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Witness: Tom Beach

Commissioner: Martha Guzman Aceves

ALJ: Kelly A. Hymes

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2020 updates to ACC**

ALJ/KHY/ilz

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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

2020 POLICY UPDATES TO THE AVOIDED COST CALCULATOR

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Appendix A - Final Staff Proposal

different avoided greenhouse gas values to the same avoided cost for technologies that involve fuel switching.¹³⁸ We recognize that greenhouse gas emissions reductions in both the natural gas sector and the electricity sector come primarily from a reduction in natural gas combustion (either direct combustion in buildings or in the powerplant). In addition, under SB32, California has an overall greenhouse gas emissions limit in 2030. Therefore, a shortfall in one sector can be made up for in another to reach the overall goal. Hence, emissions for both sectors should have the same value. The electricity sector Integrated Resource Planning proceeding-based greenhouse gas adder is a reasonable estimate for the economy-wide planning price because the electricity sector is a potential source of additional emissions savings to meet the economy-wide goal. Accordingly, we adopt this proposal.

7.2. SEIA/Vote Solar Alternate Proposals

Below we address three proposals recommended by SEIA/ Vote Solar, which are not directly related to the Staff Proposal.¹³⁹ We decline to adopt the proposals for three new avoided costs in the Avoided Cost Calculator. As discussed below, the proposal for avoided reliability and resiliency should be addressed in a resource-specific proceeding, the proposal for fuel volatility is highly speculative, and the proposal

7.2.1. SEIA/Vote Solar's Proposed Avoided Reliability and Resiliency Costs

SEIA/Vote Solar argue that standalone storage and solar paired with storage provide reliability and resiliency benefits. Further, SEIA/Vote Solar

¹³⁸ Joint Utilities Opening Brief at 45 citing Staff Proposal at 59-60.

¹³⁹ A fourth proposal for the avoided cost of methane leakage was addressed above in Section 7.1.8. within the discussion of avoided cost of global warming potential gases.

submit that these benefits are not isolated to the individuals who install storage or storage plus solar. Rather, “these benefits are much broader, providing a way to maintain functions related to safety, human welfare, and economic activity.”¹⁴⁰

Contending that there are readily-available means to value the reliability benefits of a storage system, and the resiliency benefits of solar-plus-storage, SEIA/Vote Solar propose a dollar per customer value for the reliability value and a dollar per kilowatt year for the resiliency value. SEIA/Vote Solar assert that utilities’ value-of-service studies assess how much customers value reliability in dollars per minute of avoided interruption.¹⁴¹ Proposing to multiply these values-of-service metrics by the minutes of interruption per year to obtain the annual reliability value per customer, SEIA/Vote Solar conclude this value is approximately \$300 per customer per year.¹⁴² With respect to resiliency benefits, SEIA/Vote Solar submit they have quantified the benefits by first determining an average cost for a portable inverter electric generator compliant with CARB emission requirements and then adding sales tax, fuel storage costs, the cost to install a manual transfer switch, and the cost of the air impacts associated with emissions.¹⁴³ SEIA/Vote Solar assert that the total value of the resiliency avoided costs is \$3,650 or \$104 per kW-year.¹⁴⁴ SEIA/Vote Solar maintain these reliability and resiliency benefits can be incorporated into the Avoided Cost Calculator as annual values, escalating with inflation.

¹⁴⁰ SEIA/Vote Solar Reply Brief at 36.

¹⁴¹ SEIA/Vote Solar Opening Brief at 56-57.

¹⁴² *Ibid.*

¹⁴³ *Id.* at 57-58.

¹⁴⁴ *Id.* at 58.

Public Advocates Office, TURN and Joint Utilities oppose adoption of these resiliency and reliability adders. Public Advocates Office offer that the benefits do not represent avoided costs and accrue only to a limited set of customers.¹⁴⁵ Similarly, Joint Utilities contend that because reliability and resiliency benefits are highly localized, programs and incentives designed to enhance reliability and resiliency for certain customer segments are not suitable for evaluation through the Avoided Cost Calculator.¹⁴⁶ Taking a different direction, TURN contends that the resiliency and reliability benefits do not avoid ratepayer costs.

Replying to this opposition, SEIA/Vote Solar maintain that the reliability and resiliency benefits are not isolated to the individuals who install storage or storage plus solar. Noting that these customers are part of the overall utility system, SEIA/Vote Solar contend the benefits they provide should be included in the Total Resource Cost test. While conceding that each storage or solar plus storage installation will not provide a reliability and/or resiliency benefit for every customer on the grid, SEIA/Vote Solar assert that these installations will provide benefits to customers throughout the system. This, SEIA/Vote Solar conclude, justifies including the benefits in cost-effectiveness tests.

There is insufficient evidence to draw a conclusion on whether storage or storage plus solar provides system resiliency and/or reliability benefits. We first focus solely on whether any such benefits should be included in the Avoided Cost Calculator. We agree with TURN that SEIA/Vote Solar's proposal has not shown any deferred or avoided costs to utility ratepayers, but rather has shown

¹⁴⁵ Public Advocates Office Reply Brief at 3.

¹⁴⁶ Joint Utilities Opening Brief at 88.

only that ratepayers who use these technologies receive additional participant benefits. We underscore, however, that participant benefits are not a type of avoided cost. Furthermore, the benefits that SEIA/Vote Solar describe can only be attributable to two resources: storage and storage plus solar. We return to our prior conclusion that the Commission should consider resource-specific benefits in resource-specific proceedings. Hence, we conclude that the Commission should decline to adopt the SEIA/Vote Solar proposals to include reliability and resiliency avoided costs in the Avoided Cost Calculator.

7.2.2. SEIA/Vote Solar's Proposed Fuel Price Volatility Cost

SEIA/Vote Solar propose a new category of avoided costs, the avoided fuel price volatility. SEIA/Vote Solar state that the benefit of avoided fuel price volatility can be quantified by calculating the costs to fix the fuel cost of a marginal gas fired generator for up to a 30-year period. SEIA/Vote Solar explain that the funds to purchase fuel in the future must be set aside today in risk free investments. SEIA/Vote Solar surmise this results in a financial cost because the money set aside could have been deployed to earn a higher return. These costs, which represent the cost of a long-term hedge against future volatility in the natural gas market, can be avoided by substituting an energy efficiency program or a renewable generation resource whose fuel costs are zero.¹⁴⁷ SEIA/Vote Solar propose to quantify these costs and incorporate them into the Avoided Cost Calculator.¹⁴⁸

Joint Utilities oppose the inclusion of these avoided costs in the Avoided Cost Calculator, contending that hedging programs are not designed to reduce

¹⁴⁷ SEIA/Vote Solar Opening Brief at 47-48.

¹⁴⁸ *Ibid.*