## **PacifiCorp - Stakeholder Feedback Form** 2021 Integrated Resource Plan

PacifiCorp (the Company) requests that stakeholders provide feedback to the Company upon the conclusion of each public input meeting and/or stakeholder conference calls, as scheduled. PacifiCorp values the input of its active and engaged stakeholder group, and stakeholder feedback is critical to the IRP public input process. PacifiCorp requests that stakeholders provide comments using this form, which will allow the Company to more easily review and summarize comments by topic and to readily identify specific recommendations, if any, being provided. Information collected will be used to better inform issues included in the 2021 IRP, including, but not limited to the process, assumptions, and analysis. In order to maintain open communication and provide the broader Stakeholder community with useful information, the Company will generally post all appropriate feedback on the IRP website unless you request otherwise, below.

					Date of Submittal	2020-07-25
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Public Meeting Date comments address:		_		Check here if not related to specific meeting		
List additional orga	nization attendees at cited meeting:					

\*IRP Topic(s) and/or Agenda Items: List the specific topics that are being addressed in your comments.

Compare Horizontal Tracking Solar Panels Versus Fixed Solar Panels

Check here if any of the following information being submitted is copyrighted or confidential.

Check here if you do **not** want your Stakeholder feedback and accompanying materials posted to the IRP website.

\*Respondent Comment: Please provide your feedback for each IRP topic listed above.

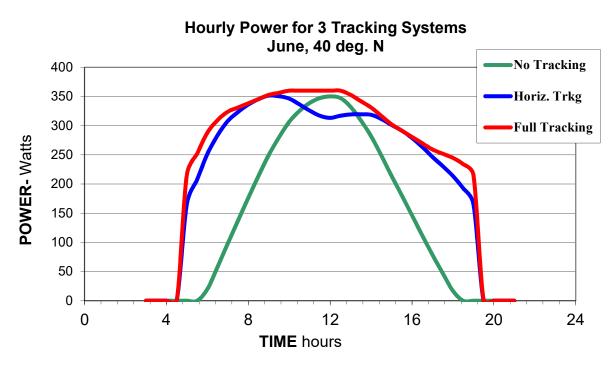
Suggestion for PacifiCorp 2021 System Modeling

Compare Horizontal Tracking Solar Panels Versus Fixed Solar Panels

Is it planned in the 2021 IRP modeling to only consider solar PV installations having fixed panel arrays? We recommend that analysts also consider arrays having horizontal turning panels, by each panel (or group of panels) pivoting about a vertical axis. Energy production is greatly increased with horizontal tracking but its cost is substantially less than for two-axis tracking. To illustrate the benefit of horizontal tracking, a single case was evaluated—energy output for one-axis (horizontal) tracking and two-axis tracking were compared against a panel with no tracking in mid-June, for a sunny day at 40 degrees north latitude. The attached graph shows the results. A panel with horizontal tracking produces 60% more energy than a fixed panel, but only 7% less energy than a panel with full two-axis tracking.

One can see from the graph that a large part of the additional energy is produced in the early and late portions of the day. It is expected that the extra energy produced in late afternoon and evening will aid in reducing the amount of energy storage (or other renewable backup) that is needed to cover the afternoon-to-evening load peak.

\* Required fields



Panels tilted at optimum angle for horizontal tracking (Blue line)

## **PacifiCorp Response:**

For planning purposes, PacifiCorp used costs and generation profiles of single axis tracking solar photovoltaic (PV) systems in the 2019 Integrated Resource Plan (IRP) and plans to do so again in the 2021 IRP. A wide range of different technologies and configurations for solar and other supply-side resources can be offered into procurement process that follow the IRP, as applicable.

**Data Support:** If applicable, provide any documents, hyper-links, etc. in support of comments. (i.e. gas forecast is too high - this forecast from EIA is more appropriate). If electronic attachments are provided with your comments, please list those attachment names here.

Recommendations: Provide any additional recommendations if not included above - specificity is greatly appreciated.

Please submit your completed Stakeholder Feedback Form via email to IRP@Pacificorp.com

Thank you for participating.