

Interconnection Process Enhancements Initiative

Revised Straw Proposal for Topics 4, 5, and 13

Stakeholder Meeting February 13, 2014

Agenda

Time	Agenda Item	Speaker
10:00-10:15	Introduction, Stakeholder Process	Kristina Osborne
10:15-10:45	Discussion of Topic 4	Sushant Barave
10:45-11:15	Discussion of Topic 5	Abhishek Singh
11:15-11:45	Discussion of Topic 13	Tom Flynn
11:45-12:00	Next Steps	Kristina Osborne



ISO Stakeholder Initiative Process



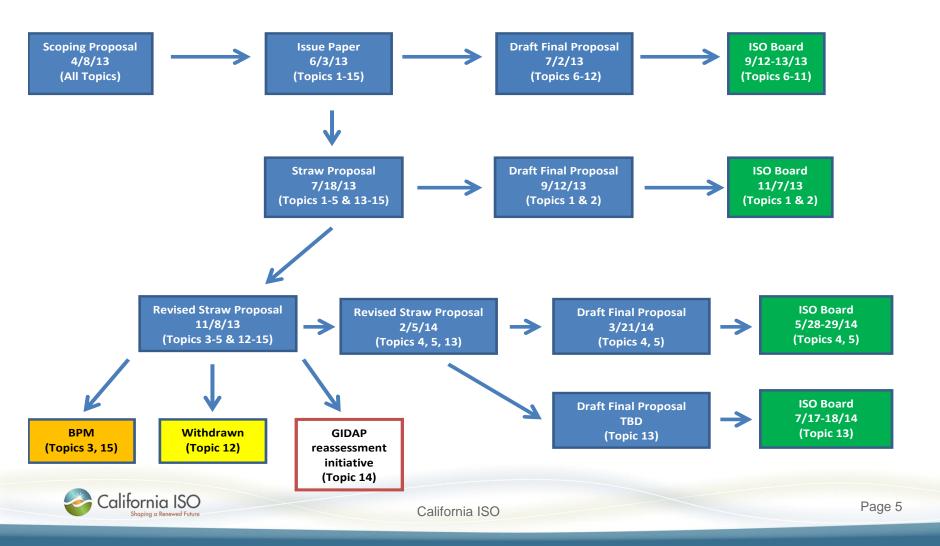


Stakeholder process schedule

Step	Date	Milestone
	February 5	Posted revised straw proposal
Revised straw proposal (Topics 4, 5, 13)	February 13	Stakeholder web conference
(100103 4, 0, 10)	February 28	Stakeholder comments due
Droft final proposal	March 21	Post draft final proposal
Draft final proposal (Topics 4, 5)	April 2	Stakeholder web conference
(100103 4, 3)	April 16	Stakeholder comments due
Board approval (Topics 4, 5)	May 28-29	ISO Board meeting
	TBD	Post draft final proposal
Draft final proposal (Topic 13)	TBD	Stakeholder web conference
(Topic 13)	TBD	Stakeholder comments due
Board approval (Topic 13)	July 17-18	ISO Board meeting



IPE stakeholder process overview



Topic 4 – Improve the Independent Study Process



Revised straw proposal includes four areas of proposed enhancement

- 1. Criteria for ISP eligibility.
- 2. Process and timeline enhancements.
- 3. Tests for electrical independence.
- 4. Clarification on behind-the-meter (BTM) expansion and its impact on net qualifying capacity (NQC).



Criteria for ISP eligibility

Proposal is that IC must meet 5 criteria to use ISP:

- 1. Demonstrated ability to obtain all regulatory approvals and permits to meet COD.
- 2. Purchase order for generating equipment.
- 3. Adequate financing.
- 4. Point of interconnection must be an existing facility on ISO controlled grid or approved upgrade in TPP.
- 5. No network upgrade needed to allow project to reliably enter into operation that is yet to be operational or has later completion date.



Process and timeline enhancements

- Cluster/ISP Independence Test Go directly into System Impact Study if no other cluster or ISP projects in study area.
- 2. Tests for electrical independence Clarifies studies that will be used to assess electrical independence.
- 3. If FCDS or PCDS requested, then will be studied for deliverability in next cluster Phase I/II studies (next cluster that opens after the ISP FCDS request is received).
- 4. If fail tests for electrical independence, then can be part of next cluster or withdraw.
- 5. If FCDS or PCDS requested, then "Option A" project.
- 6. If project consists of asynchronous generators, then 0.95 (lead/lag) power factor required at point of interconnection.
- 7. Execute EO GIA following of SIS and facilities studies.



Tests for electrical independence

Changes proposed to the following tests for electrical independence:

- Flow Impact Test
 - Use Phase I results and only test RNUs
- Short Circuit Test
 - Remove 100 amp threshold and test for 5% of available or 80% of nameplate

Additional tests proposed:

- Transient Stability Test
- Reactive Support Test



Clarification on BTM expansion and its impact on the NQC

Modifications/clarifications proposed in the following areas:

- Size of the expansion
- Requirement for a separate expansion breaker
- Deliverability status of BTM expansion and its impact on NQC



Topic 5 – Improve the Fast Track Process



Revised straw proposal

- Includes 2 major and 5 minor revisions to the screens as presented in the previous proposal
- Processing fees increased from \$5,000 to \$25,000 (see screen 5.1, 3rd paragraph)
- Supplemental review timeline increased from 15 to 90 business days (see screen 5.5.1)
- Remaining 5 revisions were further clarifications regarding intent of the screens
- See Table 4, pages 38-42, February 5 revised straw proposal for details



FERC Order 792

- Issued November 22, 2013
- Directs revisions to FERC's pro forma small generator interconnection agreement and procedures
- Compliance filing due by August 3, 2014
- ISO believes that some existing tariff provisions already comply with or are superior to Order 792 reforms
- Some overlap with IPE Topic 5



Order 792 – Pre-application report process

- Requires pre-application report process
- ISO proposes to incorporate this into appendix DD of the ISO tariff
- Will only apply to resources no larger than 20 MW



Order 792 – Fast track eligibility

- FERC adopted fast track eligibility thresholds that
 - 1. Modifies eligibility for inverter-based machines
 - 2. Limits eligibility for lines below 5 kV
 - 3. Makes eligible projects interconnecting above 69 kV
- Maintains 2 MW eligibility threshold for synchronous and induction machines
- ISO is not proposing any changes to its current fast track eligibility thresholds because they are more inclusive (already consistent with or superior to Order 792)



Order 792 – Customer options meeting and supplemental review process

- If an IC fails a fast track screen, Order 792 requires three supplemental screens to assess if fast track is still possible
- ISO proposes to modify the fee and timeframes associated with initial review under fast track process, modify some screens, and add new screens
- ISO also proposes to incorporate Order 792 language governing the customer option meeting and supplemental review process into tariff appendix DD



Order 792 – Opportunity to submit comments on any required upgrades in the facilities study

- Requires that ICs be permitted to provide written comments on any required upgrades in the facilities study
- ISO not proposing any changes as the tariff already provides such an opportunity (already consistent with or superior to Order 792)



Order 792 – Account for the interconnection of storage devices under small generator interconnection procedures

- Defines electric storage devices as generating facilities that can take advantage of generator interconnection procedures
- Also directs that the capacity should be measured based on that in IR, which may be less than max capacity a device is capable of injecting into grid
- ISO plans to incorporate Order 792 language into tariff appendix DD and tariff appendix EE



Order 792 – Require ICs wishing to interconnect using network resource interconnection service to do so under LGIP

- ISO has consolidated its small and large generator interconnection procedures in tariff appendix DD
- Also section 2.4.2 of appendix DD allows an IC to connect and be eligible to deliver using available capacity of the grid
- ISO is not proposing any changes (already consistent with or superior to Order 792)



Topic 13 – Clarify timing of transmission cost reimbursement



Revised straw proposal

- Based on stakeholder feedback, ISO is now offering two alternative straw proposals – Options A and B
- ISO requests stakeholders comment on the pros and cons and their preferences



Option A

- 1. Reimbursement for in-service NUs would commence upon the facility or phase achieving COD
- 2. Reimbursement for NUs placed in-service subsequently to COD would commence once the last required NU is placed in-service

This option is better aligned with Order 2003 because repayment for transmission assets begins once those assets are utilized to deliver the output of IC's generating facility



Option B

- Reimbursement for amounts funded by IC up to time facility or phase achieves COD would commence upon COD
- 2. Reimbursement for amounts funded by IC subsequent to COD would commence once the last required NU is placed in service
- This option could result in reimbursement related to NUs not yet in-service at the time COD



For either option, apply new rules on a going forward basis

- Apply new policy beginning with ICs who have not yet received an interconnection agreement
- However, need to avoid situation in which ICs in same cluster or study group could be subject to different repayment rules
- Thus, ISO proposes to apply these new rules beginning with all ICs in the first cluster in which all projects have not yet been tendered a GIA at the time of FERC approval of ISO's proposal



Next steps

Date	Milestone
February 28	Stakeholder comments due on February 5 Revised Straw Proposal

- Please use the comments template provided
- Submit to <u>GIP@CAISO.COM</u> no later than 5pm on Friday, February 28

