

FORM CEC-1304 SCHEDULES 1, 2, AND 3 POWER PLANT GENERATION AND FUEL QUARTERLY REPORTS WITH ANNUAL ENVIRONMENTAL INFORMATION

FORM CEC-1304 SCHEDULES 1 AND 2 – Power Plant Generation and Fuel Quarterly Reports

Purpose: This form provides electric generation and fuel use information related to power plant operations. This information is used by California Energy Commission staff for various analyses including the CEC's *Integrated Energy Policy Report*.

Authority: California Code of Regulations, Title 20, Division 2, Chapter 3, Section 1304(a)(1)-(3)

Who must file: Each owner of a power plant located within California or within a control area with end users inside California.

When to file: For power plants with a nameplate capacity of ten megawatts (10 MW) or more, this form is submitted on the 15th day of February, May, August, and November for the previous quarter. For power plants with a nameplate capacity from one megawatt (1 MW) to less than ten megawatts (10 MW), this form is submitted annually on the 15th day of February for the previous calendar year.

How to file: Reports can be submitted by email or U.S. mail. Each submittal must be accompanied with a declaration. For wind plants, file reports using the online data reporting system. Send an email to qfergen@energy.ca.gov to request access to the online system.

Where to file: California Energy Commission
Attn: David Gee
715 P Street, MS 20
Sacramento, CA 95814

Or by email: QFERGEN@energy.ca.gov

CEC-1304 SCHEDULE 1 PART A INSTRUCTIONS

1. **Reporting Year.** The year for which data is collected.
2. **Reporting Quarter.** If the plant has a nameplate capacity of at least 10 MW: Q1 for monthly data through March, Q2 for monthly data through June, Q3 for monthly data through September, Q4 for all months. If the plant has a nameplate capacity between 1 and 10 MW: Annual.
3. **Plant Name.** Name of the power plant.
4. **CEC Plant ID.** The CEC will assign the code of identification when the power plant is first reported on Form CEC-1304 schedules. The respondent should use the CEC assigned code in subsequent filings.
5. **EIA Plant ID.** Code of identification used by the Energy Information Administration (EIA Facility Code).
6. **Control Area Operator.** The entity responsible for the operation of a control area. Also referred to as a Balancing Authority. The control area is the electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the Western Electricity Coordinating Council. Control areas are listed at the web page at this link: [Balancing Authorities in California](#).
7. **WREGIS ID.** Code of identification used by the Western Renewable Energy Generation Information System.
8. **Qualifying Facility ID.** Code of identification used by the purchasing utility for PURPA qualifying facilities (QFID).
9. **Plant Location.** Location of the power plant with latitude, longitude, street address, city, county, state, and zip code.
10. **Plant Owner.** The full legal name of the plant owner and principal business address with street address, city, state, and zip code.
11. **Plant Operator.** The full legal name of the plant operator and principal business address with street address, city, state, and zip code.
12. **Nameplate Capacity.** The sum of the nameplate capacity in megawatts of all generators in the power plant.
13. **Number of Generators.** The number of generators in the power plant. If the prime movers for all generators are wind turbines, enter one (1) and report the number of wind turbines in Part B of Form CEC-1304 Schedule 1. Provide details of wind turbine groups on that schedule.

14. **NAICS Code of Thermal Host if Cogeneration.** If the power plant is a cogeneration facility, provide the North American Industry Classification System (NAICS) code of the entity that consumes the useful thermal output (steam or waste heat) of the plant. For information about NAICS codes, visit [U.S. Census Bureau website](http://U.S.CensusBureau.gov) or contact David Gee by email at David.Gee@energy.ca.gov.
15. **NAICS Code of Direct Onsite User of Electricity.** If all or part of electricity produced by the power plant is consumed by an entity onsite, other than consumption by the auxiliary equipment of the power plant, provide the NAICS code of that entity. For information about NAICS codes, visit [U.S. Census Bureau website](http://U.S.CensusBureau.gov) or contact David Gee by email at David.Gee@energy.ca.gov.
16. **Total Number of Wind Turbines.** Provide the number of wind turbines in the plant, if the prime mover type is wind turbine.
17. **Purchaser of Plant.** The date of sale in year and month if the plant is sold during thereporting period. The full legal name of the plant purchaser and principal business address with street address, city, state, and zip code. (If the plant is sold during the reporting period.)

CEC-1304 SCHEDULE 1 PART B INSTRUCTIONS

1. **Generator (Unit) ID.** Unique identification code of the generator within the power plant as assigned by the plant owner/operator.
2. **Generator Nameplate Capacity.** The capacity, in megawatt, of the generator as shown on the nameplate or the full continuous rating under standard conditions. Also if the capacity of the generator changed during the reporting period, if applicable. For wind turbines, if the capacity has been permanently downrated by electrical or mechanical devices, enter the downrated capacity. This does not apply to capacity reductions due to temporary maintenance.
3. **Manufacturer of Generator.** The manufacturer of the generator.
4. **Model Number of Generator.** The model number of the generator.
5. **Date of Initial Operation.** Year, month, and day of initial commercial operation.
6. **Date of Initial Electricity Sales.** Year, month, and day of initial electricity sales.
7. **Operating Status:**
 - **Operating** – *Operating, dispatchable, and available.*
 - **Standby** – *Available and dispatchable, not operating.*
 - **Cold Standby** – *Available, not operating and not dispatchable.*
 - **Indefinite Shutdown** – *Not available, not dispatchable.*
 - **Maintenance** – *Planned maintenance, not available and not dispatchable.*
 - **Out of Service** – *Unavailable, unplanned outage, not dispatchable.*
 - **Retired** – *Legally not able to operate, forever removed from service.*
 - **Unknown** – *No information on operational capability.*
8. **Date of Retirement.** Year, month, and day of retirement.
9. **Prime Mover Type:**
 - **ST** Steam Turbine
 - **GT** Combustion (Natural Gas) Turbine
 - **CT** Combined Cycle – Gas Turbine Side
 - **CA** Combined Cycle – Steam Turbine Side
 - **IC** Internal Combustion Engine (Diesel Piston)
 - **HY** Hydraulic Turbine
 - **PS** Hydraulic Turbine – Reversible (Pumped Storage)
 - **PV** Photovoltaic
 - **WT** Wind Turbine

- **FC** Fuel Cell
- **MT** Micro Turbine
- **OT** Other (Please Specify)

10. & 11. **Energy Source Type (Primary and Secondary Fuel).** Enter the code for the Energy Source Type from the list below and the physical unit of measurement (Mcf, bbl,ton, bone-dry ton, or other) for the energy source.

- **AB** Agriculture Crop Byproducts, Straw, Energy Crops
- **BFG** Blast-Furnace Gas
- **BIT** Bituminous Coal
- **BLQ** Black Liquor
- **DFO** Distillate Fuel Oil (all Diesel and No. 1, No. 2, and No. 4 Fuel Oils)
- **GEO** Geothermal
- **JF** Jet Fuel
- **KER** Kerosene
- **LFG** Landfill Gas
- **LIG** Lignite
- **MSW** Municipal Solid Waste
- **NG** Natural Gas
- **NUC** Nuclear (Uranium, Plutonium, Thorium)
- **OBG** Other Biomass Gases (Digester Gas, Methane, other Gases)
- **OBL** Other Biomass Liquid
- **OBS** Other Biomass Solids (Animal Manure and Waste, Solid Byproducts, Other Solid Biomass)
- **OTH** Other (Batteries, Chemicals, Hydrogen, Pitch, Sulfur, miscellaneous technologies)
- **PC** Petroleum Coke
- **PG** Propane
- **RFO** Residual Fuel Oil (includes No. 5 and No. 6 Fuel Oil, and Bunker C Fuel Oil)
- **SLW** Sludge Waste
- **SUB** Sub-bituminous Coal
- **SUN** Solar (Photovoltaic, Thermal)
- **TDF** Tires
- **WAT** Water (Conventional, Pumped Storage)
- **WC** Waste/Other Coal (Anthracite Coal, Coal Mixtures, Coke, Breeze, Tar, Coal)

- **WDL** Wood Waste Liquids (Red Liquor, Sludge Wood, Sulfite Liquor, Other)
- **WDS** Wood/Wood Waste Solids (Paper Pellets, Railroad Ties, Utility Poles, Wood Chips, and Other Wood Solids)
- **WND** Wind
- **WO** Waste Oil (Butane (Liquid), Crude Oil, Liquid Byproducts, Propane (Liquid), Oil Waste, Re-Refined Motor Oil, Sludge Oil, Tar Oil)

12. **Part of Combined-cycle Unit?** Answer "Yes" if the generator is part of a combined cycle unit.
13. **Hub Height.** The height above ground surface (in meters) of the center of the wind turbine hub, if the prime mover type is wind turbine. Convert to metric units if necessary.
14. **Rotor Area.** The rotor swept area in square meters for each turbine model, if the prime mover type is wind turbine. Convert to metric units if necessary.
15. **Rated Speed.** The wind speed in meters per second (m/s) that applies to the rating of the nameplate capacity, if the prime mover type is wind turbine. Convert to metric units if necessary.
16. **Number of Wind Turbines.** Provide the number of wind turbines in each wind turbine group, if the primemover type is wind turbine.

CEC-1304 SCHEDULE 2 PART A INSTRUCTIONS

For each generator (unit), provide the following information.

1. **Gross MWh.** Total output of the generator in megawatt-hours.
2. **Net MWh.** Gross Generation less plant use by auxiliary equipment or pumping energy in case of pumped storage facility (in megawatt-hours).

For the primary energy source, provide the following information.

3. **Fuel Use in Mcf, bbl, ton, or BDT.** Physical quantity of fuel consumption in thousandcubic feet, 42-gallon barrel, ton, or bone-dry ton. (One ton equals 2,000 pounds.)
4. **Fuel Use in MMBtu.** Fuel consumption in millions of British thermal units.
5. **Fuel Supplied by Tolling Agreement (Percent).** For power plants with nameplate capacity of 50 MW or more, if fuel is provided through a tolling agreement, indicate the portion of the fuel that is provided to the generator through the tolling agreement.
6. **Fuel Cost.** Report in U.S. dollars. For power plants with nameplate capacity of 50 MW or greater, provide the fuel cost except for the cost of fuel provided to the generator through a tolling agreement. The fuel cost data will be kept confidential by the CEC.

If a secondary energy source is used, provide the following information. If there are more than two energy sources, please add additional columns.

7. **Fuel Use in Mcf, bbl, ton, or BDT.** Physical quantity of fuel consumption in thousandcubic feet, 42-gallon barrel, ton, or bone-dry ton. (One ton equals 2,000 pounds.)
8. **Fuel Use in MMBtu.** Fuel consumption in millions of British thermal units.
9. **Fuel Supplied by Tolling Agreement (Percent).** For power plants with nameplate capacity of 50 MW or more, if fuel is provided through a tolling agreement, indicate the portion of the fuel that is provided to the generator through the tolling agreement.
10. **Fuel Cost.** Report in U.S. dollars. For power plants with nameplate capacity of 50 MW or greater, provide the fuel cost except for the cost of fuel provided to the generator through a tolling agreement. The fuel cost data will be kept confidential by the CEC.

CEC-1304 SCHEDULE 2 PART A

Addendum Cogeneration and Fuel Use by Generator Instructions

For each cogenerator, enter the following for the primary energy source.

1. **Fuel Attributable to Electric Generation** (physical units). The amount of primary fuel attributable to electric generation. The total of primary fuel attributable to electric generation and useful thermal output should total primary fuel use.
2. **Fuel Attributable to Useful Thermal** (physical units). The amount of primary fuel attributable to useful thermal output. Due to the wide variety of useful thermal processes available to cogeneration plants, assume 100% conversion of fuel to useful thermal.
3. **Fuel Attributable to Electric Generation (MMBTU)**. The portion of primary fuel attributable to electric generation. The total of primary fuel attributable to electric generation and useful thermal out should total primary fuel use.
4. **Fuel Attributable to Useful Thermal Output (MMBTU)**. The amount of primary fuel attributable to useful thermal output. Due to the wide variety of useful thermal processes available to cogeneration plants, assume 100 percent conversion of fuel to useful thermal.

Enter the following for the secondary energy source.

5. **Fuel Attributable to Electric Generation** (physical units). The amount of secondary fuel attributable to electric generation. The total of secondary fuel attributable to electric generation and useful thermal out should total secondary fuel use.
6. **Fuel Attributable to Useful Thermal** (physical units). The amount of secondary fuel attributable to useful thermal output. Due to the wide variety of useful thermal processes available to cogeneration plants, assume 100 percent conversion of fuel to useful thermal.
7. **Fuel Attributable to Electric Generation (MMBTU)**. The portion of secondary fuel attributable to electric generation. The total of secondary fuel attributable to electric generation and useful thermal output should total secondary fuel use.
8. **Fuel Attributable to Useful Thermal (MMBTU)**. The amount of secondary fuel attributable to useful thermal output. Due to the wide variety of useful thermal processes available to cogeneration plants, assume 100 percent conversion of fuel to useful thermal.

CEC-1304 SCHEDULE 2 PART B INSTRUCTIONS

For each power plant, report the following.

1. **Onsite Use (self-gen).** Consumption of electricity, in megawatt-hours, onsite by the power plant owner, other than that by the auxiliary equipment of the power plant. This is commonly referred to as self-generation.
2. **Sales for Resale.** Sales of electricity, in megawatt-hours, not directly to end users.
3. **Sales to End Users.** Sales of electricity, in megawatt-hours, directly to end users. If there are sales to more than two end users in a reporting period, provide data on additional forms.
4. **End User NAICS Code.** Provide a NAICS code for each end user. If there are more than two end users in a reporting period, provide data on additional forms. For information about NAICS codes, visit [U.S. Census Bureau website](https://www.census.gov/naics/) or contact David Gee by email at David.Gee@energy.ca.gov.

FORM CEC-1304 SCHEDULE 3
Power Plant Environmental Annual Report

Who must file: Each owner of an electric power plant located within California or within a control area with end users inside California shall file the information required by Section 1304(a)(3) according to the following instructions:

- Natural gas and solar plants with a nameplate capacity of at least 50 MW.
- Geothermal plants of any nameplate capacity.

When to file: The Section 1304(a)(3) report is due February 15, annually. The yearly reporting period is from January to December. If there were no power plant operations during all or part of the year, the period of non-operation must be stated in the annual report.

CEC-1304 SCHEDULE 3

Annual Water Use and Wastewater Discharge Report Instructions

Natural gas and solar power plants with a generating capacity of 50 MW or greater, along with geothermal power plants of any capacity, are required to annually file water supply information required in Section 1304(a)(3). Additionally, all power plants with a generating capacity of 50 MW or greater, along with geothermal plants of any capacity, are required to annually file wastewater discharge information required in Section 1304(a)(3). This information can be filed by providing a Schedule 3 form. The Schedule 3 form is divided into four sections across two pages. Itemized instructions corresponding to items on the forms are provided.

Schedule 3

1. **Power Plant Water Supply.** This section pertains to the source and quality of water supplied to the entire power plant.
 - a. Using the code in the list below, state the primary water supply source used at the power plant. If more than one supply source is used, state each additional water supply source with the appropriate code.
 - **OE** Ocean or Estuary
 - **P** Potable - treated water suitable for domestic use
 - **SW** Fresh Inland Surface Water – when treated, is suitable for domestic and municipal use. When untreated, is suitable for agricultural supply and fish/wildlife habitat.
 - **GW** Fresh Inland Groundwater – when treated, is suitable for domestic and municipal use. When untreated, is suitable for agricultural supply.
 - **BSW** Brackish Inland Surface Water – has a total dissolved solids (TDS) range of 1,000 to 30,000 mg/L and a chloride concentration range of 250 to 12,000 mg/L.
 - **BGW** Brackish Inland Groundwater – has a TDS range of 1,000 to 30,000 mg/L and a chloride concentration range of 250 to 12,000 mg/L.
 - **RW** Recycled Wastewater
 - **OI** Other Impaired Water - Water that is impaired by physical or chemical parameters other than TDS and Chloride as defined for Brackish Waters
 - **O** Other
 - **NA-AC** Not Applicable - Air-Cooled
 - **NA-EOR** Not Applicable - Enhanced Oil Recovery, Not Cooled

- b. If the source of water is from a water purveyor, wastewater supplier, or groundwater well, state the purveyor's name, supplier's name, or the California Department of Water Resources (DWR) well identification number. Otherwise, write in "N/A."
- c. For the primary water supply, state the average total dissolved solids (TDS) in milligrams per liter (mg/l). If the average TDS concentration is unknown, write in "N/A."
- d. Using the code in the list below, state the RWQCB region in which the power plant is located.
 - **1** North Coast
 - **2** San Francisco
 - **3** Central Coast
 - **4** Los Angeles
 - **5R** Central Valley (north)
 - **5F** Central Valley (south)
 - **6SLT** Lahontan (north)
 - **6V** Lahontan (south)
 - **7** Colorado River Basin
 - **8** Santa Ana
 - **9** San Diego
- e. Using the code in the list from "Power Plant Water Supply" in Schedule 3, state the backup water supply source used at the power plant. If more than one supply source is used, state each supply source with the appropriate code. If there is no backup water supply source, write in "N/A."
- f. If the source of backup water is from a water purveyor, wastewater supplier, or groundwater well, state the purveyor's name, supplier's name, or the DWR well identification number. Otherwise, write in "N/A."
- g. For the backup water supply identified, state the average TDS. If the average TDS concentration is unknown, write in "N/A."

2. Power Plant Water Use

- a. Check this box if the water use at the power plant is not measured and cannot be reasonably estimated. If this box is checked, state the reason why water use is not measured and cannot reasonably be estimated in the 'notes' section of this form. If this box is checked, then proceed to Section 3.

- b. For each of the water use categories, state the water use within each month. If the categorized water use is not metered and cannot reasonably be estimated or is not applicable, check the appropriate box.

3. Power Plant Wastewater Production

Check this box if wastewater is not metered and cannot reasonably be estimated.

- a. **Disposal Method.** State the disposal method for the power plant's industrial wastewater (not sanitary wastewater) using appropriate code in the list below.
- **OE** Ocean or Estuary
 - **SW** Surface Water (lakes, rivers, canals, ditches, etc.)
 - **IW** Injection Well
 - **EP** Evaporation Pond
 - **T-O** Trucked-Offsite (as a liquid)
 - **SS** Sanitary Sewer
 - **ZLD** Zero Liquid Discharge (solids trucked to a landfill)
 - **O** Other
 - **NA-AC** Not Applicable – Air-Cooled
- b. **Volume of Water Discharged.** Monthly and annual amounts of wastewater that are discharged as a result of power plant operations in gallons.
- c. **Destination of all Wastewater Discharged.** The destination of all wastewater discharged from the power plant, whether onsite or offsite.