Cindy Parsons
13-9-8

Los Angeles Department of Water & Power



October 24, 2013

Mr. Richard Bode, Chief
Emissions Inventory Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Dear Mr. Bode:

Subject: Comments on the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas (GHG) Emissions Released September 4, 2013 for 45-day Public Review and Comment

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to provide comments on the proposed amendments to the California Air Resources Board (ARB) Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Regulation or MRR) that were released on September 4, 2013.

LADWP commends ARB staff for working with stakeholders in advance of the public hearing on the proposed rule amendments to identify, discuss and resolve concerns. We look forward to seeing a number of those concerns addressed in the 15-day changes.

Below are additional items for your consideration, presented in the order in which they appear in the proposed amended regulation.

**§95102 (179) Definition of First Point of Receipt: additional clarification is needed to address cases where the generating facility and first point of receipt are located in different states.**

ARB is proposing to amend the definition of "First Point of Receipt" to clarify that for GHG reporting purposes, the *"First Point of Receipt" means the location from which a Generator delivers its output to the transmission system (the closest POR to the generation source).*

LADWP recommends an additional clarification to the definition of "First Point of Receipt" to address cases where the generating facility and the first point of receipt on the North American Electric Reliability Corporation (NERC) E-tag are located in different states. For example, Hoover Power Plant is physically located on the state line between Nevada and Arizona, but the first point of receipt is Mead, located in Nevada. In cases where a generating facility located just inside the California border is within the boundaries of an out-of-state balancing authority area, the NERC E-tag may show a first point of receipt located in Arizona, Nevada or Oregon. If electricity from that generating facility is ultimately consumed in California, the definition of Imported Electricity states that energy that is generated and consumed in California is not an



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import. However, since the first point of receipt is the basis for aggregating and reporting unspecified imports and exports, and the first point of receipt on the E-tag is located outside of California, this would look like an import. As a result, an E-tag with the generation source and load (sink) located inside California and the first point of receipt located outside California could mistakenly be reported as an unspecified import.

To address this, LADWP recommends adding the following sentence to the definition of "First Point of Receipt":

> *In cases where the generation source and the first point of receipt are not located within the same geographic jurisdiction relative to the physical boundaries of California, the first point of receipt is the location of the generating facility or unit.*

This addition would clarify what jurisdiction should be used as the origin of the energy when determining whether the energy is imported or exported in cases where the generation source and the first point of receipt are located in different states.

LADWP recommends adding this new sentence to the definition of "First Point of Receipt" as follows:

(~~176~~179) "First point of receipt" means the location from which a Generator delivers its output to the transmission system (the closest POR to the generation source) ~~generation source specified on the NERC e-Tag~~, where defined points have been established through the NERC Registry. *In cases where the generation source and the first point of receipt are not located within the same geographic jurisdiction relative to the physical boundaries of California, the first point of receipt is the location of the generating facility or unit.* When NERC e-Tags are not used to document electricity deliveries, as may be the case within a balancing authority, the first point of receipt is the location of the individual generating facility or unit, or group of generating facilities or units. Imported electricity and wheeled electricity are disaggregated by the first point of receipt on the NERC e-Tag.

**§95102 (245) Definition of Imported Electricity: emergency assistance provision should apply to all California balancing authorities.**

ARB is proposing to add the following sentence to the definition of "Imported Electricity":

> *Imported Electricity does not include electricity imported into California by an Independent System Operator to obtain or provide emergency assistance under applicable emergency preparedness and operations reliability standards of the North American Reliability Corporation or Western Electricity Coordinating Council.*

It appears that "Independent System Operator" refers to the California Independent System Operator (CAISO). The Initial Statement of Reasons (ISOR) for the proposed amendments to the MRR states that this amendment is necessary to exclude electricity imported into California to meet emergency assistance requirements. Although the CAISO is a large balancing authority in California, there are a number of other balancing authorities in California including the Los Angeles Department of Water and Power (also known as LDWP) that are also subject to the emergency preparedness and operations reliability standards of the NERC and the Western

Electricity Coordinating Council (WECC). (See NERC Reliability Standard EOP-002-3[1] and WECC Reliability Coordinator responsibilities in RC EOP-002).[2]

Balancing authorities are responsible for maintaining load-interchange-generation balance within their respective balancing authority areas and supporting interconnection frequency in real time. The NERC standards specify that in the event of an emergency, neighboring balancing authorities should be contacted to provide assistance. LADWP has provided emergency assistance in the past, and could be required to import energy into California to provide emergency assistance to a neighboring balancing authority in the future.

Since all balancing authorities have the same responsibilities, the proposed amendment to the definition of "Imported Electricity" for electricity imported into California to obtain or provide emergency assistance under NERC or WECC emergency preparedness and operations reliability standards should apply to all balancing authorities, not just to the CAISO. To ensure equitable treatment of all balancing authorities, the proposed amendment should apply to a "Balancing Authority" rather than "an Independent System Operator". Balancing Authority is already a defined term in the regulation, whereas Independent System Operator is not a defined term.

LADWP recommends substituting "a Balancing Authority" in place of "an Independent System Operator" in the definition of "Imported Electricity" as shown below:

(~~240~~245) "Imported electricity" means electricity generated outside the state of California and delivered to serve load located inside the state of California. Imported electricity includes electricity delivered across balancing authority areas from a first point of receipt located outside the state of California, to the first point of delivery located inside the state of California, having a final point of delivery in California. Imported electricity includes electricity imported into California over a multi-jurisdictional retail provider's transmission and distribution system, or electricity imported into the state of California from a facility or unit physically located outside the state of California with the first point of interconnection to a California balancing authority's transmission and distribution system. Imported electricity includes electricity that is a result of cogeneration located outside the state of California. Imported electricity does not include electricity wheeled through California, defined pursuant to this section. Imported electricity does not include electricity imported into the California Independent System Operator (CAISO) balancing authority area to serve retail customers that are located within the CAISO balancing authority area, but outside the state of California. Imported Electricity does not include electricity imported into California by ~~*an Independent System Operator*~~ *a Balancing Authority* to obtain or provide emergency assistance under applicable emergency preparedness and operations reliability standards of the North American Electric Reliability Corporation or Western Electricity Coordinating Council. Imported electricity shall include Energy Imbalance Market dispatches designated by the CAISO's optimization model and reported by the CAISO to EIM Participating Resource Scheduling Coordinators as electricity imported to serve retail customers load that are located within the State of California.

[1] http://www.nerc.com/files/EOP-002-3.pdf

[2] http://www.wecc.biz/awareness/Reliability/WECC%20RC%20Operating%20Procedures/WECC%20RC%20EOP-002%20-%20Capacity%20and%20Energy%20Emergencies.pdf

**§95103(h) Reporting in 2014: amendments pertaining to contracts for electricity purchases should not be applied retroactively to the 2013 data report.**

Section §95103(h) contains a list of the 2013 amendments that will apply to 2013 data reported in 2014. Any 2013 amendments not listed in 95103(h) will apply to 2014 data reported in 2015.

95103(h)(8) states that electric power entities must report 2013 electricity transactions (MWh) and emissions (metric tons of CO2e) under requirements listed in the following sections:

- 95111(a)(4)(A)(3) – Imported Electricity from Specified Facilities or Units
- 95111(a)(5) – Imported Electricity Supplied by Asset-Controlling Suppliers
- 95111(b)(3) – Calculating GHG Emissions of Imported Electricity Supplied by Asset-Controlling Suppliers
- 95111(f)(5)(F) – Requirements for Asset-Controlling Suppliers
- 95111(g)(1)(N) – Registration Information for Specified Sources and Eligible Renewable Energy Resources in the RPS Adjustment

Thus, the proposed amendments in each of the above listed sections would be retroactive to the start of the 2013 calendar year. LADWP is very concerned that 95111(a)(5)(B) includes a new requirement to have a specific type of contract in order to report Asset Controlling Supplier power as a specified import. It is not appropriate to apply new requirements pertaining to contracts for electricity purchases retroactively to transactions that have already been completed. The 2013 emission data reports should be governed by the rule language that was in effect during the 2013 period. The new requirement in 95111(a)(5)(B) should apply to new transactions executed after January 1, 2014 after the 2013 rule amendments go into effect. Therefore, 95111(a)(5) should be removed from section 95103(h) or at least limited to amendments within 95111(a)(5) that are not new requirements.

95103(h)(8) Electric power entities must report 2013 electricity transactions (MWh) and emissions (metric tons of CO2e) under the specifications of this article, including the requirements listed in sections 95111(a)(4)(A)(3), ~~95111(a)(5)~~, 95111(b)(3), 95111(f)(5)(F) and 95111(g)(1)(N);

**§95103(j)(3) Biomethane Reporting Requirements: additional clarification is needed.**

The new requirements added to §95103(j)(3) to report detailed information about biomethane purchases, the biomethane supplier, and the facility that produced the biomethane should be refined and clarified as described below.

- It is not clear what "for each contracted delivery" means. This term should either be deleted or defined for clarification. Biomethane may be purchased under multiple contracts with the same vendor. Does "for each contracted delivery" mean that the quantity of biomethane purchased from that vendor under each individual contract should be reported separately, or should biomethane purchased from the same vendor under multiple contracts be aggregated into an annual total?

- With regards to reporting the "annual MMBtu delivered by each biomethane vendor," if the purchased biomethane is allocated to only one facility, the total annual MMBtu purchased from the vendor and the quantity allocated to the facility would be the same. However, larger entities that operate multiple facilities may subdivide and allocate the purchased biomethane to more than one facility. Since the biomethane purchase information will be reported in a facility level emissions data report, it is reasonable to report the annual MMBtu of biomethane that was purchased and allocated to that particular facility, which may be a subset of the total annual MMBtu of biomethane that the entity purchased from the vendor. Therefore, the "annual MMBtu delivered by each biomethane vendor" should be clarified by adding "that was allocated to the facility".

- The term "delivered" should be changed to "supplied," since biomethane is usually injected into the natural gas pipelines rather than delivered directly to a facility through a separate pipeline.

- If the biomethane is purchased from a marketer that aggregates biomethane from multiple facilities, the purchaser may not have detailed information about the specific facility(ies) that produced the biomethane. Therefore, reporting the name, address and facility type should be "if available."

LADWP recommends clarifying the new biomethane reporting requirements in §95103(j)(3) as follows:

*(3) When reporting biomethane, the operator or supplier who is reporting biomass emissions from biomethane fuel must also report the following information ~~for each contracted delivery:~~*
*(A) Name and address of the ~~biomethane~~ vendor from which biomethane is purchased;*
*(B) Annual MMBtu ~~delivered~~ supplied by each biomethane vendor that was allocated to the facility.*

*The operator must also report the name, address, and facility type of the facility from which the biomethane is produced, if available. In addition, relevant documentation including invoices, shipping report, allocation and balancing reports, storage reports, in-kind nomination reports, and contracts must be made available for verifier or ARB review to demonstrate the receipt of eligible biomethane.*

**§95104(e) Reporting Increases of Facility Criteria Pollutant and Toxic Air Contaminant Emissions: this provision should be revised to apply to increases in greenhouse gas emissions only.**

ARB proposed adding a new requirement for operators of facilities subject to the cap-and-trade regulation to include the following information in their annual GHG emissions data report:

1. Whether a change in the facility's operations or status potentially resulted in an increase in emissions of criteria pollutants or toxic air contaminants in relation to the previous data year.

2. Specify reason(s) (e.g. change in production, changes in facility operations, changes in efficiency) for the cause of the increase in criteria pollutant, and/or toxic air contaminant emissions as outlined in the proposed language.

3. A narrative description of how each reason caused the increase in emissions. Include in this description any changes in your air permit status.

In the ISOR, the ARB provided the following rationale for the proposed new section: "This qualitative data is needed to support ARB's Cap-and-Trade adaptive management monitoring, review and analysis. The information will be used to assess the potential localized air quality impacts that may result from the Cap-and-Trade program. Collecting these data via the existing GHG reporting regulation is the most efficient mechanism for doing so."

Based on discussions with ARB staff, LADWP understands this proposed amendment will be revised as part of the 15-day changes to remove references to criteria pollutants and toxic air contaminants, and instead apply these new reporting requirements to increases in greenhouse gas emissions. In addition, information reported under this new requirement will not be subject to verification.

LADWP supports removing any reporting requirements pertaining to criteria pollutants and toxic air contaminants from the GHG reporting regulation for the following reasons:

- Most, if not all, facilities covered under the cap-and-trade program are already required to report their criteria pollutant and air toxic contaminant emissions to other regulatory agencies, such as the U.S. Environmental Protection Agency (EPA) and the local air quality management districts, per existing regulations. ARB can easily obtain this emissions information from the other regulatory agencies to assess the potential localized air quality impacts that may result from the Cap-and-Trade program.

- Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, authorizes ARB to require the reporting of statewide greenhouse gas emissions only. Specifically, Health & Safety Code section 38530(a) states: "On or before January 1, 2008, the state board shall adopt regulations to require the reporting and verification of statewide *greenhouse gas emissions* [emphasis added] and to monitor and enforce compliance with this program." ARB's initial proposal in 95104(e) to include additional information related to criteria pollutants and toxic air contaminants exceeds the intended scope of the MRR under AB 32.

- The MRR should fulfill the legislative mandate of AB 32 pertaining to greenhouse gas emissions, and leave matters related to criteria pollutants and toxic air contaminant emissions to the federal Clean Air Act, which is implemented by state and local air regulatory agencies. In the case of generating facilities owned and operated by LADWP, the South Coast Air Quality Management District (SCAQMD) has issued operating permits that incorporate all applicable federal and state air regulatory requirements, including new source review requirements for new and modified units as well as stringent federal and state requirements to ensure the protection of local ambient air quality. These requirements are designed to ensure that each facility will not cause or contribute to an exceedence of an air quality standard based on the *maximum potential emissions levels* from the unit under worse-case assumptions. Therefore, emissions of criteria pollutants from that facility will be below the maximum potential emission limits in the permit-to-operate issued by the local air quality management district and will not pose an adverse risk to the local air quality.

- There are a number of reasons why a facility's emissions can fluctuate from year-to-year, such as a planned or forced maintenance outage or changes in demand, so it would be difficult to attribute emissions changes, even qualitatively, to any particular reason. LADWP operates its power plants collectively as a system. The manner in which the system is dispatched and the amount of generation from each generating unit varies daily, depending on retail customer demand and conditions in the wholesale energy markets. It would also be very difficult to assign any changes in emissions to specific regulations, such as the cap-and-trade regulation or other regulations such as air pollution control, once through cooling, etc.

- It would be difficult to verify a qualitative assessment of a facility's change in criteria pollutant and toxic air contaminant emissions, since emissions can fluctuate due to a number of different factors and the assessment would likely be based on a number of assumptions.

**§95111(a)(5)(B) Imported Electricity Supplied by Asset-Controlling Suppliers: ARB should consider the consequences for the statewide GHG emissions inventory and the cap-and-trade program before deciding whether to assign default GHG emissions to low-GHG power generated by Asset Controlling Suppliers.**

Asset Controlling Suppliers are entities that operate a system (fleet of generating resources) and sell power from their system rather than from individual generating facilities. Bonneville Power Administration and Powerex (for BC Hydro) are recognized by ARB as Asset Controlling Suppliers (ACS). Since the systems operated by Bonneville Power Administration and Powerex contain a significant amount of hydroelectric generation, power supplied from these systems has a very low GHG emission factor (0.0249 metric tons CO2e/MWh and 0.0293 metric tons CO2e/MWh respectively).

Section §95111(a)(5) of the MRR, which contains the criteria for reporting imported electricity supplied by an ACS, states that electricity supplied by an ACS, where the ACS is identified as the Purchasing/Selling Entity (PSE) at the first point of receipt on the physical path of NERC

e-tags, must be reported as specified and not as unspecified. Under the existing criteria, all imported electricity that originated from the ACS's system can be reported as a specified import with the associated low GHG emission factor.

As part of the 2013 amendments to the MRR, ARB is proposing to change the criteria for reporting imported electricity supplied by an ACS. ARB is proposing to delete "Report delivered electricity as specified and not as unspecified" in §95111(a)(5)(B) and replace it with "Report asset-controlling supplier power that was not acquired as specified power, as unspecified power." In effect, this change will limit the amount of ACS power that can be reported as a specified import with the associated low-GHG emission factor to only those transactions where the ACS was specified as the source at the time the transaction was executed.

LADWP encourages ARB to consider the potential consequences this proposed amendment could have for both the statewide GHG emissions inventory and the cap-and-trade program.

- Statewide GHG Emissions Inventory: For the past several years, all imported ACS power has been counted as low GHG in California's statewide GHG emissions inventory. If this proposed amendment is adopted, the default GHG emission factor (0.428 metric tons CO2e/MWh) will be assigned to imported ACS power that doesn't meet the new criteria. Assigning default GHG emissions to power originating from a low GHG source is not accurate, and will artificially inflate GHG emissions for imported electricity in California's statewide GHG emissions inventory. As a result, additional GHG emission reductions will be required from other sources in order to achieve California's goal of reducing statewide GHG emissions to 1990 levels by 2020.

- Cap-and-Trade Program: Reporting default emissions for ACS power will increase the electricity importer's compliance obligation under the cap-and-trade program and consume valuable GHG emission allowances for emissions that don't exist. Tightening the supply of emission allowances available for compliance could increase the cost of compliance for covered entities.

If this proposed amendment is adopted, the methods available to Electric Power Entities to satisfy the new specified source contract requirement should not be limited to just written confirmations. LADWP recommends that an enabling agreement and/or recorded phone conversations between purchasing and selling entities pursuant to a master agreement should also be acceptable forms of documentation. LADWP transacts with Asset Controlling Suppliers almost daily in the day-ahead and real-time energy markets. In consideration of the frequency with which these transactions occur, recognizing recorded phone conversations as specified contracts for ACS energy transactions would facilitate LADWP's ability to optimize its system dispatch while minimizing its cap-and-trade compliance obligation. Transactions documented via recorded phone conversations occur frequently and are considered standard industry practice.

Lastly, LADWP understands ARB's concern regarding the verification and warranting of the specified energy along the market path. To address this, market mechanisms exist, including master agreements which have in place provisions requiring the seller to warrant the product being sold. If a seller cannot deliver the specified product, the buyer may impose penalties on the seller.

**§95111(a)(12), (b)(5), (g)(6) Imported Electricity Supplied by System Power Supplier: LADWP supports removal of these provisions.**

This proposed new requirement would apply a system specific emission factor to imported electricity supplied from a system (other than an Asset Controlling Supplier's system) that has a GHG emissions factor higher than the default emissions factor, where the system is identified as the source on the NERC e-tag.

On September 24, 2013, an ARB staff member informed the Southern California Public Power Authority that staff plans to recommend removal of these provisions. LADWP supports removal of the system power provisions for the following reasons:

1) Section 95111(a)(12)(B) states: *Report system power that was not acquired as specified power, as unspecified power.*

   It is not clear whether this would require electricity importers to (a) report system power that was not acquired as specified power, as unspecified power and apply the default emissions factor, or (b) to report system power as unspecified and apply the higher system specific emissions factor.

2) If the latter case, LADWP believes this would create considerable uncertainty in the wholesale electricity markets. LADWP engages in energy transactions with other energy traders daily and bases its trading decisions on the projected incremental cost of energy generation. Among the parameters determining this cost are incremental heat rate and the cost of carbon. Energy traders do not know the origin of the energy when purchasing unspecified electricity. Since the origin of the energy is not known until several hours after the fact when an e-tag is created to facilitate scheduling of the physical energy, traders would have no means of determining the economics of that transaction because the emissions factor would be unknown at the time the transaction was executed.

**§95111(g)(1)(N): Meter Data for Specified Imports: LADWP supports removal of "at the time the power was directly delivered" from this provision.**

For the purpose of verifying specified electricity imports, it is useful to compare the Electric Power Entity's share of the annual net generation from a specified generating facility or unit with the annual quantity of electricity claimed as specified in the entity's annual report.

LADWP supports the proposed amendment to remove "at the time the power was directly delivered" from this section of the rule for the following reasons:

1. The Electric Power Entity GHG emissions report to CARB is an annual report; therefore, it should be sufficient to verify that the amount of renewable energy generated on an annual basis corresponds with the amount reported to ensure that directly delivered renewable energy imports are not over- or under- stated in the annual report. Any imbalance between the electricity generated and the electricity delivered is trued-up as part of the energy reconciliation process. Accuracy on an hourly basis (i.e. whether the electricity was generated "at the time the power was directly delivered") is not necessary for an annual report.

2. It is not practical to compare hour by hour generating facility meter and e-tag data and report the lessor of the two for the following reasons:

    a. Meter and e-tag data will never match, because the unit of measure for meter data is kWh and e-tags are in MWh. In addition, meter data may not account for station service, transformer and line losses.

    b. Preparing the meter and e-tag data to be able to do an hour by hour comparison requires a great deal of data manipulation with a significant potential for making errors.

    c. Comparing hour by hour meter and e-tag data is very labor intensive. The difference between the hourly meter and e-tag is well below ARB's 5% accuracy threshold.

    d. It would be difficult to verify with reasonable assurance that the lessor of the meter or the e-tag data for 8,760 hours for every specified import is accurate.

3. Having to report and verify hourly data for an annual report is impractical and time consuming, and would divert limited resources away from the more significant elements of the report. There are better ways to verify that the amount of renewable energy generated corresponds with the amount delivered, such as comparing annual generating facility meter data with the annual reported number. Verifying hourly data would add a significant burden to both reporters and verifiers without adding value.

Therefore, LADWP supports removal of the phrase "at the time the power was directly delivered" from 95111(g)(1)(N).

In closing, LADWP appreciates this opportunity to comment and looks forward to working with ARB staff on these important issues. If you have any questions or require additional information, please contact me at (213) 367-0403 or Ms. Cindy Parsons (213) 367-0636.

Sincerely,

Mark J. Sedlacek
Director of Environment and Efficiency

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