Proposed Rule 1304.2

Greenfield Electrical Generating Facility Fee For Use Of SOx/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, NOx, SOx and VOC Offsets to repowers for a fee
- Current dearth of PM, SOx and NOx 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 SOx/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 ($\text{GF}_i$)

- Offset Fee(s) ($\text{GF}_i$) 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)

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

Annual Payment Option

≤100MW cumulatively

Annual Offset Fee \( GF_i \) =

\[ R_{iA1} \times OF_i \times PTE_{new_i} \]

> 100MW cumulatively

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

\[ \leq 100\text{MW cumulatively} \]

\[ \text{Single Payment Offset Fee (GF}_i) = L_{iA1} \times OF_i \times PTE_{newi} \]

\[ > 100\text{MW cumulatively} \]

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

Where;

\[ GF_i = \text{Greenfield Offset Fee for pollutant (i); } i = \text{PM10} / \text{SOx}. \]

\[ R_{iA1} = \text{Annual Fee Rate for pollutant (i), cumulatively 100MW or less ($/pound per day) - see Table A1} \]

\[ R_{iA2} = \text{Annual Fee Rate for pollutant (i), cumulatively >100MW ($/pound per day) - see Table A2} \]

\[ R_{iL1} = \text{Single Fee Rate for pollutant (i), cumulatively 100MW or less ($/pound per day) - see Table A1.} \]

\[ R_{iL2} = \text{Annual Fee Rate for pollutant (i), cumulatively >100MW ($/pound per day) - see Table A2} \]

\[ MW = \text{maximum unit MW rating} \]

\[ PTE_{\text{new}_i} = \text{potential to emit of new unit(s).} \]

\[ OF_i = \text{offset factor (see Table A1 and A2 for applicable rates).} \]
Fee Rate Tables A1 and A2

<table>
<thead>
<tr>
<th>TABLE A1</th>
<th>≤ 100MW Pollutant (i)</th>
<th>Annual Offset Fee Rate ($/per lb/day)*</th>
<th>Single Payment Offset Fee Rate ($/per lb/day)*</th>
<th>Offset Factor (OF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOx**</td>
<td>806</td>
<td>20,133</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>PM10</td>
<td>1,013</td>
<td>25,310</td>
<td></td>
<td>1.0</td>
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</table>

<table>
<thead>
<tr>
<th>TABLE A2</th>
<th>&gt; 100MW Pollutant (i)</th>
<th>Annual Offset Fee Rate ($/per lb/day)*</th>
<th>Single Payment Offset Fee Rate ($/per lb/day)*</th>
<th>Offset Factor (OF)</th>
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</thead>
<tbody>
<tr>
<td>SOx**</td>
<td>3,321</td>
<td>80,530</td>
<td></td>
<td>1.0</td>
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<tr>
<td>PM10</td>
<td>4,050</td>
<td>101,237</td>
<td></td>
<td>1.0</td>
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</table>

*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
- \( R_{iA1} = R_{PM10A1} = \$1,013 \text{ / lb per day annually} \)
- \( PTE_{\text{new}} = 800 \text{ lb / day} \)
- \( OF_i = OF_{PM10} = 1.0 \)

\[
GF_i = R_{iA1} \times PTE_{\text{new}} \times OF_i
\]

\[
GF_{PM10} = R_{PM10A1} \times PTE_{\text{new-PM10}} \times OF_{PM10}
\]

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

\[
= \$810,400 / \text{year}
\]
Sample Single Fee Calculation (800 MW)

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

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

$GF_{i} = L_{iA1} \times PTE_{\text{new}} \times OF_{i}$

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

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

$= $20,480,000