



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

FILED

10/04/21
04:59 PM

Order Instituting Rulemaking to Consider
Streamlining Interconnection of Distributed
Energy Resources and Improvements to
Rule 21.

Rulemaking 17-07-007
(Filed July 13, 2017)

**JOINT WORKING GROUP EIGHT FINAL REPORT OF
BEAR VALLEY ELECTRIC SERVICE (U 913 E), LIBERTY UTILITIES (CALPECO
ELECTRIC) LLC (U 933 E), AND PACIFICORP (U 901 E)**

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October 4, 2021

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Pursuant to the *Scoping Memo Of Assigned Commissioner And Administrative Law Judge* issued on October 2, 2017, Bear Valley Electric Service (“BVES” or “Bear Valley”), Liberty Utilities (CalPeco Electric) LLC (“Liberty”), and PacifiCorp, d.b.a. Pacific Power (“PacifiCorp”) (collectively, the California Association of Small and Multi-Jurisdictional Utilities (“CASMU”)) submit this Joint Working Group Eight Final Report.¹

DATED: October 4, 2021

Respectfully submitted,

By: _____/s/_____

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¹ Pursuant to Rule 1.8(d), BVES has been authorized to tender this joint Working Group Eight Final Report on behalf of Liberty and PacifiCorp.



California Association of Small and Multi-Jurisdictional Utilities ("CASMU")

WORKING GROUP EIGHT FINAL REPORT

OCTOBER 4, 2021

California Public Utilities Commission
Interconnection Rulemaking (R.17-07-007)

TABLE OF CONTENTS

I. Working Group 8 Background.....	1
A. Procedural Background.....	1
B. Working Group Scope	1
C. Working Group Process.....	1
D. Consensus and Non-Consensus Proposals.....	2
E. Working Group Participants	2
II. Background on the SMJUs’ Service Territories and Interconnection Processes	2
A. Bear Valley Electric Service.....	2
B. Liberty Utilities.....	3
C. PacifiCorp	5
III. Discussion of Interconnection Issues	7
Issue 1: Should the SMJUs modify their interconnection processes to minimize the number of distributed energy resource projects subjected to transmission cluster studies and, if so, how?	7
Issue 2: Should the SMJUs be required to develop illustrative metering configurations and cost tables to provide more transparency in the application of complex metering solutions?	8
Issue 3: Should the SMJUs be required to amend their interconnection processes to address material modifications, e.g., create separate processes based on the type of modification?.....	8
Issue 4: Should the SMJUs be required to adopt or change telemetry requirements?.....	9
Issue 5: Should the SMJUs be required to activate advanced functionality in Phase 1-compliant inverters installed before September 9, 2017 and, if so, how?	10
Issue 8: Should the SMJUs be required to adopt an Integration Capacity Analysis? If so, should CASMU members be required to incorporate the results of the Integration Capacity Analysis into Rule 21 to inform interconnection siting decisions, streamline the Fast Track process for projects that are proposed below the integration capacity at a particular point on the system, and facilitate interconnection process automation?	10
Issue 9: What conditions of operations should the SMJUs require in interconnection applications and agreements to allow distributed energy resources to perform within existing hosting capacity constraints and avoid triggering upgrades? Should the SMJUs be required to modify the Rule 21 Interconnection Application Process to allow a distributed energy resources customer to include a Limited Generation Profile with their application, require the customer to	

	enable generation profile limiting functionality, and allow the SMJUs opportunity to alter the profile if safety and reliability concerns warrant it?	12
Issue 10:	How can the Commission coordinate the Integration Capacity Analysis and each SMJU’s Rule 21 processes with the Rule 2, Rule 15, and Rule 16 processes in order to improve efficiency of the overall interconnection process?.....	12
Issue 11:	Should the SMJUs be required to adopt a notification-based approach in lieu of an interconnection application for non-exporting storage systems that have a negligible impact on the distribution system and, if so, what should the approach entail?	13
Issue 12:	Should the SMJUs be required to adopt timelines for distribution upgrade planning, cost estimation, and construction?	14
Issue 13:	Should the SMJUs adopt a process for distribution upgrade cost sharing among developers, and if so, what should the process be?	14
Issue 15:	Should the SMJUs be required to itemize billing for distribution upgrades to enable customer comparison between estimated and billed costs and verification of the accuracy of billed costs?.....	14
Issue 16:	Should the SMJUs modify their interconnection processes to encourage third party construction of upgrades to support more timely and cost-effective interconnection, and if so, how?.....	15
Issue 18:	Should the SMJUs adopt changes to anti-islanding screen parameters to reflect research on islanding risks when using UL 1741-certified inverters in order to avoid unnecessary mitigations? If yes, what should those changes entail?.....	15
Issue 19:	Should the SMJUs be required to adopt streamlined interconnection procedures (e.g., standard configurations eligible for expedited review) to facilitate implementation of California Zero Net Energy building codes and, if so, what should those procedures entail? Should the SMJUs be required to revise their interconnection application process to allow applications based on street address rather than service account and to allow developers of multiple units the option to submit applications through one single application or through a batch process?.....	16
Issue 20:	Should the SMJUs be required to coordinate Commission-jurisdictional and Federal Energy Regulatory Commission-jurisdictional interconnection rules for behind-the-meter distributed energy resources? Should the SMJUs be required to use information web pages to educate customers on the transfer processes between the Commission and federal interconnection processes?	16
Issue 22:	Should the SMJUs be required to make improvements to their interconnection application portals? If yes, what should those improvements be?	17

Issue 23:	Should the SMJUs consider issues related to the interconnection of electric vehicles and related charging infrastructure and devices and, if so, how?	17
Issue A:	Should the SMJUs consider changes to clarify the parameters for approving the design of systems for non-export and limited export?.....	18
Issue B:	Should the SMJUs consider rules concerning generating capacity for behind-the meter paired solar and storage systems that are not certified non-export?	18
Issue 27:	What should be the operational requirements of smart inverters? Should the SMJUs adopt rules and procedures for adjusting smart inverter functions via communication controls?.....	19
Issue 28:	Should the SMJUs be required to coordinate their processes with the Integrated Distributed Energy Resource proceeding to ensure operational requirements are aligned with any relevant valuation mechanisms?	19

I. Working Group 8 Background

A. Procedural Background

On July 13, 2017, the California Public Utilities Commission (“CPUC” or “Commission”) issued an Order Instituting Rulemaking, establishing Rulemaking R.17-07-007 to consider amendments to the interconnection of distributed energy resources (“DERs”) under Rule 21. On October 2, 2017, the Commission issued a scoping ruling for R.17-07-007, which required the creation of Working Group Eight to consider whether revisions to Rule 21 and equivalent tariffs should be required for small and multi-jurisdictional utilities (“SMJUs”). The scoping ruling requires the SMJUs to file a proposal addressing Working Group Eight issues (the “Working Group Eight Report” or “Report”) no later than 120 days after the Phase 1 decision is adopted. The CPUC issued a decision on remaining Phase 1 issues on June 4, 2021, making the deadline for filing the Report October 4, 2021.

B. Working Group Scope

Working Group Eight discussed whether revisions to Rule 21 and equivalent tariffs should be required for the SMJUs. Working Group Eight used the issues identified in previous scoping rulings that were addressed by the Commission in subsequent decisions for the basis of discussion. The issues and proposals are discussed below.

C. Working Group Process

On August 6, 2021, an email was sent to the service list of R.17-07-007 requesting a response from those interested in participating in Working Group Eight. On September 8, 2021, Working Group Eight participants were contacted with proposed dates for the public workshop and notified of their opportunity to present. No participants offered to present. A workshop agenda, which included a list of issues to be discussed at the workshop, was sent to the working group prior to the workshop. The public workshop was held via teleconference on September 15, 2021, from 2:00 - 4:30 pm. The workshop began with presentations from Liberty, Bear Valley, and PacifiCorp discussing the characteristics of their service territories and current interconnection processes. Next, the working group discussed each of the issues noticed in the agenda. Participant discussion was limited to the SMJUs’ proposals and requests for additional information from CPUC representatives Jose Aliago-Caro, Kristin Landry, and Justin Regnier. After the public workshop, the SMJUs, with the assistance of attorneys from Ellison Schneider

Harris & Donlan, drafted this Working Group Eight Report. A draft Working Group Eight Report and request for comments were sent to participants on September 24, 2021. Participant comments on the draft Working Group Eight Report were incorporated into the final Working Group Eight Report.

D. Consensus and Non-Consensus Proposals

Working Group Eight had little public participation and no opposition to the SMJUs' proposals described below. It is assumed that all the SMJUs' proposals are consensus proposals.

E. Working Group Participants

Working Group 8 consisted of the following participants:

- Bear Valley Electric Service
- Clean Coalition
- California Public Utilities Commission
- Ellison Schneider Harris & Donlan
- Liberty Utilities
- PacifiCorp
- Pacific Gas & Electric
- Public Advocates Office

II. Background on the SMJUs' Service Territories and Interconnection Processes

A. Bear Valley Electric Service

Bear Valley provides retail electric service to the Big Bear Lake resort area in the San Bernardino Mountains. Bear Valley serves approximately 22,000 residential customers and 1,500 commercial, industrial and public-authority customers. Its service territory is relatively remote from any major load areas. Bear Valley has approximately 2,800 customers eligible for the California Alternate Rates for Energy ("CARE") program with 2,019 participating customers as of September 28, 2021, making the penetration percentage approximately 72 percent.

Bear Valley's electric system operates at a relatively low voltage. Bear Valley operates a sub-transmission line at 34.5 kilovolts; however, most of its system operates at 4.16 kilovolts. Bear Valley's system is connected to Southern California Edison's ("SCE") system at two points but is not connected to transmission lines operated by the California Independent System Operator ("CAISO"). Currently, Bear Valley has 446 net energy metering ("NEM") customers

that produce about 3.39 MW, and 21 distributed generation service¹ customers that produce about 0.13 MW. Snow Summit Ski Resort and the Big Bear Area Regional Wastewater Agency are the only self-generation facilities in Bear Valley’s service territory. While Bear Valley provides stand-by service to these facilities, the generating facilities are not currently interconnected with Bear Valley’s system and therefore, cannot provide services to Bear Valley. Bear Valley also has an electric vehicle (“EV”) charging pilot program for residential and commercial customers.² To date, only eight residential accounts have participated in the pilot program.

Although Bear Valley has a relatively comprehensive interconnection process in its Rule 21,³ the only non-Bear Valley generating facilities having recently been connected to Bear Valley’s system are NEM facilities. NEM facilities are interconnected using a relatively simple process set forth in Bear Valley’s NEM tariffs and forms.⁴ Bear Valley could find no record in its files of ever using its comprehensive Rule 21 provisions to connect non-NEM generating facilities.

B. Liberty Utilities

Liberty serves approximately 49,000 residential, commercial, and industrial customers in portions of seven California counties around the Lake Tahoe area. The service territory is geographically compact and generally encompasses the western portions of the Lake Tahoe Basin (almost 80% of Liberty’s customers are in the Lake Tahoe Basin), extending north to Portola and south to Markleeville, approximately 1,476 square miles.

Liberty’s service territory differs greatly from the three major electric utilities in California. The terrain in Liberty’s service territory is mountainous and heavily forested, with elevations ranging from 9,050 feet in Palisades Tahoe to just under 5,000 feet at Portola. Most

¹ Distributed Generation Service Program, available at: <https://www.bvesinc.com/efficiency-&-environment/renewable-energy/distributed-generation-service-program/>.

² Bear Ready Residential, available at: <https://www.bvesinc.com/efficiency-&-environment/electric-vehicle-charging-pilot/bear-ready-residential/>.

³ Available at: <https://www.bvesinc.com/media/managed/documents/Rule-21.pdf>.

⁴ Available at: <https://www.bvesinc.com/efficiency-&-environment/renewable-energy/interconnection-&-net-energy-metering/>.

of Liberty's customers are located at elevations higher than 6,000 feet.

Liberty is winter-peaking with peak loads occurring at night, typically during the holiday season, as its electric load within the service territory reflects the economic activities in the Lake Tahoe area. While Liberty has few industrial customers, it has large seasonal and highly variable loads associated with ski resorts and hotel operations. Approximately half of the electricity Liberty delivers is to residential customers and approximately 60 percent of its residential accounts are second vacation homes or rentals. At the end of August 2021, approximately 29 percent of primary residential customers were eligible for the CARE program in Liberty's service territory. At this time, 4,072 customers are enrolled in CARE. This represents a penetration rate of 79 percent and about 8 percent of total Liberty customers.

Liberty's California operations include electric distribution facilities, the 12 MW Kings Beach Generation Facility, the 50 MW Luning Solar Energy Facility, and the 10 MW Turquoise Solar Facility; the latter two are located in Nevada. Liberty does not own or operate transmission facilities within California. Liberty's service territory is located entirely within the northern portion of the NV Energy Balancing Authority Area and is neither geographically nor operationally part of the CAISO balancing authority. Liberty procures the rest of its power through a "full requirements" power purchase agreement with NV Energy.

As of the end of 2020, Liberty has interconnected 268 residential DER customers and 23 commercial DER customers. Liberty has 1,471.261 kW of installed residential DER capacity, and 675.279 kW of commercial capacity for a combined total of 291 customer generators with 2,146.540 kW installed and operating. In 2021, there has been 20 residential customers with 131.176 kW and one commercial customer with 75.108 kW installed.

Liberty offers rebates for the installation of EV charging to residential, small business, schools, and other customer classes.⁵ These programs were soft launched in Spring 2021, with marketing campaigns starting in September 2021. Eight residential projects have been completed and issued incentives. Projects in the schools and other commercial customer classes have not yet progressed beyond planning phases.

⁵ Available at: <https://california.libertyutilities.com/portola/residential/drive-electric/electric-vehicle-program.html>.

Liberty allows DER interconnection under its Rule 21.⁶ The first step in the application process is the applicant initiates contact with Liberty. Liberty provides information and documents in response within three business days. Liberty establishes an individual representative as the single point of contact (“SPOC”) for the applicant. Liberty may allocate responsibilities among its staff in addition to the SPOC to coordinate interconnection.

The next step is the applicant completes an application document for initial review. Liberty normally responds within ten business days to acknowledge receipt and complete the application process. Liberty then performs an initial review and develops preliminary cost estimates and interconnection requirements. See Section C of Liberty’s Rule 21 for a detailed description of the generating facility application and interconnection process.

C. PacifiCorp

PacifiCorp is a multi-jurisdictional utility providing electric retail service to approximately 1.9 million customers in six western states (California, Idaho, Oregon, Utah, Washington, and Wyoming). PacifiCorp is not interconnected to the CASIO; rather, PacifiCorp operates two balancing authority areas that encompass its six-state service territory. PacifiCorp only serves approximately 46,000 retail customers in northern California, approximately 36,000 of which are residential. PacifiCorp’s California customers comprise less than two percent of PacifiCorp’s total retail sales. As of August 2021, approximately 13,246 customers are CARE eligible with approximately 11,683 customers participating in the program, making PacifiCorp’s CARE penetration 88 percent.⁷

In its California service territory, PacifiCorp has 631 customer-sited generating systems, accounting for 12.4 MW of capacity, and 9 customer-sited storage projects. Regarding larger generation facilities, PacifiCorp currently has 5 interconnected qualifying facilities accounting for 19 MW of capacity and currently has a 60 MW solar plus storage project in the

⁶ Available at:

<https://california.libertyutilities.com/uploads/Rule%2021%20Generating%20Facility%20Interconnections.pdf>.

⁷ The SMJUs co-funded a 2018/2019 Athens Study to identify and verify estimates of low-income customers eligible for CARE and Energy Savings Assistance programs in each of their respective service territories. Athens provided estimates in 2019, which has been used to estimate the penetration rate to date, and also reflected in our program year 2019 and program year 2020 annual reports.

interconnection process. EV adoption within PacifiCorp’s service territory consists of 45 battery EVs, 1 fuel cell EV, and 26 plug-in hybrid EVs. Since the beginning of 2019, PacifiCorp has processed 30,500 interconnection applications system wide, with 235 interconnection applications for private generation in California or about 0.75 percent of the volume. PacifiCorp is currently averaging about six applications per month in California.

PacifiCorp service operation is unique compared to other utilities within the state in several respects. First, PacifiCorp is under an obligation to serve within six western states. Second, PacifiCorp’s California customers are geographically dispersed, having approximately four customers per square mile. Third, PacifiCorp operates as its own balancing authority and is a winter-peaking, instead of summer-peaking, utility. Fourth, there is limited demand for DERs in PacifiCorp’s service territory.

PacifiCorp does not utilize Rule 21, but instead uses interconnection processes under its Open Access Transmission Tariff (“OATT”), consistent with Federal Energy Regulatory Commission (“FERC”) requirements. The Commission has not required PacifiCorp to implement Rule 21 but accepts PacifiCorp’s existing interconnection processes for the interconnection of smaller facilities. The Commission required that PacifiCorp “follow the same principles of timely review and disposition of interconnection requests as in Rule 21 for other utilities,” but did not require PacifiCorp to implement its “own version of Rule 21, amend then current rules, or file another interconnection protocol.”⁸ That same decision also recognized that PacifiCorp should “follow [its] FERC-approved SGIP.”⁹

PacifiCorp believes that its FERC based procedures comply with the standard set by the Commission. For net billing projects, PacifiCorp uses its Policy 138: Distributed Energy Resource Interconnection Policy.¹⁰ The average time for approval is approximately 20 days from the initial submission of the interconnection request. PacifiCorp uses PowerClerk software similar to SCE, which provides customers and contractors an easy framework for providing the required solar documents and interconnection applications, allows visibility into the status of the

⁸ D.07-07-027, pp. 41-42.

⁹ D.07-07-027, App. A, p. 3.

¹⁰ Available at: https://www.pacificpower.net/content/dam/pcorp/documents/en/pp-rmp/customer-generation/Facility_Interconnection_Requirements_for_Distribution.pdf.

application, and consistent communications at each step. Project developers can submit applications for generation projects, storage, and generation plus storage on PowerClerk.

For non-net billing interconnections, PacifiCorp has implemented similar processes to those in Rule 21 through the FERC-based Small Generator Interconnection Procedures of its OATT.¹¹ PacifiCorp relies on the traditional System Impact Study through facility study pathway of review that is embedded in Rule 21. PacifiCorp has preapplication report processes and has recently introduced a cluster study process for interconnection requests similar to that included in Rule 21. Some slight differences exist between Rule 21 and PacifiCorp's current interconnection processes, like business days versus calendar days or different nomenclature for the types of studies, but the two processes generally follow the same principles of timely review. As a multi-jurisdictional utility, interconnecting customers under PacifiCorp's OATT ensures that all generator interconnection requests are treated in a fair, unbiased manner. PacifiCorp's interconnection process also has the added benefit of administrative efficiency whereby an interconnection customer, including qualifying facility developers, can know what to expect when requesting interconnection service from PacifiCorp.

III. Discussion of Interconnection Issues

Issue 1: Should the SMJUs modify their interconnection processes to minimize the number of distributed energy resource projects subjected to transmission cluster studies and, if so, how?

Proposals:

As discussed above, Liberty and Bear Valley do not own transmission facilities. No interconnecting projects will be subject to transmission related studies. Therefore, this issue is inapplicable to Liberty and Bear Valley.

PacifiCorp owns transmission; however, its distribution system is not interconnected to CAISO transmission. PacifiCorp considers all DER interconnection transmission interdependent, requiring review of transmission impacts. Projects eligible for net billing (1 MW capacity or less) are studied individually. PacifiCorp has had very little interconnection requests for generation over 1 MW. If the interconnection request is greater than 1 MW but less than 2

¹¹ See Small Generator Interconnection Procedures - OATT, Section 49, starting on p. 221, available at: https://www.oasis.oati.com/woa/docs/PPW/PPWdocs/20210706_OATTMaster.pdf.

MW, the project is eligible for the Fast-Track process. If greater than 2 MW, then the project is subject to an annual cluster process. Transmission studies have never created a barrier to interconnecting to PacifiCorp's system. PacifiCorp does not believe an amendment to its current interconnection processes is needed at this time.

Party Comment:

No comment from parties.

Issue 2: Should the SMJUs be required to develop illustrative metering configurations and cost tables to provide more transparency in the application of complex metering solutions?

Proposals:

The Commission required the large investor-owned utilities ("IOUs")¹² to develop illustrative metering configurations and cost tables to clarify the definition of "complex metering solutions" for storage facilities. As described above, the SMJUs have little DERs connected to their system. Developing illustrative metering configurations and cost tables is not feasible with available resources.

Party Comment:

No comment from parties.

Issue 3: Should the SMJUs be required to amend their interconnection processes to address material modifications, e.g., create separate processes based on the type of modification?

Proposals:

Liberty and Bear Valley's Rule 21 accounts for modifications to interconnection related systems.¹³ Rule 21 allows Bear Valley and Liberty to review, request, and conduct modifications to interconnection facilities or its distribution system to meet operation standards.

PacifiCorp's OATT currently allows for 'like for like' equipment replacement with notification and assumed acceptance. If an issue is discovered after review of the interconnection request, then PacifiCorp will object. Regarding existing facilities, PacifiCorp

¹² Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric.

¹³ See Liberty and Bear Valley's Rule 21, Section C.1.e.

would consider some type of age modifier, e.g., modifications to facilities less than five years old would be accepted but modifying older facilities would require study given the changing system conditions and regulatory requirements.

It is unlikely that amending the SMJUs' current interconnection processes to account for different types of modifications would minimize the cost or timing effects that modifications to an interconnection request may have. Therefore, the SMJUs propose no modifications.

Party Comment:

No comment from parties.

Issue 4: Should the SMJUs be required to adopt or change telemetry requirements?

Proposals:

Liberty and Bear Valley's Rule 21 does not provide for behind-the-meter ("BTM") telemetry because there has not been any demand for it. Bear Valley has not had any customer Rule 21 interconnection on its system and its Rule 21 only allows a momentary parallel interconnection with a generating facility for 1 sec (60 cycles) or less. Telemetry requires a large system from which economy of scale is derived. By contrast, Bear Valley's electric system is small and relatively simple to operate. Bear Valley is establishing a LiDar system to remotely "sense" its circuits to detect quickly and correctly the location of failures. However, Bear Valley does not believe that DER penetration levels justify any additional data collection investment beyond that which is currently being pursued.

Liberty does not have advanced metering infrastructure ("AMI") implemented to allow for telemetry. Any data management processes would be manual and require additional resources. Additionally, Liberty has not had projects require telemetry to date, but reviews project requirements case-by-case.

Under Policy 138, Section 3.6,¹⁴ PacifiCorp currently requires data collection for DERs with a capacity above 3 MW or if the DER is in a sensitive area of PacifiCorp's distribution system. PacifiCorp may allow for exceptions for telemetry requirements for BTM telemetry,

¹⁴ Distributed Energy Resource (DER) Interconnection Policy, available at: https://www.pacificpower.net/content/dam/pcorp/documents/en/pp-rmp/customer-generation/Facility_Interconnection_Requirements_for_Distribution.pdf.

considering security and other requirements.

Placing additional telemetry requirements on DERs would be unduly burdensome considering the amount of DER adoption within the SMJUs' service territories. Therefore, the SMJUs do not believe amending their telemetry requirements would be beneficial at this time.

Party Comment:

No comment from parties.

Issue 5: Should the SMJUs be required to activate advanced functionality in Phase 1-compliant inverters installed before September 9, 2017 and, if so, how?

Proposals:

The SMJUs agree with the Commission that “it would not be cost-effective to require activation of advanced functionality in Phase 1-compliant inverters installed before September 9, 2017.”¹⁵ The SMJUs support the Commission’s decision to encourage, but not require, the replacement of existing inverters with smart inverters at end of life.¹⁶ The SMJUs are interested in enabling smart inverters within their territory, but full adoption is premature. The SMJUs are currently considering how smart inverters can be implemented in their territory and will continue to monitor developments within this space. The SMJUs propose no modifications to their current processes.

Party Comment:

No comment from parties.

Issue 8: Should the SMJUs be required to adopt an Integration Capacity Analysis? If so, should CASMU members be required to incorporate the results of the Integration Capacity Analysis into Rule 21 to inform interconnection siting decisions, streamline the Fast Track process for projects that are proposed below the integration capacity at a particular point on the system, and facilitate interconnection process automation?

Proposals:

The SMJUs are subject to the statutory requirements of Public Utilities Code Section 769. However, in adopting the requirements for Distribution Resource Plans (“DRPs”), the

¹⁵ D.19-03-013, p. 41.

¹⁶ *Id.*

Commission concluded that the SMJUs are “not required to follow the detailed” requirements, including the Integration Capacity Analysis (“ICA”), for DRPs applicable to the large IOUs. Instead, the Commission authorized the SMJUs to provide a “more simplified [version] of the DRPs than the three large IOUs” that need only “address the five statutory requirements in § 769 as it relates to [the SMJU’s] distribution system.”¹⁷ The five statutory requirements consist of the following:

1. Evaluate locational benefits and costs of distributed resources located on the distribution system.
2. Propose or identify standard tariffs, contracts, or other mechanisms for the deployment of cost-effective distributed resources that satisfy distribution planning objectives.
3. Propose cost-effective methods of effectively coordinating existing commission approved programs, incentives, and tariffs to maximize the locational benefits and minimize the incremental costs of distributed resources.
4. Identify any additional utility spending necessary to integrate cost-effective distributed resources into distribution planning consistent with the goal of yielding net benefits to ratepayers.
5. Identify barriers to the deployment of distributed resources, including, but not limited to, safety standards related to technology or operation of the distribution circuit in a manner that ensures reliable service.¹⁸

The Commission adopted the SMJUs’ DRPs in Decision 21-09-005.¹⁹

The SMJUs find adopting an ICA is overly burdensome and would provide little benefit to customers interconnecting to the SMJUs’ distribution systems. The SMJUs do not have the same hosting capacity issues or incentives for interconnecting at specific locations as do the large IOUs. Because conducting an ICA would be administratively burdensome and inefficient considering the number of interconnection requests received by the SMJUs, the SMJUs propose

¹⁷ See [February 6, 2015 Assigned Commissioner’s Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning](#) (R.14-08-013), pp. 13-14.

¹⁸ See D.21-09-005, pp. 22-25.

¹⁹ The SMJUs’ DRPs Applications: [A.15-07-005](#) (PacifiCorp), [A.15-07-007](#) (Liberty), and [A.15-07-008](#) (Bear Valley).

not to amend their interconnection processes to conform to an ICA.

Party Comment:

No comment from parties.

Issue 9: What conditions of operations should the SMJUs require in interconnection applications and agreements to allow distributed energy resources to perform within existing hosting capacity constraints and avoid triggering upgrades? Should the SMJUs be required to modify the Rule 21 Interconnection Application Process to allow a distributed energy resources customer to include a Limited Generation Profile with their application, require the customer to enable generation profile limiting functionality, and allow the SMJUs opportunity to alter the profile if safety and reliability concerns warrant it?

Proposals:

The purpose of issue nine is to incorporate the ICA results into Rule 21.²⁰ As discussed above, the SMJUs are exempt from conducting the ICA. The limited amount of interconnection requests within the SMJUs' service territories make conducting an ICA uneconomical. Furthermore, the SMJUs' distribution systems are currently incapable of allowing limited generation profile adoption. The SMJUs' systems would need to include communication and security requirements. The SMJUs would also need to specify parameters to be followed, witness test installation, and monitor for compliance. Therefore, the SMJUs propose that none of the measures adopted in relation issue nine are feasible.

Party Comment:

No comment from parties.

Issue 10: How can the Commission coordinate the Integration Capacity Analysis and each SMJU's Rule 21 processes with the Rule 2, Rule 15, and Rule 16 processes in order to improve efficiency of the overall interconnection process?

Proposals:

²⁰ D.20-09-035, p. 55.

The SMJUs believe that the application of Rule 2,²¹ 15²² and 16²³ is clear and no modification is needed at this time.

Party Comment:

Jose Aliaga-Caro, CPUC, requested the SMJUs send links to their Rule 2, 15, and 16.

Issue 11: Should the SMJUs be required to adopt a notification-based approach in lieu of an interconnection application for non-exporting storage systems that have a negligible impact on the distribution system and, if so, what should the approach entail?

Proposals:

PacifiCorp is in favor of allowing interconnection of non-exporting storage systems without review of the surrounding distribution grid. Allowing such interconnection would not require changes to PacifiCorp's interconnection processes. PacifiCorp would continue to require non-export storage facilities to apply through the PowerClerk application for review of the installation. The project would be reviewed to determine that equipment sufficient to prohibit export is installed on the customer side of the meter. PacifiCorp would also ensure that the design of the system would allow safe islanding of the storage facility during an outage. PacifiCorp will not review the surrounding distribution grid to ensure that the local grid could safely accept export from the facility. The Company would then track the location and the capacity of the storage equipment at the facility.

Neither Liberty nor Bear Valley have the application volume for non-exporting storage systems to justify modifications to the interconnection process for such systems. Liberty only has one non-export storage system pending.

Party Comment:

No comment from parties.

²¹ Links for each of the SMJUs' Rule 2: [Liberty Rule 2](#); [PacifiCorp Rule 2](#); [Bear Valley Rule 2](#).

²² Links for each of the SMJUs' Rule 15: [Liberty Rule 15](#); [PacifiCorp Rule 15](#); [Bear Valley Rule 15](#).

²³ Links for each of the SMJUs' Rule 16: [Liberty Rule 16](#); [PacifiCorp Rule 16](#); [Bear Valley Rule 16](#).

Issue 12: Should the SMJUs be required to adopt timelines for distribution upgrade planning, cost estimation, and construction?

Proposals:

The SMJUs currently offer as much transparency and communication with interconnecting parties as possible considering the uncertainty of distribution upgrade planning. The SMJUs currently provide estimates of the timing when distribution upgrades can be constructed. Providing specific timelines for upgrade construction would be difficult. The SMJUs' interconnection portals also serve as a means to keep interconnection customers updated on the status of their interconnections.

Party Comment:

No comment from parties.

Issue 13: Should the SMJUs adopt a process for distribution upgrade cost sharing among developers, and if so, what should the process be?

Proposals:

The SMJUs currently do not have enough DER saturation to justify distribution upgrade cost sharing. Because of the infrequency of distribution upgrades necessitated by interconnection requests, the SMJUs would have little ability to estimate benefits to future interconnection customers. The SMJUs propose to retain their current cost allocation practices for distribution upgrades.

Party Comment:

Jose Aliaga-Caro, CPUC, clarified that the issue is whether the SMJUs can reallocate cost sharing to future interconnection customers, not whether it is the utility's current practice to share costs.

Issue 15: Should the SMJUs be required to itemize billing for distribution upgrades to enable customer comparison between estimated and billed costs and verification of the accuracy of billed costs?

Proposals:

The SMJUs do not oppose itemization of actual costs based on existing system capabilities. However, development of a Unit Cost Guide as detailed as the large IOUs' could be cost prohibitive in relation to the customer benefit. Additionally, the SMJUs may be restricted in

providing cost estimation due to the uncertainty of costs and the confidentiality of particular procurement costs.

Party Comment:

No comment from parties.

Issue 16: Should the SMJUs modify their interconnection processes to encourage third party construction of upgrades to support more timely and cost-effective interconnection, and if so, how?

Proposals:

Under Rule 21, Bear Valley and Liberty allow third-party installation of interconnection facilities and distribution system improvements.²⁴ The SMJUs also provide opportunity for applicant construction of line extensions in Rule 15.²⁵ However, the SMJUs must have the opportunity to review the qualifications and plans of the third-party developer. Therefore, the SMJUs do not propose any modifications to its current tariff.

Party Comment:

No comment from parties.

Issue 18: Should the SMJUs adopt changes to anti-islanding screen parameters to reflect research on islanding risks when using UL 1741-certified inverters in order to avoid unnecessary mitigations? If yes, what should those changes entail?

Proposals:

The SMJUs support the formation of a working group to study unintentional islanding formation concerns. As discussed above in the context of smart inverters, the SMJUs are interested in increasing the functionality of their distribution systems through smart inverters. The SMJUs will continue to monitor technical developments in addressing unintentional islanding. The SMJUs do not propose tariff modifications at this time.

²⁴ See Liberty and Bear Valley's Rule 21, Section E.3.c.

²⁵ See PacifiCorp Rule 15, Section E, available at: https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/california/rules/15_Line_Extensions.pdf; Liberty Rule, Section F, available at: <https://california.libertyutilities.com/uploads/CalPeco%20Tariffs/Rule%2015%20Supplemental%20Sheets.pdf>; Bear Valley Rule 15, Section F, available at: https://www.bvesinc.com/media/managed/rules/Rule_15.pdf.

Party Comment:

No comment from parties.

Issue 19: Should the SMJUs be required to adopt streamlined interconnection procedures (e.g., standard configurations eligible for expedited review) to facilitate implementation of California Zero Net Energy building codes and, if so, what should those procedures entail? Should the SMJUs be required to revise their interconnection application process to allow applications based on street address rather than service account and to allow developers of multiple units the option to submit applications through one single application or through a batch process?

Proposals:

For the SMJUs, revising the application process to allow applications based on street address rather than service account may not be feasible as there is not always a way to identify accounts based on street address. Premise IDs do not always reflect the street address used by the customer. Additionally, modifying the current application process would not be so beneficial as to justify the cost. Lastly, it is unclear how such a requirement could be written into Rule 21. Therefore, the SMJUs do not propose tariff modifications at this time.

Party Comment:

No comment from parties.

Issue 20: Should the SMJUs be required to coordinate Commission-jurisdictional and Federal Energy Regulatory Commission-jurisdictional interconnection rules for behind-the-meter distributed energy resources? Should the SMJUs be required to use information web pages to educate customers on the transfer processes between the Commission and federal interconnection processes?

Proposals:

Neither Liberty nor Bear Valley own FERC-jurisdictional transmission. PacifiCorp's interconnection process is a FERC jurisdictional process. Therefore, there are no jurisdictional coordination issues within the SMJUs' interconnection processes.

Party Comment:

No comment from parties.

Issue 22: Should the SMJUs be required to make improvements to their interconnection application portals? If yes, what should those improvements be?

Proposals:

The SMJUs are open to hearing suggestions through workshops about portal improvements.

Party Comment:

No comment from parties.

Issue 23: Should the SMJUs consider issues related to the interconnection of electric vehicles and related charging infrastructure and devices and, if so, how?

Proposals:

For non-exporting EVs, the SMJUs currently treat EV interconnection as increased load, i.e., the SMJUs do not currently require the interconnection of EVs to follow a process similar to DER interconnection. While a process similar to DER interconnection would provide the utilities with more information, the process would likely be more burdensome and less preferred by EV adopters. Additionally, as described above, the SMJUs have relatively low adoption of EVs within their service territories. EV adoption within PacifiCorp's service territory consists of 45 battery EVs, 1 fuel cell EV, and 26 plug-in hybrid EVs. Liberty has eight residential projects completed within its territory. No schools or commercial customers have progressed beyond the planning stages for EV charging in Liberty's service territory. Only eight residential customers have participated in Bear Valley's EV charging pilot program. Therefore, no Rule 21 amendments are justified for non-exporting EVs.

The SMJUs have not received interconnection applications for exporting EVs. Liberty does not currently have the AMI required to implement vehicle-to-grid technology. To date, customer adoption has not justified the investment. Likewise, the EV penetration in Bear Valley's service territory has not necessitated investment in technologies to allow for vehicle-to-grid capability. PacifiCorp is willing to allow customer to submit applications for exporting EVs. These projects would be reviewed similar to any other generator under its current interconnection processes. PacifiCorp would ensure that the exporting EVs can safely inject energy into the grid. The EV would have to meet communication protocol and battery program requirements to ensure safety. Pending a successful review, the PacifiCorp would approve

export and the installation of a bidirectional meter. At this time, there are very few electric vehicles in the PacifiCorp service territory and no plans to develop an EV vehicle-to-grid pilot program in the near-term. As the EV market matures and the equipment required to export from vehicles to the grid become more standardized, the requirements for individual project review may become more relaxed. Until that time, PacifiCorp would require specific designs and equipment specifications for all aspects of the system. Therefore, the SMJUs do not propose to amend their EV interconnection processes.

Party Comment:

No comment from parties.

Issue A: Should the SMJUs consider changes to clarify the parameters for approving the design of systems for non-export and limited export?

Proposals:

The SMJUs have experienced very few interconnection requests for non-export and limited-export facilities. In such circumstances, the SMJUs will require the installation of equipment to prevent the export of power that will trip the generation or main breaker. The solutions required to prevent export are specific to each interconnection request and would be difficult to standardize. Therefore, the SMJUs propose no changes for the design of systems for non-export and limited export.

Party Comment:

No comment from parties.

Issue B: Should the SMJUs consider rules concerning generating capacity for behind-the meter paired solar and storage systems that are not certified non-export?

Proposals:

The SMJUs have only experienced a limited amount interconnection requests for solar and storage systems that are not certified non-export. Bear Valley and Liberty are not opposed to the consideration of amending their tariff to facilitate the interconnection of solar and storage systems that are not certified non-export. However, there is not currently a demand for these types of projects sufficient to justify amending Rule 21.

Likewise, the penetration rates of DERs on PacifiCorp system in California are extremely

low. Currently, there is no reason for customers to proactively add the protective equipment necessary to prohibit export. Thus, the PacifiCorp would anticipate that all applications will assume the ability to export power, even if the desire is to capture most, if not all, of the energy for use onsite through the storage system. While the review of export and non-export facilities may address slightly different concerns, a complete application with sufficient specificity on the design of the system will need to be submitted for review for each case. Thus, there are no practical differences in the processes and requirements for the customer. Drafting portions of a tariff that, for the foreseeable future, would not be used and that have no practical impacts on the customer experience, does not seem beneficial. The SMJUs do not propose tariff changes.

Party Comment:

No comment from parties.

Issue 27: [What should be the operational requirements of smart inverters? Should the SMJUs adopt rules and procedures for adjusting smart inverter functions via communication controls?](#)

Proposals:

As mentioned above, the SMJUs are currently in the processes of exploring the use of smart inverters within their service territories. The SMJUs will continue to monitor the Commission's work in this area but do not believe any smart inverter mandates should be adopted for the SMJUs at this time.

Party Comment:

No comment from parties.

Issue 28: [Should the SMJUs be required to coordinate their processes with the Integrated Distributed Energy Resource proceeding to ensure operational requirements are aligned with any relevant valuation mechanisms?](#)

Proposals:

The SMJUs have no suggestions on how they could better coordinate their processes with the Integrated Distributed Energy Resource proceeding but are open to party suggestions.

Party Comment:

No comment from parties.