

Exhibit 5-CV

17-035-61 Phase 2 Vote Solar Exhibit 5-CV 3-3-2020 Volkmann



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Salt Lake City, UT 84116

August 8, 2019

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RE: UT Docket No. 17-035-61
Vote Solar 6th Set Data Request (1-24)

Please find enclosed Rocky Mountain Power's Responses to Vote Solar 6th Set Data Requests 6.2, 6.4, 6.5, 6.7, 6.12, 6.13, 6.14, 6.17, 6.18, 6.19, and 6.20. The remaining responses will be provided separately. Also provided are Attachments Vote Solar 6.2 –(1-5), 6.4, 6.17, and 6.19. Provided via encryption are Confidential Attachment Vote Solar 6.5, and 6.18 –(1-6). Confidential information is provided subject to Public Service Commission of Utah Rule 746-1-602 and 746-1-603.

If you have any questions, please call me at (801) 220-2823.

Sincerely,

_____/s/_____
Jana Saba
Manager, Regulation

Enclosures

C.c.: Cheryl Murray/OCS cmurray@utah.gov (C)
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Vote Solar Data Request 6.2

Please describe RMP's design standards for overhead and underground residential service, including typical:

- (1) Transformer size (kVA);
- (2) Average and peak transformer loading;
- (3) Average customers served per transformer; and
- (4) Primary, secondary, and service conductor/cable type, size, and length.

Response to Vote Solar Data Request 6.2

- (1) Peak demand for residential customers and coincident peak demand between multiple residential customers is estimated using DA411 (General-Residential Electrical Demand). Please refer to Attachment Vote Solar 6.2-1. Peak coincident demand is used to size shared assets such as transformers and secondary conductors. Non-shared assets such as service conductors are sized based on the individual customers estimated peak demand. Design constraints that impact transformer and conductor sizing include, but are not limited to: Ampacity rating, kilovolt ampere (kVA) rating, voltage drop, voltage flicker, available fault current. Typical transformer kVA ratings range for single phase residential services range from 25 kVA to 167 kVA
- (2) The Company objects to the data request on the basis that performing such calculations for the Company's roughly 820,000 customers, of which the vast majority are residential, is overly broad and unduly burdensome.
- (3) The Company objects to the data request on the basis that performing such calculations based on the Company's roughly 820,000 customers, of which the vast majority are residential, is overly broad and unduly burdensome.
- (4) Primary, secondary and service conductors used by the Company include, but are not limited to, the material described in the specifications below:

EBU CA-S01 Underground Primary Cable - 15 kilovolts (kV), 25 kV, and 35 kV - Concentric, Neutral, Jacketed. Please refer to Attachment Vote Solar 6.2-2.

EBU CA-S02 Overhead Secondary Cable, 600 volt (V) - Distribution. Please refer to Attachment Vote Solar 6.2-3.

EBU CA-S03 Underground Cable – 600 V - Distribution. Please refer to Attachment Vote Solar 6.2-4.

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Vote Solar Data Request 6.2

EC 041 Overhead Primary Conductor Physical Data. Please refer to Attachment Vote Solar 6.2-5.

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Vote Solar Data Request 6.4

Vote Solar Data Request 6.4

Please provide the total number of new residential, commercial, and industrial connections for the years 2014, 2015, 2016, 2017, and 2018 and forecasted connections for the years 2019, 2020, 2021, 2022, and 2023.

Response to Vote Solar Data Request 6.4

Please refer to Attachment Vote Solar 6.4 for the total number of new residential, commercial, and industrial connections for the years 2014, 2015, 2016, 2017, and 2018.

The requested information for forecasted expenditures for the years 2019, 2020, 2021, 2022, and 2023 is considered highly confidential and commercially sensitive and requires special handling. Please contact Jana Saba at (801) 220-2823 to make arrangements for review.

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Vote Solar Data Request 6.5

Vote Solar Data Request 6.5

Please provide all data, analysis, reports, and spreadsheets with all formulas intact, explaining and supporting the transmission and distribution deferral value used by RMP in its proposed 2019 IRP DSM bundling methodology.

Response to Vote Solar Data Request 6.5

The current draft of the 2019 Integrated Resource Plan (IRP) assumes values listed in the table provided below for transmission and distribution (T&D) deferral value. These credits are applied regardless of the demand-side management (DSM) bundling methodology being used.

State	T&D Deferral Value
California	\$10.74
Oregon	\$13.36
Washington	\$15.95
Idaho	\$15.22
Utah	\$13.18
Wyoming	\$9.41

Please refer to Confidential Attachment Vote Solar 6.5 which provides the analysis and assumptions for the 2019 IRP T&D values.

Confidential information is provided subject to Public Service Commission of Utah Rules 746-1-602 and 746-1-603.

Vote Solar Data Request 6.7

For all 2020-2023 planned System Reinforcement, Asset Replacement, and Reliability projects with a total capital cost greater than \$250,000, please provide:

- (1) Project name/description;
- (2) Impacted substation and circuit;
- (3) Grid need/deficiency to be addressed (e.g., 2 MW capacity shortfall, 4th quartile SAIDI performance, etc.);
- (4) Planned project scope (e.g., build new substation, convert overhead to underground, etc.);
- (5) Planned capital expenditures by year;
- (6) Planned in-service date; and
- (7) For capacity-related projects, magnitude (MW), frequency (days per year), and duration (hours per day) of the capacity need.

Response to Vote Solar Data Request 6.7

The Company objects to the data request on the basis that the requested information is not currently available and won't be available until the years 2020, 2021 and 2023. Specifically, the funding for specific projects is only approved during the applicable budget year based on business needs. The Company has not yet identified its System Reinforcement, Asset Replacement and Reliability projects for such years.

Without waiving the objection, total projected spend for each of the referenced categories is available but considered commercially sensitive and highly confidential information. The Company requests special handling by contacting Ms. Jana Saba at 801.220. 2823.

Vote Solar Data Request 6.12

Describe RMP's avoided energy cost calculation and forecast methodology associated with QF Puts and Distributed Energy Resources (DER):

- (1) If the methodology is different for QF Puts vs. DERs, explain the difference; and
- (2) Provide RMP's historical avoided energy cost data.

Response to Vote Solar Data Request 6.12

- (1) The Company's avoided cost methodology for qualifying facilities (QF) located in the state of Utah is approved by the Public Service Commission of Utah (UPSC). The current "Proxy/Partial Displacement Differential Revenue Requirement" (Proxy/PDDRR) methodology was approved in Dockets No. No. 17-035-37 and No. 17-035-T07. Methodology changes and updates are also identified in quarterly avoided cost input compliance filings, such as Dockets No. 19-035-18 and No. 18-035-23.

Under the Proxy/PDDRR methodology, the forecast of avoided energy costs is specific to a particular QF project. This is achieved by simulating the hourly operation of the Company's utility system using the Generation and Regulation Initiative Decision Tool (GRID). Two GRID runs are performed to calculate hourly avoided energy cost. The first run is the existing utility system plus the planned resources contained in the Company's preferred portfolio in its most recent Integrated Resource Plan (IRP); the second run is the same as the first run with two exceptions: (1) the operating characteristics of the proposed QF project are added with its energy dispatched at zero cost, and (2) the capacity of any deferred IRP resources is reduced by an amount equal to the capacity contribution of the QF project. The difference in production costs between the two runs is the avoided energy cost.

The Proxy/PDDRR methodology also forecasts avoided fixed costs from proxy resources identified in the IRP preferred portfolio, which are sometimes referred to as capacity costs. Avoided fixed costs include avoided capital costs, which is based on the capital cost of a proxy resource expressed as in dollars per kilowatt (\$/kW). The proxy resource is identified as the next deferrable generating unit in the Company's most recent IRP. The avoided capital cost is calculated using the operating characteristics and payment factor identified in the IRP for the deferred proxy resource. The avoided fixed costs also include non-fuel fixed and variable operation and maintenance (O&M) costs associated with the deferred proxy resource as reported in the IRP. To convert the proxy plant capital cost, grossed up for revenue requirement, to an annual cost per kW, the method uses the IRP resource payment factor as the basis for the real levelized annual cost of the present value of the investment and adds inflation annually thereafter. The non-fuel variable O&M costs are converted into an annual cost per kW, using the relevant reported capacity factors

in the IRP, adjusted for inflation, and this amount is added to the annual avoided capital cost calculation. This produces avoided fixed costs that increase over time.

Regarding the proxy resource to be used to determine avoided costs, when the Company's IRP preferred portfolio includes renewable resources to meet system load that are the same type as a QF project, the next deferrable renewable resource of that type is reduced by an amount equivalent to the capacity contribution of the QF. If the Company's IRP preferred portfolio does not include a renewable resource as part of its plan to meet system load that is the same type as a QF, the next deferrable thermal resource in the IRP preferred portfolio is reduced by an amount equivalent to the capacity contribution of the QF. Prior to the deferral of a proxy generation resource, front office transactions (FOT, i.e. market purchases) from the IRP preferred portfolio are assumed to be deferred.

The Company does not have a specific methodology for evaluating the avoided cost of distributed energy resources (DER). In general, the Proxy/PDDRR methodology can be employed to reasonably represent the avoided costs of DERs. It could also be appropriate to evaluate DERs using the modelling techniques developed in the IRP process and employed in evaluating major resource decisions, for instance offers received as part of a request for proposals (RFP). However, the IRP tools may not be suited to evaluate the impacts of programs with very small effects on the overall system. In addition, both GRID and the IRP models reflect values at generation input, which is generally appropriate for resources interconnected at transmission voltages. If a DER is interconnected close to load at a low voltage, line losses may be reduced and the value of metered DER output would be higher. It may also be appropriate to account for transmission and distribution (T&D) system capacity impacts if a DER reduces loading during peak conditions. The Company uses an "Alternative Evaluation Tool" to screen DER alternatives to the traditional technical solutions identified for specific T&D projects that may be necessary during its 10-year distribution and sub-transmission planning horizon.

- (2) The Company's current Utah avoided cost rates for small QFs were approved in Docket No. 19-035-T07. The rates are publicly available and can be accessed at the following website link:

https://www.rockymountainpower.net/content/dam/pcorp/documents/en/rockymountainpower/rates-regulation/utah/rates/037_Avoided_Cost_Purchases_from_Qualifying_Facilities.pdf

For recent historical rates for small QFs, please refer to filings in the following dockets:

- Docket No. 18-035-T02
- Docket No. 17-035-T07
- Docket No. 16-035-T06
- Docket No. 15-035-T06
- Docket No. 14-035-55

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Vote Solar Data Request 6.13

Vote Solar Data Request 6.13

Describe RMP's avoided generation capacity cost calculation and forecast methodology associated with QF Puts and DERs:

- (1) If the methodology is different for QF Puts vs. DERs, please explain the difference;
- (2) Provide RMP's historical avoided generation capacity cost data;
- (3) Provide RMP's avoided generation capacity cost forecast data; and
- (4) If RMP does not calculate avoided generation capacity costs for QF Puts and/or DERs, please explain why.

Response to Vote Solar Data Request 6.13

Please refer to the Company's response to Vote Solar Data Request 6.12.

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Vote Solar Data Request 6.14

Vote Solar Data Request 6.14

Provide all RMP studies from 2014 to the present regarding the generation capacity that can be deferred or avoided, by type of technology (e.g., DER, utility scale solar, etc.).

Response to Vote Solar Data Request 6.14

The Company has prepared “capacity contribution studies” as part of the development of its biannual Integrated Resource Plans (IRP). Please refer to the following:

2017 IRP, Volume II, Appendix N:

http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_VolumeII_2017_IRP_Final.pdf

2015 IRP, Volume II, Appendix N:

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2015-irp/PacifiCorp_2015IRP-Vol2-Appendices.pdf

Specific capacity contribution values can also be calculated for other technologies and configurations not addressed in the IRP studies. In general, the same methodology described in the studies above is applied to the expected hourly availability of the resource under consideration. Resources that can be economically dispatched by the Company to their maximum output would have capacity contributions based on that output. Resources that cannot be economically dispatched by the Company have capacity contributions based on their expected output relative to the availability of the deferrable thermal or baseload resource identified in the IRP. Resources with seasonal variations in output would have capacity contributions based on their output during the months of the Company’s peak load requirements, as identified in the loss of load probability (LOLP) study used to develop the wind and solar capacity contribution values in the IRP. These distinctions ensure that the capacity provided by a resource is equivalent to the capacity being removed from the IRP preferred portfolio.

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Vote Solar Data Request 6.17

Vote Solar Data Request 6.17

Provide all RMP studies from 2014 to the present associated with calculating and estimating avoided cost of complying with federal, regional, state, and local environmental regulations (e.g., RPS, anticipated carbon, and other criteria pollutants compliance cost, etc.), by technology (e.g., QF Puts and DERs).

Response to Vote Solar Data Request 6.17

For estimates of the impact of environmental regulations on the Company's portfolio, please refer to the Company's Integrated Resource Plans (IRP) and IRP Updates which are publicly available and can be accessed by utilizing the following website link:

<https://www.pacificorp.com/energy/integrated-resource-plan.html>

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Vote Solar Data Request 6.18

Vote Solar Data Request 6.18

Provide all RMP studies from 2014 to the present associated with RMP's fuel price risk hedging strategies and implementation plan.

Response to Vote Solar Data Request 6.18

Please refer to Confidential Attachment Vote Solar 6.18-1 through Confidential Attachment Vote Solar 6.18-5 which provide copies of the Company's Commercial Objectives Reports (COR) for 2014 through 2018.

Please refer to Confidential Attachment Vote Solar 6.18-6 which provides copies of the Company's Risk Management Policy effective during 2014 through present.

These documents collectively describe PacifiCorp's risk limits and hedging strategy.

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Vote Solar Data Request 6.19

Vote Solar Data Request 6.19

Provide all RMP studies and actual costs incurred, from 2014 to the present, associated with RMP's provision of ancillary services.

Response to Vote Solar Data Request 6.19

Please refer to Attachment Vote Solar 6.19 which provides a copy of PacifiCorp's October 28, 2016 Revisions to PacifiCorp's Open Access Transmission Tariff (OATT) filing transmittal letter. The Company's testimony, exhibits and work papers from the Federal Energy Regulatory Commission (FERC) Docket ER17-219,000 are publicly available and can be accessed from FERC's eLibrary by utilizing the website link and instructions provided below:

Access FERC's eLibrary: <https://ferc.gov/docs-filing/elibrary.asp>, click "General Search" <https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>, change the date option at the top to "All," and enter ER17-219 in the "Docket Number" section.

Docket ER17-219,000 proposed to amend PacifiCorp's OATT to update rates: Schedule 3 (Regulation and Frequency Response Service), Schedule 3A (Generator Regulation and Frequency Response Service), Schedule 5 (Operating Reserve – Spinning Reserve Service) and Schedule 6 (Operating Reserve – Supplemental Reserve Service). The requirements and cost of these ancillary services for calendar year 2015 are addressed in the filing.

The Company has not prepared any studies evaluating the actual costs incurred for these ancillary services for calendar years after 2015.

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Vote Solar Data Request 6.20

Vote Solar Data Request 6.20

Provide all RMP studies, from 2014 to the present, associated with avoided costs of transmission constraints from the addition of DERs.

Response to Vote Solar Data Request 6.20

The Company has not conducted any studies to specifically identify the avoided costs of transmission constraints from the addition of distributed energy resources (DER).