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September 15, 2014

Rajinder Sahota
Chief, Climate Change Program Planning & Management Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95812-2828

RE: SoCalGas and SDG&E Comments on Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

Dear Miss Sahota:

San Diego Gas and Electric Company (SDG&E) and Southern California Gas Company (SoCalGas) appreciate the opportunity to submit these written comments concerning proposed amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR). We commend the California Air Resources Board's (CARB) ongoing efforts to clarify the MRR, but have concerns about the proposed change to the Transmission Loss Factor and the addition of additional sources and reporting requirements. Please see detailed comments below.

1. **Proposed Change to the Transmission Loss Factor**

Section 95111(b)(2) of the MRR is being proposed to require electricity importers to use a transmission loss factor of 1.02 for all specified source imports, regardless of where emissions and generation are measured. The ARB Staff's Initial Statement of Reasons (ISOR) states,

> "The change related to the transmission loss factor is necessary to ensure the accurate reporting of transmission losses associated with imported electricity from specified facilities or units. Section 95111(a)(4) currently requires the reporting of specified source MWh to be measured at either (1) the generation source busbar, or (2) at the First Point of Delivery (POD) inside California. When measuring at the generation busbar, the transmission loss factor of 1.0 is used. When measuring at the First Point of Delivery inside California, the transmission loss factor of 1.02 is used. The common industry practice is to electronically tag power for transmission using the NERC etagging system, but e-tags do not account for transmission loss. Using a consistent transmission loss factor will ensure that transmission losses associated with imported electricity from specified facilities or units will be accurately reported. The change related to emission factors is required to ensure the use of unified and consistent data to determine emission factors across the sector."

Contrary to the stated intent to ensure accurate reporting, the change in the MRR would promote <u>inaccurate</u> reporting of emissions. If generation is measured at the busbar, it is before transmission losses. For MWh reported at the busbar, the proposed change would increase the MWh by 2 percent beyond that actually produced at the facility and create phantom emissions for which the facility would have to buy allowances. This change in reporting would violate the Interstate Commerce Clause (ICC) by making the measurement of emissions 2 percent higher for generation outside California even though the point of measurement would be the same as the measurement for generation in California.

This MRR change would be significant for SDG&E's Desert Star Combined Cycle facility, which is located in Nevada, but dynamically connected to the CAISO grid. This facility does not even have e-tags since it is connected to the CAISO grid, so the ISOR argument about e-tag reporting is not applicable to Desert Star.

In order to avoid violations of the ICC, the ARB should reject the proposed changes to the MRR and instead provide clear guidance on what is required to show the MWh are calculated at the busbar. Alternatively, the MRR could be changed to indicate all MWhs reported based on e-tags will be considered as measured at the California border and so the 2 percent transmission adder would be applied.

To ensure accurate emissions reporting, SDG&E proposes the following change to the MRR:

(2) *Calculating GHG Emissions from Specified Facilities or Units.* For electricity from specified facilities or units, the electric power entity must calculate emissions using the following equation:

Where:

CO_2e = Annual CO_2 equivalent mass emissions from the specified electricity deliveries from each facility or unit claimed (MT of CO_2e).

MWh = Megawatt-hours of specified electricity deliveries from each facility or unit claimed.

EF_{sp} = Facility-specific or unit-specific emission factor published on the ARB Mandatory Reporting website and calculated using total emissions and transactions data as described below. The emission factor is based on data from the year prior to the reporting year.

EF_{sp} = 0 MT of CO_2e for facilities below the GHG emissions compliance threshold for delivered electricity pursuant to the cap-and-trade regulation during the first compliance period.

TL = Transmission loss correction factor.

TL = 1.02 when deliveries are not reported as measured at the busbar, to account for transmission losses between the busbar and measurement at first point of receipt in California. **All MWhs reported on e-tags will be considered measured at the first point of receipt in California.**

TL = 1.0 when deliveries are reported as measured at the busbar.

2. Startup Emissions for Centrifugal Compressors

Section 95153(m). The proposed amendments require the installation of flow meters and reporting of measured start-up emissions for centrifugal compressors if natural gas is used as spin-up or starting gas (i.e. not combusted in the compressor).

Emissions from these sources are negligible (< 3% of total emissions for SoCalGas); therefore, SoCalGas and SDG&E believe that the cost to install flow meters outweighs the benefits. For example, estimates for SoCalGas' Aliso Canyon storage facility indicate that methane emissions from the 3 centrifugal compressors are only about 72 metric tons of CO2e/year. These emissions are in the same order of magnitude as emissions reported in CARB's 2007 Oil & Gas Industry Survey Results report for oil & gas production and natural gas storage facilities (6 MT CH4 as CO2e). The survey says there are only 47 centrifugal compressors out of 1,071 in California. Only 27 out of 47 use natural gas for startup, so this is a very small subset of compressor emissions.

Currently, engineering estimates are used for reporting emissions from centrifugal compressors. The proposed MRR amendments allow engineering estimates for the first year. SoCalGas and SDG&E request that the time limitation be removed because engineering estimates provide sufficient accuracy given the de minimis nature of these emissions.
Accordingly, SoCalGas and SDG&E propose the following regulatory language to address this issue, which is consistent with PG&E's proposed language:

Amend section 95103(h) as follows:

(h) **Reserved** ~~*Reporting in 2015*~~ ~~All provisions of the regulation are in full effect for 2014 data reporting in 2015 and beyond, except the following:~~ ~~For 2013 data reported in 2014, the following applies:~~

~~(1)Operators in the petroleum and natural gas systems sector subject to section 95103(m)(1)(A) for centrifugal compressor start-ups, may use best available methods to calculate emissions for 2014 data reported in 2015.~~

Amend section 95153(m)(1)(A) as follows:

(A) Operating mode, blowdown valve leakage through the blowdown vent, wet seal and dry seal compressors. For all centrifugal compressor start-ups where natural gas is used as spin-up or starting gas (i.e. not combusted in the compressor), venting of this gas must be quantified and reported as follows:

$$ESGi = \sum (1-CF)i \qquad \text{(Eq. 20)}$$

Where:
ESGi = Annual GHGi (CO2 and CH4) vented emissions at standard conditions in cubic feet.
n = number of compressor start-ups using spin gas.
Vsg = Volume of spin-up gas in standard cubic feet ***through metering or estimated using engineering data***.
CF = Fraction of spin-up gas that is sent to vapor recovery or fuel gas as determined by keeping logs of the number of operating hours for the vapor recovery system and the amount of gas that is directed to the fuel gas or vapor recovery system.
Yi = Mole fraction of GHGi in the vent gas.

Calculate both CH4 and CO2 mass emissions from volumetric emissions using calculations in paragraph (t) of this section

3. Pipeline Dig-ins

Section 95152(i)(11) and Section 93153(w) require the reporting of CH4 and CO2 emissions from pipeline dig-ins.

(345) "Pipeline dig-in" means unintentional puncture or rupture to a buried natural gas pipeline during excavation activities.

Losses caused by third parties have not been previously incorporated into the MRR as these are emergency events caused by third parties over whom the utilities have no control. Indeed, pipeline dig-ins are usually the result of third party contractors failing to follow industry protocol before excavating. Furthermore, emissions can only be estimated because the release duration may be unknown and response time to control the release varies.

SoCalGas and SDG&E request exclusion from the MRR for emissions associated with pipeline dig-ins.

~~95152(i)(11) CO_2 and CH_4 emissions from pipeline dig-ins (N_2O emissions excluded).~~

~~95152(w) *Reserved.Pipeline dig-ins.* For reporting pipeline dig-in emissions as specified in section 95152(i)(11), operators may either use measured data or use engineering estimation based on best available data to quantify the volume of natural gas released from pipeline dig-in~~

~~events. Volumetric emissions must be converted into mass emissions of CO_2 and CH_4 using the applicable methods in paragraphs (r), (s), and (t) of this section.~~

~~95157(c)(16) For local distribution companies, report the following:~~

~~(U) Annual CO_2 and CH_4 emissions, in metric tons for each gas, from customer meters serving residential, commercial, and industrial customers, respectively.~~
~~(V) Annual CO_2 and CH_4 emissions, in metric tons for each gas, from pipeline dig-ins.~~

~~(W) (W) Number of customer meters at residential, commercial, and industrial premises, respectively.~~
~~(X) Number of pipeline dig-ins~~

4. Data Reporting for Local Distribution Companies

SoCalGas and SDG&E request clarification with respect to MRR Section 95122(d)(2)(E)—Data Reporting for Local Distribution Companies: Language clarification and consistency with Cost of Implementation Fee regulation

Specifically, the 45-day amendments require local distribution companies to provide "the annual energy in MMBtu [million British thermal units] delivered to residential, commercial, industrial, electricity generating facilities, **and other end-users** (emphasis added) not identified as residential, commercial, industrial or electricity generating facilities." SoCalGas and SDG&E request that ARB clarify what sources are included in "other end-users" in the proposed amendment.

Thank you for the opportunity to submit these comments.

Sincerely,

Tamara Rady