

## DOCKETED

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**BEFORE THE ENERGY COMMISSION  
OF THE STATE OF CALIFORNIA**

In the matter of:	)	Docket No. 16-OIR-05
	)	
AB 1110 Implementation Rulemaking	)	02/21/2017 STAFF WORKSHOP
	)	RE: AB 1110 Implementation
_____	)	

**COMMENTS FROM THE LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) TO THE  
CALIFORNIA ENERGY COMMISSION (CEC) ON STAFF PRE-RULEMAKING WORKSHOP ON  
UPDATES TO THE POWER SOURCE DISCLOSURE REGULATIONS**

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Dated: March 14, 2017

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**INTRODUCTION**

The City of Los Angeles (City of LA) is a municipal corporation and charter city organized under the provisions set forth in the California Constitution. LADWP is a proprietary department of the City of LA, pursuant to the Los Angeles City Charter, whose governing structure includes a mayor, a fifteen-member City Council, and a five-member Board of Water and Power Commissioners (Board). LADWP is the third largest electric utility in the state, one of five California Balancing Authorities, and the nation’s largest municipal utility, serving a population of over four million people. LADWP is a vertically integrated utility, both owning and operating the majority of its generation, transmission, and distribution systems. LADWP has annual sales exceeding 23 million megawatt-hours (MWhs) and has a service territory that covers 465 square miles in the City of LA and most of the Owens Valley. The transmission system serving the territory totals more than 3,600 miles and transports power from the Pacific Northwest, Utah, Wyoming, Arizona, Nevada, and California to Los Angeles. LADWP appreciates

the opportunity to provide comments to the California Energy Commission (“Commission”) on the *Staff Pre-Rulemaking Workshop on Updates to the Power Source Disclosure Regulations* (“workshop”) and the *Workshop Supplemental Materials* (“Scoping Questions”), dated February 21, 2017.

A. Annual Sales

2. *What should be the programmatic definition of “electricity portfolio”?*

- i. Response – “electricity portfolio” should mean the group of electricity sources (specified and/or unspecified) that supply electricity for an “electricity product” as defined in the Power Source Disclosure Regulations (§1391(b)). If a utility offers a green power program (or green pricing program), electricity sold to customers enrolled in the green power program has traditionally been considered a separate electricity product.

3. *What should be the programmatic definition of “electricity offering”?*

- ii. Response – same as “electricity product”

B. Renewable Energy Credits

1. *Should retail suppliers be required to report the purchase of eligible renewable energy resources based on the year that the renewable electricity was generated or based on the year that the REC is retired, if the two years differ?*

- i. Response – the purchase of eligible renewable electricity should be reported based on the year the renewable electricity was generated. Rationale:
  1. Timing issue: It takes at least 3 to 4 months after the month the electricity was generated for the Renewable Energy Credits (RECs) to be issued by the Western Renewable Energy Generation Information System (WREGIS), therefore it is not feasible to retire all the RECs within the same year as the electricity was generated. For example, RECs for renewable electricity generated in October, November and December will be issued in the following calendar year. If reporting of renewable electricity were based on the year the REC is retired, the report would not accurately reflect the amount of renewable electricity generated and put into the electricity grid during each calendar year.

2. RPS compliance: The number of RECs needed for RPS compliance is based on the total retail sales for the calendar year. Therefore, counting the REC as part of the PCL should not be based on the retirement of RECs.
  
2. *How should firmed and shaped electricity products be categorized for the power-mix percentage calculations? Specifically, should these products be categorized based on the fuel-type of their REC or the fuel-type of their substitute electricity?*
  - i. Response – firmed and shaped electricity products should be categorized based on the fuel type of their REC which reflects the generation source. See rationale in response to question 3 below.
  
3. *How should greenhouse gas emissions intensities be calculated for firmed and shaped electricity products? Specifically, should the greenhouse gas emissions intensity for these products be calculated based on the emissions profile associated with the generation source of their REC or based on the emissions profile of their substitute electricity?*
  - i. Response – the GHG emissions intensity of firmed and shaped electricity products should be based on the emissions profile associated with the generation source of the REC, to reflect the fact that a MWh of renewable electricity was generated and put into the electricity grid. Electricity produced by a renewable generating facility anywhere within the electrical grid decreases the overall GHG emissions intensity of the electricity grid. Once electrons are put into the electricity grid, the electrons mix with electrons from other generating facilities and become impossible to track. The REC is used to track the renewable attributes of electricity produced by renewable generating facilities. There is one and only one REC for each MWh of renewable electricity generated. Therefore, the owner of the REC should be able to claim the GHG emission profile of the renewable generating facility regardless of where the electrons went once they entered the grid.
  - ii. According to the Environmental Tracking Network of North America, “A Renewable Energy Certificate (REC), also known as a Green Tag, Renewable Energy Credit, or Tradable Renewable Energy Certificate (TREC), is a tradable environmental commodity used in North America to represent proof that one megawatt-hour (MWh) of electricity was generated by an “eligible” renewable energy resource and each REC embodies the renewable energy attributes (environmental and social) associated with the generation of power from that resource. When a renewable energy facility operates, it creates electricity that is delivered into a vast network of transmission wires, often referred to as “the grid.” The grid is segmented into regional power networks called pools. To help facilitate the sale of renewable electricity nationally, a system was established that separates renewable electricity generation into two parts: the electricity or electrical energy produced by a

renewable generator and the renewable “attributes” of that generation. (These attributes include the metric tons of greenhouse gas that were avoided by generating electricity from renewable resources instead of conventional fuels, such as coal or gas.) The electrical energy associated with a REC may be sold separately and used by another party or it may be kept bundled with the REC. If it is kept bundled then it is called renewable electricity. These renewable (“green”) attributes can also be sold separately as RECs. One REC is issued for each megawatt-hour (MWh) unit of renewable electricity produced. The electricity that was split from the REC is no longer considered “renewable” and cannot be counted as renewable or zero-emissions by whoever buys it.” For every MWh of renewable energy generated by a participating facility, a REC is created and tracked in a REC tracking system. There are four renewable energy tracking systems in North America (WREGIS is one of them). The REC represents the renewable attributes of the generation and is tracked separately from the electricity. Each certificate has its own unique serial number so that it can be accounted for from creation to retirement. Due to the way the electric grid works and is supported by the existing infrastructure of REC tracking and accounting systems, the purchase of a REC has the same impact on GHG emissions as purchasing renewable electricity directly from a renewable energy facility, or hosting a grid-connected solar PV installation on one’s roof.” [Source: Environmental Tracking Network of North America, February 2010 Final Whitepaper “The Intersection between Carbon, RECs, and Tracking: Accounting and Tracking the Carbon Attributes of Renewable Energy”]

4. *Should unbundled RECs (PCC 3) be reflected in the power mix or disclosed separately on the Power Content Label? What factors should be considered in making this determination?*

Response – unbundled (PCC3) RECs should be included in the Eligible Renewable section of the Power Content Label because they compose a portion of the RPS eligible electricity and need to be counted to show the customers that the Retail Supplier has met the renewable electricity percentage required under the RPS program.

5. *How should null power be categorized for the power-mix percentage calculations? How should the greenhouse gas intensity of null power be calculated?*
- i. Response – for the power mix percentage calculations, null power should be categorized as unspecified power and reflect the average GHG emission intensity of system power. According to the Environmental Tracking Network of North America whitepaper, null power should be assigned the resource characteristics of system mix electricity in order for resource accounting to balance out. The Whitepaper defines Null Power as “Electricity that is stripped of its attributes and undifferentiated. No specific rights to claim fuel

source or environmental impacts are allowed for null electricity. Also referred to as commodity or system electricity.” To calculate the GHG emission intensity of null power, we recommend using the California Air Resources Board (ARB) default GHG emission factor for unspecified electricity that is used in ARB’s mandatory GHG emission reporting and Cap-and-Trade programs. This default GHG emission factor (0.428 metric tons CO<sub>2</sub>e/MWh or 943.5 lbs CO<sub>2</sub>e/MWh) represents the system average of marginal generating resources within the Western Electricity Coordinating Council (WECC). The WECC extends from Canada to Mexico and includes the provinces of Alberta and British Columbia, the northern portion of Baja California, Mexico, and all or portions of the 14 Western states in between. The default emission factor is based on the Western Climate Initiative “Default Emission Factor Calculator 2010” and represents generating resources on the margin that can be dispatched to support a wholesale sale. ARB has stated that it intends to update the default GHG emission factor periodically. In the October 2010 Initial Statement of Reasons for revisions to ARB’s mandatory GHG emission reporting regulation, ARB states “It is anticipated that ARB in future rulemakings will reset this emission factor for reporting purposes before each compliance period, based on a rolling three year average. This procedure will accommodate the interests of stakeholders to smooth out variations from year to year and have a factor in advance of each compliance period. Stakeholders also have recommended that the default factor should be updated periodically, so reported emissions reflect cleaner emitting marginal generation over time.”

C. GHG Intensity Factor Data and Calculations

1. *AB 1110 defines “greenhouse gas emissions intensity” as the “sum of all annual emissions of greenhouse gases associated with a generation source divided by the annual production of electricity from the generation source.” Are there any reasons to consider calculating GHG emissions intensities using greenhouse gases other than those accounted for in both MRR and the EPA’s Greenhouse Gas Reporting Program?*
  - i. Response – No. A generation source is an individual electricity generating unit. The GHG emissions intensity factor is specific to each individual generating unit. ARB’s MRR and EPA’s GHG reporting program account for GHG emissions from combustion of fuels to produce electricity in each individual generating unit, so there is a direct association between the GHG emissions (from fuel combustion) and the electricity produced.

2. *What are the concerns, limitations, and benefits of relying on GHG emissions reported to the MRR program for the development of GHG emissions intensities for in-state and out-of-state facilities?*
  - i. Response – No concerns. Relying on GHG emissions reported to the MRR program would satisfy the legislative intent for the methodology to be consistent with the Cap-and-Trade program and the Mandatory Reporting Regulation. A benefit of basing the GHG emission intensity factors on MRR data is that the MRR data has been verified so is considered reliable.
  
4. *Should the Power Disclosure Program adopt ARB’s default factor as the greenhouse gas intensity for unspecified power?*
  - ii. Response – Yes. ARB’s default GHG emission is a system average of marginal generating resources within the entire WECC region which extends from Canada to Mexico. Using this factor simplifies the calculation of GHG emissions for unspecified power because it doesn’t matter where the power originated from within the WECC region.
  
5. *Energy procured through the Energy Imbalance Market (EIM) is reported under the MRR program as specified electricity. What greenhouse gas intensity factor should be assigned to electricity procured through the Energy Imbalance Market (EIM)?*
  - iii. Response – It is our understanding that CAISO will calculate and provide to the buyer of the electricity GHG emissions associated with each EIM transaction.



## CONCLUSION

In closing, LADWP appreciates the opportunity to participate in the rulemaking process and looks forward to continue working with the California Energy Commission to help shape effective regulations that will benefit the health, safety, and security of all California residents.

Dated: March 14, 2017

Respectfully Submitted,



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