

**Generation Interconnection Process
Reform (GIPR)
Revised Draft Proposal**

March 12, 2008



California ISO
Your Link to Power

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1.0 Introduction

This is the second iteration of the Generator Interconnection Process Reform (GIPR) Proposal. Changes incorporated into this version are largely the product of input received from stakeholders at and after the February 19, 2008 stakeholder meeting. Section 3.0 below provides a summary of the salient modifications. Moreover, rather than continue to reiterate the background section and general goals of GIPR in this draft, those sections have been relocated to Appendix A for reference purposes.

2.0 Schedule for GIPR Stakeholder Process

<i>January 18, 2008</i>	<i>CAISO posts Issues Identification Paper</i>
<i>January 25, 2008</i>	<i>Stakeholder Meeting – CAISO offices in Folsom – 9am - 5pm</i>
<i>January 31, 2008</i>	<i>Stakeholder comments due by Close of Business (COB)</i>
<i>February 12, 2008</i>	<i>CAISO posts Draft Proposal</i>
<i>February 19, 2008</i>	<i>Stakeholder Meeting – CAISO offices in Folsom – 9am - 5pm</i>
<i>February 26, 2008</i>	<i>Stakeholder comments due by COB</i>
<i>February 28, 2008</i>	<i>Stakeholder Conference Call</i>
<i>March 12, 2008</i>	<i>CAISO Posts Revised Draft Proposal</i>
<i>March 13, 2008</i>	<i>Stakeholder Conference Call</i>
<i>March 20, 2008</i>	<i>Stakeholder Conference Call</i>
<i>March 26, 2008</i>	<i>CAISO Board of Governors Presentation (informational)</i>
<i>March 27, 2008</i>	<i>Stakeholder Conference Call</i>
<i>Mid April 2008</i>	<i>CAISO posts draft Tariff language and Final Proposal</i>
<i>Late April 2008</i>	<i>Stakeholder Meeting – CAISO offices in Folsom – 9am – 5pm</i>
<i>May 21-22, 2008</i>	<i>CAISO Board of Governors Presentation (decisional)</i>

3.0 Summary of Major Changes in the Revised Proposal

- Anticipated first “new” Queue Cluster Window is proposed for July 1, 2008.
- Request for whether to include Interconnection Requests (IR) with a signed and approved power purchase agreement in the “Serial Group,” i.e., existing IRs allowed to proceed under the current Large Generator Interconnection Procedures (LGIP).
- The deposit in lieu of Site Control for ICs in the Clearing Group will be subject to some limited refundability equal to those ICs in subsequent GIPR Queue Cluster Windows.
- Definition of Site Control has been modified to establish reasonable proportional requirements and include a separate requirement for projects on land controlled by the Bureau of Land Management.
- Discussion of a “straw proposal” regarding an “optional preliminary study.”
- The deposit for study costs will no longer be unequivocally nonrefundable.
- PTOs would develop and annually update per unit costs of facilities for additions to their systems for use in preparing non-binding, good faith cost estimates.
- The addition of “off-ramps” related to changes in Interconnection Facilities costs.
- Specification of standards for Letters of Credit and staged levels of refundability of amounts posted for Network Upgrades.

- Proposal for an “accelerated study process” to expedite identification of needed Network Upgrades.

4.0 Proposal for Clearing the Existing Queue Backlog

- a) The CAISO will establish, under its existing Tariff authority, a going forward Queue Cluster Window to accept all new IRs. This will be called the “First GIPR Queue Window.” At present, it is contemplated that the First GIPR Queue Window will commence on July 1, 2008.
- b) Concurrently or as soon thereafter as practicable, the CAISO will file with FERC a request seeking the following relief:
 1. Request waiver of current maximum Queue Cluster Window duration of 180 days for the First GIPR Queue Window to allow additional time to clear the backlog of existing projects.
 2. Request authority to suspend requirement to perform Interconnection Feasibility Studies on new IRs received in the First GIPR Queue Window.
 3. Request authority to suspend work on all existing queue projects that are in their Feasibility Study phase and all projects in their Interconnection System Impact Study (ISIS) phase where the original due date for the ISIS set forth in the ISIS Agreement due date is later than February 1, 2008 (or other appropriate date). These suspended projects will be defined as the ‘Clearing Group’. Projects with completed ISIS or that are in the ISIS phase with ISIS Agreement due dates of February 1, 2008 or earlier will continue to be studied according the existing LGIP, unless the IC requests their project to be suspended and included in the Clearing Group. This will be the “Serial Group.” The CAISO requests comment on whether there is any value in augmenting the criteria for the Serial Group to include IRs with signed and approved Power Purchase Agreements. All pre-LGIP projects will be required to meet existing LGIP terms and conditions, including execution of an LGIA.
- c) As part of the GIPR filing with the FERC, the CAISO will request that all projects in the existing queue, whether in the Clearing Group or Serial Group, will be required to submit the following:
 1. Increased total study deposit for each IR in the current queue to \$250,000. This deposit is non-refundable until the Interconnection Customer (IC) enters into an Interconnection Agreement (IA), at which time the deposit will be refundable net any administrative and study costs. It is anticipated that the IC will have 60 days once FERC rules on the GIPR proposal to post this deposit.
 2. Proof of Site Control for each IR in the current queue or posting of \$250,000 deposit in lieu of Site Control. This deposit shall be subject to the same refund rules set forth in Step 1 on the Queue Cluster Window. It is anticipated that the IC will have 60 days once FERC rules on the GIPR proposal to demonstrate Site Control or post the optional deposit. Use of any forfeited deposits to be determined.

Site Control - Documentation reasonably demonstrating:

(1) For Private Land-

(a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility;

(b) an option to purchase or acquire a leasehold in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or

(c) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.

(2) For Bureau of Land Management (BLM) Land the Interconnection Customer must have received Bureau of Land Management acceptance of the Interconnection Customer's Application for Right of Way (ROW) to the proposed Generating Facility site.

3. Confirmation that the IC can complete its generation facility within 3 years of the COD stated on the original IR.
4. Requested deliverability status as described in section '5.2.e' below.
5. All technical data if not already completed as described in section '5.2.f' below.
6. Signed Generation Interconnection Process Agreement.

Any IC who does not: complete items 1-6 above in the allowed timeframe will be withdrawn.

- d) The CAISO will process the remaining projects in the Clearing Group, utilizing the methodology described in Sections 5.5 through 5.9.
- e) It is anticipated that all projects in the Clearing Group will be included in a transitional CAISO 2009 Transmission Planning Process (TPP).
- f) After FERC approves the GIPR filing, the CAISO proposes the following timeline to clear the existing queue 'Clearing Group':

Prior to FERC GIPR Approval		Complete to the extent possible all non-suspended projects
60 days	Step 1	Revise Agreements, IC Post Additional Deposits, IC Demonstrate Site Control, IC confirms COD
30 days	Step 2	'Clearing Group' Base Case developed and Project Grouping

210 days	Step 3	Studies
60 days	Step 4	Results Meetings
60 days	Step 5	IA Execution
	Step 6	2009 Transitional Transmission Planning Process

5.0 Summary of GIPR Proposal

Following are the steps of the GIPR draft proposal. Timeframes are assumed to be Calendar Days unless otherwise noted.

5.1 Optional Step 0 – Optional Preliminary Study (Under Consideration)

Several stakeholders, representing both generation developers and buyers, have expressed a desire for some type of preliminary screening assessment information, which would be similar to today's Interconnection Feasibility Study. The proponents anticipate that such an assessment will provide the IC with interconnection information to assist in project development and also provide LSEs with transmission information to support resource procurement processes.

The CAISO is not yet willing to commit to a preliminary assessment process based on information presently available and on several considerations that warrant additional stakeholder input. First, the CAISO has been informed that to realize the expected or full value of a preliminary assessment, the CAISO and PTOs must be significantly involved. In short, LSEs, project developers, and consultants may not have sufficient independent familiarity with the details of the transmission system to perform studies upon which regulatory entities reviewing procurement decisions may rely. Accordingly, depending on the definition of the assessment's scope, the impact on CAISO and PTO resources may be significant and potentially affect the ability to meet other, more formal, interconnection timelines associated with the GIPR.

Second, even ignoring the foregoing, the CAISO remains uncertain as to the true value of such preliminary assessments. At any moment in which a request for a preliminary assessment is made, the base case used will not reflect the IRs in the current Queue Cluster Window. The result will be that the preliminary assessment will likely be incomplete to some degree. This deficiency is most pronounced with respect to renewable resources, which will likely be located in areas affected by multiple IRs in the pending Queue Cluster Window. Thus, to the extent there is even low CAISO and PTO involvement, the efficacy of the preliminary assessment requires close scrutiny. One option to somewhat mitigate this deficiency is to limit the availability of these preliminary assessments to resources subject to an "all source" solicitation, i.e., thermal resources not located in competitive renewable resource zones. LSEs under the jurisdiction of the CPUC would continue to rely on the Transmission Ranking Cost Reports for renewable resource solicitations. Such delineation implicates potential discrimination concerns that also require further evaluation.

The CAISO weighs the foregoing concerns against the GIPR's current mechanisms to coordinate with resource solicitations and developer information requirements. For instance, the adoption of two clusters per cycle was intended to allow greater coordination between procurement process and the transmission information produced by the GIPR study. The disclosure of base case and other information was intended to provide developers the opportunity to perform some screening

analyses. Further, as discussed below, the GIPR includes staged commitment levels as the IC moves through the process. This reduces, but does not eliminate, the IC's financial risk of proceeding with the GIPR as procurement activities occur concurrently. While this approach would appear to encourage procurement solicitations to require the submission of an IR prior to eligibility for consideration, it may have the advantage of providing LSEs with the most accurate transmission information while still allowing ICs the opportunity to withdraw if their bid is unsuccessful.

In light of these considerations, the following is a straw proposal for consideration. However, this would be a stand-alone process, separate from the Queue Cluster Study in Steps 1-8.

- a) The CAISO and PTOs would provide a list of consulting firms that have expertise in performing interconnection studies.
- b) ICs would contract directly with these consulting firms to perform a preliminary study based on a Proforma study agreement¹.
- c) Once ICs have contracted with the Consultant, the Consultant could seek input from the CAISO and PTOs for necessary information that is not already available.
- d) The Consultant would use base cases and contingency files provided by the CAISO and PTOs.
- e) The CAISO and PTOs would participate in one scoping meeting and would review and provide good faith input on the preliminary studies.
- f) Cost recovery for the CAISO and PTO time spent on assisting with the preliminary study is still an open issue.
- g) The preliminary study would not be associated with any queue position.
- h) The preliminary study would not be required.

There are several key features of the CAISO's draft proposal:

- Keeps the responsibility for performing the preliminary screening studies with the developer and not with the CAISO or PTOs. It offers CAISO and PTO support by providing data and guidance. It allows the developer to perform a multitude of sensitivity studies at will without having to depend on CAISO and PTO time constraints and competing commitments.
- Keeps the liability related to the outcome of the studies with the developer and not with the CAISO or PTOs. As noted, these preliminary screening studies will not have the benefit of incorporating details of other similarly situated generation projects that may be in a current queue window. This discontinuity in time places a natural constraint on providing accuracy and certainty in the results. This raises the question as to the expectations of the overall level of rigor and deliverables of the preliminary screening studies.
- Substantially minimizes fairness and conduct issues by having the developer be responsible for managing the process of performing studies.

¹ LSE's could jointly sponsor this study with the IC if the project is participating in an LSE procurement process. If LSE and IC are affiliated, then the CAISO could provide additional oversight to enhance the independence of the study.

5.2 Step 1 – Queue Cluster Window

Two four month Queue Cluster Windows will be opened each year. During these windows, ICs would submit a completed IR which would include all of the information currently required by the CAISO LGIP process with the following additions and clarifications:

- a) Identify proposed project's physical site location(s) by providing detailed maps and the project's proposed service interconnection point (location where interconnection facilities meet the project facilities).
- b) Demonstrate proof of Site Control, as defined above, through the project's proposed COD plus three years (the additional three years is to allow for unforeseen construction delays).
- c) The IC may post a \$250,000 deposit in lieu of Site Control. This amount would be refundable upon proof of Site Control or if the IC withdraws prior to signing an Interconnection Agreement (IA). The deposit would be forfeited if the project withdraws subsequent to signing an IA. Forfeited funds would be used to reduce PTO transmission revenue requirements recovered through the Transmission Access Charge (TAC).
- d) The IC shall make a \$250,000 deposit to cover costs of processing the IR and conducting studies. As graphically represented in Appendix B, \$100,000 of the study deposit becomes non-refundable after the Scoping Meeting, plus 30 days. Thus, an IC may withdraw prior to completion of the base cases and receive full recovery of its deposited study amount, net administrative and study cost to date. There is also an incentive to inform the CAISO of an intent to withdraw following the Results Meeting to facilitate development of the base case for the following Queue Cluster Window. In particular, if the IC withdraws within 30 days following the Results Meeting, the IC shall receive a refund of the unused balance of its deposit (net administrative and study costs) above \$100,000, if any. However, the full amount of the study deposit becomes non-refundable if the IR is withdrawn after the Results Meeting, plus 30 days, but is refundable during this period if an IA is executed.
- e) The IC shall specify their requested deliverability status, either full capacity or energy only. The Deliverability Assessment will be performed at peak conditions in accordance with the CAISO deliverability analysis developed to implement the state's resource adequacy requirements. Full capacity in this instance refers to the maximum Qualifying Capacity of a particular resource technology type under counting protocols adopted by the CPUC or Local Regulatory Authorities. However, for wind resources, the entire range of historic output used in the counting protocols should be considered in the deliverability studies.²

² The Net Qualifying Capacity (NQC) of a generation project can be affected by the deliverability of the unit and the Qualifying Capacity (QC) calculation. The deliverability analysis considers transmission constraints and availability of the aggregate generation in the generation pocket as

- f) Each IC shall submit all required technical data with their IR. Lack of technical data has been a cause for delays in the serial study process and likewise will delay completion of individual and group studies under a clustered approach. Accordingly, wind developers would no longer be able to submit their detailed electrical design specifications and other technical data requirements six months after submission of the IR as is now permitted under Order No. 661.
- g) The IC would identify the project's preferred Point of Interconnection (POI) and preferred voltage level. IC would only identify one POI in the IR; however this POI may change during the Scoping Meeting.
- h) To the extent that a state sponsored process, i.e., RETI, identifies maximum developable installed capacity for specified regions, the CAISO's study assumptions will apply such maximum installed capacity quantities.
- i) Sign a Pro-forma Generation Interconnection Process Agreement.

5.3 Step 2 – Interconnection Request Validation

IRs are processed and validated by the CAISO and the IC is notified of any deficiencies and given an opportunity to correct them. This step will be completed within 30 days after receipt of an IR with time-based milestones for both the CAISO and the ICs. All IRs must be validated within 30 days of the close of the Queue Cluster Window. Validation will include all components of the IR, including technical data. Any IR not validated within the allowable timeframe will be deemed withdrawn and deposit net of any administrative costs will be refunded.

5.4 Step 3 – Scoping Meetings

CAISO conducts a Scoping Meeting with each IC within 30 days after the IR is deemed valid. During the Scoping Meeting the following will be discussed:

- a) Feasibility of POI. IC will have a 5 business days following the scoping meeting to notify the CAISO of their decision on the POI.
- b) Feasibility of COD - Developer shall provide a schedule outlining key milestones including environmental survey start date, expected EIR submittal date, expected procurement date of project equipment, back-feed date for project construction, and expected project construction date. This will assist the parties in determining if CODs are realistic as any required direct interconnection facilities must be included in project EIR and will allow the CAISO to track progress moving forward. If major direct

described in the CAISO's deliverability methodology. If transmission constraints have the potential to restrict the output of production values used in the QC calculation then this result may impact the NQC. The determination of impact on the NQC would be after considering the expected availability of the remaining generation in the pocket. This complex interplay, makes it prohibitive to consider a continuous range of deliverability options.

interconnection facilities are needed, such as telecomm to support possible SPS, distribution feeders to support back feed, new substation, and/or expanded substation work, permitting and material procurement lead times may result in not meeting proposed COD. If it is determined that the requested COD is not feasible, parties may agree to a new COD. Where the parties cannot agree, the COD determined reasonable by the CAISO/PTO will be controlling where such COD is driven by the anticipated completion of necessary Reliability Network Upgrades and/or Interconnection Facilities. The IC must notify the CAISO within 5 business days following the Scoping Meeting if the new COD is acceptable.

- c) Possible study scenarios

5.5 Step 4 – Project Grouping / Base Case Development

CAISO/PTO develops base cases for studies within approximately 30 days of final cluster Scoping Meeting. Study scope and deliverables are discussed in Step 5, and more detailed information on the study timeline is included in Attachment 1.

- a) The CAISO/PTO will group projects based on their interconnection points and shared transmission needs using good engineering judgment. Final grouping for Delivery Network cost allocation purposes will be determined during the studies using generation distributions factors³.
- b) Different base cases will be developed in order to focus on a stressed dispatch level for each group, and at the same time balance loads and resources.
- c) The CAISO will make available to the ICs their relevant base cases if they have a valid WECC non-disclosure agreement and sign a CAISO non-disclosure agreement.

5.6 Step 5 –Studies

CAISO/PTO conducts Interconnection Studies within approximately 150 days consisting of the following analyses and deliverables:

- a) A Deliverability Assessment evaluating summer peak conditions and a short circuit study. The Deliverability Assessment will identify thermal overloads at summer peak conditions to be mitigated.

The CAISO/PTO will identify Delivery Network Upgrades in performing the Deliverability Assessment needed to ensure the deliverability status requested.⁴

³ The CAISO would employ its deliverability study methodology to determine generation groups and cost responsibility for Delivery Network Upgrades and for Reliability Network Upgrade costs to mitigate thermal overloads. The "5% DFAX circle" described in the methodology would determine the groupings. <http://www.caiso.com/docs/2005/05/03/200505031708566410.pdf>.

⁴ On a case by case basis, the CAISO may also provide a MW estimate for the amount of generation in the pocket which would be deliverable without triggering a particularly high cost transmission constraint.

The Deliverability Assessment study process will continue to involve a coordinated effort between the CAISO and PTOs to build the cluster base cases, with the CAISO directing the process.

The CAISO/PTO will identify Reliability Network Upgrades in performing short circuit and stability studies.

Stability studies will only be conducted if the CAISO/PTO have a reason to expect transient or voltage stability problems.

The analysis will also include an off-peak case to evaluate the conditions when congestion may be most severe.

- b) PTO's will develop the Reliability and Delivery Network Upgrades and Interconnection Facilities cost responsibility for each IC. The Delivery Network Upgrade cost allocation for Capacity units would be based on the flow impact of the generation on the identified constraints and upgrades in a manner consistent with the CAISO's existing generation deliverability methodology. Reliability Network Upgrade cost allocation for both Energy-only and Capacity units would be based on the original grouping in Step 4 and the MW capacity of the units in the group.
 - 1. PTOs would develop and annually update per unit costs of facilities for additions to their systems.
 - 2. PTOs would use these per unit costs to prepare non-binding, good faith cost estimates.
 - 3. PTOs could deviate from these per unit costs if a reasonable explanation for the deviation is provided and there is no undue discrimination.
 - 4. After signing the IA, IC's would have the option to fund a detailed facilities study to be performed by the PTO within 120 days. This study would produce a +/- 20 percent direct assignment Interconnection Facilities cost estimate similar to the current LGIP Facilities Study.
 - 5. If the more accurate cost estimate results in a cost estimate that is higher than the good faith cost estimate by more than the greater of 30% or \$5 million, then the IC would have the option to withdraw and be released from the LOC in accordance with Step 7.
 - 6. If during the transmission planning process, the CAISO moves the IC's interconnection point in order to optimize the transmission plan, and this results in a change in the estimated costs of the direct assignment Interconnection Facilities of more than the greater of 30% or \$5 million, then the IC would have the option to withdraw and be released from the LOC in accordance with Step 7.
- c) Determine actual POI (may change from IC's selection). CAISO may determine that an Interconnection Grid Substation (IGS) is needed. The IGS cost responsibility would be as follows:

1. If connected to at least two separate transmission network substations, IGS will be considered a Network Upgrade
2. If connected to only one substation, the IGS and all radial facilities interconnecting it to the CAISO Controlled Grid would be considered Interconnection Facilities
3. If the IGS is used to connect multiple projects owned by multiple IC's to the CAISO Controlled Grid, then costs may be covered by the CAISO Location Constrained Resource Interconnection Facility (LCRIF) tariff.

5.7 Step 6 – Results Meetings

Within 30 days following completion of the required Studies, the following would be completed:

- a) CAISO meets with each IC and informs them of their total cost responsibilities for Network Upgrades at their requested deliverability status and an estimate of Interconnection Facilities costs. These costs would be binding as essential information for ICs to determine interest to proceed to the Interconnection Agreement phase or withdraw.
- b) IC works with CAISO and PTO to select a reasonable COD.
- c) Depending on the MW increments of deliverability created by upgrades identified in the Studies, the IC may have the option of reducing their project size or changing their deliverability status in order to reduce or eliminate the cost of Delivery Network Upgrades for which they would be responsible. This decision must be made prior to executing an IA. The required LOC for Delivery Network Upgrades will be adjusted accordingly.
- d) Prior to finalization of the Unified Planning Assumptions and Study Plan, IC will be allowed to change technical information, change project configuration, and reduce their MW size. The required Letter of Credit (LOC) for Delivery Network Upgrades will not be adjusted.

5.8 Step 7 – Interconnection Agreement Execution

Within 60 days of Results Meeting:

- a) IC enters into IA knowing its total cost responsibility for Network Upgrades and its estimated costs for Interconnection Facilities or drops out.
- b) CAISO, PTO, and IC execute the IA.
- c) Letter of Credit Posting Requirements

1. Upon execution of the IA, the IC posts LOCs for 20% of the total cost responsibility of Network Upgrades and 20% of the estimated cost of Interconnection Facilities.
 2. The criteria for the LOC shall include:
 - a. An acceptable letter of credit from an entity that is rated A by S&P or A2 by Moodys;
 - b. The lending institution must be a US bank, or if a foreign bank, must be its US branch; and
 - c. If the generator elects to use a third-party guarantor, the third party must be investment grade as set forth above.
 3. The remaining 80% of cost responsibility for Network Upgrades would be posted at the end of the TPP. This would allow roughly 10 months (300 days, assuming the TPP completes in nine months) for ICs to procure the remainder of its LOC, as well as negotiate contracts and apply for needed permits.
- d) Release of LOC Amounts Posted by IC – there will be a series of off-ramps that would allow the IC to recoup a portion of its LOC upon withdrawal for any of the following three reasons:
1. The IC secures a PPA with a CPUC-jurisdictional entity, but the PPA is not approved by the CPUC.
 2. After good faith effort, the IC does not secure any or all of the necessary permits (e.g., air, water, real property, environmental, etc.) required to construct and operate its proposed generating facility.
 3. If the estimated cost of Interconnection Facilities increase by 30% or \$5 million, whichever is greater, after the TPP has been completed.
 4. The off-ramp schedule will be as follows:
 - a. From execution of the IA to the completion of TPP: Half of the 20% LOC (equating to 10% of the IC's total cost responsibility) shall be released if the IC withdraws for any of the three reasons outlined above. The remaining 10% would be forfeited as liquidated damages, which would be used to fund the Network Upgrades.
 - b. From the completion of TPP to PTOs' filing of a Permit to Construct ("PTC") or Certificate of Public Convenience and Necessity ("CPCN") at the CPUC: 50% of the LOC would be released if the IC withdraws for any of the three reasons. The remaining 50% would

be forfeited as liquidated damages which would be used to fund the Network Upgrades.

- c. From the filing of PTC/CPCN to the start of construction: 20% of the LOC shall be released if the IC withdraws for any of the three reasons. The remaining 80% of the LOC shall be forfeited as liquidated damages, which would be used to fund the Network Upgrades.
- d. Once construction of needed facilities commences: 100% of the LOC shall be forfeited if IC withdraws for any reason. The LOC amount would be applied towards construction costs of the required Network Upgrades.

The IC would provide written notification of its withdrawal to the CAISO at least 30 days in advance of the key milestones (TPP completion, PTC/CPCN filing, and commencement of construction). The IC would include in its notification to CAISO sufficient documentation to determine the IC's good faith efforts to secure permitting and/or CPUC approval of the PPA, if the IC is withdrawing its interconnection request for permitting or other regulatory reasons.

Withdrawal for any other reason would lead to IC forfeiting its maximum LOC exposure (i.e. 20% up to completion of TPP, 100% thereafter).

- e) Financing of Network Upgrades.

The IC will be required to replace all or a portion of the LOC with cash (unless the PTO at its option agrees to fund) when construction starts on the Network Upgrades assigned to a project. Actual Network Upgrades will be identified through the TPP. The IC will only be responsible to fund Network Upgrades up to the limit of its LOC.

- f) That portion of the IC's LOC or other funds unused or used to construct Network Upgrades would be released or refunded to the IC over a period not to exceed 5 years from COD. COD is defined as date when entire project capacity is on line.
- g) Amounts posted for Interconnection Facilities will be used to the extent necessary in building the Interconnection Facilities. True-up will be performed after the Interconnection Facilities are completed.
- h) An IC may be required to post additional financial commitments for Interconnection Facilities or may receive a refund depending upon actual Interconnection Facilities costs. The IC remains responsible for the full cost of Interconnection Facilities.
- i) If an IC withdraws project at anytime between IA execution and COD, the IC is responsible for any costs incurred by the PTO to construct Interconnection Facilities, any excess will be refunded to the IC.

5.9 Step 8 – Transmission Planning Process

CAISO conducts Transmission Planning Process (TPP)

- a) Final plan of service is determined
- b) All Network Upgrades would be approved by the CAISO to be rate-based into TAC

Under the CAISO's recently filed tariff revisions to the TPP, transmission projects may be deemed needed and therefore approved for inclusion in TAC where the projects are necessary to resolve a reliability criteria violation, promote economic efficiency, preserve the feasibility of allocated Long-term Congestion Revenue Rights or constitute a Location Constrained Resource Interconnection Facility (LCRIF).

1. Transmission upgrades identified in the TPP that function equivalent to Reliability Network Upgrades under the current LGIP reasonably fall within the existing reliability category for need determination.
 2. Delivery Network Upgrades may or may not promote economic efficiency as currently characterized in the CAISO Tariff. It may be necessary to develop an additional need justification based on satisfying deliverability requests included in executed IAs. Questions regarding this possible category include whether to include some type of "economic test" so that ratepayers are not bearing the burden of transmission costs that are disproportionate to the benefits derived from the deliverable capacity of a particular IC. At this time, the CAISO does not intend to impose an economic test to Delivery Network Upgrades needed to ensure that generators obtain their requested deliverability status.
- c) After final plan of service is determined, IAs will be amended to reflect actual facilities and any additional technical requirements for generators to actually go on-line.
 - d) Adjust LOC for Interconnection Facilities if necessary

5.10 Accelerated Process Study

Projects not grouped with any other projects and not associated with any long lead-time (i.e. more than one year) transmission upgrades will have the option for an accelerated process.

- a) The Accelerated Process Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work and schedule needed on the ISO Controlled Grid and the Participating TO's Interconnection Facilities needed to electrically connect the Interconnection Customer's Interconnection Facilities to the ISO Controlled Grid.

- b) The ISO would provide a draft Accelerated Process Study to the IC within 120 days with a +/- 20% cost estimate.
- c) The IC would pay for the cost of this study.
- d) The IC would need to fund Delivery Network facilities and would be credited back over a five-year period after COD.

6.0 Proposal Timelines

6.1 Overall Process Timeline

180 days	Step 1	Queue Window Open
1-30 (30 days)	Step 2	IR Validation
31-60 (30 days)	Step 3	Scoping meetings
61-90 (30 days)	Step 4	Project grouping / Base Case Development (see below)
91-240 (150 days)	Step 5	Studies (see below)
241-270 (30 days)	Step 6	Results Meetings
271-330 (60 days)	Step 7	IA Execution
	Step 8	Transmission Planning Process

6.2 Study Timeline

Standard Study Load Flow/Post Transient/Stability Process	Typical Calendar Days	Timeline (Days)
ISO and PTOs develop initial generation groups for initial dispatch assumptions and cost allocation purposes (except for thermal overload mitigation)	7	1-7
PTOs develop draft base cases, each representing all generation in the queue cluster and deliver to ISO	21	1-21
PTO develops preferred and alternative if applicable, direct interconnection plans, including the need for an Interconnection Grid Substation (IGS).	25	22-46
PTO develops contingency lists	14	22-35
ISO reviews and approves Base Cases, Direct Interconnection Plans and merges them together, as needed. ISO updates summer peak base cases to reflect withdrawn projects from previous queue cluster study. PTOs update	21	47-67

off-peak base cases.		
ISO reviews and approves contingency lists		
ISO provides Deliverability Study results identifying constrained facilities, using summer peak base cases& prepares results summary.	21	68-88
At the ISO's direction, the PTO performs the off-peak Load Flow, and summer peak and off peak Post Transient and Stability analyses & prepare mitigation solutions, as appropriate and submits draft study results to ISO for review and direction.	21	68-88
PTO develops or supplements ISO proposed mitigation plans and/or develops alternative mitigation plans for consideration, as appropriate, and submits to ISO for review and direction	21	89-109
ISO retests Deliverability results with proposed delivery upgrades and withdrawn projects from previous cluster study removed.	14	110-123
ISO develops shift factors for cost allocation purposes of all upgrades associated with mitigating thermal overloads	7	124-130
Short Circuit Duty (concurrent with the LF/PT/S)		
ISO to coordinate with other potentially affected facility owners ⁵	n/a	n/a
ISO directs PTO to develop Base Case and run short circuit analysis	21	69-89
PTO to perform facilities review	35	90-124
PTO to prepare draft study results and submits to the ISO for review and direction	7	125-131
Facility cost estimates and schedules		
At the ISO direction, PTO(s) to prepare cost estimates and schedules for the direct assignment facilities and network upgrades identified in the ISIS power flow, short circuit duty, post transient, and stability studies.	20	124-143
Final Report		
At the ISO's direction, PTO(s) prepares draft report for impacts in their service territory.	7	144-150
ISO compiles all results into a draft report that covers grid impacts, as appropriate. ISO reviews integrated draft report and submits comments, recommendations and direction to the PTO	9	151-159

⁵ In accordance with the WECC Short Circuit Duty Procedure

PTO incorporates ISO directions, conclusions and recommendations. If ISO conclusions and recommendations conflict with PTO conclusions then ISO and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in the final report.	14	160-173
PTO submits final draft report to the ISO. The ISO will finalize the report and tender the ISO approved report to the IC's.		
Final Study Report		
ISO provides final approved report to ICs, PTO, and any applicable affected systems.	7	174-180

Appendix A – Background Information

Introduction (from draft proposal dated February 12, 2008)

The foundation for the current generation interconnection process was established by FERC in Order No. 2003 and its progeny. The Large Generator Interconnection Procedures (LGIP) tariff has successfully assured the open transmission access requirement for new generation Interconnection Customers (ICs). However, over the past few years, several factors, largely unanticipated at the time of Order No. 2003's adoption, including the very large number of Interconnection Requests (IR) for renewable generation, have imposed significant challenges to the efficiency of the present "serial" generation interconnection study approach. The CAISO currently has 188 active IRs totaling 62,608 MW (42,526 MW renewable) for a system with a historic peak of 50,270 MW. The large number of requests and high level of MW capacity in the CAISO Controlled Grid Generation Interconnection Queue (CAISO Queue) have overwhelmed available resources, led to delays and frustration with the study process, and exposed, or reinforced, fundamental deficiencies in the current LGIP.

FERC has also acknowledged the existence of challenges to the LGIP and held a technical conference on December 11, 2007 in Docket No. AD08-02-000. The CAISO participated at the technical conference and submitted prepared comments, which may be found at <http://www.caiso.com/1cb3/1cb3cf4dc520.pdf>. In these comments, the CAISO identified low barriers to entering the CAISO Queue and inadequate progress milestones as material, underlying causes to the high level of commercially questionable projects that populate the current queue. It further noted that when a queue is subject to such a large number of projects that may lack commercial viability and will not ultimately come on-line, the process is infused with significant delays and uncertainty. In response to the concerns raised by the CAISO and others at the technical conference, FERC encouraged the CAISO to engage in an expedited stakeholder process to evaluate possible LGIP reforms for a potential spring filing with FERC.

In accordance with the Notice Inviting Comments issued by the Commission on December 17, 2007, the CAISO filed Post-Technical Conference Comments on January 10, 2008. In its comments, which may be found at <http://www.caiso.com/1f4a/1f4aaa38410.pdf>, the CAISO recommended possible actions the Commission could take to assist in the interconnection streamlining reform process and informed the Commission of the CAISO Generation Interconnection Process Reform (GIPR) stakeholder process. The schedule for this stakeholder process is described in the following section.

General Description of Reform Goals (from draft proposal dated February 12, 2008)

The CAISO collaborated with the California Public Utilities Commission (CPUC), Participating Transmission Owners (PTOs), and members of the generation community in preparation for the FERC technical conference, and via the GIPR Initiative, will continue this collaborative effort by soliciting input through a series of stakeholder meetings and conference calls to develop a final proposal for presentation to the CAISO Board of Governors and filing with FERC. Through the initial discussions, several common, but not exhaustive, objectives for the stakeholder process

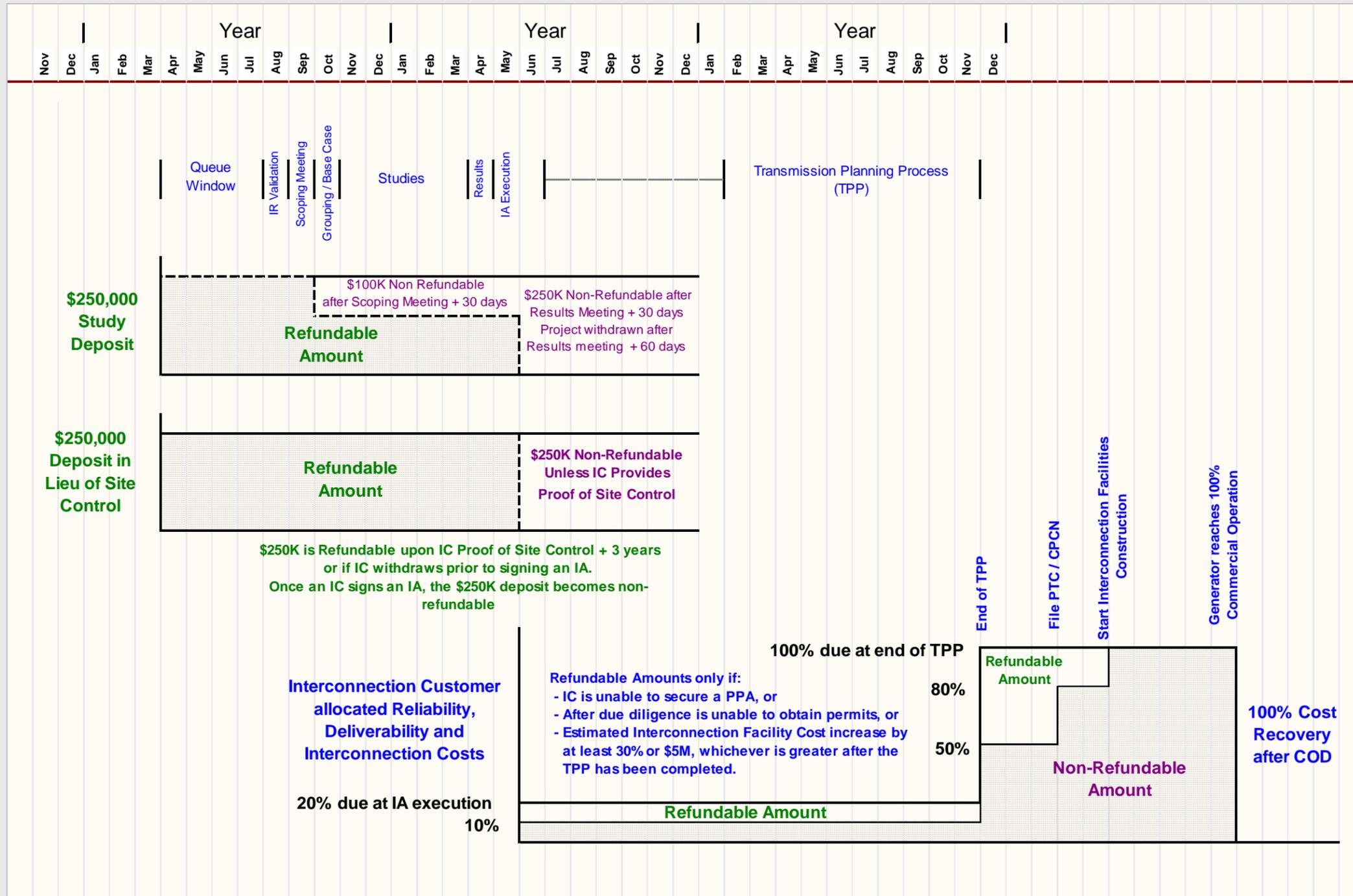
were identified and subsequently confirmed through comments received following the first stakeholder meeting. These include:

- Clear the backlog of all IRs existing in the CAISO Queue by reducing the number of projects through increased IC financial commitments or project viability tests, or a combination thereof, and by applying group study principles to the remaining projects.
- Develop procedures and requirements that lead to more accurate study outcomes that ensure a more efficient interconnection of resources which closely match system needs
- Provide Interconnection Customers with reasonable cost and timing certainty
- Reduce or eliminate the need for restudies
- Create greater certainty in the timing of study outcomes
- Better integrate transmission planning with the generation interconnection process
- Allow for the integration of state efforts to identify transmission needs for Energy Resource Areas (ERAs)
- Ensure that only viable projects enter the annual CAISO Transmission Planning Process (TPP)

Throughout the stakeholder process, the CAISO encourages parties to measure any proposal against these and other objectives that may be identified.

Appendix B – Process Timelines

Generation Interconnection Process Reform (GIPR) Proposal Deposits and Cost Allocations



3/10/08 - CAISO