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VIA EMAIL ONLY

May 24, 2021

California Public Utilities Commission
Energy Division
Attention: Tariff Unit (edtariffunit@cpuc.ca.gov)
505 Van Ness Avenue
San Francisco, CA 94102

Re: TURN Comments on Draft Resolution E-5150

Dear Sir or Madam:

TURN strongly supports the changes proposed for the Avoided Cost Calculator (“ACC”) in Draft Resolution E-5150 (the “Draft Resolution”), and urges the Commission to adopt those changes and require that the 2021 version of the ACC be used for all evaluations and modeling related to the valuation and cost effectiveness of Distributed Energy Resources (“DERs”).

TURN acknowledges that the corrections and data updates made in the Draft Resolution result in meaningful changes to the outputs; however, the fact that these corrections have significant results does not render them “major changes” in the methodology. Most importantly, there appears to be little dispute that these changed outputs are more consistent with reality than the results of the 2020 ACC, and thus the Commission should ensure that critical planning and valuation decisions impacting long-term deployment of DER programs and incentives be guided by the revised 2021 ACC.

The Draft Resolution Adopts Necessary Updates and Corrections to Make the ACC More Consistent with Reality

The Draft Resolution proposes a number of data updates and minor corrections, primarily intended to effectuate the major change made in 2020, when the Commission for the first time aligned the ACC with the modeling work being conducted in the Integrated Resource Planning (“IRP”) proceeding. The Commission fundamentally changed the ACC by requiring critical input parameters – including generation capacity and energy values and GHG values – to be derived from RESOLVE and SERVM modeling conducted in the IRP, instead of from gas price forecasts and calculations conducted using a proxy combustion turbine as the marginal generation resource. When the Commission made this major change, it explained that “we are confident that alignment is appropriate at this time,” but also discussed extensively certain potential problems, especially with the calculation of avoided generation capacity costs using the

RESOLVE model outputs.¹ The Commission carefully reviewed the issues and supported use of the RESOLVE model, and adopted a joint proposal for the calculation of avoided generation capacity using battery storage as a proxy.² The Commission also authorized use of the SERVM production cost model to calculate avoided energy costs. While the utilities recommended using the PLEXOS model, the Commission concluded that it was reasonable to use the SERVM model because it was being used in the IRP proceeding.³

Several of the key changes proposed in the Draft Resolution reflect the continuing work being conducted in the IRP proceeding to better align production cost modeling with actual CAISO market operations and the reality of the California energy market in a world of increasing renewable solar and wind generation.⁴ Thus, for example, the proposed corrections include modifying the input wind generation profiles to match historical data and corrections to cost data that make offshore and out of state wind a more likely future resource, modifying Operating Reserve requirements and import constraints to match inputs in the IRP and the CAISO energy market, and basing market prices on marginal dispatch costs rather than total costs of the marginal electric generator.⁵

A key impact of these corrections is a change in output hourly energy prices that produces lower prices during the mid-day and higher prices in the evening in future years, due to the impact of greater solar production. It also results in a greater number of hours with negative energy pricing, consistent with results that are already evident in 2020 and 2021. While some parties criticize the outputs as based on a resource plan that has not been finalized, TURN is not aware of any party that has contested that these outputs are more consistent with real world expectations than the outputs of the 2020 ACC.

The Draft Resolution Adopts Updates and Corrections Consistent with Commission Guidance for Odd-Year Minor Changes

The Draft Resolution proposes a number of data updates and corrections to input data. TURN understands that some parties may argue that the proposed changes are not consistent with prior Commission directives for “minor changes” to be made to the ACC in odd-numbered years. TURN urges all parties to recognize that just because a correction has a material impact on results does not make the underlying change a “major change.” Correcting an obvious minor input error could have a major impact, but should be embraced as a necessary and positive correction.

¹ D.20-04-010, pp. 29-32.

² D.20-04-010, p. 30.

³ D.20-04-010, pp. 39-40.

⁴ Draft Resolution, pp. 4-5 (in the section entitled “Production Simulation”). While TURN highlights a few of the proposed corrections, TURN understands that other parties and intervenors will provide more detailed substantive discussion of the impacts of the proposed data input changes and corrections.

⁵ See, Draft Resolution, p. 5; See, also, *Additional SERVM Information*, provided via email on May 19, 2021.

The Commission first established the distinction between changes that could be done via a Resolution in D.16-06-007, where it authorized “both data updates and minor corrections” to be made via a Resolution process. The Commission specified that a proposed Resolution “shall not include any major changes to the *list* of data inputs, addition or deletion of categories or types of avoided costs, or modifications of the methods or models used in the calculator.”⁶ Importantly, a change in the actual value of data inputs is considered proper, as long as it falls within one of the recognized avoided cost categories included in the ACC.

The Commission expanded the category of “minor changes” in D.19-05-019 by allowing “changes to the modeling methods that most parties can reasonably agree are minor in scope and impact and would represent an improvement to the status quo.”⁷ Subsequent to that decision, the Commission adopted the major changes to the 2020 ACC discussed above, by completely replacing the previous sources of inputs for generation capacity and energy prices, as well as other terms, with the outputs produced by RESOLVE and SERVVM modeling conducted in the IRP.

Energy Division held a workshop back in December 2020 highlighting potential changes to modeling inputs. For example, the workshop presentation highlighted that SERVVM results showed “only a small increase in negatively priced hours by 2030,” and that “SERVVM prices jump straight from zero to >\$30/MWh, this is different than historical market prices.”⁸ The presentation further explained that additional benchmarking of SERVVM price results is necessary in 2021, or else “if SERVVM cannot be properly calibrated, explore using other more common production simulations models.”⁹

The issue presented to the Commission in this case is whether aligning the ACC inputs with the results of the ongoing modeling in the IRP constitutes the type of change in data inputs and minor corrections that should be authorized in the 2021 ACC update. Given that there are no major modeling changes being proposed here, it is incumbent to continue the integration of IDER and IRP by flowing through the corrections to the RESOLVE and SERVVM modeling from the IRP into the 2021 ACC. This is not simply an academic exercise, since the Commission will be authorizing modifications to DER programs, including energy efficiency programs and distributed generation incentives, that may lock in future spending and cost ratepayers millions of dollars. Such programs may also lock in resource spending that is inconsistent with the goal of reducing marginal costs and marginal emissions. Not amending the ACC based on obvious corrections necessary to correspond with reality would be unreasonable, contrary to the goal of integrating the ACC and IRP, and contrary to the goal of ensuring that DER programs provide benefits to ratepayers and the environment. TURN appreciates that the work in the IRP

⁶ D.16-06-007, pp. 8-9 (emphasis in the original). See, also, D.19-05-019, p.

⁷ D.19-05-019, p. 53 and OP 11. The Commission explained that the proposed expansion “allows for real-life needs while maintaining due process and transparency.”

⁸ IDER Workshop, Annual Research Report and 2021 Avoided Cost Calculator Update Preliminary Report, December 9, 2020, p. 11.

⁹ IDER Workshop, *Annual Research Report and 2021 Avoided Cost Calculator Update Preliminary Report*, December 9, 2020, p. 12.

proceeding is ongoing, and that additional changes may be made to some of the inputs and resource assumptions in time for more changes to be made to the ACC in 2022. However, the fact that the complex modeling being conducted in the IRP is not finalized is not a basis for rejecting corrections at this time that result in more accurate results.

TURN applauds the Energy Division for continuing the complex work to update RESOLVE and SERVM modeling of the California energy markets to produce results that are clearly more consistent with actual changes that are taking place as more renewable generation impacts marginal prices and marginal emissions rates.

Yours truly,



Marcel Hawiger
Staff Attorney

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Service List for R.14-10-003