	Coal generating units capacity factor.	Percent	CLCASZZ is independent. CLCASUS is independent.
CLGBP	Coal generating units net summer capacity in all sectors.	Thousand kilowatts	CLGBPZZ is independent. CLGBPUS is independent.
CYCAS	Natural gas combined cycle generating units capacity factor.	Percent	CYCASZZ is independent. CYCASUS is independent.
ELGBP	Total (all fuels) electric generating units net summer capacity in all sectors.	Thousand kilowatts	ELGBPZZ is independent. ELGBPUS is independent.
ELVHN	Total electric vehicle (EV) light-duty stocks.	Thousands of registered vehicles	ELVHNZZ = BTVHNZZ + PHVHNZZ ELVHNUS = ΣELVHNZZ
ELVHS	Electric vehicle (EV) share of total light-duty vehicles.	Percent	ELVHSZZ = ELVHNZZ / LDVHNZZ * 100
ESRPP	Electricity consumed by (sales to ultimate customers in) the residential sector per capita.	Kilowatthours	ESRPP = ESRCP / TPOPP * 1000
ESTPP	Electricity total consumption (electricity sales to ultimate customers) per capita.	Kilowatthours	ESTPP = ESTCP / TPOPP * 1000
ESVHP	Electricity consumed for electric vehicle (EV) use.	Million kilowatthours	ESVHPZZ is independent. ESVHPUS = ΣESVHPZZ
EV0CN	Legacy charging ports for electric vehicles.	Number	EV0CNZZ is independent. EV0CNUS is independent.
EV1CN	Level 1 charging ports for electric vehicles.	Number	EV1CNZZ is independent. EV1CNUS is independent.

MSN	Description	Unit	Formula
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.
EVDCN	DC fast charging ports for electric vehicles.	Number	EVDCNZZ is independent. EVDCNUS is independent.
EVDCR	DC fast charging ports per location.	Number	EVDCRZZ is independent. EVDCRUS is independent.
EVNNP	Electric vehicle charging locations with both networked and non-networked ports.	Number	EVNNPZZ is independent. EVNNPUS is independent.
EVNOP	Electric vehicle charging locations with non-networked ports only.	Number	EVNOPZZ is independent. EVNOPUS is independent.
EVNTP	Electric vehicle charging locations with networked ports only.	Number	EVNTPZZ is independent. EVNTPUS is independent.
EVPPP	Electric vehicle charging locations with both public and private ports.	Number	EVPPPZZ is independent. EVPPPUS is independent.
EVPUP	Electric vehicle charging locations with public ports only.	Number	EVPUPZZ is independent. EVPUPUS is independent.
EVPVP	Electric vehicle charging locations with private ports only.	Number	EVPVPZZ is independent. EVPVPUS is independent.
FFGBP	Fossil fuel total generating units net summer capacity in all sectors.	Thousand kilowatts	FFGBPZZ is independent. FFGBPUS is independent.
GDPRV	Current-dollar gross domestic product (GDP).	Million dollars	GDPRVZZ is independent. GDPRVUS is independent.
GDPRX	Real gross domestic product (GDP).	Million chained (2017) dollars	GDPRXZZ is independent. GDPRXUS is independent.
GECAS	Geothermal generating units capacity factor.	Percent	GECASZZ is independent. GECASUS is independent.

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Table A1. Energy indicators variables (cont.)

MSN	Description	Unit	Formula
GEGBP	Geothermal generating units net summer capacity in all sectors.	Thousand kilowatts	GEGBPZZ is independent. GEGBPUS is independent.
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.
LDVHN	Total (all fuels) vehicle light-duty stocks.	Thousands of registered vehicles	LDVHNZZ is independent. LDVHNUS is independent.
MGTPV	Motor gasoline expenditures per capita.	Million dollars	MGTPV = MGTCV / TPOPP * 1000
NGGBP	Natural gas generating units net summer capacity in all sectors.	Thousand kilowatts	NGGBPZZ is independent. NGGBPUS is independent.
NGTPB	Natural gas total consumption per capita.	Million Btu	NGTPB = NGTCB / TPOPP
NGTPP	Natural gas total consumption per capita.	Thousand cubic feet	NGTPP = NGTCP / TPOPP
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.
NUGBP	Nuclear generating units net summer capacity in all sectors.	Thousand kilowatts	NUGBPZZ is independent. NUGBPUS is independent.
NYCAS	Natural gas conventional steam generating units capacity factor.	Percent	NYCASZZ is independent. NYCASUS is independent.
OJGBP	Other gases generating units net summer capacity in all sectors.	Thousand kilowatts	OJGBPZZ is independent. OJGBPUS is independent.
OTGBP	Other generating units net summer capacity in all sectors.	Thousand kilowatts	OTGBPZZ is independent. OTGBPUS is independent.
PACAS	Petroleum generating units capacity factor.	Percent	PACASZZ is independent. PACASUS is independent.

MSN	Description	Unit	Formula
PAGBP	Petroleum generating units net summer capacity in all sectors.	Thousand kilowatts	PAGBPZZ is independent. PAGBPUS is independent.
PATPB	All petroleum products total consumption per capita.	Million Btu	PATPB = PATCB / TPOPP
PATPP	All petroleum products total consumption per capita.	Barrels	PATPP = PATCP / TPOPP
PHVHN	Plug-in hybrid electric vehicle (PHEV) light-duty stocks.	Thousands of registered vehicles	PHVHNZZ is independent. PHVHNUS = ΣPHVHNZZ
PHVHP	Electricity consumed for plug-in hybrid electric vehicle (PHEV) use.	Million kilowatthours	PHVHPZZ is independent. PHVHPUS = ΣPHVHPZZ
REGBP	Renewable energy total generating units net summer capacity in all sectors.	Thousand kilowatts	REGBPZZ is independent. REGBPUS is independent.
SHCAS	Solar thermal generating units capacity factor.	Percent	SHCASZZ is independent. SHCASUS is independent.
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.
TEAPB	Total energy consumption per capita in the transportation sector.	Million Btu	TEAPBZZ = TEACBZZ / TPOPPZZ TEAPBUS = TEACBUS / TPOPPUS
TECPB	Total energy consumption per capita in the commercial sector.	Million Btu	TECPBZZ = TECCBZZ / TPOPPZZ TECPBUS = TECCBUS / TPOPPUS
TEGDS	Energy expenditures as percent of current-dollar GDP.	Percent	TEGDS = TETCV / GDPRV * 100
TEIPB	Total energy consumption per capita in the industrial sector.	Million Btu	TEIPBZZ = TEICBZZ / TPOPPZZ TEIPBUS = TEICBUS / TPOPPUS
TERPB	Total energy consumption per capita in the residential sector.	Million Btu	TERPBZZ = TERCBZZ / TPOPPZZ TERPBUS = TERCBUS / TPOPPUS
TETGR	Total energy consumption per dollar of real gross domestic product (GDP).	Thousand Btu per chained (2017) dollars	TETGRZZ = TETCBZZ / GDPRXZZ TETGRUS = TETCBUS / GDPRXUS
TETPB	Total energy consumption per capita.	Million Btu	TETPBZZ = TETCBZZ / TPOPPZZ TETPBUS = TETCBUS / TPOPPUS

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Table A1. Energy indicators variables (cont.)

MSN	Description	Unit	Formula
TETPV	Total energy expenditures per capita.	Dollars	TETPV = TETCV / TPOPP * 1000
TPOPP	Resident population including Armed Forces.	Thousand population	TPOPPZZ is independent. TPOPPUS is independent.
WDGBP	Wood generating units net summer capacity in all sectors.	Thousand kilowatts	WDGBPZZ is independent. WDGBPUS is independent.
WSGBP	Waste generating units net summer capacity in all sectors.	Thousand kilowatts	WSGBPZZ is independent. WSGBPUS is independent.
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.