

**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 (Filed August 14, 2014)
And Related Matters.	Application 15-07-002 Application 15-07-003 Application 15-07-006
(NOT CONSOLIDATED)	
In the Matter of the Application of PacifiCorp (U901E) Setting Forth its Distribution Resource Plan Pursuant to Public Utilities Code Section 769.	Application 15-07-005 (Filed July 1, 2015)
And Related Matters.	Application 15-07-007 Application 15-07-008

COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

I. Introduction

Pursuant to the Administrative Law Judge’s June 22, 2017 Ruling Requiring Investor-Owned Utilities to File Assumptions and Framework Addendum, and for Parties to File Comments (Ruling), the California Independent System Operator Corporation (CAISO) files these comments on the Revised Distributed Energy Resource Assumptions and Framework Document (A&F Document) and the associated addendum (Addendum) filed by the investor-owned utilities (IOUs). The A&F Document and the Addendum provide distributed energy resource (DER) growth forecasts and an explanation of any methodologies and assumptions for that are proposed to diverge from the California Energy Commission’s (CEC) 2016 Integrated Energy Policy Report (IEPR) demand forecast. The CAISO is concerned that the DER growth forecasts proposed by certain IOUs diverge from those in the CEC’s 2016 IEPR demand forecast, thereby creating a disconnect in the process alignment framework developed by the Commission, the CEC, and the CAISO. The CAISO seeks clarification from the Commission on

how process alignment between the agencies can be maintained and clear regulatory direction, which may require collaboration with the CEC, on what forecast should be used.

II. Background

In 2013, state Senators Padilla and Fuller sent a letter to the Commission, the CEC and the CAISO regarding consistency and improvements in the demand forecast and procurement planning processes focused on energy efficiency.¹ The letter requested that the three agencies develop a process to improve forecasting and procurement processes. The letter concluded by noting that “several proceedings pending at the [Commission] make clear that difference in how the CEC, [Commission], and CAISO account for energy savings from efficiency programs are impacting decisions on whether to build new power plants.”²

The Commission, the CEC, and the CAISO developed an external process alignment in response to this letter.³ As a foundation for this process alignment, the agencies committed to use a single managed demand forecast to conduct planning and procurement activities. This single managed demand forecast is developed by the CEC in coordination with the Commission and the CAISO. The CAISO believes that an opportunity exists to ensure that the DER growth scenario forecasts currently being developed in this proceeding are aligned with both the Commission’s integrated resource planning (IRP) and external processes at the CEC and the CAISO. This issue is timely because Energy Division Staff recently released a Staff Proposal asking for feedback on process alignment for both Commission proceedings and external processes such as the CEC’s IEPR and the CAISO’s Transmission Planning Process (TPP).⁴

As noted above, the CEC’s IEPR plays a fundamental role by providing a common foundation for planning and procurement processes, including the CAISO’s TPP. The IEPR forecasts include growth in DERs such as demand response, energy efficiency, behind-the-meter photovoltaics (PV), energy storage, electric vehicles, and energy efficiency. There is

¹ <http://seuc.senate.ca.gov/sites/seuc.senate.ca.gov/files/01-28-13%20group%20letter.pdf>. “Padilla Letter.”

² Padilla Letter, page 2

³ See two responses: (1) <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11891> and (2) <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11892>

⁴ California Public Utilities Commission (CPUC) Energy Division Staff, “Proposal for Implementing Integrated Resource Planning at the CPUC,” May 17, 2017. “IRP Staff Proposal.” See Chapter 7: Process Alignment Workplan. Note that the coordination between the Commission, CEC, and CAISO is often referred to as “process alignment” but the IRP Staff Proposal refers to this as “external process alignment” to distinguish it from “internal process alignment” which refers to CPUC proceedings.

considerable overlap in forecasting efforts with the distribution planning process and IRP and it would benefit the IOUs and all stakeholders to align these processes.

III. Discussion

The CAISO seeks clarification on several aspects of the A&F Document and its connection to external process alignment. The CAISO provides below its understanding of IOU distribution planning processes based on the A&F Document. Currently, the three major IOUs have proposed to use slightly different assumptions from each other and, in the case of Southern California Edison Company (SCE) and San Diego Gas and Electric (SDGE), different assumptions than those used in the most comparable vintage of the IEPR. However, this may be due to the fact that each IOU has slightly different objectives. The CAISO will discuss its understanding of each IOU's proposal in turn.

Pacific Gas & Electric's (PG&E) proposal notes that "[i]t has been PG&E's prior practice, and PG&E proposes to continue, to align DER adoption assumptions used for distribution planning studies with the DER adoption assumptions adopted for use in local area reliability studies in the contemporaneous transmission planning process."⁵ The CAISO understands this to mean that the 2017-2018 distribution plan (analysis to take place between September 2017 and December 2017) will rely on the same demand-side inputs as approved via the 2016 IEPR. The CAISO's 2017-2018 TPP also relies on the approved 2016 IEPR Update so the underlying demand assumptions should be consistent.

SCE seems to take a different approach with its 2017-2018 plan and aims to align with the 2018-2019 TPP (and with the 2017 IEPR). To do so, SCE's plan is based on the most recently available information (many sources are available within the first few months of 2017) that it also submits to the CEC for the 2017 IEPR.⁶ SCE's internal forecast is then refined as part of coordination with the CEC and stakeholders through the 2017 IEPR process. SCE's rationale for trying to align with the 2017 IEPR is to ensure that "SCE's distribution process will be utilizing the most recent information to reliably plan the system while also providing better quality disaggregation information for use in the CAISO 2018-2019 TPP which is anticipated to

⁵ A&F Document, p. 15.

⁶ A&F Document, p. 7.

rely on the final adopted 2017 IEPR forecast.”⁷ This last point is worth emphasizing. Although SCE intends for its submission into the 2017 Q4 DER Forecast to align with the CAISO’s 2018-2019 TPP, the TPP will use the managed single forecast adopted in the 2017 IEPR. At this point in time, it is not known whether SCE’s 2017 Q4 DER forecast fully match the CEC’s adopted 2017 IEPR. Currently, the only forum to discuss methodological and output differences is via the Demand Analysis Working Group (DAWG). However, while DAWG can provide a forum to reconcile assumptions and outputs, it is not well equipped to address the more fundamental forecast vintaging differences. Lastly, SCE notes that its distribution planning process takes place from September 2017 through April 2018. If the 2017 IEPR is approved in Q1 2018, the CAISO would like to understand whether there is sufficient time to allow SCE to reflect any changes back into its own forecasts and what challenges may exist.

SDGE’s approach appears to be largely similar to SCE’s. SDGE’s distribution planning cycle begins in late October or early November through February. The CAISO repeats the same questions for SDGE as raised for SCE.

Table 1 below summarizes the CAISO’s understanding of the relationship between the IEPR, the 2017-2018 distribution planning process, and the TPP. The CAISO would appreciate feedback if there are any interpretation errors or missing details.

Table 1: Relationship between IEPR, DPP, and TPP

Entity	IEPR vintage	Output and year	Tracks which TPP?
CAISO	2016 IEPR Update	2017-2018 TPP, approved 3/2018	n/a
PGE	2016 IEPR Update	2017-2018 DPP needs assessment, completed 12/2017	2017-2018 TPP
SCE	SCE’s 2017 updated forecasts provided as part of IEPR submittal form to CEC further informed by the IEPR development process, and completed in Q4 2017	2017-2018 DPP published 5/2018	2018-2019 TPP
SDGE	2016 IEPR Update, updated with new forecasts provided as part of IEPR submittal form to CEC	2017-2018 DPP	2018-2019 TPP

⁷ A&F Document, p. 8.

There are several references to reliance on the Commission’s Assigned Commissioner Ruling for the 2017 Long-Term Procurement Plan (LTPP) and IRP assumptions and scenarios document.⁸ The CAISO’s understanding is that the assumptions and scenarios document in future will be replaced by the outputs of the IRP, which will make coordination with the IRP timelines critical.

At the Distributed Energy Resource Growth Scenarios and Distribution Load Forecasting working group, Energy Division Staff presented a potential vision of how information would flow between IRP and distribution resource planning (DRP), as reproduced in Figure 1 below.⁹

Figure 1: Energy Division Staff Presentation on Potential IRP-DRP Information Flows

Potential IRP-DRP Information Flows

- **IRP to DRP**
 - Short Term: GHG abatement cost or marginal supply resource as input into Avoided Cost Calculator
 - Long Term: More granular information about system impacts or optimal amounts of different types DERs
- **DRP to IRP**
 - Short Term: Forecast of autonomous growth of DERs as fixed input (DERs external to optimization)
 - Long Term: Location-specific cost information for DERs to inform supply curve (DERs part of optimization)
- Others may be identified as processes develop
- Appropriate coordination with CEC’s demand forecasting and CAISO’s transmission planning activities is an active subject of ongoing interagency dialogue

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Based on this slide, it is not clear to the CAISO if forecasting of DER growth continues in the long-term in the DRP proceeding or if this is accomplished exclusively via the IRP or in coordination with IRP and IEPR. The CAISO seeks clarification to better understand the division of work and to ensure that there is no duplication. In clarifying this interaction between the DRP, the IRP and IEPR, the Commission should consider the following questions:

- Will DRP analysis be used to develop LSEs’ preferred plans to be provided to the IRP proceeding?

⁸ A&F Document, see for example pages 6, 15, and 16.

⁹ Mackin, Dina, “Introduction to Growth Scenario Working Group,” April 14, 2017, p. 6. Available at: <http://drpwg.org/wp-content/uploads/2017/04/Introduction-to-GSWG.pptx>

- If the IRP's Preferred System Plan varies from what each IOU provided, will there be sufficient time to make changes, assess the impact at the circuit level, especially reliability impacts, and refresh the distribution plans?
- If IRP itself is not the procurement vehicle (this may still be accomplished through individual resource proceedings), when will the DRP (in collaboration with the IEPR) be able to assess the accuracy of forecasting methodologies?

The CAISO notes that Energy Division staff involved in the IRP are also undertaking an effort to align the Commission's IRP process with IEPR and TPP and the DRP would be an important process to include.

For the CAISO (and as noted in reference to generation buildouts in the Padilla Letter), inconsistent assumptions may lead to over- or underexpansion of the transmission system and may squeeze long lead-time projects when processes are out of sync. More importantly, the projects that are approved under the TPP will need to be justified as necessary in the Commission's siting processes. The necessity of these projects may be challenged due to differing underlying demand-side forecasts if there is no clear regulatory direction regarding which alternative should be used.

The CAISO understands that a potential barrier to any immediate changes may be the timing of the Proposed Decision in the Distribution Resources Plan proceeding to adopt the 2017-2018 distribution planning process A&F Document, currently expected by the third quarter of 2017. There may not be enough time to align the current distribution planning process with the currently proposed 2017-2018 IRP cycle. Nonetheless, the CAISO believes that coordination (both within the Commission and with the CEC) can and should occur for future cycles, especially in time for the Preferred System Plan to align with procurement authorizations.

Lastly, the CAISO has observed that there has been very limited discussion on DER growth in non-IOU footprints, including other load serving entities such as community choice aggregators. DER growth scenarios for such entities will be valuable to understand overall DER growth and future planning and procurement needs.

IV. Conclusion

The CAISO appreciates this opportunity to provide comments on the A&F Document and looks forward to working collaboratively with the Commission to ensure that the process

alignment framework is maintained and strengthened.

Respectfully submitted,

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