

November 30, 2023

VIA ELECTRONIC FILING

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Secretary

RE: **Docket No. 23-R312-01- Investigation into Possible Amendment of Utah
Admin. Code R746-312, Electrical Interconnection**
RMP Reply Comments

On September 8, 2023, the Public Service Commission of Utah (“Commission”) initiated an investigation into potentially amending the existing electrical interconnection rules in Administrative Code R746-312 (“Interconnection Rules”) to incorporate significant development in smart grid technologies and inverter capabilities that has occurred since the existing Interconnection Rules were adopted. Rocky Mountain Power (“RMP”), the Division of Public Utilities (“DPU”), Western Resource Advocates (“WRA”), Vote Solar and Utah Clean Energy (“Vote/UCE”), and Smart Wave Solar filed comments on October 31, 2023 (collectively “the Parties”), and RMP now files reply comments that address several issues raised in comments.

The Company briefly summarizes and categorizes the key recommendations of the Parties, and the responds to each recommendation by topic because there was significant overlap in the recommendations presented by the Parties.

I. Summary of Party Recommendations

DPU

The DPU presented several recommendations along with proposed rule changes in Attachment C. The DPU stated these recommendations are not exhaustive, but summarize potential updates to the Interconnection Rules to update the definitions to be consistent with modern technologies, and add flexibility to reduce the potential for future changes necessitated by technology advances. The DPU’s comments include the following recommendations:

1. ***Interconnection Application Review Process:*** The process for Level 1, 2 and 3 interconnection rules should be reviewed to identify areas of opportunity for potential streamlining. The DPU recommends this review be open to other parties and requests the Company recommend a process for the review.

2. **Consideration of Applicable Standards:** The Commission consider IEEE Standard 1547-2018, 2800-2022, and Underwriter Laboratory (UL) Standard 1741 at least at a high level, as the basis for any proposed amendments to R746-312.
3. **Interconnection Application Fees:** The fees for interconnection applications should be updated to align with RMP's tariffs.

WRA Comments

WRA expressed support for updating the Interconnection Rules for aspects of IEEE 1547-2018 and presented several recommendations regarding process, timing, and scope. WRA agrees with the Commission's reasoning for opening the rules and stated the rules are outdated in light of the recent technology advances. WRA's comments include the following recommendations.

1. **Smart Inverter Settings:** WRA argues that IEEE 1547-2018 mandates minimum requirements for smart inverters such as grid support features, voltage regulation, and interoperability requirements, but is not prescriptive in nature. WRA suggests that the technical requirements and operational settings for smart inverters should be a process that involves utilities, regulators, and stakeholders to agree upon technical requirements and subsequent implementation of rules.
2. **Process Recommendations and Scope:** WRA recommends a protracted regulatory process for the amended rules that includes the Commission clarify its intentions for the rulemaking, with subsequent technical conferences and/or a series of technical workshops including potential technical assistance. WRA also proposes additional technical working groups designed to reach consensus on the technical requirements of IEEE 1547-2018. Following the series of technical conferences, workshops, technical assistance, and/or technical working groups, WRA requests the Commission initiate the formal rulemaking docket with a procedural schedule that allows sufficient time for stakeholder identification, discussion and resolution of issues to integrate the recommendations and address remaining issues. WRA provides a list of potential topics for which it states could be explored at the recommended technical conferences and workshops.

Vote Solar/UCE Comments

Vote Solar/UCE expressed interest in participating in a potential update of the Interconnection Rules for aspects of IEEE 1547-2018. Vote Solar/UCE presents the following recommendations which are similar to WRA's comments.

1. **Smart Inverter Settings:** Vote Solar/UCE argues that stakeholder engagement should inform the development of IEEE preferred settings to determine how inverters react to voltage fluctuations, frequency deviations and other grid disturbances and should balance the needs of all affected stakeholders, including settings that potentially affect a distributed generations' system output and customers' return on investment. Vote Solar/UCE mention's RMP's frequently asked questions document regarding smart inverters stating it does not include information on preferred settings or requirements.
2. **Process Recommendations:** Vote Solar/UCE recommends a lengthy regulatory process that involves two distinct phases. In Phase I, Vote Solar/UCE suggests the Commission

hold technical conferences and working groups/stakeholder meetings to discuss changes, share redlines and reach consensus on smart inverter settings and other issues. Vote Solar/UCE recommends Phase I conclude with a summary report of stakeholder consensus and key Commission decision points. Phase II would then involve the Commission initiating a formal rulemaking docket with Staff, which the Company believes is intended to reference the DPU, filing a proposal for updated interconnection standards with a technical conference on the proposal followed by two rounds of comments before the Commission issues its decision.

Smart Wave Solar Comments

Smart Wave Solar filed comments requesting the Commission provide the ability to use current inverter inventory before implementing any rule changes. It states that it will be able to allocate the equipment to solar agreements by March 31, 2024, and requests the ability to be able to install afterwards.

II. Rocky Mountain Power Reply Comments

Interconnection Application Review Process

In response to the DPU's recommendation, the Company reviewed the processes for interconnection applications for Level 1, 2, and 3 for potential improvements to facilitate timely and efficient reviews. The Company believes that the interconnection application process is functioning and efficient given the inherently complex process required to ensure interconnections to the Company's system adhere to safety standards. As proposed by the DPU, the Company is not opposed to an open forum to hear from stakeholders on suggested changes. The Company recommends the process for receiving feedback be discussed at the potential technical conference, which is discussed by the Company later in these reply comments. Alternatively, if the Commission does not include a technical conference in the rulemaking proceeding, the Parties could include suggestions in comments, which the Company would consider and respond to in reply comments.

Consideration of Applicable Standards

The Company agrees with the DPU's suggestion that the latest versions of both IEEE 1547 and UL1741 should be referenced within the construct of R746-312. The UL1741 standard relates specifically to equipment's adherence to IEEE 1547 standards. Consideration for implementation timeframes may be warranted for latest UL1741 version references due to the process for publishing the standard, developing testing for the standard, and awaiting manufacturers for commercially available UL1741 compliant and tested equipment. The Company notes that the definition of IEEE Standards in the existing Interconnection Rule states a reference to Utah Code 54-15-102, which references UL1741 and contains language that systems must be installed and operated in accordance with the latest revision of IEEE 1547. So the existing Interconnection Rules already require the updated version of IEEE standards, including 1547, be implemented.

Interconnection Application Fees

The Company agrees with the DPU's assessment that R746-312-13 should be updated to align with the interconnection fees in the Company's rate schedules. In particular, the application fees for Electric Service Schedule No. 137 – Net Billing Service are not consistent with the existing Interconnection Rules. The edits presented in DPU's Attachment C adequately address and resolve the issues with language that is also flexible to accommodate potential future changes to the application fees, as signaled by the Commission in its order that initially established these fees.¹

Smart Inverter Settings

The Company agrees with WRA and Vote Solar/UCE that IEEE 1547-2018 is necessary to interconnect an increasing penetration of distributed energy resources ("DER") on the distribution grid and that equipment can be enabled to provide grid support and reliability benefits. However, the Company opposes including settings or protocols for smart inverters in Interconnection Rules, which would require changes if the settings or protocols are updated for new technology or as the Company identifies changes needed as it operates its system. A recent study by the Electric Power Research Institute ("EPRI") on the Company's distribution grid demonstrated a need for flexibility regarding smart inverter settings.

The Company is currently developing default settings that will require UL 1741 Supplement SB, the testing standard that determines if DERs are compliant with IEEE 1547-2018 ("UL 1741 SB"). The Company plans to implement default reliability settings, as well as enabling voltage controlling functionality within the inverter to mitigate potential power quality issues and increase hosting capacity. The required inverter settings will be published to the Company's website in a downloadable file format. The implementation timeframe is in development and testing phases and is anticipated to be released in mid-2024. The Company intends to work with solar installers, such as Smart Wave Solar, to provide a reasonable opportunity to deplete existing inventory prior to the UL 1741 SB inverter requirements. The Company believes its plans to publish protocols for smart inverter settings will support the desired outcomes of providing grid support, reliability benefits, and greater hosting capacity.

While the Company plans to implement and publish default settings for typical installations, it urges the Commission to not include the settings in the Interconnection Rules to allow the Company to retain the latitude to require a variety of settings for differing circuit topologies. RMP needs to retain the flexibility to review the default settings on a case-by-case basis during the engineering review as certain interconnection requests may require different settings based on the location or other aspects of the interconnection request.

Due to these flexibility requirements, the Company also requests the Commission reject the proposals of WRA and Vote Solar/UCE to require the smart inverter settings to be established through a public stakeholder process requiring consensus and/or additional regulatory process. The Company needs autonomy to develop the standards and protocols that are best for its system and

¹ *In re Rocky Mountain Power Customer Generator Export Credit Docket*, Docket No. 17-035-61 Order, at 21 (Oct. 30, 2020) ("Like other issues in this order, the application fee could be revisited in future dockets.").

believes requiring the settings be agreed upon by a quorum of stakeholders will be an inefficient use of resources.

Furthermore, establishing a stakeholder process to determine the initial settings suggests that the Company would be required to reconvene the stakeholders each time the settings are updated or changed. This process would be time consuming and difficult for the Company to respond to technology changes and lessons learned as it gains more experience with the equipment. The Company believes its current plans to public smart inverter reliability and voltage control settings, making them available to customers and installers, typical of other utility installations and adequately achieve stakeholder goals of maximizing the benefits of smart inverters.

Process Recommendation

The Company believes the processes recommended by WRA and Vote Solar/UCE would be resource-intensive for all participants and likely exceed what is necessary to efficiently update the existing Interconnection Rules. One technical conference, if desired by the Commission, followed by two rounds of comments should be adequate for interested parties to present their proposed rule changes and respond to the proposals of others. As with any regulatory matter, the Company is always open to facilitating informal meetings at the request of stakeholders to share knowledge, answer questions and find areas of consensus. Often the Company has found that informal forums are useful and efficient arenas for stakeholders to freely express concerns and advocate policy changes. However, the Company defers to the Commission on its desired level of process and reiterates its willingness to actively participate in whatever the Commission deems reasonable in this matter.

III. Conclusion

The Company respectfully submits these reply comments for the Commission's consideration and looks forward to continuing the discussion to modernize the Commission's Interconnection Rules as appropriate.

Sincerely,



Joelle Steward

Senior Vice President, Regulation and Customer/Community Development

cc: Service List

CERTIFICATE OF SERVICE

Docket No. 23-R312-01

I hereby certify that on November 30, 2023, a true and correct copy of the foregoing was served by electronic mail to the following:

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