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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	)	07/14/2017 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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BEFORE THE ENERGY COMMISSION
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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") in follow up to the July 14, 2017 *Staff Pre-Rulemaking Workshop on Updates to the Power Source Disclosure Regulations* ("workshop").

SPECIFIC COMMENTS

A. Power Mix and GHG Intensity Calculations

LADWP staff evaluated the proposed method for calculating both Greenhouse Gas (GHG) emissions intensity and the Power Mix percentages for the Power Content Label in the Draft Staff Paper titled *Assembly Bill 1110 Implementation Proposal for Power Source Disclosure* that was posted June 27, 2017.

As a result of legislation moving California towards higher targets of renewable energy, emissions performance standard on fossil fuel generation, greater energy efficiency, reduction in greenhouse gas (GHG) emissions, the elimination of once-through cooling from coastal power plants, and push towards energy storage, LADWP is facing a utility-wide transformation and making billions of dollars in investments on behalf of its retail customers to replace a substantial amount of its resources over the next two decades that it has relied upon for the last 50 years. This transformation is expensive. It is designed so that the retail customers receive all of its benefits, including 100 percent of the renewable energy.

LADWP does not support the approach outlined in the Draft Staff Paper to deduct electricity used for other purposes pro-rata from all electricity generating resources (including renewable resources) in order to downscale total energy procured to annual sales to retail customers. Below are several reasons why this pro-rata approach does not work:

1. Renewable energy is procured specifically for and intended to serve only retail customers, not other sources of electricity consumption such as energy losses, wholesale electricity sales, municipal load including wastewater treatment, streetlights and traffic lights, and electricity consumed by the electric utility (a.k.a. Load Serving Entity or LSE) itself.
2. The pro-rata deduction approach will result in a lower percentage of renewable energy on the Power Content Label which negatively skews the accomplishments of California's Renewable Portfolio Standard (RPS) program. This will not only misrepresent the true Power Mix with renewable energy, but it will confuse the LSE's retail customers because the renewable energy percentage on the Power Content Label is the primary means of communicating to customers that the LSE is meeting California's RPS requirements.
3. The pro-rata deduction approach will disadvantage LSEs that are also Balancing Authorities because Balancing Authorities have higher energy losses than other entities that are within a balancing authority area, such as the California Independent System Operator (CAISO). Balancing Authorities support energy losses for electricity not belonging to them, such as wheeled electricity that flows through the Balancing Authority's section of the grid. LADWP is a Balancing Authority as well as a load serving entity, which means that LADWP has to generate or purchase additional electricity to support the transmission lines (which are also used by other entities) in addition to electricity to serve LADWP retail customers. LADWP operates a large transmission system extending from California into Oregon, Utah, Nevada and Arizona. Since LADWP's transmission losses are much higher than other entities, the pro-rata

deduction approach would unfairly reduce the renewable percentage in LADWP's Power Mix by deducting transmission losses associated with operating the grid from renewable energy that was procured to serve LADWP customers.

B. A Streamlined Approach Would Effectively and Simply Communicate the True Power Mix and GHG Emissions Intensity to the Public.

LADWP recommends a simpler approach. Rather than trying to calculate the Power Mix and GHG emissions intensity together, LADWP recommends calculating the two independently because:

- The Power Mix percentages are intended to represent electricity procured for retail customers and should exclude electricity used for other purposes such as wholesale sales and operating the electric grid.
- Average GHG emission intensity should be calculated upstream for the LSE's overall electricity supply rather than downstream for electricity consumed by retail customers.

LADWP recommends using an upstream "All In" approach for calculating GHG emission intensity of the overall electricity supplied by the LSE to the California electric grid. Once electricity is delivered into the grid, it mixes with electricity from multiple generating resources; therefore it is not feasible to do a downstream calculation of GHG emissions intensity.

The upstream "All In" GHG emission intensity can be readily calculated as the average of all electricity procured by the LSE from specified and unspecified generating resources and injected into the California electric grid.

Steps in GHG emission intensity calculation:

1. List Net Generation (in mega-watt hours or MWh) procured from each individual generating resource (both specified and unspecified).
2. Adjust the Net MWh procured by the appropriate transmission loss factor to reflect upstream transmission losses that are not accounted for (e.g. losses not supported by a California Balancing Authority or paid back with electricity from California).
3. Multiply the Net MWh procured by the GHG emission factor for each resource (specified, ACS or unspecified) from the California Air Resources Board (ARB) mandatory GHG emission reporting program (MRR).
4. Sum the a) Net MWh procured and b) GHG emissions calculated for each generating resource including purchased power.
5. Divide total GHG emissions by the total Net MWh procured.

The "All In" GHG emission intensity can be applied to all categories of electricity disposition including:

1. Retail Customer load
2. Wholesale electricity sales
3. Losses (Transmission and Distribution line losses, transformer losses, etc.)
4. Municipal load including unmetered consumption for streetlights and traffic lights
5. Self-consumption (electricity consumed by the LSE's own facilities)

Table 1. Illustration of "All-In" GHG Intensity Calculation

Source of Electricity Procured	Net MWh Procured	Transmission Losses Accounted for?	Transmission Loss Factor (1.0 or 1.02)	Net MWh Procured adjusted for Transmission Losses	GHG Emission Factor from ARB MRR (MT CO2e per MWh)	Calculated GHG Emissions (MT CO2e)	Average GHG Emissions Intensity (MT CO2e per MWh)*
Specified Source (Nat Gas)	3,000,000	No	1.02	3,060,000	0.385	1,178,100	
Specified Source (Nuclear)	2,000,000	Yes	1.00	2,000,000	0	0	
Specified Source (Wind)	400,000	No	1.02	408,000	0	0	
Specified Source (Hydro)	500,000	Yes	1.00	500,000	0	0	
Specified Source (Nat Gas)	130,000	Yes	1.00	130,000	0.376	48,880	
Specified Source (ACS Power)	60,000	No	1.02	61,200	0.02	1,224	
Specified Source (Solar)	500,000	Yes	1.00	500,000	0	0	
Unspecified Power Purchased (imported)	1,000,000	No	1.02	1,020,000	0.428	436,560	
Unspecified Power Purchased (from CAISO)	1,500,000	Yes	1.00	1,500,000	0.428	642,000	
Total	**9,090,000**					**2,306,764**	**0.253769417**

** Transfer value to Power Content Label*

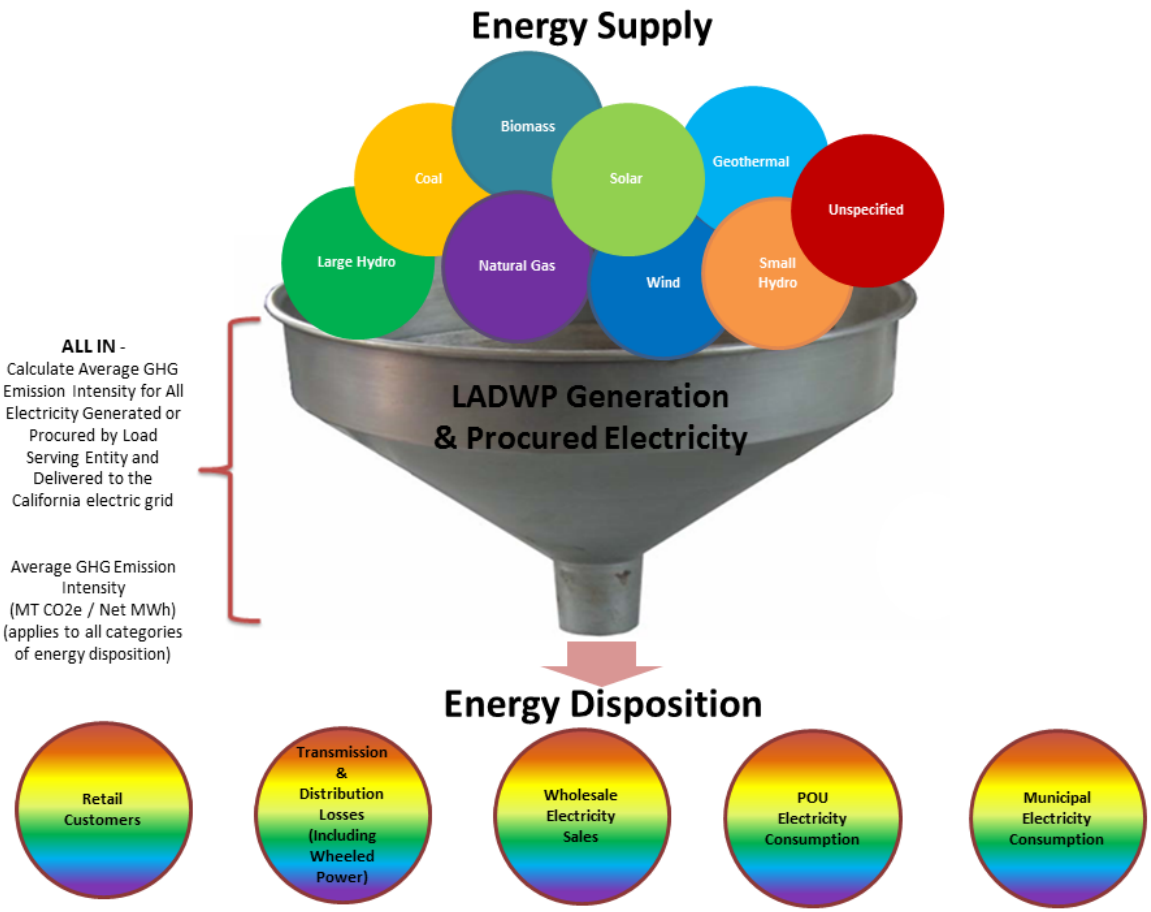

Figure 1: All-In GHG Emission Intensity Diagram

LADWP believes the "All In" approach to calculating GHG emission intensity will resolve the problems identified earlier and level the playing field between LSEs that are Balancing Authorities and LSEs that are part of the CAISO Balancing Authority Area, and provide a fair and accurate representation of the LSE's true Power Mix and GHG emissions intensity.

C. Timing

Since data needed to calculate the GHG emission intensity for the Power Content Label/Power Source Disclosure Report will be based on the LSE's annual Electric Power Entity report to the California Air Resources Board which is due June 1, LADWP recommends that the Power Content Label/Power Source Disclosure Report be due 60 days later (June 30) to allow the entity sufficient time to calculate the GHG emission intensity.

D. Unbundled RECs Should be Identified as a Separate Eligible Renewable Energy Item

Unbundled RECs should be included as a separate line item in the Eligible Renewable section of the Power Mix instead of being relegated to a footnote because they are eligible RPS energy products certified and verified by the CEC and are counted towards the LSE's renewable targets under state legislation as administered under the CEC's RPS program. RECs represent the generation attributes and emission profile of energy whether bundled or unbundled. Excluding unbundled RECs from the Power Mix would fail to recognize the utility's procurement of an RPS eligible product and negatively skew the Power Mix. In effect, the CEC staff's proposal

will transform certified green energy per the RPS program to non-renewable brown energy for the purpose of reporting on the Power Content Label. LADWP does not support this change.

Since the Power Content Label is the primary means of communicating to customers that the LSE is meeting California's Renewable Portfolio Standard (RPS) requirements, LADWP recommends adding a sixth category called "Unbundled RECs" in the Eligible Renewable section of the Power Content Label. This will provide the desired transparency while still recognizing that unbundled RECs are an RPS eligible product.

E. Transmission Losses from Imported Electricity

As discussed earlier, Balancing Authorities generate or purchase additional electricity to support transmission losses within their Balancing Authority Area. To avoid double counting of GHG emissions, the default 2% transmission loss factor should be applied to imported electricity from unspecified sources but not to electricity generated within California or electricity procured from within a California Balancing Authority Area. The 2% transmission loss factor is supposed to represent an average of the upstream transmission losses outside of a California Balancing Authority Area to support bringing unspecified electricity to the point of delivery. Once the California LSE takes possession of the electricity, the LSE is responsible for the losses from that point forward.

F. Decrease in Renewable Energy Percentage on Power Content Label will confuse customers

LADWP conducted a case study to evaluate what impact removal of unbundled RECs and pro-rata deduction of losses from all generating resources would have on LADWP's 2015 Power Content Label. Removal of the unbundled RECs from the Power Mix on the Power Content Label would result in a 3% reduction in the renewable energy percentage. Furthermore, deducting transmission losses pro-rata from all resources, including renewables, would result in another 2% reduction in the renewable energy percentage. The result would be a total 5% reduction in the renewable energy percentage reported on the Power Content Label. Based on these findings, LADWP does not support the CEC staff's proposed changes to how the Power Mix is calculated because it would misrepresent the actual energy procured for retail customers.

Historically, the renewable energy percentage on the Power Content Label has been approximately the same as the renewable energy percentage for RPS compliance reporting, so it did not raise questions with customers. However, a 5% reduction in the renewable energy percentage on the Power Content Label is significant and would create customer confusion because of the decrease from historical numbers and the fact that it does not align with the RPS reporting.

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.

Respectfully Submitted,

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