

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



FILED

01/17/18
04:59 PM

Order Instituting Rulemaking to Develop an
Electricity Integrated Resource Planning
Framework and to Coordinate and Refine
Long-Term Procurement Planning
Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

**OPENING COMMENTS OF THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
ON THE PROPOSED DECISION OF COMMISSIONER RANDOLPH**

January 17, 2018

Sara Steck Myers
Attorney for the
Center for Energy Efficiency and
Renewable Technologies
122 - 28th Avenue
San Francisco, CA 94121
Telephone: 415-387-1904
Facsimile: 415-387-4708
Emails: ssmyers@att.net

SUBJECT INDEX

	<i>Page</i>
Subject Index	i
Table of Authorities	ii
I. THE PROPOSED DECISION ERRS BY IGNORING AND FAILING TO ACT ON OR PROVIDE GUIDANCE CONSISTENT WITH MODELLING RESULTS	1
A. The IRP Modelling Demonstrates that the Most Cost-Effective Path to Meet GHG Targets Includes Advance Procurement of Wind in 2018	1
B. The Proposed Decision Fails to Act on Commission Direction in D.18-01-022 for GHG-Free Energy Replacement for Diablo Canyon Retirement.....	2
C. The Proposed Decision Ignores the Balanced and Diverse Portfolio Requirements for IRPs.....	3
II. THE PROPOSED DECISION WRONGLY ASSUMES THAT THE ELECTRIC SECTOR IS AHEAD OF ITS GHG TRAJECTORY	4
A. The Modelling Relied Upon by the Proposed Decision Fails To Account for CAISO’s Confirmation of GHG Emissions 10 MMT Higher in 2017 than Modelled in 2018	4
B. It Is Likely the 30 MMT GHG Target Case Would Result in a Real 42 MMT Result	5
C. Any Models Used in the IRP Must be Validated With Observed Data.....	5
III. CONCLUSION.....	6
<u>APPENDIX A:</u> PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS	

TABLE OF AUTHORITIES

	<i>Page</i>
<u>CALIFORNIA PUBLIC UTILITIES CODE</u>	
PU Code Section 454.51	3, 4
<u>CPUC DECISIONS</u>	
Decision (D.) 18-01-022	2, 3
<u>COMMISSION RULES OF PRACTICE AND PROCEDURE</u>	
Rule 14.3	1

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop an
Electricity Integrated Resource Planning
Framework and to Coordinate and Refine
Long-Term Procurement Planning
Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

**OPENING COMMENTS OF THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
ON THE PROPOSED DECISION OF COMMISSIONER RANDOLPH**

The Center for Energy Efficiency and Renewable Technologies respectfully submits these Opening Comments on the Proposed Decision of Commissioner Randolph Setting Requirements for Load Serving Entities Filing Integrated Resource Plans (IRPs) mailed in this proceeding on December 28, 2017. These Opening Comments are timely filed and served pursuant to Rule 14.3 of the Commission’s Rules of Practice and Procedure and the instructions accompanying the Proposed Decision.

**I.
THE PROPOSED DECISION ERRS BY IGNORING AND
FAILING TO ACT ON OR PROVIDE GUIDANCE
CONSISTENT WITH MODELLING RESULTS.**

A. The IRP Modeling Demonstrates that the Most Cost-Effective Path to Meet Green House Gas (GHG) Targets Includes Advance Procurement of Wind in 2018

The Reference System Plan (RSP) presented in the Proposed Decision includes 1,100 MW of in-state wind capacity added to the system in 2018 and 9,000 MW of solar capacity added to the system in 2022.¹ While technically all of the new renewables could be procured just a few years before 2030 in order to meet the 2030 GHG target, the model selected incremental build outs of renewables between present and 2030, largely due to the availability of the federal tax credits. Postponing procurement because of the “remote” possibility that the tax credits may

¹ Proposed Decision, at p. 65.

be extended is unwise, given the current political climate. Postponing procurement of new renewables or repowers because “the cost savings estimated by Commission staff that could flow from capturing the federal tax credits are highly uncertain” ignores the comments presented by parties that demonstrate that procurement must happen immediately in order to capture the benefits of the federal production tax credits.² The Proposed Decision must be modified to order inclusion of tax-eligible renewables in Load Serving Entities (LSEs) IRPs and procurement of tax-eligible wind in 2018.

B. The Proposed Decision Fails to Act on Commission Direction in D.18-01-022 for GHG-Free Energy Replacement for Diablo Canyon Retirement.

The Proposed Decision states that “...there is no ‘need’ on a reliability basis or for GHG emissions reductions required from renewables until 2026, according to the modelling analysis.”³ However, the Commission direction in D.18-01-022, the Decision Approving Retirement of the Diablo Canyon Power Plant states that “[i]t is the intent of the Commission to avoid any increase in greenhouse gas emissions resulting from the closure of Diablo Canyon.”⁴ In order to avoid any increase in greenhouse gas emissions, procurement of *new* GHG-free resources, *that would not have been procured otherwise*, must be procured *before* Diablo Canyon closes. Any procurement which would have occurred anyway, by Pacific Gas & Electric (PG&E) or a community choice aggregator (CCA), effectively replaces gas burn or imports, *not* zero carbon electricity derived from nuclear energy. In the PG&E analysis of a replacement portfolio for Diablo Canyon, PG&E projected that 8,000 TWh of new energy would be well within their expected load for 2025.⁵

² Proposed Decision, at pp. 76-79.

³ *Id.*, at p. 82.

⁴ D.18-01-022, at p. 21.

⁵ A.16-08-006 (PG&E Diablo Canyon) Pacific Gas and Electric Company’s (PG&E’s) Opening Brief (May 26, 2017), at pp. 13-14.

Additionally, discussion around the interaction of the federal tax credits and Diablo Canyon replacement states:

“[The tax credit] also interacts with the timing of the replacement of the power from the Diablo Canyon nuclear plant, because, rather than waiting until the plant is retired (assuming that occurs), the model essentially chooses to pre-purchase the solar and wind power that would otherwise be needed later in the next decade, in order to take advantage of the cost savings associated with the ITC and PTC.”⁶

In order for the Commission to be consistent with direction given in D.18-01-022, the Commission must authorize advanced procurement of renewables in order to meet GHG targets. Waiting to procure new renewables until 2026 would result in an increase of GHG emissions from the Diablo Canyon closure. The Proposed Decision must be modified to explicitly require PG&E to plan for and replace Diablo Canyon with GHG-free energy.

C. The Proposed Decision Ignores the Balanced and Diverse Portfolio Requirement for IRPs.

The Proposed Decision states:

“[W]e acknowledge that while RESOLVE chooses resources that are, in some cases, technology specific, in most cases we procure resources in groups. Thus, for example, while RESOLVE considers solar, wind, biomass, and geothermal resources individually, it is likely that an LSE would plan to procure renewables generally, without specific regard to the exact technology.”⁷

The Proposed Decision then suggests in Figure 6 that LSEs could plan to procure *any* renewables, regardless of capabilities and generation profiles, to meet their IRP requirements.⁸ Governing statute, however, specifically calls for a balanced and diverse portfolio to be achieved in the IRP as follows:

“454.51 The commission shall do all of the following:

“(a) Identify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable

⁶ Proposed Decision, at p. 34.

⁷ *Id.*, at p. 73.

⁸ *Id.*, at p. 74.

energy in a cost-effective manner. The portfolio shall rely upon zero carbon-emitting resources to the maximum extent reasonable and be designed to achieve any statewide greenhouse gas emissions limit established pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code) or any successor legislation.”⁹

The importance of this mandate can be seen in the modelling results. Thus, a more diverse portfolio is selected for the more stringent GHG planning targets.¹⁰ The Commission must modify the Proposed Decision to recognize the importance and obligation to plan for a diverse and balanced portfolio and recognize Figure 5 as the better representation of an appropriate LSE IRP portfolio.

II. THE PROPOSED DECISION WRONGLY ASSUMES THAT THE ELECTRIC SECTOR IS AHEAD OF ITS GHG TRAJECTORY

A. The Modelling Relied Upon by the Proposed Decision Fails to Account for CAISO’s Confirmation of GHG Emissions 10 MMT Higher in 2017 than Modelled for 2018.

In the Proposed the Decision, it is implied that the electric sector is ahead of schedule in meeting the 2030 GHG target by stating no new renewables are needed until 2026. The GHG emissions from the California Independent System Operator (CAISO) footprint modelled in RESOLVE is approximately 42 million metric tons (MMT) in the year 2018.¹¹ However, the GHG tracking reports provided by the CAISO on a monthly basis indicate that the GHG emissions in 2017 were around 52 MMT.¹² Given that 2017 was a “high hydro year” and thus

⁹ Public Utilities (PU) Code §454.51(a).

¹⁰ ALJ’s Ruling Seeking Comment on Proposed Reference System Plan and Related Commission Policy Actions (September 19, 2017), Attachment A, at Slides 51-53.

¹¹ *Id.*, Attachment A, at Slide 56.

¹² CAISO GHG Tracking Reports are issued at the end of each month and can be found at: <https://www.caiso.com/market/Pages/ReportsBulletins/Default.aspx>. GHG Emission Tracking Report with emissions through November 2017 can be found: <https://www.caiso.com/Documents/GHGTrackingReport-Summary-December2017.pdf>. GHG emissions have not been released for December 2017, but are assumed to be approximately 4.5 MMT, which is consistent with this year’s trend.

GHG emissions were lower than an “average hydro year,” unless a very significant amount of new GHG-free capacity will come online in 2018, it is likely the 2018 emissions will remain around 50 MMT. This means the modelling is grossly underestimating GHG emissions, even if the CAISO reports emissions from combined heat and power.

B. It Is Likely the 30 MMT GHG Target Case Would Result in a Real 42 MMT Result.

Given that the model is underestimating GHG emissions from the CAISO footprint for the year 2018, it can be assumed that GHG emissions are being underestimated for all years modelled. This means that the 30 MMT GHG target case is likely a better representation of what would be required in order to reach the 42 MMT electric sector target. The Proposed Decision should be modified to recognize that the 30 MMT GHG target case is the best representation of the 42 MMT GHG target.

C. Any Models Used in the IRP Must be Validated With Observed Data.

While no model will ever be perfect at predicting the future, it is clear that there is a large discrepancy between what the RESOLVE model is predicting and how the grid is actually operating. All models used in the IRP should be validated using observed data to ensure the planning process using the best representation of the current and future grid operations. The Proposed Decision should be modified to call for any future modelling to be validated with observed data.

**III.
CONCLUSION**

CEERT respectfully requests that the Commission modify the Proposed Decision as detailed above. Those recommendations are further embodied in CEERT's Proposed Findings of Fact, Conclusions of Law, and Ordering Paragraphs in Appendix A hereto.

Respectfully submitted,

January 17, 2018

/s/ SARA STECK MYERS
Sara Steck Myers
Attorney for CEERT
122 – 28th Avenue
San Francisco, CA 94121
Telephone: (415) 387-1904
Facsimile: (415) 387-4708
Email: ssmyers@att.net

APPENDIX A

CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES’ PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS FOR THE PROPOSED DECISION OF COMMISSIONER RANDOLPH

The Center for Energy Efficiency and Renewable Technologies (CEERT) proposes the following modifications to the Findings of Fact, Conclusions of Law, and Ordering Paragraphs of the Proposed Decision of Commissioner Randolph mailed in R.16-02-007 (IRP) on December 28, 2017 (Proposed Decision).

Please note the following:

- A page citation to the Proposed Decision is provided in brackets for each Finding of Fact, Conclusion of Law, or Ordering Paragraphs for which a modification is proposed.
- Added language is indicated by **bold type**; removed language is indicated by **bold strike-through**.
- A new or added Finding of Fact, Conclusion of Law, or Ordering Paragraph is labeled as “**NEW**” in **bold, underscored** capital letters.

PROPOSED FINDINGS OF FACT:

8. [122] The total electric resources shown in Figure 3 and the incremental resources shown in Figure ~~6-5~~, for 2030, represent a reasonable portfolio to adopt in compliance with Section 454.51 requirements.

9. [122] Individual LSEs may be able to identify optimal portfolios to serve their load that differ from the mix identified in the Commission reference system portfolio **if the portfolio reasonably complies with Section 454.51 requirements**. LSEs should be given flexibility to propose alternate portfolios to meet their customers’ needs, in addition to conforming portfolios, while justifying any deviations from the reference portfolio.

10. [122] ~~It is unclear whether requiring procurement of additional renewables outside of the RPS requirements in the context of this IRP cycle could result in cost savings due to expiring federal tax credits (PTC and ITC). Ordering such procurement here would also require settling complex issues of cost allocation and load forecasting. Procurement of~~

additional renewables outside of the RPS, within the projected load growth, is necessary to most cost-effectively reach the 2030 GHG target and prevent a GHG emission increase due to the closure Diablo Canyon Power Plant.

11. The Commission should adopt 42 MMT as the GHG target for the electric sector for 2030 for this IRP cycle, **but recognize that the 30 MMT GHG target model is more reflective of the sector reaching this target.**

PROPOSED CONCLUSION OF LAW:

10. [125] The Commission should continue modifications and improvements to modeling to represent the optimal electric resource portfolio required by Section 454.52 and to choose the appropriate GHG emissions target for the electric sector **and validate any modelling with observed data when feasible.**

PROPOSED ORDERING PARAGRAPHS:

NEW ORDERING PARAGRAPH: Pacific Gas & Electric shall plan for the replacement of Diablo Canyon Power Plant with GHG-free energy within its LSE IRP before the closure of Diablo Canyon Power Plant.

NEW ORDERING PARAGRAPH: Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric shall include tax-eligible resources within their LSE IRPs and conduct procurement of tax-eligible wind resources in 2018.