Stakeholder Comments Template

Subject: Modifications to the Small Generator Interconnection Procedures Issues Paper and

Submitted by	Company	Date Submitted
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Meeting

This template was created to help stakeholders submit written comments on topics related to the April 1, 2010 Modifications to the Small Generator Interconnection Procedures Issue Paper and April 12, 2010 Small Generator Interconnection Procedures Stakeholder Meeting. Please submit comments and thoughts (in MS Word) to dkirrene@caiso.com no later than the close of business on April 27, 2010.

The ISO is interested in knowing the importance and urgency of the issues identified through this stakeholder process. The issues identified below are further described in the Issues Paper. Please rate the importance of each issue as high, medium or low by checking the check box. In addition, please identify the urgency for getting each of the identified issues resolved. Check the urgent check box for issues that should be resolved in a FERC filing this year. Check the not urgent check box if the issue could be resolved beyond year-end. The information provided will assist the ISO in determining the scope of this stakeholder effort.

Study Process Issues		
	Importance	**Urgency**
2.1.1 Time required for the SGIP study process	☒ high ☐ medium ☐ low	☒ urgent ☐ not urgent
2.1.2 SGIP serial study process coordination with the studies under the large generation interconnection procedures (LGIP)	☒ high ☐ medium ☐ low	☒ urgent ☐ not urgent
2.1.3 Avoiding delays caused by the increasing volume of SGIP projects	☐ high ■ medium ☐ low	☒ urgent ☐ not urgent
2.1.4 Detail and necessity	☐ high ■ medium ☐ low	☒ urgent ☐ not urgent

of the feasibility study		
2.1.5 Interconnection request data requirements	☐ high ■ medium ☐ low	■ urgent ☐ not urgent
2.1.6 Should the SGIP accommodate re-studies?	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
2.1.7 Availability of the current base case data for use by project developers	☐ high ■ medium ☐ low	☐ urgent ■ not urgent
2.1.8 Delays and uncertainty in study results caused by projects that withdraw	■ high ☐ medium ☐ low	■ urgent ☐ not urgent

Comments:

Timelines: SCE believes strongly that current SGIP timelines don't work under the environment created by the high volume of SGIP requests, creating the imperative for modifications. The inability to study serial SGIPs in relation to clustered LGIPs leads to inevitable delays in study completion adds to the uncertainty that generators say is hampering their ability to interconnect generation, particularly renewable generation. Generators have expressed concern that the reformed LGIP process is too long. However, without reforms, the SGIP process will only lengthen further and create further uncertainties to generators.

Application fee: SCE is wary of raising the application $ amount too high for the SGIP, being sensitive to small business and competitive concerns expressed by stakeholders. However, reforms/enhancements to the "fast track" screening process should be used to help those projects that clearly have no or minimal impacts to proceed on a faster process.

Feasibility Study: SCE believes most applicants do not wish to pay for or perform all 3 interconnection studies. As was stated in the LGIP reform process, if provided sufficient base case information, etc., a developer should be able to perform (or have a consultant perform) a feasibility study prior to submitting an application. Many generators seek to waive the feasibility study and proceed directly to the system impact study, which in SCE's view shows the relative unimportance of the feasibility study to the generators. A more comprehensive study, similar to the Phase I or Phase II study found in the reformed LGIP is proving much more informative for all stakeholders.

Restudies: The Facilities Study (or equivalently, the Phase II study) should be the last word for the network upgrades, but this is not the case for any distribution system upgrades. There needs to be the ability to revisit the distribution system upgrades, as they are non-

	refundable. **Transparency of WDAT:** SCE publishes its WDAT queue on its Open Access website and regularly updates it. SCE is willing to discuss with stakeholders additional measures that are reasonably feasible and that may improve transparency of the WDAT interconnection process. **Viability of projects:** SCE does not agree that PTOs should be responsible for assessing the viability of projects that are proposed to interconnect. Any viability screening is purview of the developers, and any criteria for establishing criteria would necessarily be subjective and lead to protracted and unnecessary disputes.
Solution Ideas:	**Timelines and Study Process:** SCE proposes that the best approach to solve the disconnection between SGIP and LGIP is to bring both processes into a single unified study process. One possible solution is to re-examine the need for two Phase I studies in the LGIP in a given year, as well as the length of the Phase II study process. Experience thus far with the Transition Cluster leads SCE to believe that the LGIP study process could be shortened and the SGIP study process lengthened slightly in order to better synch the two processes. SCE understands the rationale behind having the two LGIP Phase I studies in a given year was driven by the procurement process. However, if the extra Phase I study, in experience, is outliving its usefulness due to the delay it engenders, perhaps the playing field has changed and the second Phase I study is expendable. In the long run, SCE believes that only a fully- integrated study process (integrating SGIP and LGIP) will be the best solution to address stakeholder concerns regarding the timing of the study process, the interaction between LGIP and SGIP, and the reduction of uncertainty as to timing and cost of required network upgrades and interconnection facilities. SCE is concerned whether FERC would allow an integrated LGIP and SGIP. SCE believes that FERC instituted separate processes under pressure from small generation developers, and under the perception that small generation requests should have fewer impacts to the transmission system, and therefore could move faster through the study process. However, given the change in technology in recent years, and the creation of business plans based on an arbitrary 20 MW limit, SCE believes that the rationale for keeping LGIP and SGIP as separate processes has passed. The surge in the number of SGIP requests supports this view. Perhaps the two processes could stay separate, but operate in

	parallel, with the same timeframes. Or alternatively, the MW threshold could be lowered so that most of the current SGIP interconnection requests will be converted to LGIP requests and proceed under the reformed LGIP process. SCE envisions lowering the MW threshold for SGIP to something like 3-5 MW (subject to stakeholder input). Interconnection requests between 3-5 MW and 20 MW might have lower application fees than the LGIP >20MW, etc., but would be required to pass thru the clustering LGIP study process. **Application Fee:** Perhaps raising the application fee slightly (not of the magnitude seen in the LGIP reform), or tiering the application fee, such as in SCE's proposal above for lower application fees for the "SGIP but studied under LGIP" type of projects, might provide some relief. In addition, providing a mechanism (and enforcing it) that would re-package multiple applications by the same developer in a certain region could also play a role in reducing the sheer volume of requests. **Application and Feasibility Study:** SCE believes that the SGIP application should contain the same level of detail as is found in the application for the reformed LGIP. This is one area where due diligence at the outset could end up saving a developer, CAISO, and the PTOs both time and $ in placing the most/latest information in its application. Since SCE's experience is that many generators prefer to waive the feasibility study, it should be eliminated. Better information sharing upfront (base cases, etc.) and scoping meetings should be able to assist generators in making good decisions on where to develop generation. **Restudies:** As distribution upgrades are non-refundable, SCE proposes that any reform include the ability to re-open the plan of service (like a true-up) after the final interconnection study for distribution upgrades.

Deliverability Issues Related to Interconnecting Small Generation

2.2.1 Should SGIP have an option for deliverability?	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
2.2.2 Should there be an opportunity to have "partial deliverability"?	☐ high ☐ medium ■ low	☐ urgent ■ not urgent
2.2.3 Should there be a later opportunity to change deliverability status after generator is commercially operational?	☐ high ☐ medium ■ low	☐ urgent ■ not urgent

2.2.4 How would a change in policy affect existing generation and/or existing projects in the queue?	☐ high ☐ medium ■ low	☐ urgent ■ not urgent
Comments:	**Deliverability and Partial Deliverability:** SCE believes strongly that SGIP generation resources should qualify for Resource Adequacy evaluation through a CAISO-administered deliverability assessment. However, SCE is not sure what "partial deliverability" means, how it would be defined, what benefit it would provide a generator, and how it would be eventually cured into "full deliverability". As partial deliverability is not an option under the reformed LGIP, if such a provision were to be added to the SGIP, there may need to be further discussions about partial deliverability under the LGIP (further reason why SCE is not supportive of partial deliverability). Another reason why partial deliverability makes little sense to SCE, is that if the generator sought later to achieve "full deliverability" and was allocated the cost of delivery network upgrades to make it fully deliverable, how would the generator be allocated the financial responsibility for those delivery network upgrades (assuming the generator has already achieved commercial operation)? Likewise, would the upgrades be subject to refund (likely), and would credits be paid within five years after achievement of "full deliverability"? This topic seems to create more questions than answers. **TO and WDAT Deliverability:** SCE sees no good reason to keep the rules regarding deliverability different between the TO and WDAT tariff.	
Solution Ideas:	**Deliverability and Partial Deliverability:** SCE does not believe partial deliverability creates any benefit to a small generator, the option should be full deliverability, with the associated requirement to finance delivery network upgrades, or energy only; with nothing in between.	
Issues relating to Cost Certainty		
2.3.1 Developers desire cost certainty	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
2.3.2 How to minimize the impacts caused by projects that drop out of the queue?	☐ high ■ medium ☐ low	■ urgent ☐ not urgent
2.3.3 Accuracy of the per unit construction cost estimates	☐ high ■ medium ☐ low	☐ urgent ■ not urgent

2.3.4 Effects of adding cost certainty measures to the overall SGIP timeline	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
Comments:	SCE understands developers' desire for cost certainty. However, SCE's experience has shown that speed and accuracy of cost information are mutually exclusive. If generators prefer accuracy over speed, then the process will, of necessity, take longer. Clustering of interconnection requests for study purposes has been shown to be the best way to minimize the impacts caused by projects that drop out of the interconnection process. **Unit costs:** The primary purpose/benefit of using unit costs in interconnection studies is speed. The secondary purpose/benefit is consistency. Just like buying a new suit off the rack, unit costs do not provide a custom fit for each individual interconnection request. In an era where a large number of generators are seeking interconnection, unit costs are the only method to achieve an acceptable level of accuracy given the time constraints involved in the interconnection studies.	
Solution Ideas:	**Unit costs:** SCE recommends using the same unit costs developed under the LGIP for Phase I cost estimates for any future Phase I-type estimates for SGIP. SCE is not willing to create separate unit cost estimates that are subject to the Phase I cost cap, and ones that are not. Stakeholder objections as to the magnitude of the unit costs have been noted, but are only relevant after a complete cycle of estimates, construction, and true-ups, to see whether the unit costs are truly excessive as some stakeholders claim.	
Issues related to Eligibility Criteria		
2.4.1 LGIP projects broken up into multiple SGIP projects	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
2.4.2 Real vs. Speculative projects	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
2.4.3 Generation MW size	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
2.4.4 MW Increases to existing projects	☐ high ■ medium ☐ low	☐ urgent ■ not urgent
2.4.5 Site Control	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
Comments:		
Solution Ideas:		

Issues related to application and study fees			
2.5.1 Appropriateness of amount	☐ high ☐ medium ■ low	☐ urgent	■ not urgent
Comments:	SCE believes the current $1,000 application fee is an appropriate amount for entry into the SGIP and is reasonable.		
Solution Ideas:	Of course, if the desire is to move more in parallel with the LGIP, and have the generator pay for all study costs upfront, then the cost of the study deposit would be additive to the application fee, resulting in a higher upfront deposit. Also SCE would recommend applying the same refundability provisions to this new higher study deposit as found in the reformed LGIP.		
Small Generator Interconnection Agreement Issues			
2.6.1 Pace of SGIA completion	■ high ☐ medium ☐ low	■ urgent	☐ not urgent
2.6.2 Detail of the SGIA	■ high ☐ medium ☐ low	■ urgent	☐ not urgent
Comments:	**Pro-forma SGIA:** In today's environment with hundreds of SGIP requests and clogged interconnection process, the SGIA needs to be updated with a similar amount of detail as found in the reformed pro-forma LGIA.		
Solution Ideas:			
Miscellaneous SGIP tariff issues			
2.7.1 Detail of the SGIP tariff	☐ high ■ medium ☐ low	■ urgent	☐ not urgent
2.7.2 Clarity of SGIP tariff definitions	☐ high ■ medium ☐ low	■ urgent	☐ not urgent
Comments:	All definitions should be consistent between the reformed LGIP/A and the to-be reformed SGIP/A.		
Solution Ideas:	All definitions pertinent to a cluster study approach and other mechanisms found in the reformed LGIA should apply to any amendments to the pro-forma SGIA. In particular, the distinction between distribution upgrades, network upgrades, and interconnection facilities are key to ensure proper allocation of costs and financing responsibility between the parties. Additionally, a clear definition between "full capacity delivery" and "energy only" would be very helpful.		
Additional Issues that should be considered			

Please include additional issues here.	■ high ☐ medium ☐ low	■ urgent ☐ not urgent
Comments:	The working groups should evaluate the impact of other interconnection protocols, such as Rule 21, CREST, CHIP/WATER, and Local Government Net Metering. SCE is seeing large increase in the number of requests for these interconnection methods, each of which tap the same distribution engineering resources for evaluation and study. SCE is even seeing the impact on a collective basis of these types of interconnection requests on the transmission system. For example, an SPS that has by standard a finite set of nodes, and no more room for additional nodes for either an LGIP, a SGIP, or a Rule 21 request. In this case, the next request would trigger the need for additional upgrades to remedy the situation. Leading to a Rule 21 or other small request being allocated a potentially large upgrade cost.	
Solution Ideas:		

Do you have any additional comments that you would like to provide?

- **Waiver of final interconnection posting for network upgrades that PTOs have selected to upfront finance.** While stakeholders are in the process of developing another potential amendment to the LGIP, SCE would like to raise the issue with stakeholders surrounding the final interconnection financial security (IFS) posting, which per the reformed LGIP is set at 100% of the interconnection customer's financing responsibility for network upgrades and interconnection facilities, due at the start of construction activities. SCE proposes implementing this waiver in the pro-forma LGIA, whereby the final (100%) IFS for the network upgrades would be waived if the PTO elects to upfront finance network upgrades.

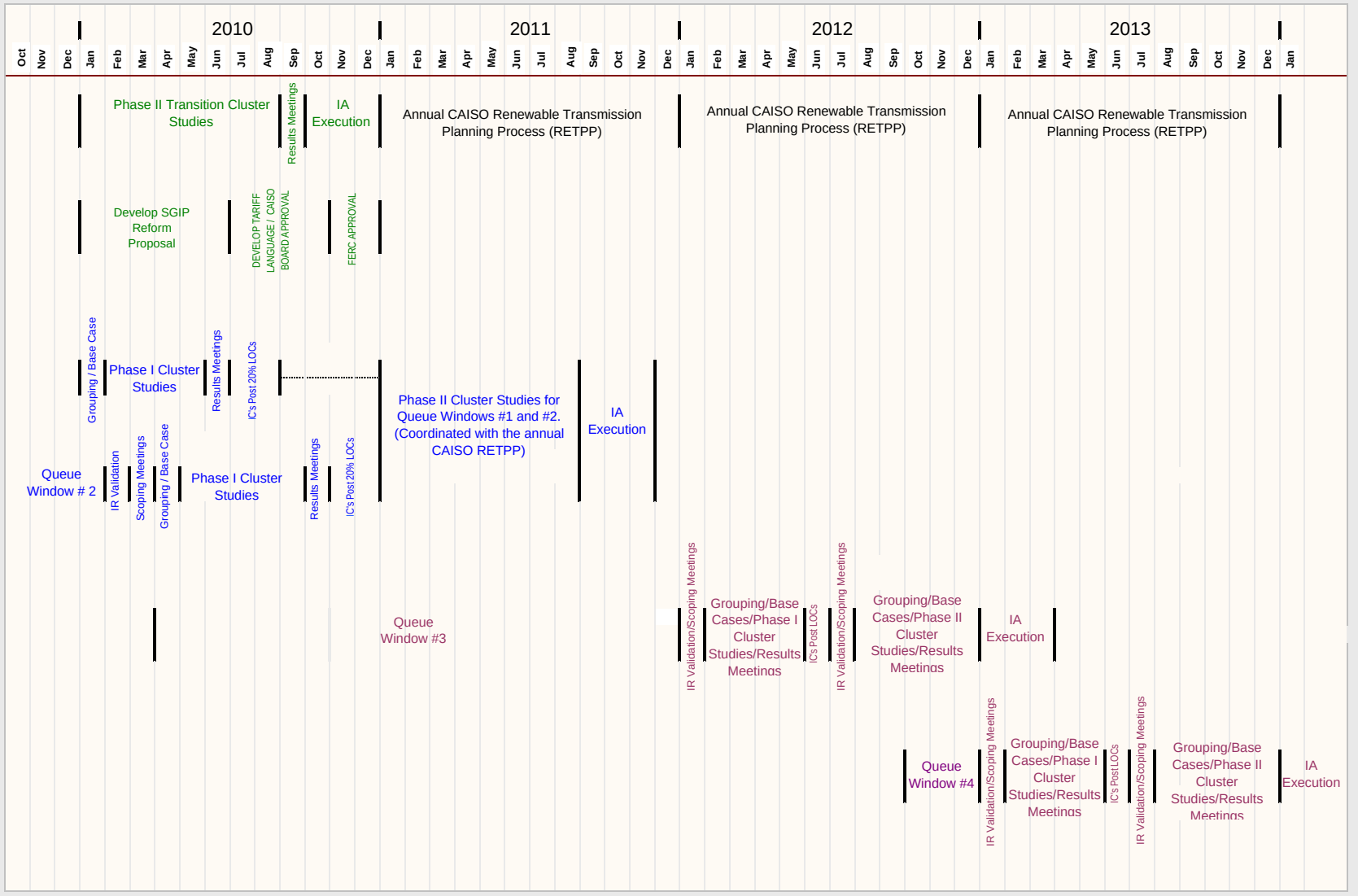
  The benefit of this waiver is eliminating excessive financing requirements, including the carrying charges of that financing, for instances where the PTO has committed to upfront finance network upgrades. SCE does not see the utility of generators incurring the credit responsibility, or the LOC carrying charges that could total potentially millions of dollars a year for credit facilities that will never be drawn upon (assuming the PTO provides the upfront financing). Or, alternatively stated, SCE does not see the benefit of having both PTO financing and generator IFS covering the same network upgrades, when only one source of financing will be ultimately drawn upon to fund the construction of the network upgrades.

  Certainly this waiver provision will also require a provision whereby, in the case that the PTO first commits to upfront finance, but due to inability to secure

sufficient cost recovery assurances or generator default under the terms of the LGIA, chooses to no longer provide upfront financing, that the financial responsibility would return to the generator and financial security would have to be provided within a set time period.

SCE welcomes the opportunity to discuss this provision in future stakeholder and work group meetings.

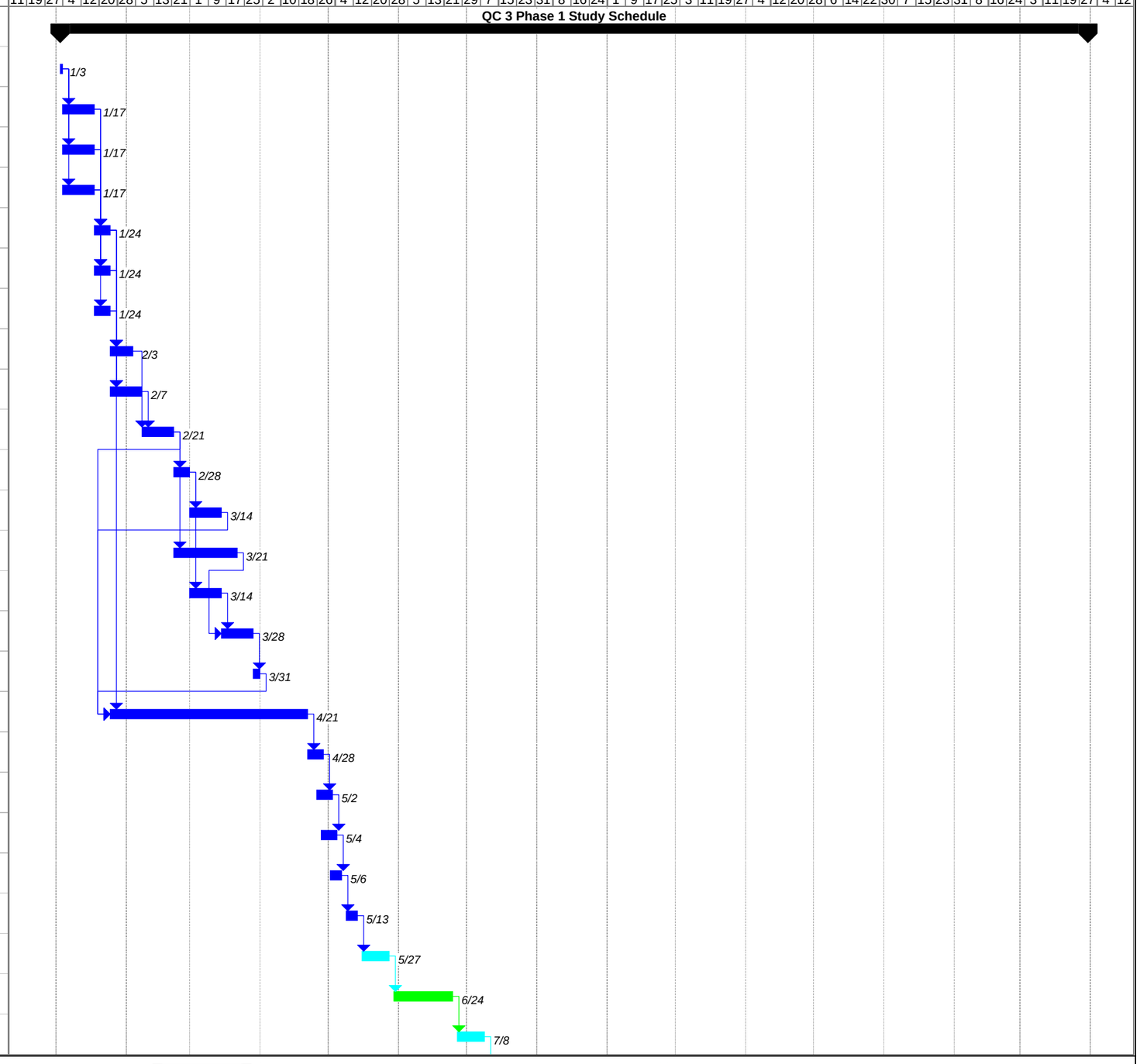
Small Generation Reform Proposal Timelines
Consolidated Small and Large Generation Cluster Windows



4/28/10

Draft - SCE

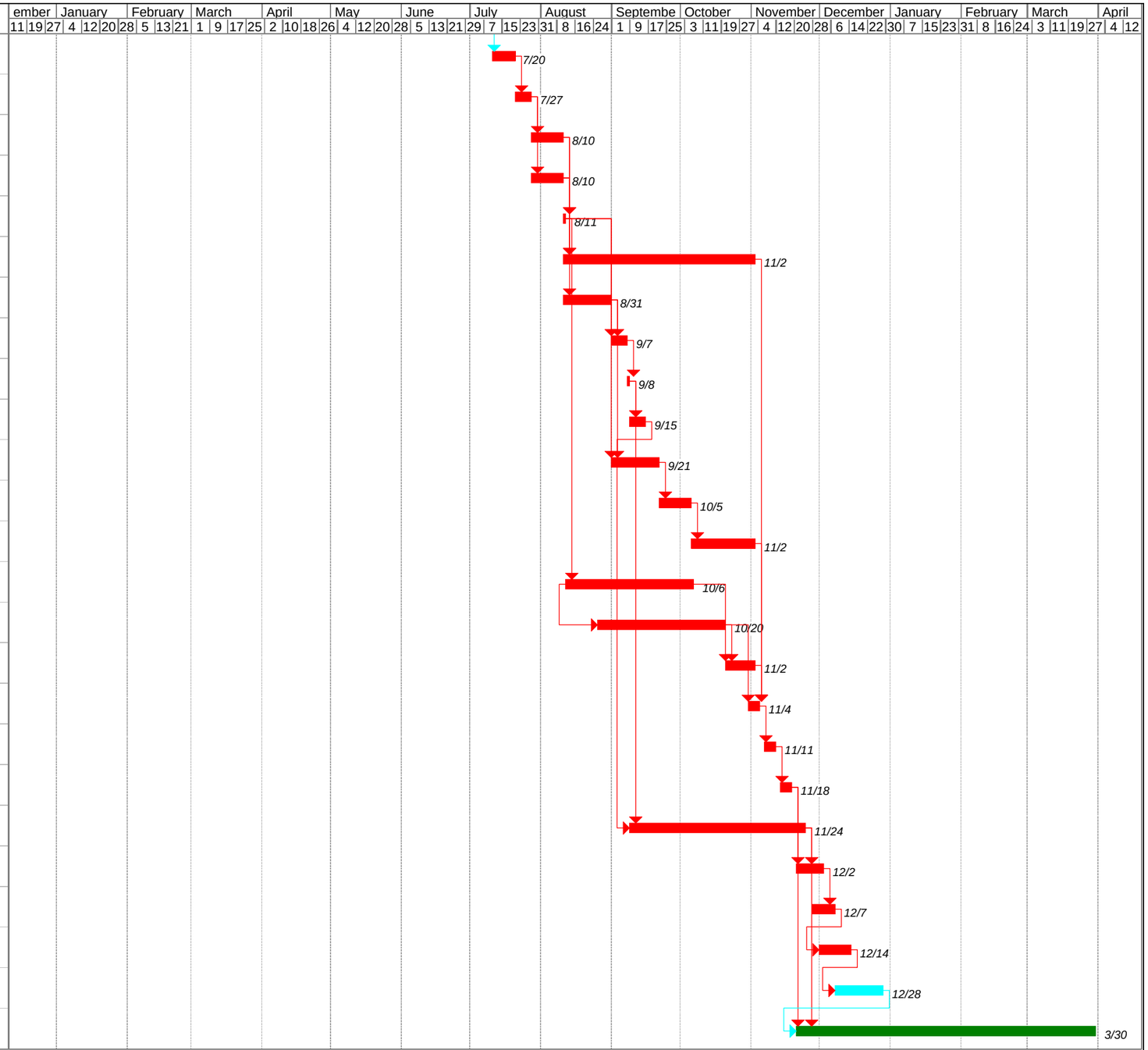
ID	Task Name	Duration	Start	Finish	Predecessors
1	***QC 3 Phase 1 Study Schedule***	**325 days**	**Mon 1/3/11**	**Fri 3/30/12**	
2	CAISO & PTO develop initial generation groups for initial dispatch assumptions and cost allocation	1 day	Mon 1/3/11	Mon 1/3/11	
3	PTO develops draft base cases, each representing all generation in the queue cluster and deliver to ISO	10 days	Tue 1/4/11	Mon 1/17/11	2
4	PTO develops preferred and alternative, if applicable, direct interconnection plans, including the	10 days	Tue 1/4/11	Mon 1/17/11	2
5	PTO develops draft contingency lists	10 days	Tue 1/4/11	Mon 1/17/11	2
6	CAISO reviews and approves Base Cases, Direct Interconnection Plans and merges them together, as	5 days	Tue 1/18/11	Mon 1/24/11	5,4,3
7	CAISO updates summer peak base cases to reflect withdrawn projects from previous queue cluster study	5 days	Tue 1/18/11	Mon 1/24/11	5,3,4
8	CAISO reviews and approves contingency lists. PTO needs time to consider ISO proposed changes	5 days	Tue 1/18/11	Mon 1/24/11	5
9	CAISO provides Deliverability Study results identifying constrained facilities, using summer peak base	8 days	Tue 1/25/11	Thu 2/3/11	8,7,6
10	At the CAISO's direction, the PTO performs the off-peak Load Flow, and summer peak and off peak Post	10 days	Tue 1/25/11	Mon 2/7/11	8,7,6
11	PTO develops mitigation plans for summer peak and off-peak or supplements ISO proposed mitigation	10 days	Tue 2/8/11	Mon 2/21/11	10,9
12	CAISO retests Deliverability study results with proposed delivery upgrades and withdrawn projects from	5 days	Tue 2/22/11	Mon 2/28/11	11
13	CAISO develops shift factors for cost allocation purposes of all upgrades associated with mitigating thermal	10 days	Tue 3/1/11	Mon 3/14/11	12
14	CAISO to coordinate with other potentially affected facility owners	20 days	Tue 2/22/11	Mon 3/21/11	11
15	CAISO directs PTO to develop SCD Base Case and run short circuit analysis	10 days	Tue 3/1/11	Mon 3/14/11	12
16	PTO performs SCD facilities review (Note: possibly for feedback into the powerflow and PTO mitigation plans)	10 days	Tue 3/15/11	Mon 3/28/11	15,14FS-7 days
17	PTO prepares draft SCD study results and submit to the CAISO for review and direction	3 days	Tue 3/29/11	Thu 3/31/11	16
18	PTO prepares cost estimates and schedules for the direct assignment facilities and network upgrades	63 days	Tue 1/25/11	Thu 4/21/11	17FS-50 days,11FS-22 days,13FS-40
19	PTO prepares draft report for impacts in their service territory.	5 days	Fri 4/22/11	Thu 4/28/11	18
20	CAISO compiles all results into a draft report that covers grid impacts, as appropriate. CAISO reviews	5 days	Tue 4/26/11	Mon 5/2/11	19FS-3 days
21	PTO incorporates CAISO directions, conclusions and recommendations. If ISO conclusions and	5 days	Thu 4/28/11	Wed 5/4/11	20FS-3 days
22	PTO submits final draft report to the ISO. The ISO will finalize the report and tender the ISO approved report to	5 days	Mon 5/2/11	Fri 5/6/11	21FS-3 days
23	CAISO provides final approved report to ICs, PTO, and any applicable affected systems	5 days	Mon 5/9/11	Fri 5/13/11	22
24	Phase I Results Meetings	10 days	Mon 5/16/11	Fri 5/27/11	23
25	Developers submit LOCs	20 days	Mon 5/30/11	Fri 6/24/11	24
26	Phase 2 Scoping Meetings	10 days	Mon 6/27/11	Fri 7/8/11	25



Project: tcp2
Date: Thu 4/1/10

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

ID	Task Name	Duration	Start	Finish	Predecessors
27	PTOs update Base Cases from Phase 1 Interconnection Study to remove projects that have withdrawn	8 days	Mon 7/11/11	Wed 7/20/11	26
28	CAISO reviews and approves Base Cases	5 days	Thu 7/21/11	Wed 7/27/11	27
29	Deliverability Assessment	10 days	Thu 7/28/11	Wed 8/10/11	28
30	Reliability Assessment	10 days	Thu 7/28/11	Wed 8/10/11	28
31	PTO/CAISO Team Meeting	1 day	Thu 8/11/11	Thu 8/11/11	30,29
32	Stability Assessment	60 days	Thu 8/11/11	Wed 11/2/11	29,30
33	Develop and Agree Upon a Mitigation Plan	15 days	Thu 8/11/11	Wed 8/31/11	30
34	Retest deliverability	5 days	Thu 9/1/11	Wed 9/7/11	31,33
35	PTO/CAISO Team Meeting	1 day	Thu 9/8/11	Thu 9/8/11	34
36	Cost Allocation Factors	5 days	Fri 9/9/11	Thu 9/15/11	35
37	Develop SCD base case	15 days	Thu 9/1/11	Wed 9/21/11	31,33
38	SCD facilities review	10 days	Thu 9/22/11	Wed 10/5/11	37
39	SCD study results	20 days	Thu 10/6/11	Wed 11/2/11	38
40	Operational study base cases	40 days	Fri 8/12/11	Thu 10/6/11	31
41	Operational studies	40 days	Fri 8/26/11	Thu 10/20/11	40SS+10 days
42	Additional operational studies (AS REQUIRED)	9 days	Fri 10/21/11	Wed 11/2/11	41,40
43	Draft plan of service reports	5 days	Mon 10/31/11	Fri 11/4/11	39FS-3 days,32FS-3 days,41,42FS-3
44	Review plan of service reports	5 days	Mon 11/7/11	Fri 11/11/11	43
45	Resolve conflicts re POS	5 days	Mon 11/14/11	Fri 11/18/11	44
46	Develop facilities scope, cost estimates and schedules	55 days	Fri 9/9/11	Thu 11/24/11	35,36FS-10 days
47	Draft Facilities Reports (one per project)	10 days	Mon 11/21/11	Fri 12/2/11	45,46FS-5 days
48	Review Facilities Reports (one per project)	8 days	Mon 11/28/11	Wed 12/7/11	47FS-5 days
49	Finalize Facilities Reports (one per project)	10 days	Thu 12/1/11	Wed 12/14/11	48FS-5 days
50	Results meetings	15 days	Thu 12/8/11	Wed 12/28/11	49FS-5 days
51	DRAFT and LGIA negotiations	95 days	Mon 11/21/11	Fri 3/30/12	45,46FS-18 days,50FS-50



Project: tcp2
Date: Thu 4/1/10

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone