

WREGIS Fuel Type Index

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Fuel Types Not Used in WREGIS
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Wind (WI Eligible)
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* Registering a generator with this fuel type may require additional information or documentation.

WREGIS Certificate Creating Fuel Sources

Fuel Type	Fuel Source
Biogas	Agricultural Waste
	Anaerobic digester system
	Anaerobic Digestion of 100% Green Waste
	Animal Waste
	Biogas
	Biogas (Generic)
	Constructed in compliance with new source performance standards promulgated under the federal Clean Air Act for a generation facility of that type
	Dairy Manure
	Digester Gas-Digester Gas
	Digester Gas-Farm-based methane gas
	Digester Gas-Industrial digester gas
	Digester Gas-Wastewater Treatment Gases
	Employs the maximum achievable or best available control technology available for a generation facility of that type
	Food waste
	Generic Manure
	High-solids (greater than 15 percent total solids) anaerobic digestion of food and green wastes
	HSAD Food & Green Waste
	Landfill Gas-Landfill Gas
	Liquid fuels derived from plant or animal sources, including but not limited to ethanol, biodiesel, vegetable oil, or animal fat
	Meets the following criteria: Gases that are derived from plant-derived organic matter, agricultural food and feed matter, wood wastes, aquatic plants, animal wastes, vegetative wastes, or wastewater treatment facilities using anaerobic digestion or from municipal solid waste



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Biogas	Mesophilic Anaerobic Digestion of Wastewater Sludge
	Methane or other combustible gases derived from the processing or decay of plant, animal, or municipal solid waste materials
	Swine Manure
Biomass	A majority of the fuel source is Agricultural by-products including wastes
	A majority of the fuel source is Agricultural products
	A majority of the fuel source is mixed municipal solid waste
	A majority of the fuel source is refuse-derived fuel
	A majority of the fuel source is Wood products
	Agricultural Crops - Dedicated Energy Crops
	Agricultural Wastes and Residues - Invasive Species
	Biodiesel
	Biodiesel Blend
	Biomass
	Biomass-Material that has been separated from municipal solid waste (MSW), and subsequently processed (e.g., pelletization, gasification) to serve as a combustion fuel
	Biomass-Not derived from fossil fuels
	Black Liquor derived from Biomass
	Landfill Gas
	Liquid fuels derived from plant or animal sources, including but not limited to ethanol, biodiesel, vegetable oil, or animal fats
	Method of combustion is Direct Combustion
	Method of combustion is Gasification
	Method of combustion is Liquefaction
	Mixed municipal solid waste and refuse-derived fuel from MSW
	Organic material or wastes
	Organic material or wastes-Fuel meets the following definition: Non-toxic plant matter that is the by-product of agricultural crops, urban wood waste, mill residue, slash or brush



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Biomass	Organic material or wastes-Non-hazardous plant matter waste that is segregated from other waste
	Primary woody or herbaceous vegetative matter (plants), including but not limited to wood, grasses, agricultural crops or residues
	Processed plant materials from industry waste sources, including manufacturing, construction, or demolition
	Solid waste materials-Including waste pallets, crates, dunnage, manufacturing, and construction wood wastes, landscape or right-of-way tree trimmings, mill residues that are directly the result of the milling of lumber, and rangeland maintenance residues
	Solid waste materials-Recycled paper fibers that are no longer suitable for recycled paper production
	Wood and Wood Wastes
	Wood and Wood Wastes-(a) 'Biomass energy' includes: (i) Organic by-products of pulping and the wood manufacturing process; (ii) animal manure; (iii) solid organic fuels from wood; (iv) forest or field residues; (v) untreated wooden demolition or construction debris; (vi) food waste and food processing residuals; (vii) liquors derived from algae; (viii) dedicated energy crops; and (ix) yard waste. (b) 'Biomass energy' does not include: (i) Wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenic; (ii) wood from old growth forests; or (iii) municipal solid waste.
	Wood and Wood Wastes-Fuel meets the following definition: landscape waste, right of way tree trimmings, small diameter forest thinnings; forest-related resources such as harvesting and mill residue, pre-commercial thinnings, slash and brush; waste pallets, crates, and dunnage; but not including painted, treated, or pressurized wood, wood contaminated with plastics or metals, tires, or recyclable post-consumer wastepaper.
	Wood and Wood Wastes-Fuel meets the following definition: low-emission, nontoxic biomass based on solid organic fuels from wood, forest, or field residues, except that the term does not include wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chroma-arsenic;

WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Biomass	Wood and Wood Wastes-Fuel meets the following definition: low-emission, nontoxic biomass based on solid organic fuels from wood, forest, or field residues, except that the term does not include wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chroma-arsenic
	Wood and Wood Wastes-Fuel meets the following definition: small diameter timber, salt cedar and other phreatophyte or woody vegetation removed from river basins or watersheds in New Mexico.
	Wood and Wood Wastes-Fuel Source meets ALL of the following criteria:(i) Have been harvested pursuant to an approved timber harvest plan prepared in accordance with the Zberg-Nejedly Forest Practice Act of 1973 (Ch. 8 commencing with Sec. 4511), Pt. 2, Div. 4, Public Resources Code). (ii) Have been harvested for the purpose of forest fire fuel reduction or forest stand improvement. (iii) Do not transport or cause the transportation of species known to harbor insect or disease nests outside zones of infestation or current quarantine zones, as identified by the Department of Food and Agriculture or the Department of Forestry and Fire Protection, unless approved by the Department of Food and Agriculture and the Department of Forestry and Fire Protection.
Biomass - Agricultural Crop (closed loop)	Biomass – Agricultural Crop (closed loop)
Biomass - Agricultural Crop (open loop)	Biomass – Agricultural Crop (open loop)
Biomass - Agricultural Waste	Biomass – Agricultural Waste
Biomass - Alt fuels from plant oils or animal fats	Biomass - Alt fuels from plant oils or animal fats
Biomass - Animal Waste - Other	Biomass – Animal Waste – Other
Biomass - Animal Waste - Poultry	Biomass – Animal Waste – Poultry
Biomass - Animal Waste - Swine	Biomass – Animal Waste – Swine
Biomass - Biological Waste	Biomass – Biological Waste
Biomass - Black Liquor	Biomass – Black Liquor
Biomass - Herbaceous Vegetative Matter or Residue	Biomass – Herbaceous Vegetative Matter or Residue



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Biomass - Incineration of Construction Debris	Biomass – Incineration of Construction Debris
Biomass - Incineration of Garbage	Biomass – Incineration of Garbage
Biomass - Liquids	Biomass – Liquids
Biomass – Non-vegetation waste	Biomass – Non-vegetation waste
Biomass - Paper-derived	Biomass – Paper-derived
Biomass - Recovered Woody Biomass	Biomass – Recovered Woody Biomass
Biomass - Refuse-derived Fuel	Biomass – Refuse-derived Fuel
Biomass - Sludge Waste	Biomass – Sludge Waste
Biomass - Sustainably managed woody biomass	Biomass – Sustainably managed woody biomass
Biomass - Treated Organic Waste Biomass	Biomass – Treated Organic Waste Biomass
Biomass - Untreated Organic Waste Biomass	Biomass – Untreated Organic Waste Biomass
Biomass - Wood - Railroad Ties	Biomass – Wood – Railroad Ties
Biomass - Wood - Utility Poles	Biomass – Wood – Utility Poles
Biomass - Wood - Wood Waste Liquids	Biomass – Wood – Wood Waste Liquids
Biomass - Wood - Wood/Wood Waste Solids	Biomass – Wood – Wood/Wood Waste Solids
Fossil Fuel (CEC Renewable)	Natural Gas (CEC Renewable)
Fuel Cells	Fuel Cell using non-renewable fuels
	Fuel Cell using renewable fuels
	Fuel Cells
Geothermal Energy	Binary Cycle
	Dry Steam



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Geothermal Energy	Flash Steam
	Geothermal Energy
Hydroelectric Water	Conduit hydroelectric-Conduit hydroelectric
	Conduit hydroelectric-The facility does NOT require a new or increased appropriation or diversion of water from a watercourse.
	Conduit hydroelectric-The facility does not require a new or increased appropriation or diversion of water under Water Code Section 1200 et seq. or any other provision of law authorizing an appropriation of water.
	Conduit hydroelectric-The facility does NOT require a new or revised permit from the California State Water Resources Control Board (or any government body) for a new appropriation of water.
	Conduit hydroelectric-The facility does NOT require a new permit or license from the California State Water Resources Control Board (or any government body) for an increase in the volume or rate of water diverted.
	Conduit hydroelectric-The facility does NOT require a new permit or license from the California State Water Resources Control Board for a new diversion of water.
	Conduit hydroelectric-The facility does NOT require a water right permit or license from the California State Water Resources Control Board for an increase in the volume or rate of water diverted under an existing right.
	Conduit hydroelectric-The facility does NOT require an increase in the volume or rate of water diverted under an existing right, even if such an increase would not require a new permit or license from any government body.
	Conduit hydroelectric-The facility had efficiency improvements undertaken after January 1, 2003, which caused it to exceed 30 MW and does not require a new or increased appropriation or diversion of water from a watercourse.
	Conduit hydroelectric-The facility is not located on federal lands and uses for its generation only the hydroelectric potential of a manmade conduit, which is operated for the distribution of water for agricultural, municipal, or industrial consumption and not primarily for the generation of electricity as specified in Section 823a of Title 16 of the United States Code.
	Hydroelectric Water



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Hydroelectric Water	Hydroelectric Water with a nameplate capacity that is less than 100MW
	Hydroelectric Water with a nameplate capacity that is less than 4MW
	Hydroelectric Water-Water-Generation using canals or other irrigation systems
	Hydroelectric Water-Water-The facility had efficiency improvements undertaken after January 1, 2003, which caused it to exceed 30 MW and do not require a new or increased appropriation or diversion of water from a watercourse.
	Hydroelectric Water with a nameplate capacity that is less than 60MW
	Water-Facility meets the following definition: Facility is located in the Pacific Northwest, and facility has made efficiency improvements completed after March 31, 1999, and such improvements do not result in a new water diversion or impoundment.
	Water-The facility does NOT require a new impoundment of water
	Water-The facility does NOT require a new or increased appropriation or diversion of water
	Water-The facility does NOT require a new or increased appropriation or diversion of water from a watercourse.
	Water-The facility does NOT require a new or increased appropriation or diversion of water under Water Code Section 1200 et seq. or any other provision of law authorizing an appropriation of water.
	Water-The facility does NOT require a new or revised permit from the California State Water Resources Control Board (or any government body) for a new appropriation of water.
	Water-The facility does NOT require a new permit or license from the California State Water Resources Control Board (or any government body) for an increase in the volume or rate of water diverted.
	Water-The facility does NOT require a new permit or license from the California State Water Resources Control Board for a new diversion of water.
	Water-The facility does NOT require a water right permit or license from the California State Water Resources Control Board for an increase in the volume or rate of water diverted under an existing right.
	Water-The facility does NOT require an increase in the volume or rate of water diverted under an existing right, even if such an increase would not require a new permit or license from any government body.

WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Hydroelectric Water	Water-The facility was under contract to, or owned by, a retail seller as of December 31, 2005.
	Water-The hydropower generators meets the following criteria: (1) was in existence prior to 1997, and (2) satisfies one of the following two criteria: (a) New Increased Capacity of Existing Hydropower Facilities: A hydropower facility that increases capacity due to improved technological or operational efficiencies or operational improvements resulting from improved or modified turbine design, improved or modified wicket gate assembly design, improved hydrological flow conditions, improved generator windings, improved electrical excitation systems, increases in transformation capacity, and improved system control and operating limit modifications. (b) Generation from pre-1997 hydropower facilities that is used to firm or regulate the output of other eligible, intermittent renewable resources: (c) Generation using canals or other irrigation systems.
	Water-The hydropower generators meets the following criteria: The hydropower generator was installed after January 1, 2006, produces 10 MW or less and is either: (a) A low-head, micro hydro run-of-the-river system that does not require any new damming of the flow of the stream; or (b) An existing dam that adds power generation equipment without requiring a new dam, diversion structures, or a change in water flow that will adversely impact fish, wildlife, or water quality; or(c) Generation using canals or other irrigation systems.
	Water-The power is derived from water that has been pumped from a lower to a higher elevation where the generating capacity of the plant, facility, equipment or system for which the water is used is not more than 30 megawatts.
	Water-The power meets the following two criteria: (a) Was not derived from water stored in a reservoir by a dam or similar device, unless: (1) The water is used exclusively for irrigation; (2) The dam or similar device was in existence on January 1, 2003; and (3) The generating capacity of the plant, facility, equipment or system for which the water is used is not more than 30 megawatts; (b) Does not require the use of any fossil fuel for its creation, unless: (1) The primary purpose of the use of the fossil fuel is not the creation of the power; and (2) The generating capacity of the plant, facility, equipment or system for which the water is used is not more than 30 megawatts.
Hydrogen	Electrolysis (Requires CI)
	Electrolysis Using Electricity Generated From Zero-CI Sources
	Fossil Based (Requires CI)



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Hydrogen	Hydrogen
	Hydrogen production via electrolysis using solar electricity
	Landfill Gas
	Landfill gas to on-site hydrogen production via cracking of methane
Incremental Efficiency - Hydroelectric Water	Hydroelectric Water generated from the installation of a supplemental process and/or equipment to alter and/or add to the processes of an existing operation to generate electricity from a renewable energy source.
	Incremental electricity attributable to efficiency upgrades made on or after January 1, 1995, at a hydroelectric facility that became operational before January 1, 1995 (Oregon RPS).
	Incremental electricity produced as a result of efficiency improvements completed after March 31, 1999, to a hydroelectric generation project owned by a qualifying utility and located in the Pacific Northwest where the additional generation does not result in a new water diversion or impoundment (Washington RPS).
	Incremental/Efficiency – Hydroelectric Water
	Used in conjunction with Hydroelectric Water for additional eligibility and when more than the State of California need to use Incremental/Efficiency – Hydroelectric Water. Hydroelectric Water generated from the installation of eligible efficiency improvements to an existing hydroelectric generation facility. Efficiency improvements are limited to additions that make more efficient use of the existing water resource and improve the efficiency of equipment. Efficiency improvements do not include routine maintenance (California RPS).
Incremental Efficiency - Hydroelectric Water - Oregon	Used to identify incremental hydroelectric generation that is eligible in Oregon and ineligible in other states. Electricity from a hydroelectric facility that became operational before January 1, 1995, may be used to comply with a renewable portfolio standard if the electricity is attributable to efficiency upgrades made on or after January 1, 1995 (Oregon RPS).
Incremental Efficiency - Hydroelectric Water - Washington	Used to identify incremental hydroelectric generation that is eligible in Washington and ineligible in other states. Incremental electricity produced as a result of efficiency improvements completed after March 31, 1999, to a hydroelectric generation project owned by a qualifying utility and located in the Pacific Northwest where the additional generation does not result in a new water diversion or impoundment (Washington RPS).

WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Municipal Solid Waste	An energy recovery facility used to capture the heat value of mixed municipal solid waste or refuse-derived fuel from mixed municipal solid waste
	Municipal solid waste
	Municipal Solid Waste-Municipal Solid Waste-Facility meets one of the following definitions: For MSW combustion facilities: the electric generation facility is located wholly within Stanislaus County and began operating before September 26, 1996.
	Municipal Solid Waste-Municipal Solid Waste-For MSW conversion technologies: The facility certifies that any local agency sending solid waste to the facility complies with Division 30 of the California Public Resources Code (commencing with Section 40000), and has reduced, recycled, or composted solid waste to the maximum extent feasible, and shall have been found by the California Integrated Waste Management Board to have diverted at least 30 percent of all solid waste through source reduction, recycling, and composting.
Nuclear	Nuclear
Solar	Solar
	Solar PV
	Solar Thermal
Solar Thermal	Solar Hot Air
	Solar Hot Water
	Solar Sludge Dryer
Station Service Solar	Electricity produced from a solar resource that is consumed as station service or parasitic load. This fuel source is used solely by WREGIS staff at the request of program administrators in accordance with WREGIS Operating Rules Section 9.5.2.
Thermal	Thermal REC
Tidal or Wave	Tidal or Wave
Waste Heat Recovery	Energy produced by a generation unit with a nameplate capacity of not more than fifteen megawatts that converts the otherwise lost energy from the heat exhaust stacks or pipes to electricity and that does not combust additional fossil fuel. "Recycled Energy" does not include energy produced by any system that uses energy, lost or otherwise, from a process whose primary purpose is the generation



WREGIS Fuel Types and Sources

Fuel Type	Fuel Source
Waste Heat Recovery	Waste Heat Recovery
	Waste Heat Recovery/Recycled Energy
Wind	Wind



WREGIS Non-certificate Creating Fuel Sources

Fuel Type	Fuel Source
Coal	Coal
Diesel	Diesel
Flared Gas	Flared Gas
Jet	Jet
Large Hydro Not Meant for Certificate Creation	Large Hydro not meant for certificate creation
Natural Gas	Natural Gas
Non-Renewable Additives	Non-renewable Additives Added to Conform to Pipeline Quality Standards
Oil	Oil
Petroleum Coke	Petroleum Coke
Pumped Hydro Storage	Grid Electricity
Pumped Storage Not Meant for Certificate Creation	Pumped Storage not meant for certificate creation
Waste Oil	Waste Oil
WREGIS Alberta Emission Offset (AEO)	Non-certificate creating fuel type for concurrent registration in Alberta Emission Offset Registry in accordance with WREGIS Operating Rules Section 5.3.5.

Fuel Types Not Used in WREGIS

Fuel Type	Fuel Source
Air Source	Air Source
Alternate Use	Alternate Use
Biomass (WI Eligible)	Biomass (WI Eligible)
Compost Heat Exchange System	Compost
Conversion of Fuel from Natural Gas Pipeline	Conversion of Fuel from Natural Gas Pipeline
Distributed Generation Multi-Fuel	Distributed Generation Multi-Fuel
Gas - Blast-Furnace Gas	Gas – Blast-Furnace Gas
Ground and Water Source Head Pump	Air Source Heat Pump
	Ground Source Heat Pump
Hydro (WI Eligible)	Hydro (WI Eligible)
Renewable Natural Gas	Anaerobic Digestion of 100% Green Waste
	Animal Waste
	Biomethane produced from the high-solids (greater than 15 percent total solids) anaerobic digestion of food and green wastes
	Dairy Manure
	Generic Manure
	HSAD Food & Green Waste
	Landfill Gas to Pipeline Quality RNG
	Mesophilic Anaerobic Digestion of Wastewater Sludge
	Renewable Natural Gas
	Swine Manure
	Waste Water
Tire Derived Fuel	Tire Derived Fuel
Wind (WI Eligible)	Wind (WI Eligible)
Woody Biomass System	Wood Chip



WREGIS Fuel Types and Sources

Woody Biomass System	Wood Pellet
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