

**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 Demand-Side Resources.

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

**REPLY COMMENTS OF THE CLEAN COALITION REGARDING PROPOSED
DECISION ON 2020 POLICY UPDATES TO THE AVOIDED COST
CALCULATOR**

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I. INTRODUCTION

Pursuant to Rule 14.3 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) the Clean Coalition submits these reply comments on the Proposed Decision (“PD”) regarding *2020 Policy Updates to the Avoided Cost Calculator* issued in the above captioned proceeding on March 13, 2020.

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise, representing the environmental interests of ratepayers. The Clean Coalition drives policy innovation to address barriers to resiliency, procurement and interconnection of distributed energy resources (“DER”)—such as local renewables, advanced inverters, demand response, energy storage and microgrids—and help establish market mechanisms that realize the full potential of integrating these solutions. The Clean Coalition also collaborates with utilities and municipalities to create near-term deployment opportunities that prove the technical and financial viability of local renewables and other DER.

II. COMMENTS

The Clean Coalition appreciates the opportunity to submit these reply comments on the Proposed Decision. We support the Commission’s continued and evolving efforts in this proceeding to assess the impacts of DER and locational factors such that the benefits may be realized for ratepayers at large, individual customers, and communities.

a. MULTIPLE PARTIES AGREE THAT CORRECTIONS ARE NEEDED REGARDING THE UNSPECIFIED TRANSMISSION COMPONENT OF THE ACC

The Clean Coalition broadly supports the updates to the Avoided Cost Calculator (“ACC”) put forth in the staff report recommendations and as made by parties in its development and comment, and reflected in the Proposed Decision (“PD”). We believe important concerns, corrections and refinements were raised by parties in opening comments, and encourage careful review of the GHG valuation concerns raised by Bay Area 350 and CALSSA among others. However, we limit our reply comments to our particular area of expertise and concern identified in opening comments¹ -- the failure to adequately address the valuation of avoided future costs associated with forecast transmission investment and expenditures associated with as yet unspecified projects that could be avoided through a variety of DER scenarios.² Multiple parties also identified this same issue as warranting clarification and revision.

b. MULTIPLE PARTIES AGREE THAT CLARIFICATION IS REQUIRED REGARDING THE PD’S DIRECTION TO USE THE CURRENT METHOD FOR UNSPECIFIED TRANSMISSION AVOIDED COST, AND THE IMPORTANCE OF CAPTURING THAT VALUE, AND INTERIM MEASURES

The Joint IOUs share Clean Coalition’s unclarity regarding the application of any method for SCE & SDG&E³

"The Joint IOUs believe the PD’s authorization to continue to use GRCs to calculate the long-term avoided cost of unspecified transmission is unclear, at least with respect to SCE and SDG&E. Neither SCE nor SDG&E has, to date, included an estimate of transmission marginal costs in their general rate cases. This lack of clarity is repeated in the Conclusions of Law and Ordering Paragraphs. For example, Ordering Paragraph 2(h) states that the 2020 update of the Avoided Cost Calculator “shall continue to use the

¹ Comments of the Clean Coalition Regarding Proposed Decision on 2020 Policy Updates to the Avoided Cost Calculator, 2 April, 2020.

² See: Proposed Decision, 7.1.7 ‘Continuation of Current Method to Calculate Unspecified Avoided Transmission Costs’ at 54-59.

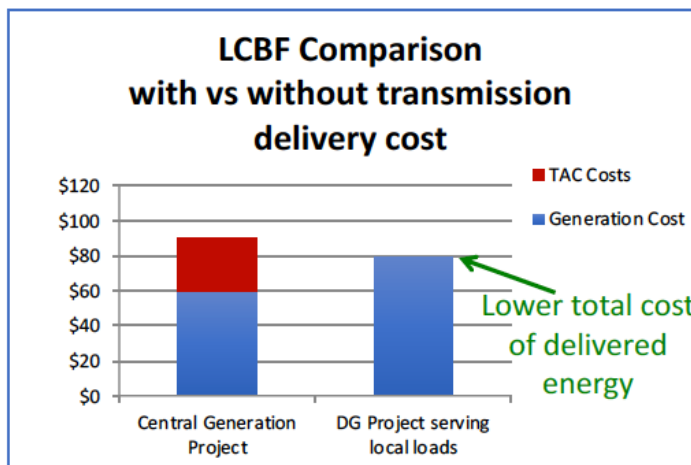
³ Joint Opening Comments of Southern California Edison Company (U 338-E), Pacific Gas & Electric Company (U 39-E), and San Diego Gas & Electric Company (U 902-E) on the Proposed Decision on 2020 Policy Updates to the Avoided Cost Calculator, at 12-13.

current method to determine the unspecified transmission avoided cost.” But there is no “current method” for SCE and SDG&E.”

Energy Division Staff believes that SCE and SDG&E should be able to execute calculations similar to those used in the ACC for PG&E based on their respective transmission plans without excessive burden.⁴ The Clean Coalition agrees with Energy Division that this should be entirely feasible. However, as discussed in our opening comments, this approach is likely to substantially undervalue the full avoided transmission costs ratepayers realize from DER. Multiple parties raise similar concerns, giving great weight to this issue in their comments.⁵ Clean Coalition supports the concerns raised by SEIA, Vote Solar, Bay Area 350, and CALSSA. We agree that the PD errs in related findings of fact as documented in those comments, and concur with the associated recommendations for modification of the PD.

Capturing the actual value of transmission costs that can be avoided through the use of distributed energy resources (“DER”) is a critical component evaluating of the cost-effectiveness of any DER program or project. As the Clean Coalition has repeatedly demonstrated in multiple proceedings, the inability to differentiate between resources that require transmission facilities for delivery and those that do not will continue to result in procurement that is economically efficient for ratepayers.

This is illustrated here in a simplified Least Cost Best Fit (“LCBF”) analysis comparing a local DER option against a transmission dependent alternative. LCBF considers only specified



transmission project savings or investments directly attributable to the energy procurement, and without correction in the ACC to account for overall changes in demand for new transmission facilities LCBF will continue to select energy sources without consideration of the share of general system architecture required to

⁴ White Paper, at 18

⁵ Opening comments of SEIA and Vote Solar, at 1-6; Opening comments of Bay Area 350, at 4-5; Opening comments of CALSSA, at 2.

deliver this energy to customers. This is exacerbated by the fact that both IOUs and CCAs as procurement agencies do not pay the associated Transmission Access Charges incurred by ratepayers at large to reimburse transmission owners for the cost of delivering energy via the transmission system. As a simple matter, society bears the real costs of both generation and delivery infrastructure. If resources that don't require costly long distance infrastructure do not have these savings reflected, this creates a distortion in both the markets for energy and related policy development.

With these considerations, the approach outlined in the staff White Paper is at best a short term interim solution. While we strongly agree that applying the approach currently used for PG&E to the other utilities is clearly better than the failure of the existing model to adopt any valuation, it would not be appropriate to continue that approach until the next major revision of the ACC.

SEIA/Vote Solar have proposed the use of Transmission Access Charges ("TAC") as a simplified proxy for the avoided transmission costs associated with DER deployment, and as an alternative to their proposed NERA method. We agree that TAC do inherently represent the fully weighted cost of transmission infrastructure and operation. CAISO and stakeholders broadly recognized that TAC is currently allocated based simply on the MWh of energy delivered for customers without a demand charge, and for customers with a demand charge, the coincident system peak is not considered. As such, TAC does reflect the full transmission costs that DER avoid, but it will still be necessary to differentiate aggregate DER profiles in assessing the avoided cost value. It is a readily available and reasonable proxy pending development of a more refined method.

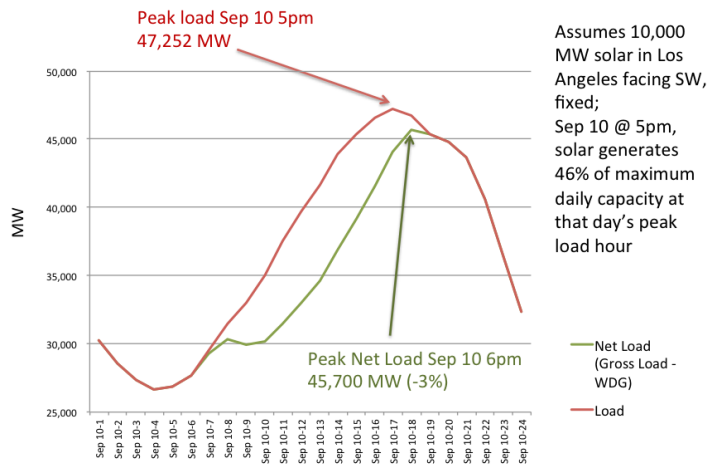
We believe that estimates more closely reflecting the actual value can be implemented this year in time for utilization across Commission proceedings from that point forward. We seek a ruling on methodological approach in this Decision, understanding that full implementation of that approach may involve interim default values now and subsequent refinement with updated inputs as they are developed. Any interim value should aim neither above nor below the current estimate of the value that would result from the final adopted method.

c. PARTIES INCORRECTLY ASSERT THAT DER ONLY AVOIDS PEAK CAPACITY INVESTMENT AND CANNOT AVOID OTHER DRIVERS OF TRANSMISSION INVESTMENT

CAISO’s own Transmission Planning Process plans for investment only after needs already met by DER have been subtracted, and not only those driven by peak capacity. Contrary to Parties unfounded assertions, DER has the capability to replace transmission investment in each of the four primary drivers of transmission investment:

1. Thermal capacity, or increases in peak demand
2. Policy-driven goals
3. Economic drivers (to access cheaper energy)
4. Reliability needs

Peak Demand: DER's contribution in reducing peak demand has already reduced costs associated with the existing transmission system, and continues to do so. At system peak, every MW generated on the distribution system that meets local demand directly reduces peak demand on the transmissions system. As demonstrated in our model of the transmission impact of moving 10,000 MW of solar to the distribution grid, peak transmission flows are reduced shifting both lower and later. With the deployment of co-located storage, PV increasingly become capable of addressing peaks outside of the solar window.



Ultimately peak transmission capacity need is determined entirely by the peak transmission energy flow from remote generation to load. Anything that reduces the need for LSEs to procure remote resources to meet local load will reduce peak transmission flows, whether or not that peak load is reduced by energy efficiency, demand response, customer load shifting, energy storage, or distributed generation. Thus, any of these load modifiers will reduce the need for transmission investment, as CAISO recognizes in the planning process.

These reductions are not theoretical. California has seen real reductions in peak demand from DER, and cancelled or deferred projects because of DER. For example, in PG&E's 2015 Distribution Resources Planning (DRP) report, the utility estimated that DER reduced their 2014 annual peak load by 2,742 MW (13.5%), with local PV generation being the second largest component after Energy Efficiency. This rose to 3,695 MW by 2016 (17.3%), of which distributed generation accounted for 1,273 MW after adjusting for effective capacity during the peak hour. The portion of peak load served by DER increases every year.

Policy goals: As stakeholders have noted, a substantial portion of transmission investment has been driven by RPS and the need to connect to renewable generation. Local distribution level PV contributes to RPS targets every bit as much as remote solar, and offsets RPS-related investment at least on a 1:1 basis. For example, ReMAT program procurement of 750 MW of wholesale distributed generation (“DG”) is RPS-eligible and is already included in RPS procurement planning. This reduced the need throughout the past decade for new remote renewable generation and any associated transmission that would have otherwise been planned and built to access new resources required to meet RPS targets. DG resources have not been more heavily utilized in the RPS in part because the ACC and TAC delivery charges distorts the market by failing to correctly attribute transmission costs only to the remote generation procurement that drove those investments in the first place.

Economic drivers: DER reduces transmission costs associated with economic drivers based on its correlated generation profile and location. DER reduces economic drivers in three distinct ways. First, DER can be the most economically advantageous resources, but ones that do not need expensive transmission to access. This means DER supplants bulk generation directly. Second, DER frees up transmission capacity, so that the benefits of the existing transmission grid can be available without needing to build more infrastructure. DER frees up transmission capacity, so that other economically advantageous transmission-connected projects can be accessed without substantial additional investment. Third, DER can reduce the marginal costs of energy by reducing congestion and line losses. Taken together, these factors reduce both past need for economic-driven investment and free current capacity to meet emerging needs and economic opportunity.

Reliability drivers: DER has proven reductions in transmission costs associated with reliability needs as well, and illustrated clearly in the example of microgrids in our opening comments. Varied DER can address local reliability needs while simultaneously avoiding new transmission investment. For example, PJM and CAISO have confirmed that battery energy storage systems could provide frequency and voltage stability services (along with other energy services) to the grid. . If designed for this purpose, DER represents a direct alternative to building transmission for reliability needs. Furthermore, real world deployments in geographically bounded areas, such as those deployed in Hawaii, have demonstrated that fully scalable solar plus storage can cost effectively meet the full suite of reliability needs, regardless of whether it is a distributed or transmission resource.

III. CONCLUSION

The Clean Coalition appreciates the opportunity to submit these comments in reply to parties opening comments on the Proposed Decision. We support the Commission’s continued and evolving efforts in this proceeding to assess the impacts of DER and locational factors such that the benefits may be realized for ratepayers at large, individual customers, and communities. We request modification of the Proposed Decision as described in support of this goal.

Respectfully submitted,



Kenneth Sahn White
Director, Economic & Policy Analysis
Clean Coalition

Dated: April 7, 2020

VERIFICATION

I, Kenneth Sahm White am the representative for the Clean Coalition for this proceeding. I am authorized to make this verification on the organization's behalf. The statements in the foregoing document are true of my own knowledge, except for those matters that are stated on information and belief, and as to those matters, I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on April 7, 2020, at Santa Cruz, California



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