

Stakeholder Process: Decision on Interconnection Process Enhancements – Track 3

Summary of Submitted Comments

Stakeholders submitted four rounds of written comments to the ISO on the following dates:

- Round One, Issue Paper, submitted January 17, 2018
- Round Two, Straw Proposal, submitted May 5, 2018
- Round Three, Revised Straw Proposal, Submitted July 10, 2018
- Round Four, Draft Final Proposal, Submitted September 4, 2018

Parties that submitted written comments to the Revised Straw Proposal:

EDF-R (EDF Renewables), First Solar, Intersect Power, LSA (Large-scale Solar Association), NextEra, PG&E (Pacific Gas & Electric), SCE (Southern California Edison), SDG&E (San Diego Gas & Electric)

Parties that participated in meetings or conference calls:

8minutenergy Renewables, Inc., Avangrid Renewables, LLC, Buchalter, Candela Renewables, CDWR, CEC, CESA, City of Anaheim, CPUC, ORA, Customized Energy Solutions, Duncan Weinberg, E.ON Climate and Renewables, FERC, First Solar, GE, Intersect Power, NRG Energy, Inc., PG&E, Phoenix Consulting, Recurrent Energy, SCE, SCE/ESP, SDG&E, Spiegel & McDiarmid, Terra-Gen, Thompson Coburn LLP, VEA, Wellhead Electric Company

Stakeholder comments are posted

at: <http://www.caiso.com/informed/Pages/StakeholderProcesses/InterconnectionProcessEnhancements.aspx>

Other stakeholder efforts include:

- Issue Paper, in-person meeting, January 24, 2018
- Straw Proposal, conference call, May 21, 2018
- Revised Straw Proposal, conference call, July 17, 2018
- Draft Final Proposal, in-person meeting with conference call, September 17, 2018

Management proposal	Stakeholder PG&E, LSA, EDF-R	Stakeholder SPower, SDG&E, NextEra, First Solar, CalWEA	Management response
<p>Issue 1 Revise ride-through requirements for inverter-based generation</p>	<p>Support</p>	<p>Conditional Support</p> <ul style="list-style-type: none"> (1) SPower - Proposal should apply only to projects submitting new interconnection requests after the provisions become effective. (2) SDG&E - Voltage ranges in Appendix H should be based on peak and not root mean square values. (3) SDG&E - ISO should require asynchronous generators to record and then provide data to the ISO for frequency events. (4) NextEra - There is concern that inverters cannot record the data specified in new requirements, which will add to the cost of the project. (5) First Solar - The ISO should specify what events trigger data recording requirements, and a time range should be specified for the duration of the data recording. (6) CalWEA - The ISO should not rush to a solution unless the industry is completely on board with the proposed requirements. 	<ul style="list-style-type: none"> (1) The ISO disagrees and will apply to projects submitting new interconnection requests, repower projects and modifications where inverters are being changed (2) The ISO does not concur. Voltages identified in existing NERC Standard are in root mean square values. (3) The ISO does not concur. No generators are required to record and provide data to the ISO for frequency events. It would be discriminatory to make this a requirement for asynchronous generators. (4) The ISO has included edits to clarify that the generator may record data in a central plant recording system. It was never intended to require the individual inverters to do this. (5) The ISO concurs and has included edits to specify a data recording range for both pre-transmission fault and post-transmission fault. (6) The ISO is including changes recommended in recent NERC alerts and a newly published guideline to improve the reliability of the bulk electric system with high levels of asynchronous generation. These guidelines and recommendations were well vetted within the industry, including equipment manufacturers and asynchronous plant operators.

Management proposal	Stakeholder CalWEA	Stakeholder EDF-R, LSA, NextEra, SPower, Intersect Power	Stakeholder PG&E, SCE	Management response
<p>Issue 2</p> <p>Revise the reliability network upgrade reimbursement cap</p>	<p>Support</p> <p>(1) Recommends that the same escalation factor applied by each PTO for estimating the future escalated cost of reliability network upgrades to be applied to the reliability network upgrade reimbursement cap for that PTO.</p>	<p>Conditional support:</p> <p>(2) Recommend customers could receive additional reimbursement if/when a reliability network upgrade is overbuilt for purposes other than directly connecting subject project or when another project makes use of that reliability network upgrade.</p>	<p>Conditional support:</p> <p>(3) PG&E requested clarification on whether the ISO intends for changes in the per MW reliability network upgrade reimbursement cap to be retrospective or prospective.</p> <p>(4) SCE believes ISO should not delay in closing a potential loophole and should resolve issue sooner than later.</p>	<p>(1) Management disagrees and believes multiple escalation factors resulting in a different reliability network upgrade reimbursement cap for each PTO is unnecessary and would be confusing to interconnection customers and an administrative burden to the ISO. In addition, the escalation factor will be based on an actual annual index and will not be a forecasted value</p> <p>(2) The issue of reimbursement of reliability network upgrade costs above the cap by future projects was not in the topic's scope.</p> <p>(3) Management proposes that the escalation of the reimbursement cap will apply to all generators that have not yet achieved commercial operation.</p> <p>(4) Management believes that no action is justified because no actual gaming has occurred or is deemed likely. The ISO will monitor the situation and take any action as necessary to prevent gaming.</p>

Management proposal	Stakeholder LSA, EDF-R	Management response
<p>Issue 3</p> <p>Define and memorialize the concept of <i>affected</i> participating transmission owner</p>	<p>Support</p>	