

**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

**CLEAN COALITION RESPONSE TO ADMINISTRATIVE LAW
JUDGE'S RULING INSTRUCTING UTILITIES AND NON-UTILITY
PARTIES TO ANSWER DATA REQUEST**

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PARTIES TO ANSWER DATA REQUEST**

I. INTRODUCTION

The Clean Coalition respectfully submits this response to the Administrative Law Judge Robert Mason’s April 29, 2016 Ruling¹ instructing utilities and non-utility parties to answer this data request in relation to Distribution Resource Plan Locational Net Benefits Assessment and Interconnection Capacity Analysis.

The Clean Coalition appreciates the opportunity for parties to provide input in support of the Commission’s goal to make publicly available data more readily accessible and usable, while

¹ *Administrative Law Judge’s Ruling Instructing Utilities and Non-Utility Parties to Answer Data Request*, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769, R. 14-08-013 and related matters.

creating a stakeholder driven process to increase the quantity and quality of data that can be made publicly available, both from utilities to the public and from third party DER providers to utilities.

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. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources (“DER”)—such as local renewables, advanced inverters, demand response, and energy storage—and we 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. RESPONSE

Questions for Non-Utility Parties

- 1) Using the table above as a starting point, provide a comprehensive list of the data that DER providers need with specific details regarding data type, granularity, frequency of availability, format and preferred transfer method. For each data type, explain why the data are needed and why they should be available at the preferred granularity and frequency.*

We note that the information discussed in the table provided is appropriate for evaluating interconnection costs, but additional categories of information are at least as important for DER providers to evaluate potential value. As the Locational Net Benefits Assessment (“LBNA”) is developed and refined, it will identify increasingly granular locational value for ratepayers at large. Larger and more significant values may be available to individual customers. Where the ratepayer value of DER alone is not sufficient to warrant deployment, this natural incentive for individual customer adoption must be made accessible for ratepayers to realize the benefits of increased DER deployment. The more granular the data, the greater the opportunity to identify and target potential high value installations. This includes individual customer data and data on individual equipment behind the meter, when this becomes available.

To the extent that utilities wish to offer equipment or services to customers, information regarding those customers should be equally accessible to all market participants. Customers and market participants will generally be better served by equal access to more data, rather than equally limiting data available to all participants.

We further note that the LNBA and ICA methodology incorporates distribution upgrades planned within two years. Information regarding planned upgrades and schedules should be included in the maps, particularly to the extent that such upgrades impact DER hosting capacity and potential upgrade costs where planned upgrades have not yet been completed. This information will both allow DER to be deployed where it can defer the need for planned upgrades, or, alternatively, take advantage of new grid hosting capacity to provide additional DER services at these locations.

We defer to DER providers to provide additional information and support full consideration of such responses.

2) *Regarding the data types that are already available:*

a) *How could access to those data be improved or streamlined?*

The criteria established in the May 2nd 2016 Ruling² in the DRP proceeding reflect the input of parties. When fully implemented, the use of maps combined with downloadable information in standard formats will be a strong foundation.

Recommendations for additional improvements in accessing this information are:

- i. Make available a searchable database from which applicants can identify and rank order locations meeting user defined criteria within the available information. For example, to generate a list of: “All locations within a geographic area [county, zip code, etc.] with an ICA hosting capacity of at least __ MW of PV in a portfolio with __ MW stationary storage”.
- ii. Identification of all ICA limitation values. The ICA results are dependent on the most limiting power system criteria. This could be any one of the factors evaluated. As these limits are based on the lowest capacity after considering each of the limiting factors, it will be important to allow applicants to evaluate the additional capacity that would be achieved if they are willing to pay for upgrades to overcome the most limiting factor.

² Rulemaking 14-08-013, Assigned Commissioner’s Ruling (1) Refining Integration Capacity And Locational Net Benefit Analysis Methodologies And Requirements; And (2) Authorizing Demonstration Projects A and B.

The May 2nd Ruling states³ that the ICA results should include “detailed information on the type, frequency, timing (diurnal and seasonal) and duration of the thermal, voltage, or system protection constraints that limit hosting capacity on each feeder segment. The information shall be in a downloadable format and with sufficient detail to allow customers and DER providers to design portfolios of DER to overcome the constraints. This information may include relevant load and voltage profiles, reactive power requirements, or specific information related to potential system protection concerns.” However, it should be clarified that the information for each constraint shall be published, not only the most limiting constraint.

When combined with the forthcoming “Distribution Cost Guides” planned under the pending Final Decision in Rule 21 (R.11-09-011), applicants will be able to evaluate the value of additional capacity that would be realized if one or more constraints are cleared, as well as the costs associated with doing so. This information will greatly assist applicants in designing projects that reflect and address local grid constraints. This would streamline the interconnection process by eliminating surprises for the applicant and would also support optimal utilization of grid capacity.

- iii. Create a single website with clear access to available information. Each utility has made increasingly detailed information available and has taken steps to improve access to this information. However, ongoing attention is required to improve accessibility to ensure that parties are easily able to locate and use the information, including integration of related databases and files, as well as concise user friendly navigation aides and users guides where appropriate. Even the best information is not useful if users are not aware that it exists, or have difficulty locating or using it.

b) Should the utilities be required to develop comprehensive data access platforms?

Yes. It will serve both the utilities and external parties to have a comprehensive data

³ *Id.* at 13.

source and for that data to be in a form that supports integration and correlation, including formats that can be readily translated or exported for use across a variety of software platforms. This is inherently an ongoing process and more integration should be implemented over time.

- c) If so, specify which data should be available through a centralized platform and provide recommendations regarding the structure of a centralized platform.*

All non-confidential data should be available through a centralized platform to the maximum extent practical. Where the cost of making existing data available through this platform is significantly greater than the cost of ensuring ready access and usability of this data through alternate means, the alternate means may be substituted. However, the alternate means must provide opportunity for users to give feedback on its efficacy, which should be collected and reported to Energy Division staff or another approved review group.

- d) Aside from highly sensitive data, are there any data types that do not lend themselves to provision via a central platform?*

We defer to data providers to provide this information.

- 3) Of the data listed in response to Question 1,*

- a) What data would appropriately be provided via the Integration Capacity Analysis (ICA) and Location Net Benefits Analysis (LNBA) map(s)?*

Information currently provided in the Rule 21 Pre-Application Reports for individual locations should, in many cases, become available automatically and without a fee as utility databases are updated and integrated. This information, which does not assume physical verification based on field confirmation, includes the following information:⁴

- a. Total Capacity (MW) of substation/area bus or bank and circuit
- b. Allocated Capacity (MW) of substation/area bus or bank and circuit
- c. Queued Capacity (MW) of substation/area bus or bank and circuit
- d. Available Capacity (MW) of substation/area bus or bank and circuit
- e. Substation nominal distribution voltage or transmission nominal voltage, if applicable
- f. Nominal distribution circuit voltage

⁴ Items (a) through (f) are currently reflected in the RAM and ICA circuit maps.

- g. Approximate circuit distance between the line section and the substation
- h. Relevant Line Section(s) peak load estimate, and minimum load data, when available
- i. Number of protective devices and number of voltage regulating devices between the line section and the substation
- j. Whether or not three-phase power is available at the line section
- k. Limiting conductor rating from line section to distribution substation
- l. Existing or known local constraints such as, but not limited to, electrical dependencies, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

Likewise, the following enhanced data should be made accessible when available:

- i. Nominal Distribution circuit wiring configuration
- ii. Line section(s) absolute minimum load, and minimum load during the 10 AM – 4 PM period (provided when SCADA data is available)
- iii. Existing upstream protection including:
 - a. Device type (Fuse Breaker, Recloser)
 - b. Device controller (device make/model ex: 50E/50T)
 - c. Phase settings [IEEE Curve, Lever, Min Trip (A), Inst Trip(A)]
 - d. Ground settings [IEEE Curve, Lever, Min Trip (A), Inst Trip(A)]
 - e. Rated continuous current
 - f. Short Circuit interrupting capability
 - g. Confirm if the device is capable of bi-directional operation
- iv. Available Fault Current at the line section including any existing distributed generation fault contribution
- v. Transformer data
 - a. Existing service transformer kVA rating
 - b. Primary Voltage and Secondary Voltage rating
 - c. Configuration on both Primary and Secondary Side (i.e., Delta, Wye, Grounded Wye, etc.)
 - d. Characteristic impedance (%Z)
 - e. Is transformer serving only one customer or multiple customers

- f. Provide the Available Fault Current on both the Primary and Secondary Side
- vi. Secondary Service Characteristics
 - a. Conductor type (AL or CU) and size (AWG)
 - b. Conductor insulation type
 - c. Number of parallel runs
 - d. Confirm if the existing secondary service is 3 wire or four wire.
- vii. Primary Service Characteristics
 - a. Conductor type (AL or CU) and size (AWG)
 - b. Conductor insulation type
 - c. Number of parallel runs

b) *Are there data that do not feed into the ICA and LBNA results that would be useful to DER providers nonetheless?*

We defer to DER providers to provide additional information, and we support full consideration of such responses.

c) *Is a centralized data access platform needed in addition the ICA and LNBA map(s)?*

Yes. As noted above, data should consistently be made available in a searchable database format from which applicants can identify and rank categories meeting user-defined criteria. It will serve both the utilities and external parties to have a comprehensive source for data, and for that data to be in a form that supports integration and correlation, including formats that can be readily translated or exported for use across a variety of software platforms. As such, we recommend a centralized data access platform to the extent practical for each individual utility. We do not believe it is necessary to have a common platform integrating all utilities together, and anticipate that differences in each utilities approach will promote comparison for improvement. Because users will frequently have need to interact with more than one utility, and because a common platform may prove beneficial in the future, utilities should aim to adopt compatible approaches, even if they are not adopting a common platform.

4) *Is a data access working group needed, or should data access issues be addressed in the ICA and LNBA working groups? If a data access working group is needed, provide recommendations regarding the governance structure, treatment of confidential information,*

scope of work, and schedule of deliverables. How should the data access working group coordinate with the ICA and LNBA working groups?

While working groups can be an efficient and effective method for party interaction and development of proposals with wide consensus, the proliferation of working groups can dilute participation and effectiveness. With this in mind, the Clean Coalition recommends aggregating related topics within fewer working groups and only creating new working groups only where new discrete topics need to be addressed.

We suggest in this case that discussions regarding the types of data made available be addressed within the LBNA and ICA working groups, including the granularity, frequency of availability, format, and preferred transfer method. These are data content issues best addressed by working group participants with relevant subject matter expertise.

A new Data Access Working Group should be established only if there is a need to address technical or legal matters related to meeting the data access needs and goals established in this and other proceedings.

III. CONCLUSION

The Clean Coalition appreciates the opportunity to provide input in support of the Commission's goal to make publicly available data more readily accessible and usable and offers these responses for consideration.

Respectfully submitted,

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