

**PUBLIC UTILITIES COMMISSION**505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298**FILED**  
7-14-17  
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July 14, 2017

Agenda ID #15867  
Ratesetting

## TO PARTIES OF RECORD IN RULEMAKING 14-10-003:

This is the proposed decision of Administrative Law Judge Kelly A. Hymes. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's August 24, 2017 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, ex parte communications are prohibited pursuant to Rule 8.3(c)(4)(B).

/s/ DARWIN E. FARRARDarwin E. Farrar  
Acting Chief Administrative Law Judge

EDF:lil

Attachment

Decision PROPOSED DECISION OF ALJ HYMES (Mailed 7/14/2017)

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.

Rulemaking 14-10-003  
(Filed October 2, 2014)

**DECISION ADOPTING INTERIM GREENHOUSE GAS ADDER**

**Summary**

This Decision adopts a series of values based upon the California Air Resources Board Cap-and-Trade Allowance Price Containment Reserve Price as an interim greenhouse gas adder value for use in the avoided cost calculator when analyzing the cost-effectiveness of distributed energy resources.

Development of a permanent greenhouse gas adder will be considered in the future, in coordination with the Integrated Resource Planning proceeding (Rulemaking 16-02-007) and, if and when adopted, will replace the interim greenhouse gas adder adopted here. To limit the risk of overvaluing resources, we adopt a sunset date of May 1, 2018 for the interim adder with the option to extend for one year, as described below.

**1. Background**

An October 9, 2015 Administrative Law Judge Ruling introduced a four-phase Commission Energy Division (Staff) proposal for updating the Commission's cost-effectiveness framework. The four phases are: 1) Improve the existing cost-effectiveness framework; 2) Improve the relationship between

cost-effectiveness and local system conditions through a coordinated effort with Rulemaking (R.) 14-08-013;<sup>1</sup> 3) Improve models and methods to accurately reflect policies; and 4) Expand the cost-effectiveness framework to create an all-source, all technology valuation framework.

A Cost-Effectiveness Framework Working Group (Working Group), established through the October 9, 2015 Ruling, recommended several phase three issues. Relevant to this Decision, the Working Group included the issue of determining whether cost-effectiveness tests appropriately reflect environmental goals and proposed several options for the Commission to pursue. Most relevant to this Decision, the options included a societal cost test (SCT). In response to the Working Group recommendations, Staff hosted a workshop where parties discussed potential methods for a SCT, amongst other related matters.

On February 9, 2017, a ruling was issued in this proceeding seeking party comment on a proposal by Staff supporting the adoption of a societal cost test (Staff SCT Proposal). The Staff SCT Proposal recommends that the SCT include an air quality value, a social discount rate, and a greenhouse gas adder. The Staff SCT Proposal contemplates that the greenhouse gas adder be determined in the future, in coordination with the Integrated Resource Planning Proceeding, R.16-02-007.

An April 3, 2017 Ruling described an Addendum to the Staff SCT Proposal, which indicated a pressing need for development of the greenhouse gas adder and proposed an interim solution for the adder. The Addendum

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<sup>1</sup> R.14-08-013 is the Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.

explained that an interim greenhouse gas adder was needed to perform an upcoming Energy Efficiency Potential Study (Potential Study). The Potential Study would then inform energy efficiency goals required to be adopted in the summer/fall of 2017. Parties filed comments and replies to the ruling.<sup>2</sup>

On May 16, 2017, the Utilities filed a motion for evidentiary hearings to adjudicate disputed issues of fact presented by the Staff SCT Proposal and the April 3, 2017 Addendum (Motion). Pursuant to a May 18, 2017 Ruling, parties filed responses to the Motion on May 26, 2017 and the Utilities filed a reply to the responses on June 2, 2017.<sup>3</sup>

## **2. Issues Before the Commission**

Decision (D.) 15-10-028 requires that the Commission adopt energy efficiency goals by August 2017. These biennial goals are informed by the Potential Study, which quantifies the amount of achievable cost-effective energy efficiency. The Potential Study is highly dependent on the outputs of the avoided cost calculator, which is used to determine the benefits of resources across many Commission proceedings. The most recent update of the avoided cost calculator occurred prior to the adoption of Senate Bill (SB) 32<sup>4</sup> and did not

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<sup>2</sup> The following parties filed comments on the April 3, 2017 Ruling: California Energy Efficiency Industry Council, County of Los Angeles, Independent Energy Producers Association (IEPA), Institute for Policy Integrity, Marin Clean Energy, Natural Resources Defense Council (NRDC), Office of Ratepayer Advocates (ORA), Sierra Club, and the Utilities. The following parties filed reply comments to the April 3, 2017 Ruling: Independent Energy Producers Association, ORA, Sierra Club and Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company, (jointly, the Utilities).

<sup>3</sup> The following parties filed comments to the Motion and to the May 18, 2017 Ruling: IEPA, Institute for Policy Integrity, NRDC, ORA, Sierra Club, the Solar Energy Industries Association and the Utilities.

<sup>4</sup> SB 32 (2016) updates California's Assembly Bill (AB) 32 (2006), which required the California Air Resources Board to reduce statewide emissions of greenhouse gases to 1990 levels by 2020.

*Footnote continued on next page*

reflect the cost impacts of 2030 greenhouse gas targets adopted as part of SB 32. Hence, using the current avoided cost calculator will not provide a true account of energy efficiency cost-effectiveness.

The Commission plans to address the development and adoption of an updated greenhouse gas adder in coordination with the Integrated Resource Planning proceeding.<sup>5</sup> However, the results of that process are not anticipated in time to inform the Potential Study. Without an updated adder reflecting current California environmental goals, the Commission anticipates a direct effect on energy efficiency potential, goals, budgets and programs.

Accordingly, this Decision determines whether the Commission should adopt an interim greenhouse gas adder and what the interim adder should be.

### **3. Discussion**

This Decision determines that an interim greenhouse gas adder should be adopted by the Commission and used to update the current version of the avoided cost calculator in order to inform the Potential Study and, consequently, the next biennial energy efficiency goals due in September 2017. To ensure the timeliness of this update, the Commission approves the series of values shown in Table 2, which is based upon the California Air Resources Board Cap-and-Trade Allowance Price Containment Reserve price (Cap-and-Trade APCR Price). This series of values is adopted on an interim basis, until a permanent greenhouse gas adder is adopted by the Commission. To minimize potential risks of

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SB 32 expands on AB 32 and requires California to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030.

<sup>5</sup> R.16-02-007 Joint Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge, May 26, 2016 at 11-12.

overvaluing resources, this Decision establishes May 1, 2018 as the sunset date for the interim greenhouse gas adder but permits the Staff to propose to extend the sunset date up to one year in the resolution for the next avoided cost calculator update.

### **3.1. Whether to Adopt an Interim Greenhouse Gas Adder**

This Decision first addresses whether it is necessary to adopt an interim greenhouse gas adder on an immediate basis. The Staff Addendum explains that the most recent update of the avoided cost calculator did not reflect the cost impacts of 2030 greenhouse gas targets required by SB 32; no party disputes this claim. Staff contends this could significantly reduce the amount of cost-effective energy efficiency. Staff further explains that, unless updated, the current avoided cost calculator will be used in the upcoming Potential Goals and will subsequently establish energy efficiency goals for the next year. Staff maintains that there is an imperative need to adopt an interim adder before the goals are adopted in September 2017, in order to ensure more accurate goals.

Several parties agree with Staff that an interim solution is necessary in order to ensure accurate goals as well as attainment of SB 32 targets.<sup>6</sup> However, Independent Energy Producers (IEP) is concerned that without a comprehensive update of all key inputs of the avoided cost calculator, the Commission risks

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<sup>6</sup> See Utilities Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 3, Energy Efficiency Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 2, the Institute for Policy Integrity Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 4, NRDC Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 4, ORA Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 2, and Sierra Club Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 7.

undermining its ability to deliver truly cost-effective resources.<sup>7</sup> NRDC asserts that a delay in adopting an interim solution would not only result in a decrease in cost-effective energy efficiency potential in the near term but could also substantially limit the State's ability to meet SB 350's doubled targets in the long term.<sup>8</sup> Furthermore, Sierra Club cautions that failure to adopt an interim greenhouse gas adder will allow greenhouse gas emissions to continue accumulating in the atmosphere.<sup>9</sup>

The Commission finds that the current avoided cost calculator does not properly reflect the impact of the 2030 greenhouse gas targets adopted in SB 32. Furthermore, the Commission agrees that without this information, the Potential Study and, subsequently, the energy efficiency goals will not be accurate. As explained in the Addendum, without an interim adder reflecting SB 32 targets, the energy efficiency program could experience a decrease in budgeting due to perceived lower cost-effectiveness only to need an exponential increase in program output once the adder is updated and the budget is adjusted. This Decision concludes that an immediate interim solution to a greenhouse gas adder should be adopted to avoid a disruptive effect on the Commission's energy efficiency program in the near term and improve the chances of meeting SB 32 targets in the long term.

While agreeing that an immediate interim solution is necessary, ORA, NRDC, Sierra Club, and the Utilities support the adoption of a date certain for

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<sup>7</sup> IEP Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 11.

<sup>8</sup> NRDC Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 1-2.

<sup>9</sup> Sierra Club Opening Comments to April 3, 2017 Ruling, April 17, 2017 at 7 and footnote 25.

the interim value to end.<sup>10</sup> ORA suggests this sunset date should be either “the deadline for the next scheduled update of the avoided cost calculator or the adoption of an applicable greenhouse gas abatement marginal cost in R.16-02-007.”<sup>11</sup> No party presented opposition to this recommendation.

Adopting a sunset date should ensure the Commission minimizes the risks of overvaluing resources, as suggested by ORA and IEP.<sup>12</sup> This Decision should adopt an interim solution, as described below, and establish a sunset date of May 1, 2018, but allows the Staff to propose to extend this sunset date no more than one year in the resolution addressing the annual update to the avoided cost calculator. This ability to propose an extension provides a safety net in the event the Commission does not complete its consideration of a permanent greenhouse gas adder.

### **3.1. The Interim Greenhouse Gas Adder**

The interim greenhouse gas adder values based upon the Cap-and-Trade APCR price is adopted until the sunset date or until the Commission adopts a permanent greenhouse gas adder, whichever comes first. As described below, this approach represents the highest Cap-and-Trade program compliance costs imposed on utilities and ratepayers, ensures more accurate cost-effectiveness analysis of distributed energy resources, and avoids delays to establishing the Commission's energy efficiency goals.

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<sup>10</sup> NRDC Opening Comments to April 3, 2017 Ruling at 4-5, ORA Opening Comments to April 3, 2017 Ruling at 2, Utilities Reply Comments to April 3, 2017 Ruling at 6 and Sierra Club Reply Comments to April 3, 2017 Ruling at 4-5.

<sup>11</sup> ORA Opening Comments to April 3, 2017 Ruling at 2.

<sup>12</sup> IEP Opening Comments to April 3, 2017 Ruling at 11 and ORA Opening Comments to April 3, 2017 Ruling at 2.



The Staff Addendum proposed adopting an interim annualized approach that applies a straight-line escalation from the 2017 \$0/tonne value to the 2030 \$250/tonne value.<sup>13</sup> In the Addendum, Staff maintains this approach would provide the necessary interim approach until consideration of a permanent approach is completed and simultaneously provide a gradual ramp period for distributed energy resources markets.

Parties had mixed reaction to the proposed interim approach. While some agreed that the staff proposed linear escalation was a reasonable approach, other parties expressed concern about the approach and pointed specifically to the use of the RESOLVE<sup>14</sup> model as not accurately reflecting the current marginal abatement mechanism.<sup>15</sup> ORA underscores that the RESOLVE model's inputs and assumptions have not been published by Staff, vetted by stakeholders, or entered into the record of R.16-02-007.<sup>16</sup>

In reaction to the February 9 and April 2, 2017 Rulings, the Utilities filed a motion for evidentiary hearing stating that the Staff-recommended interim greenhouse gas adder using the RESOLVE Model must be thoroughly examined to better understand the model.<sup>17</sup> A May 18, 2017 Ruling shortened the comment period for responding to the Utilities' Motion. In the May 18, 2017 Ruling, the

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<sup>13</sup> These are the marginal abatement costs indicated for that year by preliminary modeling results of Energy Division's analysis in the Integrated Resource Plan process.

<sup>14</sup> The RESOLVE model is a capacity expansion model, based on linear programming techniques, used to identify least-cost portfolios of future resources that satisfy the multiple state policy goals required by the Integrated Resource Planning statute, including reducing greenhouse gas emissions and maintaining reliability.

<sup>15</sup> Utilities Opening Comments to April 2, 2017 Ruling at 5.

<sup>16</sup> ORA Opening Comments at footnote 4.

<sup>17</sup> Utilities Motion at 5.

Administrative Law Judge confirmed that the RESOLVE model would not be litigated in this proceeding because it is in the scope of R.16-02-007.

The RESOLVE Model and its inputs cannot be relied upon in this proceeding as it is currently under discussion in R.16-02-007; it would not be efficient to litigate the RESOLVE model in two proceedings simultaneously. Furthermore, as determined above, the Commission recognizes the immediate need to update the avoided cost calculator to inform the Potential Study. As such, the Commission must rely on another approach to update the avoided cost calculator in a timely manner.

Responding to the May 18, 2017 Ruling, the Utilities and ORA support the use of the Cap-and-Trade APCR Price as an interim value for the greenhouse gas adder.<sup>18</sup> The Cap-and-Trade APCR Price is a cost-containment mechanism, which includes a set-aside pool of allowances that can only be purchased by covered entities at set prices.<sup>19</sup> Specifically, the Utilities recommend, on an interim basis, that the greenhouse gas price forecast in the avoided cost calculator be adjusted to the Air Resources Board's Cap-and-Trade APCR Price, post-2020, to reflect the potential effect of the 2030 greenhouse gas targets.<sup>20</sup>

The Utilities contend their interim proposal provides a more stable greenhouse gas value, "as the proposed APCR values start at \$76 in 2021

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<sup>18</sup> See Utilities' Opening Comments to April 2, 2017 Ruling at 6, Footnote 4 citing: ARB Staff Report, "Initial Statement of Reasons," Appendix C, August 2, 2016, Table 5. Available at <https://www.arb.ca.gov/regact/2016/capandtrade16/appc.pdf>.

<sup>19</sup> ARB Staff Report, "Initial Statement of Reasons," August 2, 2016 at 17.

<sup>20</sup> *Id.* at 6.

(\$86 nominal) and rise to \$86 in 2031 (\$115 nominal).<sup>21</sup> Table 1 provides the Air Resources Board's Cap-and-Trade APCR price referenced by the Utilities.

Table 1 APCR Price (2015 dollars)				
Year	2015	2021	2026	2031
APCR Price (2015 dollars)	\$56.51	\$76.22	\$80.70	\$86.41

ORA asserts the use of the Cap-and-Trade APCR Price represents the actual abatement costs imposed on utilities and ratepayers and is a reasonably expected cost of carbon emissions.<sup>22</sup> PG&E and ORA contend use of the Cap-and-Trade APCR Price would allow the Commission to adopt an interim greenhouse gas adder in time to inform the Potential Study and the energy efficiency goals.<sup>23</sup>

Sierra Club and NRDC argue that the Cap-and-Trade APCR Price is not equivalent to abatement costs and does not reflect the actual marginal cost of mitigation but rather "the cost of mitigating the remaining emissions required to stay below the ARB program cap after taking into account the effect of strong complementary policies and are driven by legal uncertainties and an entity's

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<sup>21</sup> *Ibid.*

<sup>22</sup> ORA Response to Motion, May 26, 2017, at 2.

<sup>23</sup> ORA Response to Motion, May 26, 2017, at 2 and Utilities Reply to Responses to Motion, June 2, 2017, at 4.

projected requirement for allowances.”<sup>24</sup> The Utilities maintain that the cost of mitigating the remaining emissions is precisely the definition of marginal abatement cost and assert the Cap-and-Trade APCR Price represents California’s official process for valuing greenhouse gas emission reductions and is a more accurate assessment of greenhouse gas compliance costs than the proposed approach in the Addendum.<sup>25</sup>

There is insufficient evidence in the record to determine if the Cap-and-Trade APCR Price can be equated with a marginal carbon abatement price. However, we agree that because it represents the highest cost of compliance with California’s cap and trade requirements, it is the best value currently available to approximate the societal costs of greenhouse gas emissions.

This Decision finds that a greenhouse gas adder value based upon the Cap-and-Trade APCR Price more accurately informs the Potential Study than the adder in the current avoided cost calculator and allows the Commission to adopt timely energy efficiency goals aligned with SB 32.

The Commission should adopt the use of the Cap-and-Trade APCR Price as the interim greenhouse gas adder in the avoided cost calculator until May 1, 2018 or until a permanent greenhouse gas adder is adopted by the Commission; whichever comes first. Furthermore, we permit the Staff to propose an extension of the sunset date up to one year if necessary (May 1, 2019). The extension

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<sup>24</sup> Sierra Club Reply Comment to April 3, 2017 Ruling at 2-3 and NRDC Opening Comments to April 3, 2017 Ruling at 3.

<sup>25</sup> Utilities Reply Comments to April 2, 2017 Ruling at 2 and 5-6.

proposal should be included in the resolution proposing the next update of the avoided cost calculator.

The APCR Price values shown in Table 1 have been extrapolated linearly to determine the series of values shown in Table 2, which can be used in the avoided cost calculator as the interim greenhouse gas adder. However, these values are expressed in 2015 dollars and include the current and forecast Cap-and-Trade selling price. Hence the values in Table 2 will require further revision in the avoided cost calculator to express in current dollars and to subtract the current and forecast Cap-and-Trade selling price. The Staff is directed to immediately update the avoided cost calculator to reflect the interim greenhouse gas adder adopted in this Decision. The Staff shall issue the updated avoided cost calculator within 30 days from the issuance of this Decision.

Table 2 Interim Greenhouse Gas Adder (2015 dollars)	
2015	\$56.51
2016	\$59.80
2017	\$63.08
2018	\$66.37
2019	\$69.65
2020	\$72.94
2021	\$76.22
2022	\$77.12
2023	\$78.01
2024	\$78.91
2025	\$79.80

2026	\$80.70
2027	\$81.84
2028	\$82.98
2029	\$84.13
2030	\$85.27

#### **4. Comments on Proposed Decision**

The proposed decision in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on \_\_\_\_\_ by \_\_\_\_\_ and replies were filed on \_\_\_\_\_ by \_\_\_\_\_.

#### **5. Assignment of Proceeding**

Michael Picker is the assigned Commissioner and Kelly A. Hymes is the assigned Administrative Law Judge in this proceeding.

#### **Findings of Fact**

1. A permanent greenhouse gas adder will be considered in the future through collaboration between this proceeding and R.16-02-007.
2. The current avoided cost calculator does not reflect the costs of the 2030 greenhouse gas targets adopted in SB 350.
3. Without the revised costs of the new greenhouse gas targets, the Potential Study and the subsequent energy efficiency goals will not be accurate.
4. Without an interim adder reflecting the costs of the SB 350 targets, the energy efficiency program could experience a decrease in budgeting due to perceived lower cost-effectiveness only to need an exponential increase in program output once the adder is updated and the budget is adjusted.

5. No party presented opposition to the recommendation to adopt a sunset date for an interim greenhouse gas adder.

6. A sunset date should ensure that the Commission minimizes the risks of overvaluing resources.

7. The Cap-and-Trade APCR Price represent California's official process for valuing greenhouse gas emission reductions.

8. The Cap-and-Trade APCR Price is a more accurate assessment of greenhouse gas compliance costs than the Staff proposed approach in the Addendum.

9. The values derived from the use of the Cap-and-Trade APCR Price in the avoided cost calculator more accurately inform the Potential Study than the current avoided cost calculator.

10. The values derived from the use of the Cap-and-Trade APCR Price in the avoided cost calculator allow the Commission to adopt timely energy efficiency goals aligned with SB 32.

### **Conclusions of Law**

1. The Commission should adopt an immediate interim solution to a greenhouse gas adder to avoid a disruptive effect on the Commission's energy efficiency program in the near term and improve the chances of meeting SB 350 targets in the long term.

2. The Commission should establish a sunset date of May 1, 2018 for the interim solution to the greenhouse gas adder but provide the Energy Division the option to propose an extension up to an additional year in the resolution updating the avoided cost calculator, if necessary.

3. The Commission should adopt values based upon the use of the Cap-and-Trade APCR Price as the interim greenhouse gas adder value in the

avoided cost calculator until May 1, 2018 or until a permanent greenhouse gas adder is adopted, whichever comes first.

4. The Commission Energy Division should update the avoided cost calculator to reflect the interim greenhouse gas adder adopted in this Decision and further revise the values in Table 2 of this Decision to reflect current dollars and subtract the current and forecast Cap-and-Trade selling price.

### **O R D E R**

**IT IS ORDERED** that:

1. The California Air Resources Board Cap-and-Trade Allowance Price Containment Reserve Price shall be used to determine the interim value for the greenhouse gas adder in the avoided cost calculator until May 1, 2018 or until a permanent greenhouse gas adder is adopted by the Commission, whichever comes first.

2. The Commission's Energy Division may propose to extend the May 1, 2018 sunset date up to one additional year (May 1, 2019) in the resolution proposing the 2018 update to the avoided cost calculator.

3. The Commission's Energy Division will immediately update the avoided cost calculator to reflect the interim greenhouse gas adder adopted in this Decision. Within 30 days of the issuance of this Decision, the Commission's Energy Division will issue the new version of the avoided cost calculator.

4. Rulemaking 14-10-003 remains open.

This order is effective today.

Dated \_\_\_\_\_, at San Francisco, California.