

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resource 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
<b>(NOT CONSOLIDATED)</b>	
In the Matter of the Application of PacifiCorp (U901E) Setting Forth its Distribution Resource Plans Pursuant to Public Utilities Code Section 769.	Application 15-07-005
And Related Matters.	Application 15-07-007 Application 15-07-008

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON THE PROPOSED DECISION ON TRACK 1 DEMONSTRATION  
PROJECTS A (INTEGRATION CAPACITY ANALYSIS) AND B  
(LOCATIONAL NET BENEFITS ANALYSIS)**

Donald C. Liddell  
DOUGLASS & LIDDELL  
2928 2nd Avenue  
San Diego, California 92103  
Telephone: (619) 993-9096  
Facsimile: (619) 296-4662  
Email: [liddell@energyattorney.com](mailto:liddell@energyattorney.com)

Counsel for the  
**CALIFORNIA ENERGY STORAGE ALLIANCE**

September 14, 2017

## TABLE OF CONTENTS

I.	INTRODUCTION.....	2
II.	THE INTEGRATION CAPACITY ANALYSIS SHOULD BE APPROVED BUT WITH UPDATED CALCULATIONS FOR WHEN DISTRIBUTED ENERGY RESOURCES IMPROVE THE “PRE-EXISTING” CONDITIONS .....	3
III.	THE LOCATIONAL NET BENEFITS ANALYSIS REQUIRES GREATER TRANSPARENCY, GRANULARITY, AND COORDINATION WITH THE INTEGRATION CAPACITY ANALYSIS.....	5
IV.	CONCLUSION.....	7

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resource 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
<b>(NOT CONSOLIDATED)</b>	
In the Matter of the Application of PacifiCorp (U901E) Setting Forth its Distribution Resource Plans Pursuant to Public Utilities Code Section 769.	Application 15-07-005
And Related Matters.	Application 15-07-007 Application 15-07-008

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON THE PROPOSED DECISION ON TRACK 1 DEMONSTRATION  
PROJECTS A (INTEGRATION CAPACITY ANALYSIS) AND B  
(LOCATIONAL NET BENEFITS ANALYSIS)**

In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)<sup>1</sup> hereby submits these comments on *Proposed Decision on Track 1 Demonstration Projects A (Integration Capacity Analysis) and B (Locational Net Benefits Analysis)*, issued by Acting Chief Administrative Law Judge Anne E. Simon on August 25, 2017 (“Proposed Decision”).

## **I. INTRODUCTION.**

CESA supports the Proposed Decision for seeking to implement the key areas of consensus around the development and validation of the Integration Capacity Analysis (“ICA”) and the Locational Net Benefits Analysis (“LNBA”) methodologies. Rather than having the ICA and LNBA methodologies remain in the pilot stage through Demonstration Project A (“Demo A”) and Demonstration Project B (“Demo B”), the Commission importantly moves to implement the ICA and LNBA methodologies where there is some real-world validation and consensus around the key technical and policy issues among stakeholders. By advancing certain areas of the ICA and LNBA methodologies to full implementation in day-to-day grid operations and

---

<sup>1</sup> 8minutenergy Renewables, Able Grid Energy Solutions, Adara Power, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Bright Energy Storage Technologies, BrightSource Energy, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectriQ Power, eMotorWerks, Inc., Energport, Energy Storage Systems Inc., GAF, Geli, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., IE Softworks, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Johnson Controls, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NICE America Research, NRG Energy, Inc., Ormat Technologies, OutBack Power Technologies, Parker Hannifin Corporation, Qnovo, Recurrent Energy, RES Americas Inc., Sempra Renewables, Sharp Electronics Corporation, SolarCity, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, Viridity Energy, Wellhead Electric, and Younicos. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

planning, the Commission ensures that these methodologies do not stay in perpetual piloting and demonstration mode and instead seeks to scale the ICA and LNBA methodologies where they have been validated and agreed-upon among stakeholders, even as the stakeholders seek to resolve other outstanding issues in the meantime.

Generally, CESA supports the Proposed Decision's determinations on the ICA methodology and the next steps for its implementation, even though CESA offers comments here on how the ICA can better reflect the capabilities of energy storage systems to increase hosting capacity and be deployed for deferral of traditional distribution infrastructure. However, CESA has deeper concerns about the determinations on the LNBA methodology. Specifically, CESA is concerned that the LNBA: (1) does not provide sufficient transparency and access to more granular locational values; (2) does not provide any details on how the LNBA values will feed into sourcing mechanisms; and (3) will only be provided for candidate deferral projects.

**II. THE INTEGRATION CAPACITY ANALYSIS SHOULD BE APPROVED BUT WITH UPDATED CALCULATIONS FOR WHEN DISTRIBUTED ENERGY RESOURCES IMPROVE THE "PRE-EXISTING" CONDITIONS.**

In general, CESA supports the Proposed Decision's determinations and next steps for the ICA methodology. As the Commission seeks to use the ICA for interconnection streamlining and for distribution grid planning, CESA finds it appropriate to use the iterative methodology and 576 hourly profiles to capture greater granularity aligned with a wider range of grid conditions and to better enable integration with Rule 21 interconnection processes. DER providers will in turn be provided with actionable data to site DER solutions, which would not be possible with reduced-form methodologies.

However, CESA has three key recommendations that should be adopted regarding the ICA methodology. First, greater clarity is needed on what is meant by "not limited" for DERs

that “improve pre-existing conditions.”<sup>2</sup> As CESA understands it, this means that DERs should be able to interconnect at locations where the ICA value is equal to zero (*i.e.*, there is no hosting capacity) if the DER can demonstrate that it improve these pre-existing grid conditions. As R.17-07-007 begins its successor proceeding on Rule 21 interconnection, greater clarity is needed on how DERs that improve grid conditions can interconnect through Rule 21. Given that one of the use cases for the ICA is to streamline interconnection processes, these grid-improving DERs should not just be limited but have a pathway to streamlined interconnection through Rule 21. While these issues may be addressed in R.17-07-007, guidance is needed in this proceeding for grid-improving DERs to be supported with streamlined interconnection, which will ultimately increase the ability to site increased amounts of other DERs. Furthermore, CESA believes that the ICA methodology should actually compute and quantify the value for how much hosting capacity has been increased by these grid-improving DERs. As CESA notes later, greater coordination and linkages are needed between the ICA and LNBA to support the development of sourcing and compensation mechanisms. Without a quantified ICA value, it may not be possible to calculate the locational value of increasing hosting capacity.

Second, for the distribution grid planning use case, the Proposed Decision discusses how the “ICA results may be used to identify grid locations facing hosting capacity constraints in light of DER growth scenarios that would be candidates for grid upgrades to accommodate projected DER growth”.<sup>3</sup> While CESA supports the use of the ICA to inform potential grid upgrades, CESA recommends that the Proposed Decision also state that the ICA should be used

---

<sup>2</sup> Proposed Decision, p. 14.

<sup>3</sup> Proposed Decision, p. 26.

for distribution grid planning broadly to identify grid upgrade needs *and* potential distribution investment deferral and avoidance opportunities by DERs.

Finally, the Proposed Decision determines that monthly updates of the ICA are appropriate at this time,<sup>4</sup> but CESA agrees with other stakeholders that this is just a minimum for the initial roll-out of the ICA. Eventually, the ICA should be developed further to allow for more frequent updates, which could reasonably be accomplished on a case-by-case basis on specific circuits or nodes that have exceeded some pre-defined threshold for DERs in the interconnection queue. In this way, the investor-owned utilities (“IOUs”) are not required to conduct updates for the sake of conducting a regularly scheduled update, but only after system conditions have changed by some “significant” degree.

### **III. THE LOCATIONAL NET BENEFITS ANALYSIS REQUIRES GREATER TRANSPARENCY, GRANULARITY, AND COORDINATION WITH THE INTEGRATION CAPACITY ANALYSIS.**

While the work on the LNBA has been extensive, CESA believes that there are opportunities for substantial improvements to the LNBA methodology to become more actionable for DER providers like the ICA methodology. Currently, as discussed in the Proposed Decision, the LNBA will be used to display “indicative values” for avoided costs by DERs in heat maps. The Proposed Decision explains that greater granularity in LNBA values cannot be done to inform cost-effectiveness measures and sourcing mechanisms because deferral opportunities “occur at different distribution system granularities.”<sup>5</sup> However, without this granularity, DER providers are unable to use the LNBA to guide their siting and interconnection

---

<sup>4</sup> Proposed Decision, p. 12.

<sup>5</sup> Proposed Decision, p. 42.

decisions as it is unclear what the economic value proposition is for any given location. This lack of granularity also limits the use of the LNBA for sourcing mechanisms. It is unlikely that indicative values can be used to inform the Net Energy Metering (“NEM”) program, Integrated Resource Plans (“IRPs”), and other tariffs and programs that are awaiting guidance from this proceeding on locational value of DERs.

In addition, CESA finds it problematic that the LNBA will be prioritized for candidate deferral projects rather than be used to inform the Grid Needs Assessment (“GNA”) more broadly.<sup>6</sup> In discussions regarding the Distribution Investment Deferral Framework (“DIDF”), there was disagreement between the IOUs and other stakeholders on how broadly the GNA will report grid needs data – *i.e.*, all distribution grid needs versus just the distribution grid needs identified and screened by the IOUs for distribution grid upgrades and potential deferral. In a similar way, CESA views the prioritization of the LNBA only for candidate deferral projects to limit the scope of the use of the LNBA methodology. Greater transparency is needed on the distribution grid planning process to enable DER solution providers to site and configure their systems for not just customer benefit but also to position it for grid benefit, such as by supporting the deferral of traditional distribution investments. Furthermore, considering that the LNBA is intended to be used in other proceedings as well, such as the NEM and IRP proceedings, CESA finds it necessary to deploy the LNBA broadly across the entire distribution system, not just at the candidate deferral project sites.

Finally, with the LNBA focused on avoided costs, CESA believes that the LNBA overlooks the potential for energy storage systems, which have the capabilities to increase the

---

<sup>6</sup> Proposed Decision, p. 37.



hosting capacity for more DERs on any given circuit or node. The Proposed Decision appropriately seeks to broaden the range of the use of the LNBA, not only to quantify the avoided costs for siting DERs in specific locations, but also inform grid modernization investments to accommodate more DERs. However, CESA notes that the LNBA should also be broadened to include technologies and resources such as energy storage that are able to perform the same function as grid modernization investments in increasing the hosting capacity. As CESA noted earlier, the quantification of increasing ICA value is therefore important to then quantify the locational value in that LNBA of that increased hosting capacity. The incremental DERs that are able to be sited and provide avoided cost value due to, for example, an energy storage system, would then factor into the locational value of the energy storage system.

**IV. CONCLUSION.**

CESA appreciates the opportunity to submit these comments on the Proposed Decision and looks forward to working with the Commission and parties going forward in this proceeding.

Respectfully submitted,



Donald C. Liddell  
DOUGLASS & LIDDELL

Counsel for the  
**CALIFORNIA ENERGY STORAGE ALLIANCE**

Date: September 14, 2017