PacifiCorp - Stakeholder Feedback Form

2019 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 2019 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 8/6/2018

*Name:	Noelani Derrickson	Title:	Government and Regulatory Affairs - Program Manager
*E-mail:	Noelani.Derrickson@FirstSolar.com	Phone:	415-935-2498
*Organization:	First Solar, Inc.		
Address:	135 Main Street, Floor 6		
City:	San Francisco	State: CA	Zip: 94105

Public Meeting Date comments address: **7/27/2018** ☐ Check here if not related to specific meeting

List additional organization attendees at cited meeting: Click here to enter text.

*__IRP Topic(s) and/or Agenda Items:__ List the specific topics that are being addressed in your comments.
Intra-hour dispatch credit

☐ 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.

Effectively managing intra-hour variability is an important component to ensuring the delivery of reliable, affordable electric power to consumers. Traditionally, IRP processes have focused exclusively on hourly production cost model runs to determine economic dispatch and associated costs for comparison between different portfolios of resources. First Solar is largely supportive of the PacifiCorp IRP process providing additional transparency and visibility into the value of intra-hour dispatch on its resource stack. Increased granularity will provide a more realistic view of system flexibility needs. However, to best ensure that this approach provides meaningful, fair, and transparent results, First Solar recommends the following:

1) PacifiCorp should expand its modeling granularity to a 5-minute dispatch in the IRP process. Should this prove too difficult to conduct for the full IRP term, First Solar recommends PacifiCorp identify sample days or weeks in each season in key future years (i.e., years 1, 5, 10, and 20) to see the impact that 5-minute dispatch decisions has on system economics.
2) Variable renewable generation production and net load forecasts must be modeled on a sub-hourly basis to ensure an accurate portrayal of the granularity needs.
3) Variable renewable generation should be modeled as fully dispatchable resources, capable of responding to intra-hour signals for modified dispatch.
4) PacifiCorp should prioritize resources that can respond most accurately to intra-hour dispatch signals.

* Required fields

First Solar, the CAISO, and NREL collaborated on a study in 2016 that demonstrated the capabilities of utility-scale solar in providing essential grid services, including following an AGC signal at significantly higher accuracy than thermal units are capable of achieving. First Solar believes that a truly flexible and dynamic electrical system will look to resources such as utility-scale solar to provide these services in the future as a way to cost-effectively manage intra-hour variability.

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.
https://ccaps.umn.edu/documents/CPE-Conferences/MIPSYCON-Papers/2014/GridFriendlySolarPVPowerPlant.pdf
https://www.nrel.gov/docs/fy16osti/65368.pdf
https://www.nrel.gov/docs/fy17osti/67799.pdf

Recommendations: Provide any additional recommendations if not included above - specificity is greatly appreciated.
Click here to enter text.

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

Thank you for participating.

* Required fields