ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA



In the Matter of:

Proposed Adoption of Regulations Establishing a Greenhouse Gases Emission Performance Standard For Baseload Generation of Local Publicly Owned Electric Utilities. Docket 06-OIR-1

JANUARY 18 WORKSHOP PROPOSAL BY THE CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION ON THE CEC STAFF-PROPOSED EPS REGULATIONS

CMUA offers both strike-out and clean versions of the Proposed Regulations to

guide further discussions at the Workshop on January 18, 2007.

Chapter 11. Greenhouse Gases Emission Performance Standard Article 1. Provisions Applicable to Electrical Generating Resources 10 MW and Larger

§2900 Scope

- (a) This article only applies to <u>long-term financial commitments entered into by</u> <u>local publicly-owned electric utilities for baseload generation supplied by</u> <u>Electrical Generating Resources 10MW and larger that is used to serve the</u> <u>utility's retail electricity customers, and long-term financial commitments in</u> <u>such facilities.</u> The requirements of this article apply at the time the utility <u>enters the long-term financial commitment.</u>
- (b) This article shall be re-evaluated and continued, modified, or replaced when an enforceable greenhouse gases emissions limit is established and in operation that is applicable to local publicly owned electric utilities.

§2901 Definitions

- (a) <u>"Annualized capacity factor" means the ratio of the annual amount of electricity produced, measured in kilowatt hours, divided by the annual amount of electricity the unit could have produced if it had been operated at its maximum permitted capacity, expressed in kilowatt hours.</u>
- (b) "Baseload generation" means electricity generation from a power plant that is designed and intended to provide electricity at an annualized, rolling year capacity factor of at least 60 percent.
- (c) "Combined-cycle natural gas" means a power plant that employs a combination of one or more gas turbines and steam turbines in which electricity is produced in the steam turbine from otherwise lost waste heat exiting from one or more of the gas turbines.
- (d) "Covered procurement" means:
 - (1) A new ownership investment in a power plant which includes the procurement of baseload generation from that same power plant, or
 - (2) A new contract commitment (including renewal contracts) <u>with a term</u> of five years or <u>moregreater which includes the procurement of baseload</u> <u>generation from with</u>:
 - (A) a -baseload generation facility, unless the power plant facility that is not deemed_-compliant, or
 - (B) any units added to a <u>deemed compliant facility power plant</u> if the additional unit -results in an increase of 50 MW or more to the power plant's rated capacity.
- (e) A-"Deemed-compliant facilitypower plant" means any combined cycle natural gas power plant that was in operation or had an Energy Commission final permit decision to operate as ofby June 30, 2007.
- (f) "Local publicly owned electric utility" means a "local publicly owned electric utility" as defined in Public Utilities Code section 9604.
- (g) "Long-term financial commitment" means either a new ownership investment in baseload generation or a new or renewed contract with a term of five or more years, which includes procurement of baseload generation.
- (h) "Necessary or beneficial expenditure" means a capital expenditure intended to perform maintenance, ensure operational reliability or safety, preserve power plant asset value, comply with legal or regulatory requirements, or achieve environmental improvements.

[Note: CMUA maintains that a new ownership investment does not pertain to expenditures on existing owned power plants. The Public Utilities Commission may have jurisdiction over utility retained generation of load serving entities pursuant to existing statutes, however, CMUA does not believe that SB 1368 grants authority for the Energy Commission to regulate existing power plants of publicly owned electric utilities. In the alternative, if the Energy Commission does have such authority, its exercise must be reasonable. By providing the following language in the alternative, CMUA does not intend that it operate as a waiver of any challenge to jurisdiction or the scope of Energy Commission authority.]

- (i) "New ownership investment" means the original financial commitment for a capital expenditure:
 - (1) Any capital outlay to construct ain new power plant-construction;
 - (2) <u>The to acquiresition of a new or additional ownership interest or lease</u> in an existing power plant previously owned by others, <u>excluding a</u> <u>deemed-compliant power plant</u>;
 - (3) to construct Aany units added to a deemed-compliant facility power plant, if such units results in an increase of 50 MW or more to the power plant's rated capacity; or
 - (4) Any new capital outlay in a POU's own existing, non-CCGT power plant that is not a necessary or beneficial expenditure and:
 - (A) is intended to extend the <u>operation of one or more units</u> <u>beyond their current design</u> life-<u>of one or more units</u> by five years or more,
 - (B) results in a net increase in the rated capacity of the power plant, or
 - (C) is intended to convert a non-baseload power plant that does not supply baseload generation to a power plant that does supply baseload generationplant.
- (j) "Power plant" means a facility for the generation of electricity, and includes one or more generating units at the same location.
- (k) "Rated capacity" means the power plant's maximum rated output under specific conditions designated by the manufacturer and usually indicated on the nameplate physically attached to the generator.
- <u>"Renewable power plant" means any hydroelectric power plant or a power plant generating electricity using a resource, fuel, or technology as defined in the most recent edition of the Energy Commission's Renewables Portfolio Standard Eligibility Guidebook, without reference to deliverability criteria.</u>

§2902 Greenhouse Gases Emission Performance Standard

The greenhouse gases emission performance standard (EPS) applicable to this chapter is $1\underline{1}000$ pounds of ($0.46-\underline{0.50}$ metric tons) carbon dioxide (CO2) per megawatt hour of electricity, which emissions shall be calculated in accordance with International Organization for Standardization (ISO) standards and protocols.

§2902.5 Necessary or Beneficial Expenditures for Utility Owned Power Plants

<u>The requirements of this article are not intended to inhibit the reliable operation of existing power plants or prevent a publicly owned electric utility from following prudent utility practices in regard to its owned power plant assets.</u>

- (a) Maintenance is any action that restores a failed unit to an operational condition or preserves a unit's operational status. Maintenance actions have an effect on a power plant's reliability, safety, availability, downtime, and cost of operation and therefore expenditures for power plant maintenance are not covered procurements. This includes any expenditure for corrective, preventive, predictive, and reliability-based maintenance. A maintenance expenditure is not a covered procurement as a result of a publicly owned electric utility following prudent utility practices to replace aged or failed equipment with currently available high efficiency and high reliability technologies even though the expenditure may result in an extension of the current design life or increase in rated capacity.
- (b) Expenditures that are designed and intended to preserve plant asset value by preventing deterioration or restoring a power plant to its original condition are not covered procurements.
- (c) Expenditures to comply with legal or regulatory requirements are not covered procurements.
- (d) Expenditures to comply with contractual obligations incurred before the effective date of this article are not covered procurements.
- (e) Expenditures that are designed and intended to achieve environmental improvements are not covered procurements. Environmental improvements include, but are not limited to, the prevention, reduction, and elimination of pollution or nuisances resulting from power plant operations. An environmental improvement expenditure designed and intended to reduce a power plant's greenhouse gases emission rate is not a covered procurement.

§2903 EPS Compliance Calculations

<u>The EPS applies to the emissions rate (pounds of CO2 per MWh) of base load</u> <u>generation supplied under a long-term financial commitment.</u> The emission rate of <u>baseload generation is the quotient of the net power plant emissions (pounds of CO2)</u> <u>resulting from the production of baseload generation divided by the amount of baseload</u> <u>generation supplied (MWh) under the long-term financial commitment.</u>

Unless otherwise specified, a <u>power plantfacility</u>'s compliance with the EPS shall be determined by dividing the <u>power plantfacility</u>'s annualized carbon dioxide emissions in pounds by the <u>power plantfacility</u>'s annualized net electricity production in MWh.

(a) A <u>power plantfacility</u>'s annualized carbon dioxide emissions shall be calculated by summing the annualized quantity of each fuel used at the <u>power plantfacility</u> directly attributable to electricity production, assuming all carbon in the fuels is converted to carbon dioxide. Fuels are those used in the boiler, combustion turbine, reciprocating or other engine, or fuel cell, including primary and secondary fuels, backup fuels, and pilot fuels. Fuels used in ancillary equipment (e.g., fire pumps, emergency generators, vehicles) are not to be included.

- (b) A <u>power plantfacility</u>'s annualized <u>net</u> electricity production in MWh shall be the net electricity available for use at a commercial or industrial process onsite or at a host site, or sale or transmission from the <u>power plantfacility</u>.
- (c) Emissions calculations shall reflect the annual average of carbon dioxide emissions when a power plant is operated at its intended load, steadily, at ISO standard conditions.

§2904 Cogeneration Facilities

A cogeneration facilitypower plant's compliance with the EPS shall be determined by dividing the facilitypower plant's annualized carbon dioxide emissions by the facilitypower plant's annualized equivalent net electricity production. Cogeneration is the combined production of useful heat and electricity, or combined heat and power.

- (a) A cogeneration facilitypower plant's annualized carbon dioxide emissions shall be calculated by summing the annualized quantity of each fuel used on site at the facilitypower plant directly attributable to electricity production and industrial or commercial process, assuming all carbon in the fuels is converted to carbon dioxide. Fuels are those used in the boiler, combustion turbine, reciprocating or other engine, or fuel cell, including primary and secondary fuels, backup fuels, and pilot fuels. Fuels used in ancillary equipment (e.g., fire pumps, emergency generators, vehicles) are not to be included.
- (b) A cogeneration facilitypower plant's annualized equivalent net electricity production in MWh shall be the net electricity available for use at a commercial or industrial process onsite or at a host site, or for sale or transmission from the facilitypower plant, plus the useful thermal energy, converted to MWh equivalent by dividing the useful thermal energy, in million British Thermal Units (mmBtu) by 3.414 mmBtu/MWh. Useful heat, or thermal energy, output of a topping cycle cogeneration unit is that which is made available to an industrial or commercial process (net of any heat contained in condensate return and/or make up water); used in a heating application (e.g., space heating, domestic hot water heating); or used in a space cooling application (e.g., thermal energy used by an absorption chiller). The useful thermal energy of bottoming cycle cogeneration is that used by an industrial process.
- (c) Emissions calculations shall reflect the annual average when a power plant is operated at its intended load, steadily, at ISO standard conditions.
- (d) For bottoming cycle cogeneration, the useful thermal energy of cogeneration is that used by all associated industrial processes. The annualized carbon dioxide emissions shall be calculated by summing the annualized quantity of each fuel used on site that is directly attributable to the supply of baseload generation to a utility.

§2905 OffsetsBiomass, Biogas or Landfill Gas Energy Facilities

[Reserved]

- (a) Facilities using biomass, biogas, or landfill gas as fuel(s) are determined to be compliant with the EPS. Biomass fuels are agricultural and wood wastes and digester and landfill gases that would otherwise be disposed of utilizing open burning, forest accumulation, landfill, flaring, spreading, or composting.
- (b) Non RPS eligible facilities that use biomass, biogas or landfill gas in combination with other fuel(s) shall determine compliance with the EPS by calculating carbon dioxide emissions from the fuels other than other biomass, biogas or landfill gas.

§2906 Facilities that Activities to Sequester, Capture, or Reduce Carbon Dioxide Emissions from Power plants

- (a) If a facilitypower plant sequesters its carbon dioxide emissions in accordance with a sequestration program, the emissions calculation of that facilitypower plant, for the purposes of this chapter, shall not include the carbon dioxide emissions successfully sequestered. If a facilitypower plant provides documentation that a reasonable and technically feasible carbon dioxide injection project will result in a permanent sequestration of CO₂ once the injection project is operational, the facilitypower plant can determine EPS compliance by presenting projections (and documenting those projections) of net emissions over the life of the power plant.
- (b) <u>The EPS shall not prohibit activities intended to advance the science or technology</u> for reducing the emission rate of a power plant supplying baseload generation.
- (c) <u>The EPS shall not apply to any activity of a utility that would be defined as</u> <u>qualified research under 26 U.S.C. § 41(d) if that activity had been undertaken by a</u> <u>taxpayer.</u>

§2907 Renewable Power plantsrtfolio Standard-Eligible Facilities

For the purpose of EPS compliance:

- (a) -Renewable Portfolio Standard eligible (RPS eligible) facilities, as defined in the most recent edition of the Renewables Portfolio Standard Eligibility Guidebook, is are Renewable power plants are determined to be compliant with the EPS.
- (b) Power plants that are not renewable power plants that use biomass, biogas, biodiesel, or landfill gas in combination with other fuel(s) shall determine compliance with the EPS by dividing the power plant's annualized carbon dioxide emissions in pounds from the fuels other than biomass, biogas, biodiesel, or landfill gas by the power plant's annualized net electricity production.

§2908 Unspecified Power Contracts

A contract of five years or more for unspecified baseload power is not compliant with the EPS.

[Note: This section is conceptual in nature and does not propose actual regulatory language.]

- (a) <u>POUs that purchase intermittent renewable resources for 5 years or longer may</u> <u>contract with the seller to provide firming of the output of intermittent resources</u> <u>using system power, as follows:</u>
 - (1) <u>System power can be substituted for intermittent resources in order to</u> <u>maintain the day ahead forecasted schedule delivery of intermittent</u> <u>renewable resources.</u>
 - (2) Further, when the output of the contracted intermittent renewable resource generates in excess of scheduled deliveries, the RECs from that surplus generation may by retained by the seller and conveyed to the buyer to cover the firming power supplied from a system resource, such that all scheduled deliveries have RECs.
 - (3) <u>Total volume of energy delivered under the contract shall not exceed the output of renewable generation.</u>
 - (b) POUs that purchase renewable intermittent resources for 5 years or longer from a pool of renewable generators shall meet these 1368 implementing requirements if all of the generators in the pool individually meet the GHG emission requirement.
 - (c) POUs that import intermittent renewable resources may have the resource shaped so as to facilitate transmission of the resource over constrained transmission (for instance delivered in all off peak hours), provided that the entity providing the shaping service is not adding generation assets to its portfolio that do not meet the 1368 GHG requirements.
 - (d) <u>POUs may contract for long term system power supply for 5 years or longer as follows:</u>
 - (1) The buyer demonstrates to the CEC's reasonable satisfaction that, when the GHG emissions of the seller's system portfolio of power supply assets are calculated as a system average, the system emissions do not exceed the 1368 GHG requirements, and
 - (2) No more than 20% of the individual power supply assets in the seller's portfolio exceed the 1368 GHG requirements, and
 - (3) <u>The seller may not add any non-compliant power generation assets to its</u> portfolio during the term of the system sale to a California POU, or else <u>that sale terminates</u>

<u>§2908.6 Exchange Transactions</u>

<u>For exchange transactions, the annualized capacity factor shall be determined on</u> the basis of net energy retained by an exchanging utility.

§2909 Applicability of the Emission Performance Standard to Qualifying Facilities

The emission performance standard shall not apply to any qualifying small power production facility or qualifying cogeneration facility, as defined by 16 U.S.C. §796 (17-18), that is the subject of a must-take provision pursuant to 16 U.S.C §824a-3.

§2920 Public Noticefication

Each local publicly owned electric utility shall <u>postprovide public</u> notice <u>wheneverany time</u> it<u>s governing body will</u> deliberates <u>in public on a proposed</u><u>undertaking</u> <u>a</u> long-term financial commitment that <u>the governing body determines</u> is or may be subject to the EPS.

- (a) <u>At the posting of the notice of Upon scheduling</u> a public meeting <u>at which to consider a</u> proposed long-term financial commitments, the local publicly owned <u>electric</u> are to be considered, the utility shall <u>notifyinform</u> the Energy Commission of the date, time and location of the meeting so that the Commission may <u>postmake</u> the information <u>available</u> on its website. This requirement may be satisfied <u>if the local publicly owned electric utility</u> by providesing the Energy Commission with the URL that links to this information which this information is to be made available.
- (b) At the time a document relating to the proposed long-term financial commitment is made available to Upon producing documents to be provided the public for discussion of or comment on a proposed investment, the local publicly owned electric the utility shall provide the Energy Commission with an electronic copy of theeach document for posting on the Commission website. This requirement willmay be satisfied if the local publicly owned electric utility by-providesing the Energy Commission the URL that links towhich the documents or information are available, or by providing details regarding other manners of access to how the documents may otherwise be accessed by the public.

<u>§2921 Advice</u>

On a voluntary basis, any local publicly owned electric utility may request written advice from the Energy Commission as to whether the baseload generation to be supplied under a contemplated covered procurement would comply with these regulations.

§292<mark>21 Annual</mark> Compliance Filing<mark>s</mark>

On or before February 15th of each year, Within ten business days after a local publicly owned electric utility enters into a covered procurement, the each local

publicly owned electric utility shall submit a compliance filing to the Energy Commission regarding the covered procurement. The compliance filing shall be subject to the rules on confidentiality pursuant to Chapter 7, Article 2 of these regulations. The compliance filing shall contain one paper copy, with original signature, and, if feasible, an electronic copy of the following:

- (a) An attestation, signed by an authorized agent of the governing board of local publicly owned electric utility under penalty of perjury, that
 - (1) the signatory has reviewed, or caused to be reviewed, the compliance <u>filing-submittal, and</u>
 - (2) based on the signatory's information, knowledge or belief, the compliance filing does not contain an untrue statement of a material fact <u>n</u>or omits to state a material fact necessary to make the statements true₁.
 - (3) <u>the covered procurement is in compliance with the Energy</u> <u>Commission's greenhouse gases EPS, and</u>
 - (4) the covered procurement contains contractual provisions that would make it subject to termination as contrary to public policy were it not in compliance with the requirements of the Energy Commission's greenhouse gases EPS.

(b) A listing of all the covered procurements, excluding those that fall under §2905(a) or §2907, entered into by the utility during the previous calendar year, if any. Each entry shall include the following information:

(b) For new or renewed contracts with a term of five years or longer:

- (1) <u>A description of the terms of the contract and options to extend the contract;</u>
- (2) <u>A description of the unit(s) or power plantfacility(ies)</u> providing energy under the contract;
- (3) a description of the design or operation of the energy source(s) so as to indicate whether or not they <u>supplyare</u> baseload <u>generation</u>;
- (4) an explanation as to how the contract is compliant with the EPS; and
- (5) supporting documents or information which allow for assessment of compliance with the standard, including but not limited to staff assessments and reports to the <u>local publicly owned</u> utility's governing bo<u>dyard</u>, planned or historical production and fuel use data, and <u>applicable historical</u> continuous emissions monitoring data.
- (c) For a new ownership investment:
 - (1) For new construction or purchase of an existing generation unit or <u>power plantfacility</u>, a description of the planned power_plant or the purchased asset specifying the power generating equipment, power source (i.e. fuel type, wind, biomass), any supplemental fuel source and any historical production and fuel use data.

- (2) For incremental investment which is defined to be a covered investment per Section $290\underline{10}(a)$, a description of the modifications to the unit(s) and their impact on generation capacity, <u>CO2</u> emissions, and planned operation.
- (3) For non-renewable resources, the heat rate or <u>CO2</u> emissions profile of the <u>facilitypower plant</u>, and the source of this information.

§292<u>32</u> Compliance-Investigation

Within 30 days of any compliance filing made pursuant to section 2922, The Energy Commission may on its own motion, or as a result of a request from a member of the public, staff, or other agency, conduct initiate a complaint or investigation proceeding, or both, pursuant to Chapter 2, Article 4, sections 1231 through 1237 of these regulations, to determine a POU's local publicly owned electric utility's compliance with this chapter. In conducting such a proceeding, the Energy Commission may require the production of information and documents beyond those made available to the public during consideration of the investment or submitted with the Annual Compliance Filing, including, but not limited to, contracts, staff assessments and reports to the local publicly owned electric utility's governing bodyard, land use and air quality permits, applicable historical continuous emissions monitoring data, and other information and documents which aid in assessing compliance with this chapter. All documents produced under this section and designated as "Confidential" by the local publicly owned electric utility shall be treated as confidential by the Commission upon receipt. Any proceeding initiated under this section shall be completed within 90 days after the submission of the compliance filing.

§2930 Case-by-Case Review for Reliability or Financial Exemptions

A POU local publicly owned electric utility may petition the Commission for an exemption from application of this chapter to a particular long-term financial commitment. The Commission shall provide a response to the local publicly owned electric utility within 60 days of the application's filing. In order to be entitled to For such an exemption the local publicly owned electric utility POU must demonstrate that:

- (a) the long-term financial commitment to a non-compliant facility power plant is necessary to address system reliability concerns; or
- (b) extraordinary circumstances, catastrophic events, or threat of significant financial harm will arise from implementation of this chapter due to unforeseen circumstances not previously contemplated in the establishment of these regulations.

Article 2. Provisions Applicable to Electrical Generating Resources Under 10 MW

[Reserved]

Chapter 11. Greenhouse Gases Emission Performance Standard

Article 1. Provisions Applicable to Electrical Generating Resources 10 MW and Larger

§2900 Scope

- (c) This article only applies to long-term financial commitments entered into by local publicly-owned electric utilities for baseload generation supplied by Electrical Generating Resources 10MW and larger that is used to serve the utility's retail electricity customers. The requirements of this article apply at the time the utility enters the long-term financial commitment.
- (d) This article shall be re-evaluated and continued, modified, or replaced when an enforceable greenhouse gases emissions limit is established and in operation that is applicable to local publicly owned electric utilities.

§2901 Definitions

- (m) "Annualized capacity factor" means the ratio of the annual amount of electricity produced, measured in kilowatt hours, divided by the annual amount of electricity the unit could have produced if it had been operated at its maximum permitted capacity, expressed in kilowatt hours.
- (n) "Baseload generation" means electricity generation from a power plant that is designed and intended to provide electricity at an annualized capacity factor of at least 60 percent.
- (o) "Combined-cycle natural gas" means a power plant that employs a combination of one or more gas turbines and steam turbines in which electricity is produced in the steam turbine from otherwise lost waste heat exiting from one or more of the gas turbines.
- (p) "Covered procurement" means:
 - (1) A new ownership investment in a power plant which includes the procurement of baseload generation from that same power plant, or
 - (2) A new contract commitment (including renewal contracts) with a term of five years or more which includes the procurement of baseload generation from:
 - (A) a power plant that is not deemed-compliant, or
 - (B) any unit added to a power plant_if the additional unit results in an increase of 50 MW or more to the power plant's rated capacity.
- (q) "Deemed-compliant power plant" means any combined cycle natural gas power plant that was in operation or had an Energy Commission final permit decision to operate as of June 30, 2007.

- (r) "Local publicly owned electric utility" means a "local publicly owned electric utility" as defined in Public Utilities Code section 9604.
- (s) "Long-term financial commitment" means either a new ownership investment in baseload generation or a new or renewed contract with a term of five or more years, which includes procurement of baseload generation.
- (t) "Necessary or beneficial expenditure" means a capital expenditure intended to perform maintenance, ensure operational reliability or safety, preserve power plant asset value, comply with legal or regulatory requirements, or achieve environmental improvements.

[Note: CMUA maintains that a new ownership investment does not pertain to expenditures on existing owned power plants. The Public Utilities Commission may have jurisdiction over utility retained generation of load serving entities pursuant to existing statutes, however, CMUA does not believe that SB 1368 grants authority for the Energy Commission to regulate existing power plants of publicly owned electric utilities. In the alternative, if the Energy Commission does have such authority, its exercise must be reasonable. By providing the following language in the alternative, CMUA does not intend that it operate as a waiver of any challenge to jurisdiction or the scope of Energy Commission authority.]

- (u) "New ownership investment" means the original financial commitment for a capital expenditure:
 - (1) to construct a new power plant;
 - (2) to acquire a new or additional ownership interest in an existing power plant previously owned by others, excluding a deemed-compliant power plant;
 - (3) to construct any unit added to a deemed-compliant power plant, if such unit results in an increase of 50 MW or more to the power plant's rated capacity; or
 - (4) in a POU's own existing, non-CCGT power plant that is not a necessary or beneficial expenditure and:
 - (A) is intended to extend the operation of one or more units beyond their current design life by five years or more,
 - (B) results in a net increase in the rated capacity of the power plant, or
 - (C) is intended to convert a power plant that does not supply baseload generation to a power plant that does supply baseload generation.
- (v) "Power plant" means a facility for the generation of electricity, and includes one or more generating units at the same location.
- (w) "Rated capacity" means the power plant's maximum rated output under specific conditions designated by the manufacturer and usually indicated on the nameplate physically attached to the generator.

(x) "Renewable power plant" means any hydroelectric power plant or a power plant generating electricity using a resource, fuel, or technology as defined in the most recent edition of the Energy Commission's Renewables Portfolio Standard Eligibility Guidebook, without reference to deliverability criteria.

§2902 Greenhouse Gases Emission Performance Standard

The greenhouse gases emission performance standard (EPS) applicable to this chapter is 1100 pounds of (0.50 metric tons) carbon dioxide (CO2) per megawatt hour of electricity, which emissions shall be calculated in accordance with International Organization for Standardization (ISO) standards and protocols.

§2902.5 Necessary or Beneficial Expenditures for Utility Owned Power Plants

The requirements of this article are not intended to inhibit the reliable operation of existing power plants or prevent a publicly owned electric utility from following prudent utility practices in regard to its owned power plant assets.

- (f) Maintenance is any action that restores a failed unit to an operational condition or preserves a unit's operational status. Maintenance actions have an effect on a power plant's reliability, safety, availability, downtime, and cost of operation and therefore expenditures for power plant maintenance are not covered procurements. This includes any expenditure for corrective, preventive, predictive, and reliability-based maintenance. A maintenance expenditure is not a covered procurement as a result of a publicly owned electric utility following prudent utility practices to replace aged or failed equipment with currently available high efficiency and high reliability technologies even though the expenditure may result in an extension of the current design life or increase in rated capacity.
- (g) Expenditures that are designed and intended to preserve plant asset value by preventing deterioration or restoring a power plant to its original condition are not covered procurements.
- (h) Expenditures to comply with legal or regulatory requirements are not covered procurements.
- (i) Expenditures to comply with contractual obligations incurred before the effective date of this article are not covered procurements.
- (j) Expenditures that are designed and intended to achieve environmental improvements are not covered procurements. Environmental improvements include, but are not limited to, the prevention, reduction, and elimination of pollution or nuisances resulting from power plant operations. An environmental improvement expenditure designed and intended to reduce a power plant's greenhouse gases emission rate is not a covered procurement.

§2903 EPS Compliance Calculations

The EPS applies to the emissions rate (pounds of CO2 per MWh) of base load generation supplied under a long-term financial commitment. The emission rate of baseload generation is the quotient of the net power plant emissions (pounds of CO2) resulting from the production of baseload generation divided by the amount of baseload generation supplied (MWh) under the long-term financial commitment.

Unless otherwise specified, a power plant's compliance with the EPS shall be determined by dividing the power plant's annualized carbon dioxide emissions in pounds by the power plant's annualized net electricity production in MWh.

- (d) A power plant's annualized carbon dioxide emissions shall be calculated by summing the annualized quantity of each fuel used at the power plant directly attributable to electricity production, assuming all carbon in the fuels is converted to carbon dioxide. Fuels are those used in the boiler, combustion turbine, reciprocating or other engine, or fuel cell, including primary and secondary fuels, backup fuels, and pilot fuels. Fuels used in ancillary equipment (e.g., fire pumps, emergency generators, vehicles) are not to be included.
- (e) A power plant's annualized net electricity production in MWh shall be the net electricity available for use at a commercial or industrial process onsite or at a host site, or sale or transmission from the power plant.
- (f) Emissions calculations shall reflect the annual average of carbon dioxide emissions when a power plant is operated at its intended load, steadily, at ISO standard conditions.

§2904 Cogeneration Facilities

A cogeneration power plant's compliance with the EPS shall be determined by dividing the power plant's annualized carbon dioxide emissions by the power plant's annualized equivalent net electricity production. Cogeneration is the combined production of useful heat and electricity, or combined heat and power.

- (e) A cogeneration power plant's annualized carbon dioxide emissions shall be calculated by summing the annualized quantity of each fuel used on site at the power plant directly attributable to electricity production and industrial or commercial process, assuming all carbon in the fuels is converted to carbon dioxide. Fuels are those used in the boiler, combustion turbine, reciprocating or other engine, or fuel cell, including primary and secondary fuels, backup fuels, and pilot fuels. Fuels used in ancillary equipment (e.g., fire pumps, emergency generators, vehicles) are not to be included.
- (f) A cogeneration power plant's annualized equivalent net electricity production in MWh shall be the net electricity available for use at a commercial or industrial

process onsite or at a host site, or for sale or transmission from the power plant, plus the useful thermal energy, converted to MWh equivalent by dividing the useful thermal energy, in million British Thermal Units (mmBtu) by 3.414 mmBtu/MWh. Useful heat, or thermal energy, output of a topping cycle cogeneration unit is that which is made available to an industrial or commercial process (net of any heat contained in condensate return and/or make up water); used in a heating application (e.g., space heating, domestic hot water heating); or used in a space cooling application (e.g., thermal energy used by an absorption chiller).

- (g) Emissions calculations shall reflect the annual average when a power plant is operated at its intended load, steadily, at ISO standard conditions.
- (h) For bottoming cycle cogeneration, the useful thermal energy of cogeneration is that used by all associated industrial processes. The annualized carbon dioxide emissions shall be calculated by summing the annualized quantity of each fuel used on site that is directly attributable to the supply of baseload generation to a utility.

§2905 Offsets

[Reserved]

§2906 Activities to Sequester, Capture, or Reduce Carbon Dioxide Emissions from Power plants

- (d) If a power plant sequesters its carbon dioxide emissions in accordance with a sequestration program, the emissions calculation of that power plant, for the purposes of this chapter, shall not include the carbon dioxide emissions successfully sequestered. If a power plant provides documentation that a reasonable and technically feasible carbon dioxide injection project will result in a permanent sequestration of CO₂ once the injection project is operational, the power plant can determine EPS compliance by presenting projections (and documenting those projections) of net emissions over the life of the power plant.
- (e) The EPS shall not prohibit activities intended to advance the science or technology for reducing the emission rate of a power plant supplying baseload generation.
- (f) The EPS shall not apply to any activity of a utility that would be defined as qualified research under 26 U.S.C. § 41(d) if that activity had been undertaken by a taxpayer.

§2907 Renewable Power plants

For the purpose of EPS compliance:

(c) Renewable power plants are determined to be compliant with the EPS.

(d) Power plants that are not renewable power plants that use biomass, biogas, biodiesel, or landfill gas in combination with other fuel(s) shall determine compliance with the EPS by dividing the power plant's annualized carbon dioxide emissions in pounds from the fuels other than biomass, biogas, biodiesel, or landfill gas by the power plant's annualized net electricity production.

§2908 Unspecified Power Contracts

[Note: This section is conceptual in nature and does not propose actual regulatory language.]

- (e) POUs that purchase intermittent renewable resources for 5 years or longer may contract with the seller to provide firming of the output of intermittent resources using system power, as follows:
 - (4) System power can be substituted for intermittent resources in order to maintain the day ahead forecasted schedule delivery of intermittent renewable resources.
 - (5) Further, when the output of the contracted intermittent renewable resource generates in excess of scheduled deliveries, the RECs from that surplus generation may by retained by the seller and conveyed to the buyer to cover the firming power supplied from a system resource, such that all scheduled deliveries have RECs.
 - (6) Total volume of energy delivered under the contract shall not exceed the output of renewable generation.
 - (f) POUs that purchase renewable intermittent resources for 5 years or longer from a pool of renewable generators shall meet these 1368 implementing requirements if all of the generators in the pool individually meet the GHG emission requirement.
 - (g) POUs that import intermittent renewable resources may have the resource shaped so as to facilitate transmission of the resource over constrained transmission (for instance delivered in all off peak hours), provided that the entity providing the shaping service is not adding generation assets to its portfolio that do not meet the 1368 GHG requirements.
 - (h) POUs may contract for long term system power supply for 5 years or longer as follows:
 - (4) The buyer demonstrates to the CEC's reasonable satisfaction that, when the GHG emissions of the seller's system portfolio of power supply assets are calculated as a system average, the system emissions do not exceed the 1368 GHG requirements, and
 - (5) No more than 20% of the individual power supply assets in the seller's portfolio exceed the 1368 GHG requirements, and

(6) The seller may not add any non-compliant power generation assets to its portfolio during the term of the system sale to a California POU, or else that sale terminates

§2908.6 Exchange Transactions

For exchange transactions, the annualized capacity factor shall be determined on the basis of net energy retained by an exchanging utility.

§2909 Applicability of the Emission Performance Standard to Qualifying Facilities

The emission performance standard shall not apply to any qualifying small power production facility or qualifying cogeneration facility, as defined by 16 U.S.C. §796 (17-18), that is the subject of a must-take provision pursuant to 16 U.S.C §824a-3.

§2920 Public Notice

Each local publicly owned electric utility shall post notice whenever its governing body will deliberate in public on a proposed long-term financial commitment that the governing body determines is or may be subject to the EPS.

- (c) At the posting of the notice of a public meeting to consider a proposed longterm financial commitment, the local publicly owned electric utility shall notify the Energy Commission of the date, time and location of the meeting so that the Commission may post the information on its website. This requirement may be satisfied if the local publicly owned electric utility provides the Energy Commission with the URL that links to this information.
- (d) At the time a document relating to the proposed long-term financial commitment is made available to the public, the local publicly owned electric the utility shall provide the Energy Commission with an electronic copy of the document for posting on the Commission website. This requirement will be satisfied if the local publicly owned electric utility provides the Energy Commission the URL that links to the documents or informational regarding other manners of access to the documents.

§2921 Advice

On a voluntary basis, any local publicly owned electric utility may request written advice from the Energy Commission as to whether the baseload generation to be supplied under a contemplated covered procurement would comply with these regulations.

§2922 Compliance Filings

Within ten business days after a local publicly owned electric utility enters into a covered procurement, the local publicly owned electric utility shall submit a compliance filing to the Energy Commission regarding the covered procurement. The compliance

filing shall be subject to the rules on confidentiality pursuant to Chapter 7, Article 2 of these regulations. The compliance filing shall contain one paper copy, with original signature, and, if feasible, an electronic copy of the following:

- (d) An attestation, signed by an authorized agent of the local publicly owned electric utility under penalty of perjury, that
 - (1) the signatory has reviewed, or caused to be reviewed, the compliance filing,
 - (2) based on the signatory's information, knowledge or belief, the compliance filing does not contain an untrue statement of a material fact nor omits to state a material fact necessary to make the statements true,
 - (3) the covered procurement is in compliance with the Energy Commission's greenhouse gases EPS, and
 - (4) the covered procurement contains contractual provisions that would make it subject to termination as contrary to public policy were it not in compliance with the requirements of the Energy Commission's greenhouse gases EPS.
- (e) For new or renewed contracts with a term of five years or longer:
 - (1) A description of the terms of the contract and options to extend the contract;
 - (2) A description of the unit(s) or power plant(s) providing energy under the contract;
 - (3) a description of the design or operation of the energy source(s) so as to indicate whether or not they supply baseload generation;
 - (4) an explanation as to how the contract is compliant with the EPS; and
 - (5) supporting documents or information which allow for assessment of compliance with the standard, including but not limited to staff assessments and reports to the local publicly owned utility's governing body, planned or historical production and fuel use data, and applicable historical continuous emissions monitoring data.
- (f) For a new ownership investment:
 - (1) For new construction or purchase of an existing generation unit or power plant, a description of the planned power plant or the purchased asset specifying the power generating equipment, power source (i.e. fuel type, wind, biomass), any supplemental fuel source and any historical production and fuel use data.
 - (2) For incremental investment which is defined to be a covered investment per Section 2901(a), a description of the modifications to the unit(s) and their impact on generation capacity, CO2 emissions, and planned operation.
 - (3) For non-renewable resources, the heat rate or CO2 emissions profile of the power plant, and the source of this information.

§2923 Compliance

Within 30 days of any compliance filing made pursuant to section 2922, the Energy Commission may on its own motion, or as a result of a request from a member of the public, staff, or other agency, initiate a complaint or investigation proceeding, or both, pursuant to Chapter 2, Article 4, sections 1231 through 1237 of these regulations, to determine a local publicly owned electric utility's compliance with this chapter. In conducting such a proceeding, the Energy Commission may require the production of information and documents beyond those made available to the public during consideration of the investment or submitted with the Compliance Filing, including, but not limited to, contracts, staff assessments and reports to the local publicly owned electric utility's governing body, land use and air quality permits, applicable historical continuous emissions monitoring data, and other information and documents which aid in assessing compliance with this chapter. All documents produced under this section and designated as "Confidential" by the local publicly owned electric utility shall be treated as confidential by the Commission upon receipt. Any proceeding initiated under this section shall be completed within 90 days after the submission of the compliance filing.

§2930 Case-by-Case Review for Reliability or Financial Exemptions

A local publicly owned electric utility may petition the Commission for an exemption from application of this chapter to a particular long-term financial commitment. The Commission shall provide a response to the local publicly owned electric utility within 60 days of the application's filing. In order to be entitled to such an exemption the local publicly owned electric utility must demonstrate that:

- (c) the long-term financial commitment to a non-compliant power plant is necessary to address system reliability concerns; or
- (d) extraordinary circumstances, catastrophic events, or threat of significant financial harm will arise from implementation of this chapter due to unforeseen circumstances not previously contemplated in the establishment of these regulations.

Article 2. Provisions Applicable to Electrical Generating Resources Under 10 MW

[Reserved]