

Proposed Rule 1304.2

Greenfield Electrical Generating Facility Fee For Use Of SO_x/PM₁₀ Offsets

Working Group Meeting

July 10, 2014

Background

- Rule 1304.1 applicable to Repowering of units at Existing power plants - Adopted 9/6/2013
- Provides PM, NO_x, SO_x and VOC Offsets to repowers for a fee
- Current dearth of PM, SO_x and NO_x ERCs available in the open market

Background (cont.)

- Promote preferred resources
 - CPUC Loading Order
 - CARB AB32 Scoping Plan
 - SCAQMD Energy Policy
- Facilitate grid reliability
- Assist in implementation of attainment strategy

Progress to Date

- Informal Meetings with key stakeholders since February 2014 Board Meeting:
 - SCLC
 - Refinery
 - CCEEB
 - SCE
 - SoCalGas
 - DWP
 - Independent Power Producers
 - Environmental Community Reps

Proposed Rule

Overview

- Require a Fee for SO_x/PM₁₀ Offsets obtained from District offset accounts for New Greenfield Electrical Generating Facility (GEGF) in SCAB
- Not mandatory to obtain offsets from District accounts
- Fee proceeds to be invested in air pollution improvement strategies consistent with the Air Quality Management Plan and/or local impacts

Proposed Rule

Definition Concepts

■ GREENFIELD ELECTRICAL GENERATING FACILITY (GEGF)

- constructed on a site not previously developed as a facility
- an entirely new construction at an existing facility
- increasing the capacity at an existing facility
- Additional Criteria
 - generating electricity for its own use
 - for use pursuant to a contract
 - a municipal utility supporting its own native load
 - refinery co-generation unit included in the CPUC's LTPP.

Proposed Rule

Definition Concepts (cont.)

■ REFINERY CO-GENERATION

- Facility using refinery fuel gas as a source with a primary goal to provide 100% of the steam needed for refinery operations
- Generation of any excess electricity is included in the CPUC's LTPP

■ NATIVE LOAD

- Transmission Provider (typically a municipality)
- Included in the CEC IPP
 - obligation to construct and operate the Transmission Providers system to meet the reliable electric needs of such customers.

Requirements

- GEGFs may reserve SOx and PM10 offsets from SCAQMD internal bank if the following conditions are met
 - Sufficient credits for R1309 & R1304 Emitters*
 - SOx Set Aside = 50 lb/day
 - PM10 Set Aside = 420 lb/day
 - Permit application(s) deemed complete
 - Existing sources at GEGF meet BARCT or BACT
 - Total use not exceeding R1315 Cap

* Historical Draw of Internal Offsets for SOx & PM10 (CY 2002-2011):
SOx = 152 lb/day PM10 = 1,393 lb/day

Requirements

Contd.

- GEGF shall receive SOx and PM10 offset
 - Investor Owned Utilities (IOU)
 - CEC Certified CEQA
 - CPUC

 - Municipalities
 - CEC Integrated Resources Plan
 - Lead Agency Certified CEQA
 - Local Municipal Approval with Public Process

Key Provisions

- Annual Fee to be paid for the entire operational period of the new unit; or optionally a one-time single up front fee (GF_i)
- Offset Fee(s) (GF_i) to be paid for each pollutant (i) for each year that the offsets are encumbered by the GEGF
- The annual fee by pollutant type
 - derived by applying the CY 2013 1.6% increase in the CPI rate to Rule 1304.1 fee rates
 - adjusted annually by the Consumer Price Index

Payment Options

- Single Upfront Payment Option
 - Full fee due prior to PC

- Annual Payment Option
 - Only 1st year payment for offsets prior to PC
 - Credit applied to first year of operation
 - Annual payments start after first year of operation
 - For Multi-Phase/Block Projects
 - 2nd payment due for only operational units and prior to 2nd year of operation

- EGFs may switch from annual to single payment at any time
 - Previous payments credited toward balance

Refunds

- To address grid reliability and investment risk concerns, rule allows:
 - Full refund prior to commencement of operation
 - Cancellation of PC
 - Full refund for reduction in permitted generation capacity
 - Prior to Commencement of Construction
 - Includes Multi-Phase/Block repower projects

Use of Fees

- Impacted Surrounding Communities, consistent with AQMP
 - Emphasis on Preferred Resources
 - Energy Efficiency
 - Demand Response
 - Energy Storage
 - Renewables
 - Low- or Zero-Emission Vehicles & Charging Infrastructure
- Consistent with R1304.1 Once Approved

Key Issues

■ Inclusion of Refinery CoGen

- Criteria to ensure net localized emission reductions

■ Potential Siting in Environmental Justice Areas

- Criteria to prevent additional exposure
- Environmental benefits from offset fees

■ Native Load Determination for Muni

- Consistent with CPUC procurement policies

Rule Development

Proposed Schedule

Informal Meetings March - June 2014

Working Group Meeting July 10, 2014

Additional Working Group Meetings August 2014 – Rule Adoption

Public Workshop October 2014 – December 2014

Adoption Hearing 1st Quarter 2015

Back-Up Slides

Historical Draw on SCAQMD Internal Offset Accounts (CYs 2002 -2011)

Pollutant (lb/day)	Rule 1304(a)(2)	Essential Public Services	All Others	Total	Rule 1304(a)(2) ÷ Total
PM10	3,634	730	663	5,027	72%
VOC	2,513	1,770	4,743	9,026	28%
SOx	126	135	17	278	45%
NOx	0	4,937	5,035	9,972	0%

Formulas

Annual Payment Option

≤ 100 MW cumulatively

$$\text{Annual Offset Fee } (GF_i) = R_{iA1} \times OF_i \times PTE_{new_i}$$

> 100 MW cumulatively

$$\text{Annual Offset Fee } (GF_i) = \left(\left[R_{iA1} \times \left(\frac{100}{MW} \right) \right] + \left[R_{iA2} \times \left(\frac{MW - 100}{MW} \right) \right] \right) \times OF_i \times PTE_{new_i}$$

Formulas

Single Payment Option

≤ 100 MW cumulatively

$$\text{Single Payment Offset Fee } (GF_i) = L_{iA1} \times OF_i \times PTE_{new_i}$$

> 100 MW cumulatively

$$\text{Single Payment Offset Fee } (GF) = \left(\left[L_{A1} \times \left(\frac{100}{\text{MW}} \right) \right] + \left[L_{A2} \times \left(\frac{\text{MW} - 100}{\text{MW}} \right) \right] \right) \times OF_i \times PTE_{new_i}$$

Offset Fee Formula (cont.)

Where;

- GF_i = Greenfield Offset Fee for pollutant (i); i = PM10 / SOx.
- R_{iA1} = Annual Fee Rate for pollutant (i), cumulatively 100MW or less (\$/pound per day) - see Table A1
- R_{iA2} = Annual Fee Rate for pollutant (i), cumulatively >100MW (\$/pound per day) - see Table A2
- R_{iL1} = Single Fee Rate for pollutant (i), cumulatively 100MW or less (\$/pound per day) - see Table A1.
- R_{iL2} = Annual Fee Rate for pollutant (i), cumulatively >100MW (\$/pound per day) - see Table A2
- MW = maximum unit MW rating
- PT_{Enew_i} = potential to emit of new unit(s).
- OF_i = offset factor (see Table A1 and A2 for applicable rates).

Fee Rate Tables A1 and A2

TABLE A1 ≤ 100MW Pollutant (i)	Annual Offset Fee Rate ($R_{i_{A1}}$) (\$per lb/day)*	Single Payment Offset Fee Rate ($L_{i_{A1}}$) (\$ per lb/day)*	Offset Factor (OF)
SO _x **	806	20,133	1.0
PM10	1,013	25,310	1.0

TABLE A2 > 100MW Pollutant (i)	Annual Offset Fee Rate ($R_{i_{A1}}$) (\$per lb/day)*	Single Payment Offset Fee Rate ($L_{i_{A1}}$) (\$ per lb/day)*	Offset Factor (OF)
SO _x **	3,321	80,530	1.0
PM10	4,050	101,237	1.0

*Fees shall be adjusted annually by the CPI, consistent with the provisions of Rule 320

**For non-RECLAIM sources only

Sample Annual Fee Calculation (800 MW)

For PM10 Offsets ONLY - a separate computation must be performed for any SOx offsets obtained, as applicable:

- Pollutant i = PM10
- $R_{iA1} = R_{PM10 A1} = \$1,013 / \text{lb per day annually}$
- $PTE_{\text{new}} = 800 \text{ lb / day}$
- $OF_i = OF_{PM10} = 1.0$

$$GF_i = R_{iA1} \times PTE_{\text{new}} \times Of_i$$

$$GF_{PM10} = R_{PM10 A1} \times PTE_{\text{new-PM10}} \times OF_{PM10}$$

$$= \$1,013 \frac{\text{per year}}{\text{lb/day}} \times 800 \frac{\text{lb}}{\text{day}} \times 1.0$$

$$= \$810,400 / \text{year}$$

Sample Single Fee Calculation (800 MW)

For PM10 Offsets ONLY - a separate computation must be performed for any SOx offsets obtained, as applicable:

- Pollutant i = PM10
- $L_{iA1} = L_{PM10 A1} = \$25,310 / \text{lb per day}$
- $PTE_{new} = 800 \text{ lb / day}$
- $OF_i = OF_{PM10} = 1.0$

$$GF_i = L_{iA1} \times PTE_{new} \times Of_i$$

$$GF_{PM10} = R_{PM10 A1} \times PTE_{new-PM10} \times OF_{PM10}$$

$$= \$25,310 \frac{\text{lb}}{\text{day}} \times 800 \frac{\text{lb}}{\text{day}} \times 1.0$$

$$= \$20,480,000$$