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SCE Comments on IRP GHG Planning Targets

Additional submitted attachment is included below.

SOUTHERN CALIFORNIA EDISON
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Catherine Hackney
Director, Regulatory Affairs

February 21, 2017

Mr. Robert Oglesby
Executive Director
California Energy Commission
Re: Docket No. 17-IEPR-07
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: 17-IEPR-07: Southern California Edison Company's Comments on Notice of Joint Agency Workshop on 2030 Greenhouse Gas Emission Reduction Targets for Integrated Resource Planning

Dear Mr. Oglesby:

In accordance with the direction provided by Energy Division Staff, Southern California Edison Company ("SCE") respectfully submits these informal comments responding to the California Public Utilities Commission ("Commission" or "CPUC") and California Energy Commission ("CEC") Staff Discussion Document on Options for Setting Greenhouse Gas ("GHG") Planning Targets for Integrated Resource Planning ("IRP") and Apportioning Targets among Publicly Owned Utilities ("POUs") and Load-Serving Entities ("LSEs") ("Discussion Document").

RESPONSE TO QUESTIONS

1. <u>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?</u>

SCE prefers Option A – using the range of 42 to 62 million metric tons of carbon dioxide equivalent ("$MMTCO_2e$") for the electric sector – since it is based on a modeled approach with easy to understand assumptions. Other sets of GHG emissions reduction measures, particularly the optimized sets of measures that take into account the costs of reducing GHG emissions, would yield different outcomes that would likely result in lower overall costs. As a result, this set of reduction values should be revisited when updated, optimized electric sector results are available. As a modeled range of GHG emissions reductions, the 42 to 62 $MMTCO_2e$ range is directly dependent on the outcomes and participation of other sectors, as well as the outcomes of

the cap-and-trade program. For example, increased levels of beneficial electrification could create electric sector need for the higher end of the range while at the same time reducing overall statewide emissions. In any case, the electric sector cannot be strictly limited to any range of GHG emissions without curtailing additional, unplanned electrification or developing a mechanism whereby the electric sector is credited some quantity of GHG emissions reduced from electrification in other sectors.

2. If recommending Part 1 Option A, should the IRP process use and emissions 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?

The higher number is the appropriate metric for the base case IRP, along with the mechanism discussed above to provide the electric sector with credit for some portion of the GHG emissions reductions due to electrification of other, higher GHG intensity sectors. The lower end of the range can be used for sensitivity cases to understand the costs associated with achieving additional GHG emissions reductions in the electric sector.

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.

As stated above, an optimized methodology that minimizes the net present value cost of GHG emissions reductions may be able to provide a better range of targets. This would require additional analysis.

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.

Interactive effects need to be properly modeled in the base case, including a component that accounts for GHG emissions increases in the electric sector from electrification in the transportation sector. To the extent that more GHG emissions reducing beneficial electrification occurs, a crediting mechanism that provides the electric sector with a portion of shared GHG emissions savings is required.

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?

SCE prefers Option C using the entity-specific GHG emissions data developed in the California Air Resources Board's ("CARB") allowance allocation for Electric Distribution Utilities ("EDUs"). This is the approach most consistent with CARB accounting, and likely to be the method that would be used to assess target compliance. Specifically, the Commission and the CEC should use the 2021-2030 Allowance Allocation to EDUs data and methodology provided

in CARB's First Notice of Public Availability of 15-day Amendment Text for Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation.[1] The forecasted GHG emissions for each EDU (not allowances or allotments) serving California is provided on line 12 of each EDU's worksheet.[2]

Sorting of this EDU GHG emissions data will be required in order to determine the division of GHG emissions allotted to Commission-jurisdictional LSEs and CEC-jurisdictional POUs. This will provide the division of electric sector GHG emissions between the Commission's and CEC's respective IRP processes. Similar to the description of the bottom-up methodology described in Part 2, Option C of the Discussion Document, GHG emissions estimates for each EDU could be scaled up or down proportionally according to changes in the aggregated GHG emissions number needed to meet the electric sector target, yielding a common multiple to be used across all EDUs. This methodology can be used further to develop the individual LSE-specific[3] GHG planning targets.

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.

As explained above, a bottom-up approach using the CARB methodology should be used for dividing the electric sector GHG emissions reduction target between Commission-jurisdictional LSEs and CEC-jurisdictional POUs, and thus between the Commission's and CEC's respective IRP processes.

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.

The data that is used in the CARB methodology described above includes the Supply Forms ("S-2 Forms") from the Integrated Energy Policy Report ("IEPR"). Detailed IEPRs are due every other year (in odd years) with an update every even year. The IEPRs include projections on future load growth, resources, and peak demand. This data set can be used to facilitate the CARB GHG emissions allocation process, as has been done in the past. Updating the 2021-2030 Allowance Allocation to EDUs data by CARB and/or vetting the data by both the Commission and CEC for accuracy could change the apportionment of GHG emissions between EDUs. Whether or not to make changes to GHG allotment values and apportionment in the future based on future S-2 Forms will need to be considered at a later date.

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1 *See* 2021-2030 EDU Allocation Spreadsheet, available at: https://www.arb.ca.gov/regact/2016/capandtrade16/2021-2030-edu-allocation.xlsx.

2 The impact of additionally achievable energy efficiency and beneficial electrification are not included in these GHG emissions. As a result, future enhancements of this methodology may be required.

3 There is currently no methodology available to deal with community choice aggregator ("CCA") and electric service provider ("ESP") GHG emissions targets. Further granularity will be needed to develop CCA and ESP GHG planning targets.

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

The methodology used by CARB in the 2021-2030 Allowance Allocation to EDUs described in response to question 5 is an average of 2013 and 2014 actual large hydro generation output. Sensitivity studies could be performed, via a production cost model, to understand the impact of variability on EDUs' individual GHG emissions and to incorporate this variability into the CARB methodology as needed. For the 2017 IRP, however, SCE recommends that the methodology for dividing the electric sector GHG emissions reduction target described in response to Question 5 be used without any adjustment.

For illustrative purposes, LSEs and POUs could produce stochastic and production cost models to develop their power supply forecasts. A simple statistical model can incorporate variances in hydro production, using a one-in-two, a one-in-ten, and a one-in-fifty forecast. To account for hydro variability, a one-in-fifty forecast needs to be used to account for the hydro variability in recent years. Historical data, combined with other pertinent variables (which will vary from entity to entity) in a statistical model can produce these types of results. Uncertainty can be incorporated as a single variable as part of the overall equation for the forecast.

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

All entities should have the same reporting requirements and be subject to a similar method for setting GHG emissions targets based on a consistent process. It is necessary to maintain equity in rules and regulations, as well as compliance instruments. This will ensure that all customers equitably share the costs of these requirements.

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

Over time, compliance filings should become less administratively burdensome. This means that technological advances (uploading excel sheets, uploading directly from internal software applications, etc.) should occur as often as possible. One of the current issues with reporting is the inconsistency in reporting templates and methods across agencies. For example, much of the same data is historically reported as part of the IEPR and for the GHG mandatory reporting rule. It would be more efficient to develop the same template or have the agencies work together, so only one data set is reported and then shared among agencies. As agencies share the data, however, it is important that confidentiality requests (if any) should continue to be honored.

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

Unless self-scheduled for service of their own customers, the GHG emissions from generation facilities dispatched by the California Independent System Operator should be allotted equitably. GHG emissions from facilities for business operations (e.g., office buildings) and vehicles

should be considered in a manner consistent with other business entities' sector compliance requirements.

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?

All entities, regardless of jurisdiction, should have the same reporting requirements and be subject to a similar method for setting GHG emissions targets based on a consistent process. It is necessary to maintain equity in rules and regulations, as well as compliance instruments. This will ensure that all entities comply with reliability and system needs and applicable mandates, including planning for resources to balance their loads as required for flexibility, intermittency, and other system reliability needs. As mentioned in SCE's previous comments, intra-agency coordination is critical. It is imperative that the Commission and the CEC work together with their jurisdictional entities to ensure timely and fair compliance.

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

No, they should not be considered in IRPs.

Thank you very much for your consideration.

Very truly yours,

/s/ Catherine Hackney

Catherine Hackney