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BEFORE THE ENERGY COMMISSION
OF THE STATE OF CALIFORNIA

In the matter of:	)	Docket No. 17-IEPR-07
	)	
2017 Integrated Energy Policy Report (2017 IEPR)	)	RE: Setting GHG Planning Targets for Integrated Resource Planning & Apportioning Targets
	)	

LOS ANGELES DEPARTMENT OF WATER AND POWER'S COMMENTS ON SETTING GREENHOUSE GAS (GHG) PLANNING TARGETS FOR INTEGRATED RESOURCE PLANNING & APPORTIONING TARGETS

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to provide comments to the California Energy Commission (CEC) regarding its proposed options for setting Greenhouse Gas (GHG) planning targets for Integrated Resource Planning and apportioning targets.

In submitting these comments, LADWP reaffirms its strong support of Senate Bill (SB) 350, Assembly Bill (AB) 32 and SB 32 goals of expeditiously achieving substantial GHG emission reductions in a cost-effective manner that protects its customers and minimizes impacts to low-income communities. LADWP submits these comments to improve the effectiveness and workability of the California Public Utilities Commission (CPUC) and CEC's Integrated Resource Planning (IRP) process.

Part 1: Define an Overall Electric Sector Emissions Target in 2030 for IRP Purposes

In the February 10, 2017 CPUC and CEC Staff Discussion Document, CPUC and CEC proposed two options for defining an overall electric sector emissions target in 2030 for IRP purposes: 1) use the electric sector share of statewide 2030 emissions specified in California Air Resources Board (CARB)'s Scoping Plan and, 2) scale the statewide 2030 GHG target by the electric sector share of the most recent GHG emissions inventory.

1. **Under Part 1, which of the options do you recommend, and why? What issues should be considered when implementing that option, and how should those issues be addressed?**

   It is essential to retain flexibility in IRPs due to the planning nature of the document, considering the tremendous uncertainty of program development, electric load growth, and the need for local community outreach and governance that guides the planning process to ensure that IRPs reflect the needs of the customers that it serves.

Energy efficiency and electrification adoption, and unknown emissions crediting mechanisms for the added GHG burden that electrification poses creates major uncertainties in the planning process and resulting emissions projections. Several Statewide studies suggest that electric loads compared to today may potentially double in the electric sector due to electrification by 2050. The GHG emissions targets should include credit for the increase in emissions within the electric sector resulting from electrification. Electrification will result in a net emissions reduction within the state, and is absolutely necessary to achieve the longer term goal of 80 percent below 1990 emissions by 2050.

LADWP recommends Part 1 Option A with the CARB Scoping Plan being a starting point for discussions, and any targets eventually adopted should be "Soft Targets" or "Planning Targets" that are goals and not enforceable targets. The CARB Scoping Plan GHG target range includes additional reductions beyond 50 percent RPS as SB350 mandates, and has not been fully assessed for feasibility and cost-effectiveness. Ultimately, any targets that are adopted should exclude highly uncertain assumptions, such as energy efficiency that are largely beyond the control of utilities regardless of the level of funding and effort put into these programs.

SB 32 stipulates 40 percent below 1990 levels by 2030, which is 65 million metric tons (MMT) of carbon dioxide equivalent (CO2e). This level of electric sector emissions is a difficult target to reach based on LADWP's own internal emissions modeling. Emissions reductions achieved below these levels by POUs should be considered aspirational only. LADWP's detailed economic dispatch model indicates projected emissions of 6.06 MMT CO2e in 2030 for 50 percent RPS. This level includes achieving transportation electrification in 2030 consistent with the CEC's Integrated Energy Policy Report (IEPR), and considering LADWP accounts for 8.3 percent of the state's overall electric sales and scaling up to the aggregate load-serving entity (LSE) level, overall electric sector emission would be 73 MMT of CO2e. Admittedly this is a rough approximation, but this example is meant to point out that emission projections can be highly variable depending on the assumptions used and electric sector emissions could be much higher than 65 MMT based on current mandated requirements.

When implementing Option A, LADWP recommends that the CEC and CPUC establish a working group with each balancing authority within the state to accurately model emissions projections for the overall state to compare to existing studies and CARB emissions modeling results. Based on LADWP's past experience contributing to Statewide RPS and emissions studies, it is our opinion that most modeling efforts to date have relied on one production cost model for the CAISO system only. LADWP is not aware of any extensive modeling and aggregation of results from the other seven balancing authorities and inclusion of the results in either RPS or other statewide emissions studies. The emissions contributions of the non-CAISO LSEs are roughly approximated using simplified assumptions and should not be considered to be particularly accurate. Therefore, the emissions estimates for the other seven balancing authorities (Non-CAISO POUs primarily) should be viewed as general approximations.

2. **If recommending Part 1 Option A, should the IRP process use an emission reduction target equal to the lower end of this range (42 MMTCO2e), the higher end of this range (62 MMTCO2e), or a target somewhere within this range?**

   Since the requirement for IRP process in SB350 is tied to the 50 percent RPS in the 2030 mandate, LADWP recommends using an emission reduction soft target that would result from the electric sector achieving 50 percent RPS in 2030 without the inclusion of energy efficiency. Based on our own extensive experience modeling LADWP emissions, the lower range of the CARB Scoping Plan target would require LSEs to achieve upwards of 80 percent RPS by 2030 and extremely high levels of energy efficiency far exceeding current State law for 2030. As mentioned in the previous section, the adoption of a soft target range should be further discussed and analyzed.

3. **Are there any other methods that should be considered for assigning an overall electricity sector target in 2030 for IRP purposes? If so, please describe the method in as much detail as possible and explain why it is preferable to the options listed above.**

   LADWP recommends the formation of a working group made up of the 8 California balancing authorities to more accurately determine, using advanced production cost models, an overall electricity sector emissions level for 2030.

4. **Do the proposed methods adequately account for interactive effects between the electric and other economic sectors, in particular with the transportation sector? If not, please explain how those interactive effects should be accounted for in the IRP process.**

   The proposed methods currently do not account for interactive effects between the electric and other economic sectors, in particular the transportation sector. The overall objective for accounting between other economic sectors should result in a net zero (ton for ton) crediting mechanism for GHG emissions shifting. When an LSE promotes and accelerates transportation electrification, not only is the utility providing a cleaner fuel source (electricity compared to petroleum), but the LSE is also promoting a more efficient transportation technology. For example, even if the same source fuel is used (i.e. natural gas), an electric vehicle would yield approximately 80 percent power to wheels efficiency whereas fossil vehicles would yield approximately 20 percent power to wheels efficiency due to engine, parasitic, and drivetrain losses. Both fuel source and efficiency factors should be considered in calculating the GHG emissions savings from transportation electrification. The increase in the LSE's load due to transportation electrification should be recognized in terms of a GHG emissions credit or allowance for reducing the equivalent GHG emissions from the transportation sector.

Part 2: Determine a Methodology to Divide the Electric Sector Emissions and Reduction Target (Established in Part 1) between the CPUC's and Energy Commission's Respective IRP Processes.

The CPUC and California Energy Commission Staff Discussion Document also proposed three options for determining a methodology to divide the electric sector emissions reduction target between the CPUC's and CEC's Respective IRP Processes: 1) use a methodology similar to CARB's allowance allocation for electric distribution utilities, 2) divide the electric sector target based on electric load served in 2016, and 3) determine a bottom-up methodology for apportioning the electric sector emissions reductions target among all retail sellers of electricity (both POUs and LSEs).

5. **Under Part 2, which of the options do you recommend, and why? What issues should be considered when implementing that option, and how should those issues be addressed?**

   LADWP recommends Part 2 Option C – determine a bottom-up methodology for apportioning the electric sector emissions reductions target among all retail sellers of electricity (both POUs and LSEs). Part 2 Option C would provide the highest level of accuracy and would not penalize utilities for aspirational goals above SB350 mandates, such as RPS, energy efficiency, and transportation electrification.

   LADWP does not recommend Part 2 Option A because it is based on the IEPR S-2 form which presents one resource scenario that may range from, not representing current State Law requirements, to being excessively aspirational. Future S-2 forms submitted by LSEs should include all mandated resource replacements or additions without EE or electrification to maintain consistency in reporting between LSEs. IRPs on the other hand are meant to be at least consistent with state law and tend to be aspirational in nature, reflecting the desires of the community and customers that they serve as LADWP IRPs have traditionally been. S-2 form submittals quickly become outdated with constantly evolving laws and regulations. For example, LADWP provided data for its aspirational IRP recommended case in the last S-2 form submittal and as a result, was provided a lower amount of Cap-and-Trade allocations compared to other LSEs.

   Option B is not recommended because it disincentivizes transportation electrification due to its direct impact to load growth.

6. **Are there any other methods that should be considered for dividing the GHG emissions reduction target between the CPUC's and Energy Commission's respective IRP processes? If so, please describe the method in as much detail as possible and explain why it is preferable to the options listed.**

   LADWP recommends the method indicated in the response to question 5.

7. **What are the data requirements associated with the methodology you recommend? If these data entail forecasting or simulation, please describe the input data needed and potential sources of this data.**

   LADWP recommends GHG emissions data that is generated by an economic production cost dispatch model because it most accurately simulates real world conditions for meeting load with generation resources. The input data could potentially be provided through a revised S-2 form for the IRP base case scenario that meets the minimum requirements consistent with SB350. LADWP also recommends that the CEC and CPUC establish a working group with each balancing authority in the State to provide a more accurate determination of electric sector emissions.

Other questions related to GHG-target setting:

8. **How do we account for hydro variability, and what are the target GHG reductions during average hydro years? How do we incorporate uncertainty?**

   LADWP's IRP's account for hydro variability through historical and forecasted hydro run-off using 5 year averages. For this reason, adoption of a multi-year average GHG target would take into account variations in hydro and other renewables.

9. **What are reasonable expectations to allocate GHG targets for other POUs (not just the 16 largest that are required to do IRPs)?**

   A proportionate amount based on load and load growth would be a reasonable expectation to allocate GHG targets for other POUs. Adjustments to these figures should then be allowed based on POUs' feedback using their own internal modeling.

10. **What are stakeholder thoughts on the evolution of filing requirements between compliance periods, particularly between the first and second compliance filings?**

    LADWP conducts an annual IRP with a biannual Public Outreach process to help inform a recommended resource case and actions. However, IRPs are planning tools and should not be viewed as separate compliance filings.

11. **Should utilities consider the GHG emissions for their own facilities and their vehicle fleets?**

    The question is not clear as to how "GHG emissions for their own facilities" is defined. The LSE/POU vehicle fleet GHG emissions would be de minimus compared to the power-generating facility GHG emissions and the vehicle fleet emissions would be part of the mobile source emission inventory. The power generating facilities should only be included in the GHG planning targets.

12. How should the Energy Commission and CPUC address publicly-owned utilities becoming community choice aggregators, and whose jurisdiction does that fall under for IRPs?

Community choice aggregators should share the same burden as other POUs and should fall under CEC guidelines.

13. Should utilities consider short-lived climate pollutants in their IRPs?

SB350 includes goals for CO2 and IRPs already address a number of GHG measures. As California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy states, "Emissions from stationary fuel combustion will be addressed by a number of State and federal planning efforts, including the SIP [State Implementation Plan], Cap-and-Trade Program, increased building energy efficiency and renewable energy goals, and the federal Clean Power Plan…California's Cap-and-Trade regulation and the LCFS create market signals to incentivize efficiency improvements as well as the use of biomass-derived liquid fuels that would emit lower levels of PM and black carbon than traditional fossil fuels." Therefore, the scope of the IRPs should not be expanded to include short-lived climate pollutants.

Closing

LADWP appreciates the opportunity to provide these comments. If you have any questions, please contact me at (213) 367-0239 or James Barner at (213) 367-4652.

Respectfully Submitted,

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