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Kevin M. Kennedy, Ph.D.
California Air Resources Board
1001 I Street
Sacramento, CA 95814

**RE: ARB Proposed Amendments to the Regulation for the
Mandatory Reporting of Greenhouse Gas Emissions**

Dear Dr. Kennedy:

Sempra Energy Utilities appreciate the opportunity to submit these written comments concerning the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR). We thank the Air Resources Board Staff for considering stakeholder input during the development of both the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions and for staff's outreach efforts in developing these proposed amendments.

Sempra Energy serves the largest customer base of any energy utility in the United States. Sempra Energy Utilities operates the nation's largest natural gas distribution utility, Southern California Gas Company, which serves a population of 20.5 million through 5.7 million natural gas meters. San Diego Gas & Electric serves 3.4 million consumers through 1.4 million electric meters and more than 840,000 natural gas meters. The Sempra Energy utilities (SEu) own and operate Natural Gas Distribution Facilities, Underground Natural Gas Storage Facilities, and Onshore Natural Gas Transmission Compression Facilities, and Electric Generation.

SEu appreciates ARB's interest in harmonizing the MRR with USEPA 40CFR98 mandatory reporting requirements. As you are aware USEPA continues to hold a public dialogue clarifying intent and language within USEPA 40CFR98. SEu requests this opportunity with ARB as well. Many of the comments contained in this letter are meant to ensure that ARB can meet its goals for streamlining and simplifying the process while meeting the compliance requirements necessary to support a cap and trade program.

**A. The MRR Inappropriately Would Not Count Toward GHG Reductions From Certain
Out-Of-State Renewables Even Though They Qualify Toward the Renewable
Electricity Standard.**

The MRR omits giving credit for GHG reductions for renewables commitments that are in the form of "Renewable Energy Credits" (RECs). As we understand how the approach works, if a renewable generating source is located inside of California, then its energy production is treated as zero

emissions. If it is located outside of California, and is delivering directly into the State as a specified source, then again, it is treated as an energy source with zero emissions. However, if the energy source is firmed or shaped, in accordance with current state law that allows these sources to meet the Renewable Portfolio Standard¹, or if it is an unbundled REC, then any associated electricity delivered into the state would have associated emissions. The GHG reductions achieved by generating more renewable-sourced energy from these sources would not be reflected in any part of the process. This results in some renewable energy sources being treated as having no GHG reduction value, simply because of the nature of the transaction, even though that transaction may have been entered into as a means of minimizing costs to California electricity users. If California utilities are required to purchase allowances for system emissions for the imported energy, California electricity users will end up paying both for the REC, which already has the zero-GHG attribute, and for an allowance.

The MRR's treatment of firmed and shaped renewables and RECs is arbitrary, will result in higher costs for California customers, and it is inconsistent with the ARB's own regulations governing the Renewable Electricity Standard (RES). Under the RES, firmed and shaped resources that meet the RPS requirements count toward the RES --

“**Eligible renewable energy resource**” means a generating facility participating in the WREGIS tracking system that is:

(A) Certified as eligible for California's RPS program pursuant to Public Utilities Code section 399.13;

(B) Meets the criteria of the California RPS program, excluding electricity delivery requirements, as determined by ARB;...” Section 97002 (a)(8)

The ARB's sole authority for establishing the RES was under its authority to reduce GHG emissions in accordance with AB32. Yet, the MRR would result in some resources counting toward the RES, but realizing no GHG credit. This directly contradicts the sole basis for the RES, for CARB's requiring the acquisition of renewables, and the underlying assumptions of what renewables counted toward meeting a renewable energy standard that was designed only to reduce GHG emissions.

It also contradicts current California law governing renewables, which define “Renewable Energy Credits” as including “all renewable and environmental attributes”.

Public Utilities Code Section 399.12(f).

(f) (1) "Renewable energy credit" means a certificate of proof, issued through the accounting system established by the Energy Commission pursuant to Section 399.13, that one unit of electricity was generated and delivered by an eligible renewable energy resource.

(2) "Renewable energy credit" includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health

¹ California Energy Commission, Renewable Portfolio Standard Eligibility Guidebook, Third Edition, page 23

and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels.

Staff's discussion of this issue seems internally inconsistent and does not explain why resources that result in reduced GHG emissions should receive no credit for that reduction. Staff states -- Renewable energy credits (RECs) cannot be used in GHG reporting. This is consistent with the intent of the California cap-and-trade program and the WCI cap-and-trade program (WCI RECs Accounting 2008, WCI RECs Announcement 2010) to provide a smooth transition to a future federal source-based program. A smooth transition requires that RECs from California renewable energy facilities do not have lesser value than RECs from out-of-state facilities, simply due to GHG attribution from the California cap-and-trade program².

On the one hand, staff states that RECS from California renewable energy facilities should not have lesser value than RECs from out-of-state facilities, but, on the other hand, the MRR gives GHG reduction value only to RECs from California, and not from out-of-state sources, if they are firmed or shaped, or otherwise meet the California RPS or the ARB's RES. That internal inconsistency is unjustified and unexplained. Furthermore, concerns about a future federal RPS are faulty since any federal program will not have to deal with electricity imports, which is solely a function of California's choice to use border adjustments for electricity. A federal RPS would necessarily ascribe equal value to RECs regardless of location by having only one rule for assignment of value of RECs.³ Such erroneous speculation about a future federal program does not justify the taking of value of contracts signed under current State rules.

The MRR's approach to firmed and shaped renewables and RECs would undermine existing contract commitments made in reliance on State law governing renewables. This interference with bargained-for rights raises serious constitutional questions.

These defects are completely unnecessary. If the MRR were simply consistent with its RES, the State's RPS, and state law, it would reflect the value of RECs that result in reduced GHG emissions, which is consistent with the intent of AB32. In order to do so, however, the MRR must be revised. Absent that, the MRR are fundamentally flawed, arbitrary and capricious.

It is recommended that the following be added to section 95111(a): General Requirements and Content for GHG Emissions Data Reports for Electricity Importers and Exporters:

(x) Electricity Importers must report the amount of firmed and shaped renewable energy based on the number of renewable energy certificates from sources not in California or a linked jurisdiction that are retired in WREGIS, including the greenhouse gas source specification fields, and the associated unspecified imported power, or specified imported power (or specified asset-controlling supplied power) of the energy that is being used to

² ISOR on Mandatory Reporting Rules at 48, 174.

³ And a federal program will have one price for power. The out-of-state RECs have a higher value because the power has a lower price since it will not incorporate any GHG value.

firm and shape renewable energy⁴. GHG allowances must be surrendered for emissions associated with such power deliveries to the extent they exceed 1100 lbs/MWh.

(xx) Electricity compliance entities must report the amount of power associated with renewable energy certificates from sources not in California or a linked jurisdiction that are retired in WREGIS, including the greenhouse gas source specification fields, and the associated unspecified power, or specified power (or specified asset-controlling supplied power). GHG allowances must be surrendered for emissions associated with such power deliveries to the extent they exceed 1100 lbs/MWh.

B. The MRR Needs Clarification on Meter Regulator and Gate Station and Does Not Recognize the Broad Range Fugitive Emission Monitoring Methods.

The Initial Statement of Reasons (ISOR) states that many changes in the MRR were made to better align the reporting Rule with many of the requirements of the United States Environmental Protection Agency (USEPA) mandatory greenhouse gas reporting program⁵. Since the USEPA only recently published the Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems⁶ on November 30, 2010 some elements of the MRR need to be corrected prior to approval of this regulation.

Having recognized the extreme costs associated with conducting extensive leak surveys and the relative insignificance of those emissions⁷ USEPA significantly changed its reporting requirements for fugitive emissions reporting from distribution systems. Section 95152(i) should reflect USEPA findings. It is important to recognize that collectively, GHG fugitive emissions from natural gas distribution operations across the nation equal less than 0.5% of total GHG emissions.

Somewhat disconcerting, the term “above ground meter regulator” is not defined in the regulation and the term itself is not clear enough to define a source. We conjecture that there are 3 types of facilities which this term might include: above ground metering stations, above ground regulating stations, and/or above ground combined metering and regulating stations. Generally, metering stations include regulators as well as one or more meters. Southern California Gas has more than 5 million above ground combined metering and regulating stations, if all residential, commercial and industrial metering stations are included. There are more than one hundred thousand total combined metering and regulating stations, if all industrial and commercial metering facilities are included and approximately 500 above ground M&R stations if all customer metering stations are excluded. This issue has been discussed broadly in the Federal arena and the recently published EPA regulation explicitly excludes customer meters from GHG reporting.⁸

⁴ Based on WCI Suggested Essential Requirements for Reporting of Imported Electricity, Section WCI.62 Greenhouse Gas Emissions Data Report: First Jurisdictional Deliverers of Imported Power (a)(7)

⁵ USEPA MRR 2009-2010

⁶ ENVIRONMENTAL PROTECTION AGENCY, 40 CFR Part 98, [EPA-HQ-OAR-2009-0923; FRL-9226-1], Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems

⁷ This is based on emissions reported in the 2010 EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008 (EPA 2010 Inventory EPA 2010 Inventory at page reports that natural gas distribution contributed 29.9 Tg CO₂e in 2008 and less than 0.05 Tg CO₂e in non-combustion CO₂ emissions. The total U.S. GHG emissions for 2008 were calculated to be 6956.8 Tg CO₂e. Thus natural gas distribution fugitive emissions contributed 0.43% of U.S. total greenhouse gas emissions in 2008 (29.9/6956.8 = 0.43).

⁸ 40 CFR sec. 98.230(a)(8)

Section 95152(i), also appears to require annual survey of fugitive emissions from gate stations. It is not clear that a “gate station” is a “city gate” as defined in Section 95102.

It is suggested the language be amended as follows:

(i) For natural gas distribution, the operator must report emissions from the following sources:

*(1) Above ~~ground meter regulators and gate station~~ **grade M&R custody transfer city gate stations**⁹ fugitive emissions from connectors, block valves, control valves, pressure relief valves, orifice meters, other meters, regulators, and open ended lines.*

Section 95152(i) also appears to require an annual survey of fugitive emissions from all “above ground meter regulators and gate station fugitive emissions from connectors, block valves, control valves, pressure relief valves, orifice meters, other meters, regulators, and open ended lines.”

Section 95153(o) requires natural gas distribution entities to use methods described in section 95154(a) of this article to conduct an annual leak detection of fugitive emissions. Section 95154(a) although somewhat confusing appears to limit options for leak detection to optical gas imaging instrumentation in accordance with 40 CFR part 60, subpart A, §60.18(i)(1) and (2), Alternative Work Practice for Monitoring Equipment Leaks (revised as of July 1, 2009). Although it is not certain, it appears this means that the optical gas scanning equipment required to be used for leak surveys refers to what is known as an infrared camera. Although one option, the use of infrared technology does not offer any better quantitative or qualitative information than other technologies currently in use. Given that fugitive emissions are financially incented to be located and repaired and are not part of the cap and trade program, there is no justification for requiring the exclusive use of optical gas scanning equipment when a broad range of effective leak detection equipment exists and meets leak detection standards. Alternative technologies under 40 CFR Part 98, Subpart W, Section 98.234 allow the use of organic vapor analyzers (OVA), toxic vapor analyzers (TVA) and infrared laser beam illuminated instruments as allowed. The Rule should leave room open for other viable future technologies and methodologies to detect fugitive methane emissions.

It is recommended section 95154 be amended as follows:

*(a) The operator must use **any of** the methods described as follows to conduct annual leak detection of fugitive emissions from all source types listed in section 95153(n)(3)(A) and 95153(o) of this article in operation or on standby mode that occur during a reporting period.*

(1) Optical gas imaging instrument. The operator must use an optical gas imaging instrument for fugitive emissions detection in accordance with 40 CFR part 60, subpart A, §60.18(i)(1) and (2), Alternative Work Practice for Monitoring Equipment Leaks (revised as of July 1, 2009).

(2) Organic Vapor Analyzers (OVA) or Toxic Vapor Analyzers.

(3) Infrared laser beam illuminated instrument. Use an infrared laser beam illuminated instrument for equipment leak detection.

*(4) ~~In addition, the operator must operate the optical gas imaging instrument to image~~ **analyzer or instrument to evaluate** the source types required by this article in accordance with the instrument manufacturer’s operating parameters.*

(5) ~~(2)~~ All flow meters, composition analyzers and pressure gauges that are used to provide data for the GHG emissions calculations must use measurement methods, maintenance

⁹ The term “above ground meters and regulators at non-custody transfer city gate stations” is included in ENVIRONMENTAL PROTECTION AGENCY, 40 CFR Part 98, [EPA-HQ-OAR-2009-0923; FRL-9226-1], Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems, the meaning is unclear and under consideration for clarification.

practices, and calibration methods that are consistent with the requirements of section 95103(k).

(6) ~~(3)~~ *The operator must use calibrated bags (also known as vent bags) only where the emissions are at near-atmospheric pressures such that it is safe to handle and capture all the emissions, below the maximum temperature specified by the vent bag manufacturer, and the entire emissions volume can be encompassed for measurement.*

C. Section 95103(l) GHG Reporting Requirements for Weekly Fuel Monitoring

Section 95103(l) requirement to monitor fuel measurement equipment and maintain and record fuel consumption quantities at least weekly for all equipment used to calculate GHG emissions is not necessary as part of a monitoring plan. The monthly standard requirement in existing federal, state and local emissions monitoring programs for the recording and reporting of fuel volumes for units not required to have a CEMS is adequate. For units not requiring a CEMS, this section should be amended to a monthly minimum requirement for fuel consumption (volume). Additionally, GHG “Monitoring Plans” should have the option to monitor and record fuel volumes on a more frequent basis if desired by the operator.

*(l) ~~Weekly~~ **Monthly** Fuel Monitoring. In addition to the requirements specified in 40 CFR §98.3(g)(5), as a part of the GHG Monitoring Plan the operator must monitor fuel measurement equipment and maintain records of its proper operation by recording fuel consumption quantities at least ~~weekly~~ **monthly**, where such equipment is used to calculate GHG emissions. The records of fuel consumption must be sufficient for the application of the missing data substitution procedure in section 95129(d)(2) in the event that the use of that procedure becomes necessary.*

Weekly monitoring and recording keeping requirements in the MRR are tied directly to estimating missing data. The increased frequency gained by recording weekly records would only be used as a means to help calculate data capture rates in Section 95129. There are a number of other ways to determine data capture rates without requiring industry to monitor and record weekly fuel use. The additional recordkeeping is unnecessary and will increase costs with no change in outcome. Portions of the missing data procedures should be amended to capture all stationary sources subject to the fuel monitoring requirements in a manner that coincides with the requirements set forth under 40 CFR Part 98, Subpart C, section 98.35(b)(2) of the existing EPA regulations, which includes language for fuel flow volume.

In order to reduce the regulatory burden and promote consistency with 40 CFR Part 98, it is suggested ARB replace the current language in Section 95129(a), (d)(1) and (2) with existing language from 40 CFR, Subpart C.

D. Requirements for Claims of Specified Sources of Imported Electricity and Associated Emissions is Not Justified

Section 95111(g)(1) requires that each electricity importer claiming specified sources or suppliers of electricity must register its specified sources and suppliers of electricity with ARB prior to

January 1 of each reporting year. There are several issues which need to be addressed in this section.

First, it is not possible to complete any registration task by January 1, 2011 and it is not needed for 2011, so the regulation should begin with reporting year 2012.

Second, electricity importers do not know all of the specified sources or suppliers of electricity they might be dealing with during the year since new short-term contracts are negotiated and signed throughout the year. Importers could register existing agreements but should not be restricted by this article from entering into new agreements and importing electricity to meet obligations or fulfill demand during the reporting year.

Third, regardless of the timing, the rationale offered for requiring this level of detail does not support the need to verify the source of the electricity or the GHG emission quality of the specified sources. More specifically the only rationale offered by the ISOR for requiring this amount of data is “this provision is necessary to assure accurate tracking of imported electricity and associated emissions from specified sources and suppliers”. The ISOR does not offer any rationale for the added data required compared to the data required for verification, which states “The electric power entity must retain for purposes of verification NERC E-tags, written contracts, settlements data, and all other information needed¹⁰ to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of section 95105”. Most certainly the verification documentation does not need to include whether the imported electrical energy is from a facility or unit that is a newly specified source, a continuing specified source, or was a specified source in the previous report year that will not be specified in the current report year. Increasing the amount of unnecessary data required under Section 95111(g)(1) also increases the chance that the reporter can inadvertently err. Requiring this excessive information not only creates added burden and but also adds to the potential for errors which can result in violations associated with the registration process. It is impossible to reason why ARB would require the myriad information in this and other sections to verify the quantity and quality of the electrical energy as imported into California.

An electricity importer should not be required to supply detailed registration of each source and supplier beyond what is required for verification.

E. Section 95107 (d), Section 95111(a)(10) Subjective Language Needs to Clearly Relate to Regulatory Requirement and Allow for Enforcement Discretion

Enforcement provisions should very specifically relate to regulatory requirements. In contrast, the language in Section 95107(d) connotes a more subjective determination on the part of the ARB. More specifically the word “needed” lacks specificity as related to the requirements of the regulation. Hence the language “failure to measure, collect, record or preserve information needed” should amended to be succinct enough to relate to those requirements and replaced with language that more closely refers to the regulatory requirements. It is recommended the language

¹⁰ See discussion below relating to the language in Section 95101(c) offering suggestions to modify this language to improve regulatory certainty as related to the requirements of this article

be amended as follows to help the regulated community understand what data is required to ensure compliance with the regulation:

(d) Each failure to measure, collect, record or preserve information ~~needed as required by this article~~ for the calculation of emissions ~~as required by this article~~ or that this article otherwise requires be measured, collected, recorded or preserved constitutes a separate violation of this article.

As well, given the volume of materials and emissions associated with this regulation, it is recommended that the above language contain an option to not, at the discretion of the enforcement agency, represent each failure as a separate violation. It is recommended that the word “may” be inserted to preserve that discretion. The following additional language is recommended added to the above section:

*(d) Each failure to measure, collect, record or preserve information ~~needed as required by this article~~ for the calculation of emissions ~~as required by this article~~ or that this article otherwise requires be measured, collected, recorded or preserved **may** constitutes a separate violation of this article.*

Similarly, Section 95111(a)(10) requires the electric power entity to retain for purposes of verification all information “needed” to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of section 95105. As previously mentioned the word “needed” lacks specificity as related to the requirements of the regulation. In this case Section 95131(b)(1)(C) of the Article is specific in defining the verification information needed including; “a description of the specific methodologies used to quantify and report greenhouse gas emissions, electricity and fuel transactions, and associated data as needed to develop the verification plan.” Section 95111(a)(10) is for the purposes of verification the language should specifically be amended as follows:

(10)Verification Documentation. The electric power entity must retain for purposes of verification NERC E-tags, written contracts, settlements data, and all other information ~~needed as required under Section 95131(b)(1)(C)~~ to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of section 95105.

F. Section 95101(c) GHG Monitoring Plan Not Required for Electric Power Entities

Section 95101 Applicability, included the following as electric power entities:

- (1) Electricity importers and exporters, as defined in section 95102(a);
- (2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
- (3) California Department of Water Resources (DWR);
- (4) Western Area Power Administration (WAPA);
- (5) Bonneville Power Administration (BPA).

These entities only hold title to a product (exported or imported electricity) and hence the obligations required under Section 95101(c) GHG Monitoring Plan are not applicable. Because Section 95111 is specific to electric power entities Section 95111(a)(10) should be further amended as follows:

(10)Verification Documentation. The electric power entity must retain for purposes of verification NERC E-tags, written contracts, settlements data, and all other information ~~needed~~ as required under Section 95131(b)(1)(C) to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of section 95105(a) and (b).

Thank you for your consideration of these comments.

Yours sincerely,

Tamara Rasberry