

**PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

FILED

02/06/20
04:17 PM

February 6, 2020

Agenda ID # 18154
Quasi-Legislative

TO PARTIES OF RECORD IN RULEMAKING 14-08-013 ET AL:

This is the proposed decision of Commissioner Marybel Batjer. 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 March 12, 2020 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.

/s/ ANNE E. SIMON
Anne E. Simon
Chief Administrative Law Judge

AES:avs

Attachment

Decision **PROPOSED DECISION OF COMMISSIONER BATJER**
(Mailed 2/6/2020)**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.	Rulemaking 14-08-013
And Related Matters.	Application 15-07-002 Application 15-07-003 Application 15-07-006
(NOT CONSOLIDATED)	
Application of PacifiCorp (U901E) Setting Forth its Distribution Resource Plan Pursuant to Public Utilities Code Section 769.	Application 15-07-005
And Related Matters.	Application 15-07-007 Application 15-07-008

**DECISION ADOPTING STAFF PROPOSAL ON AVOIDED COST AND
LOCATIONAL GRANULARITY OF TRANSMISSION AND DISTRIBUTION
DEFERRAL VALUES**

Summary

This Decision adopts the recommendations in the Energy Division's *White Paper* entitled *Staff Proposal on Avoided Cost and Locational Granularity of Transmission and Distribution Deferral Values* and specifies how they will be implemented as follows:

First, the specified transmission and distribution deferral values will be estimated through the Distribution Investment Deferral Framework and California Independent System Operator's Transmission Planning Process, and do not require further modeling to estimate or incorporate their values into other modeling efforts such as the Avoided Cost Calculator.

Second, the *White Paper's* proposal for estimating the unspecified distribution deferral value will be further developed and modeled for adoption in the Avoided Cost Calculator Update in the Integrated Distributed Energy Resources Rulemaking (R.) 14-10-003.

Third, this decision does not draw a conclusion regarding the unspecified transmission deferral value. Instead, the existing methodology shall continue to be used unless or until the California Public Utilities Commission (Commission) approves a new methodology. The Commission may continue to consider this issue in the Avoided Cost Calculator major updates in the Integrated Distributed Energy Resources Rulemaking.

This proceeding remains open.

1. Background**1.1. Factual Background**

The California Public Utilities Commission (Commission) opened this proceeding in response to the Legislature's directive that Investor-owned Utilities (IOUs) prepare, and submit to the Commission for approval,

Distribution Resource Plans that identify and evaluate optimal locations for the deployment of distributed energy resources *i.e.* distributed renewable generation resources, energy efficiency, energy storage, electric vehicles, and demand response technologies. The directive is found in Public Utilities (Pub. Util.) Code § 769, which provides the following instructions:

This evaluation shall be based on reductions or increases in local generation capacity needs, avoided or increased investments in distribution infrastructure, safety benefits, reliability benefits, and any other savings the distributed resources provide to the electrical grid or costs to ratepayers of the electrical corporation.

The Commission is charged with reviewing and approving (with or without modification) each distribution resources plan.

Currently, the Avoided Cost Calculator is used to inform the cost-effectiveness of Commission demand-side programs and tariffs, such as Net Energy Metering, including the avoided costs of Transmission and Distribution. Today, the Avoided Cost Calculator has a single avoided distribution value in each of the Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) territories based on the marginal cost of distribution from the general rate case. The Pacific Gas and Electric Company (PG&E) avoided cost of distribution value is also based on the marginal cost of distribution from the general rate case and is further broken out by climate zone. The Avoided Cost Calculator has a single avoided transmission value in the PG&E territory and a zero value in SCE and SDG&E territory.

The Commission adopted the Locational Net Benefits Analysis methodology in the Track 1 Decision¹ in this proceeding in order to calculate a location specific avoided cost of Distributed Energy Resources in accordance Pub. Util. Code § 769. However, Decision (D). 17-09-026 found that the Locational Net Benefit Analysis methodology was not appropriate for calculating the avoided costs of transmission and distribution for Distributed Energy Resources (DER) procured through Commission mandated programs, such as the energy efficiency portfolio or net energy metering, that may occur at any location. Thus, D.17-09-026 ordered further action to address avoided costs in the context of further developing a costs-effectiveness use case for the Locational Net Benefits Analysis methodology. Parties submitted proposals on methods of calculating unspecified transmission and distribution deferral values and the Commission followed up with additional questions. On December 20, 2018, the Commission's Energy Division held a workshop to discuss party proposals for avoided transmission and distribution.

Following the workshop, on June 5, 2019, the assigned Administrative Law Judge (ALJ) issued his *Ruling Requesting Comments on Energy Division White Paper on Avoided Cost and Locational Granularity of Transmission and Distribution Deferral Values*. The *White Paper* proposed a framework for estimating the value that results from using Distributed Energy Resources to defer transmission and distribution infrastructure.

The *White Paper* also made recommendations regarding which values should be applied to the Avoided Cost Calculator, and the appropriate level of locational granularity for calculating those values based on the use case that it

¹ Decision 17-09-026 (*Decision on Track 1 Demonstration Projects A (Integration Capacity Analysis and B (Locational Net Benefits Analysis)*).

should be applied to, which may be applied as a single value across each utility service territory, or it may vary by location.

1.2. The White Paper

1.2.1. Overview of the White Paper

The *White Paper* identified the following various different use cases for which the deferral value might be applied across the Commission's decision-making processes:

Table 1. Use Cases for Estimated Transmission & Distribution Deferral Value

Planning	
1	DER developer business development ² (<i>i.e.</i> Public Tool and Heat Map)
2	Distribution Investment Referral Framework prioritization of candidate deferrals ³
3	Integrated Resource Planning (IRP)
4	Energy efficiency (EE) potential and goals studies
5	Demand response (DR) potential study
Procurement⁴	
Tenders/Solicitations	
1	DIDF Competitive Solicitation Framework RFOs
2	Transmission Planning Process (TPP) RFOs
3	Energy storage RFOs
4	NEM tariffs
5	IDER DER sourcing tariff (if adopted)
DER Program Budget	
6	EE portfolio budget setting
7	DR program and budget proposals

² Identified in D.17-09-026 as the first use case of the Locational Net Benefit Analysis, Public Tool and Heat Map.

³ Identified as the second use case in D.17-09-026.

⁴ The third use case identified in D.17-09-026 is expected to provide the inputs for the avoided cost calculator, which informs the non-RFO forms of DER procurement, including net energy metering, energy efficiency, and distributed resource portfolio budgets.

As the *White Paper* clarified that the potential deferral value would depend on the use case, the appropriate method for quantifying the deferral value would depend on what type of policy or activity drives the Distributed Energy Resource growth. Staff proposed an updated set of working definitions in order to effectively categorize the types of proposed methodologies that would need to be applied specific use cases, and these definitions were foundational to the recommended methodologies in the *White Paper*:

- **Non-targeted Distributed Energy Resource growth:** Refers to an increase in DERs over time that results from Commission-ordered policies, programs, or tariffs that are not locationally targeted to defer transmission and distribution upgrades, which is forecasted in the Integrated Energy Policy Report by the California Energy Commission.⁵ The *White Paper* differentiated “naturally occurring” Distributed Energy Resource growth, which is also included in the demand forecast, to be a subset of Distributed Energy Resource growth that results from customer adoption of Distributed Energy Resources that are not supported by any tariff or incentive payments.
- **Specified deferral value:** Value associated with deferring the purchase and installation of specific infrastructure that has been identified by a utility or California Independent System Operator as needed for grid reliability, resiliency or safety. Deferral value is generally associated with capacity-related projects whose need can be affected by changes in peak demand. Value associated with deferring specific infrastructure identified as needed for other purposes (*i.e.* greenhouse gas reduction, renewables portfolio standard compliance, or economic benefits) is a conceptually separate type of value and is excluded from

⁵ The concept of “autonomous DER growth” was referenced in D.17-09-026 at 46 to explain the avoided cost use case for the Locational Net Benefit Analysis. Since this term has alternate definitions in other proceedings, we will cease to use the term in this proceeding and will instead refer to the term “non-targeted [Distributed Energy Resources] growth.”

this definition but not from consideration in cost-effectiveness calculations. What this means is that a Request for Offer for Distributed Energy Resources purchased to defer a planned distribution investment should evaluate the bids by determining their deferral value plus any and all values recognized by the Commission.

- **Unspecified deferral value:** Value associated with deferring the purchase and installation of generic infrastructure that has not been specifically identified by a utility or by the California Independent System Operator as needed for grid reliability, resiliency, or safety, but is estimated to be needed. This value reflects the concept that not all grid needs can be anticipated with perfect foresight, and some portion of those unanticipated grid needs could be satisfied by Distributed Energy Resources.

Specified deferral value has been most associated with targeted Distributed Energy Resource procurement. The Distribution Investment Deferral Framework was developed in Rulemaking (R.) 14-08-013 to accomplish this goal. Meanwhile, unspecified deferral value has been most commonly associated with providing inputs to the Avoided Cost Calculator, which is then used to inform the evaluation of the cost effectiveness of various Commission-supported demand-side programs such as net energy metering. These values reflect non-targeted Distributed Energy Resource deferral.

In its discussion of the challenges associated with developing an avoided transmission and distribution methodology, the staff concluded that the assessment of the uncertainty associated with each type of deferral value pointed to the appropriate level of precision and disaggregation of the analysis use for the use case.

1.2.2. White Paper Recommendations

The *White Paper* provided the following recommendations for developing deferral values for the following three different use cases.

Specified Transmission and Distribution

Staff assessed the potential availability of specified transmission and distribution value and concluded that the existing Distribution Investment Deferral framework process is designed to identify the deferral opportunities that offer a reasonably high level of certainty to pursue for procurement. For specified transmission, the California Independent System Operator has integrated non-wires alternatives into their Transmission Planning Process.⁶ Additionally, the Administrative Law Judge's *Ruling Modifying the Distribution Investment Deferral Framework Process* issued on May 7, 2019, expanded the scope of the Distribution Investment Deferral Framework to include all Commission-jurisdictional sub-transmission not included in California Independent System Operator's Transmission Planning Process. In the *White Paper*, staff recommends that specified distribution deferral value is already estimated through this existing process.

Unspecified Distribution Value

To capture the distribution deferral value from non-targeted Distributed Energy Resource growth, the *White Paper* introduces a proposed method to

⁶ The California Independent System Operator 2019-2020 Transmission Planning Process Final Study Plan issued on April 3, 2019 states "If reliability concerns are identified in the initial assessment, additional rounds of assessments will be performed using potentially available demand response and energy storage to determine whether these resources are a potential solution. If these preferred resources are identified as a potential mitigation, a second step - a preferred resource analysis may then be performed, if considered necessary given the mix of resources in the particular area, to account for the specific characteristic of each resource including use or energy limitation in the case of demand response and energy storage." (At 24.)

calculate unspecified distribution deferral using actual distribution planning data submitted in the *Grid Needs Assessment and Distribution Deferral Opportunities Report*. Staff provided a preliminary simplified illustration of how this method might be calculated and discussed the limitations with these calculations and how they might be addressed with a more comprehensive methodology. Staff proposed that this methodology be further developed and implemented as part of the Avoided Cost Calculator. Staff indicated that there is a higher degree of uncertainty in the specific circuit level results. This is because the methodology estimates what distribution upgrades were deferred due to the non-targeted Distributed Energy Resource growth that is forecasted to occur on each circuit.

Therefore, the *White Paper* recommends that the avoided cost of distribution continue be applied on a system or climate-zone level basis, rather than directing procurement through location-specific results in the Avoided Cost Calculator.

Unspecified Transmission Value

The *White Paper* found that there were additional factors that further complicated consideration of a methodology for unspecified transmission value. While staff considered options for updating the unspecified transmission deferral value in the Avoided Cost Calculator, a specific method was not proposed, and instead staff sought further party comment on the options.

1.3. Party Comments

Opening Comments to the *White Paper* were submitted on June 21, 2019 by California Energy Storage Alliance (CESA), Southern California Edison Company (SCE), Solar Energy Industries Association (SEIA), Pacific Gas and Electric Company (PG&E), The Utility Reform Network (TURN), Clean Coalition, and San Diego Gas & Electric Company (SDG&E).

On July 18, 2019, Energy Division Staff held a workshop to discuss the avoided cost methodology and locational granularity for transmission and distribution that were presented in the Staff *White Paper*. The workshop focused on methodologies for estimated unspecified transmission and distribution deferral values to include in the Avoided Cost Calculator. For the distribution values, Energy Division presented the proposal in the *White Paper* for discussion. For transmission values, Energy Division discussed the challenges encountered in the development of an avoided cost of transmission, and SEIA presented a proposal for the avoided cost of transmission methodology.

Reply comments were submitted on August 23, 2019 by Coalition of California Utility Employees (CCUE), California Public Advocates Office (CalPA), California Independent System Operator Corporation (CAISO), 350 Bay Area, SEIA, SCE, TURN, SDG&E, and PG&E, which replied to opening comments as well as addressing SEIA's proposal presented in the July 18 workshop. We summarize the comments related to the three issues resolved in this decision.

Specified Transmission and Distribution Values

PG&E, SCE, SDG&E, CalPA and TURN agree with staff's recommendations. SCE further requests that specified transmission and distribution not be included in planning use cases like the Integrated Resource Planning R.16-07-002, because it could lead to double counting of the value.

Unspecified Distribution Value

TURN, SCE, Clean Coalition and PG&E generally agree with staff's approach and discuss how to address the existing limitations with the staff proposal.

SEIA appreciates staff's analysis and acknowledgement of the limitations and looks forward to seeing the analysis further developed as part of the Avoided Cost Calculator update. However, until more progress has been made with a Grid Needs Assessment-based approach which resolves the limitations described in the *White Paper*, SEIA supports long run marginal cost. CalPA states that the unspecified distribution deferral value should not be included in the Avoided Cost Calculator because the underlying data is too uncertain.

SDG&E opposes the use of staff's proposed method in the Avoided Cost Calculator because it applies the circuit level value uniformly across the territory, which under and overvalues DERs at different locations.

SCE states that Grid Needs Assessment data needs to be refined in order to be consistent across all IOUs, and this will require additional time.

Unspecified Transmission Value

In the July 18 workshop, SEIA presented an analysis and proposal for developing unspecified transmission values that further developed the analysis it presented in its opening comments submitted on June 21, 2019. In its comments, SEIA argues that the data from the last three approved California Independent System Operator transmission plans document the California Independent System Operator transmission costs that actually have been deferred or avoided permanently by Distributed Energy Resources, and which show that Distributed Energy Resources have had a major impact in reducing the load forecasts that drive high voltage transmission investments. SEIA recommends that a two-part marginal cost for California Independent System Operator transmission be used to calculate the avoided cost of transmission. SEIA's proposal includes (1) the marginal cost per kW of peak demand for all transmission investments related to load growth, reliability, or economics using standard NERA regression based on

15 years of data, and (2) the marginal cost per kWh of transmission built to access RPS resources.

California Independent System Operator, 350 Bay Area, TURN, CalPA, SCE, SDG&E and PG&E responded to SEIA's proposal in reply comments. All parties except for 350 Bay Area disagree with SEIA's analysis. CAISO states that SEIA presumes that the cancelled projects are caused by DERs based on changes that only occurred in the past year, which CAISO finds to be an inaccurate assessment of the Transmission Planning Process. TURN, PG&E, SDG&E and SCE concur with this point, arguing that other major factors contributed to the cancellation of transmission projects.

SCE reiterates the challenges that were raised in the *White Paper*: that generation and transmission are interchangeable, making it difficult to either separate out the avoided transmission and generation capacity or prevent double counting these values.

PG&E recommends that the Avoided Cost Calculator maintains the status quo values for avoided cost of transmission.

TURN recommends that prices for generation required to meet Local Resource Adequacy requirements should be a cap on any avoided transmission prices, and the *White Paper* also mentions resource adequacy values as a possible method of calculating unspecified transmission deferral values.

2. Issues Before the Commission

How should the Commission estimate the value that results from using Distributed Energy Resources to defer transmission and distribution infrastructure?

3. Discussion

3.1. Specified Transmission and Distribution Values

The Commission agrees that the estimation of a specified deferral of transmission and distribution value that results from targeted Distributed Energy Resource procurement is adequately captured in the existing Distribution Investment Deferral Framework and Transmission Planning Process and does not need further consideration. While the Commission appreciates SCE's concern that the inclusion of specified deferral projects from Distribution Investment Deferral Framework in the Integrated Resource Planning Rulemaking could lead to double counting, that concern only appears relevant in the case for the actual Distribution Investment Deferral Framework deferral in the near-term planning process. However, use of *Distribution Deferral Opportunities Report* data to estimate future transmission and distribution deferral value in the Integrated Resource Planning beyond the 5-year planning horizon would not result in double counting when used for a planning use case.

3.2. Unspecified Distribution Values

While the Commission recognizes that there will continue to be some degree of uncertainty with the results of the staff's proposed methodology, we find that the staff proposal represents a more empirically based approach to estimating the avoided cost of distribution than the current method, which assumes that the marginal cost of distribution is equivalent to the avoided cost of distribution. The data is consistent enough at this time that the IOUs can work with Commission staff to determine what adjustments might be needed in order to use the Grid Needs Assessment as inputs into the methodology, and to provide these adjustments for the Avoided Cost Calculator update in 2020. Therefore, the Commission directs staff to further develop the methodology and

modeling of the staff proposal, for consideration in the Avoided Cost Calculator update in R.14-10-003.

3.3. Unspecified Transmission Values

The Commission declines to draw a conclusion regarding the appropriate value to use for the avoided cost of transmission at this time. The Commission may continue to consider this issue in the Avoided Cost Calculator major updates in the Integrated Distributed Energy Resource proceeding. As of now, the current method of unspecified avoided transmission value calculated in the Avoided Cost Calculator shall remain in place subject to further modification by the Integrated Distributed Energy Resource proceeding.

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 CPUC's Rules of Practice and Procedure. Comments were filed on _____ and reply comments were filed on _____.

5. Assignment of Proceeding

President Marybel Batjer is the assigned Commissioner and Robert M. Mason III is the assigned ALJ in this proceeding.

Findings of Fact

1. The Commission adopted the Locational Net Benefits Analysis methodology in the Track 1 Decision⁷ in this proceeding in order to calculate a location specific avoided cost of Distributed Energy Resources in accordance Pub. Util. Code § 769.

⁷ Decision 17-09-026 (*Decision on Track 1 Demonstration Projects A (Integration Capacity Analysis and B (Locational Net Benefits Analysis).*)

2. D.17-09-026 found that the Locational Net Benefit Analysis methodology was not appropriate for calculating the avoided costs of transmission and distribution for Distributed Energy Resources procured through Commission mandated programs.

3. D.17-09-026 ordered further action to address avoided costs in the context of further developing a cost-effectiveness use case for the Locational Net Benefits Analysis methodology.

4. Parties submitted proposals on methods of calculating unspecified transmission and distribution deferral values, and the Commission followed up with additional questions.

5. On December 20, 2018, the Commission's Energy Division held a workshop to discuss party proposals for avoided transmission and distribution.

6. On June 5, 2019, the assigned ALJ issued a *Ruling Requesting Comments on the Energy Division White Paper on Avoided Costs and Locational Granularity of Transmission and Distribution Deferral Values*.

Conclusions of Law

1. It is reasonable to conclude that the specified transmission and distribution values are being effectively estimated through the Distribution Investment Deferral Framework and Transmission Planning Process and do not need additional modeling.

2. It is reasonable to conclude that the *White Paper* proposal for unspecified distribution is a more empirical approach to the avoided cost of distribution than the current approach and therefore should be modeled in the major Avoided Cost Calculator update in the IDER Rulemaking.

3. It is reasonable to defer updates to the value of unspecified transmission to the Avoided Cost Calculator to the Distributed Energy Resource Rulemaking.

O R D E R

IT IS ORDERED that:

1. The Commission adopts the recommendations in the Energy Division's *White Paper* entitled *Staff Proposal on Avoided Cost and Locational Granularity of Transmission and Distribution Deferral Values* as follows:

- A. The specified transmission and distribution values do not need additional modeling.
 - B. The *White Paper's* proposal for unspecified distribution shall be modeled in the major Avoided Cost Calculator update in Rulemaking 14-10-003.
 - C. Updates to the Avoided Cost Calculator shall be considered in the Integrated Distributed Energy Resource proceeding, Rulemaking 14-10-003.
2. Rulemaking 14-08-013 remains open.

This order is effective today.

Dated _____, at Sacramento, California.