Generation Interconnection Process Reform (GIPR)

Draft Proposal

February 12, 2008

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1.0 Introduction

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/1f4acaa38410.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.

1.1. Schedule for GIPR Stakeholder Process

January 18, 2008	*CAISO posts Issues Identification Paper*
January 25, 2008	*Stakeholder Meeting – CAISO offices in Folsom – 9am - 5pm*
January 31, 2008	*Stakeholder comments due by Close of Business (COB)*
February 12, 2008	*CAISO posts Draft Proposal*
February 19, 2008	Stakeholder Meeting – CAISO offices in Folsom – 9am - 5pm
February 26, 2008	Stakeholder comments due by COB
March 2008	CAISO Board of Governors presentation
Early April, 2008	CAISO posts draft Tariff language
Late April 2008	Stakeholder Meeting – CAISO offices in Folsom – 9am – 5pm

2.0 General Description of Reform Goals

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.

3.0 Summary of Reform Concepts

Through its preliminary discussions with interested parties and based on the presentations at the FERC technical conference, the original Issues Identification Paper dated January 18, 2008 incorporated added or increased milestones and criteria as well as streamlining the generation process to feed directly into the annual CAISO TPP. The paradigm of the existing LGIP, which relies on serial studies based on queue position, was abandoned in favor of a more streamlined approach.

Features of the original Issues Paper included:

- An annual queue cluster window
- Increased IC financial and other commitments and consequences for delay or withdrawal
- Perform group studies (CAISO discretion to individually study electrically remote facilities)
- A two study phase process
- Binding financial commitment required for signing an Interconnection Agreement
- Projects with executed Interconnection Agreements are an input to the TPP

Based on the generally supportive comments received following the first GIPR stakeholder meeting, many of the original concepts of the January 12th Issues Paper were retained. However, the CAISO has incorporated a number of the common themes expressed in the stakeholder comments in this GIPR Draft Proposal. As detailed in the steps below, the following modifications have been incorporated:

- Consecutive six month queue cluster windows (two per year)
- Single $250,000 Non-refundable study deposit
    - Refundable (net administrative and study costs) upon IA execution
- Allow $250,000 non-refundable deposit in lieu of Site Control (refinements to Site Control definition)
- Utilize a single study process
- Graduated Binding Financial Commitments at Interconnection Agreement (IA)-
    - 20% due at IA execution
    - Remaining financial commitment due within 6 months of executed IA
- PTO maintains right to upfront fund Network Upgrades
- Basecase / system maps will be made available to ICs with appropriate non-disclosure agreements.
- Removal of any economic test at this time pending experience with reform proposal

Section 4 details the GIPR proposal to clear the existing queue and Section 5 details the GIPR proposal going forward.

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.
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 initially opened Queue Cluster Window to allow additional time to clear the backlog of existing projects.
    2. Request authority to suspend requirement to perform Feasibility Studies on new IRs received in the new Queue Cluster 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 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 and 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. 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 Proposal filing with the FERC, the CAISO will request that all projects in the existing queue, whether in the Clearing Group or not, 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 IC enters into an 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 is only refundable if the IC subsequently provides proof of Site Control. 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 non-refunded deposits to be determined.

   Site Control - Documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located and which is of reasonably sufficient size to accommodate the Generating Facility; (2) an option to purchase or acquire a leasehold in property upon which the Generating Facility will be located and which is of reasonably sufficient size to accommodate the Generating Facility ; or (3) 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 and which is of reasonably sufficient size to accommodate the Generating Facility.

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 '5.1 d' below.

5. All technical data if not already completed as described in section '5.1 e' 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 5.4 through 5.8.

e) It is anticipated that all projects in the Clearing Group will be included in a transitional CAISO 2009 TPP.

f) After FERC gives approval of 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
120 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 Step 1 – Queue Cluster Window

Consecutive six month Queue Cluster Windows will be opened. During these windows, Interconnection Customers (IC's) 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 through the project's proposed COD plus three years (the additional three years is to allow for unforeseen construction delays). 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).

c) The IC shall make a $250,000 deposit to cover costs of processing the IR and conducting studies. This deposit is non-refundable if the IC withdraws its project prior to signing an IA. Upon execution of an IA, the deposit net any administrative and study costs incurred will be refunded.

d) 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. [1]

e) 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.

f) 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.

g) The IC is requested to identify whether its proposed project is in response to a specific Utility Request for Offer (RFO). By providing this information, the IC authorizes the CAISO to utilize this information for limiting the total amount of generation associated with the RFO to be studied on a simultaneous basis. Modeling of IRs not associated with the RFO will not be subject to this limitation.

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) Signed Pro-forma Generation Interconnection Process Agreement.

5.2 Step 2 – IR 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.

[1] 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 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.

5.3 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 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 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

5.4 Step 4 – Project Grouping / Base Case Development

CAISO/PTO develops base cases for studies within 30 days of final cluster Scoping Meeting. (Study scope and deliverables are discussed in Step 5).

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 shift factors[2].

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.

[2] The CAISO would employ its deliverability study methodology to determine generation groups and cost responsibility for Delivery Network Upgrades. http://www.caiso.com/docs/2005/05/03/200505031708566410.pdf.

5.5 Step 5 –Studies

CAISO/PTO conducts Interconnection Studies within 120 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.[3] 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 (PTO) and stability studies (ISO).

   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.

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.

[3] 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.

5.6 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.

5.7 Step 7 - IA Execution

Within 60 days of Results Meeting:

a) IC enters into Interconnection Agreement (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) 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.

d) Within 6 months of execution of the IA, the IC must post two revised LOCs for 100% of the cost responsibility of Network Upgrades and the estimated cost of Interconnection Facilities. This is done to both to facilitate IC's ability to obtain financing as well as to defer such financial commitment until after the IC may have a better understanding of the outcome of pending RFOs.

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 using generation shift factors in a manner consistent with the CAISO's deliverability study methodology. The IC will only be responsible to fund Network Upgrades up to the limit of its LOC.

f) If IC withdraws project at anytime between IA execution and COD, all amounts posted toward Network Upgrades would be forfeited and used to offset the transmission revenue requirements of PTOs to reduce the TAC.

g) 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.

h) 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.

i) 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.

j) 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.

5.8 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.[4]

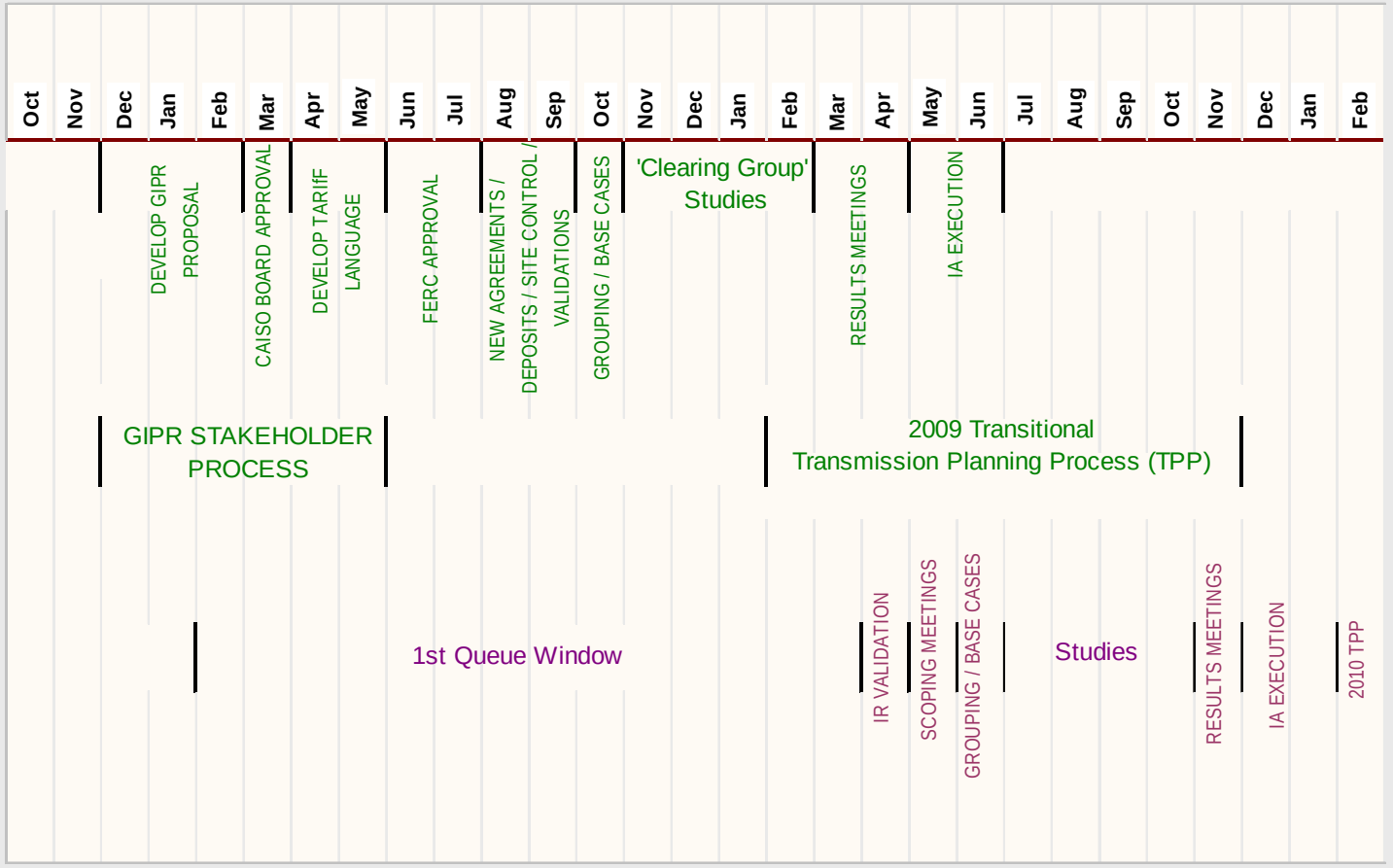
d) Adjust LOC for Interconnection Facilities if necessary

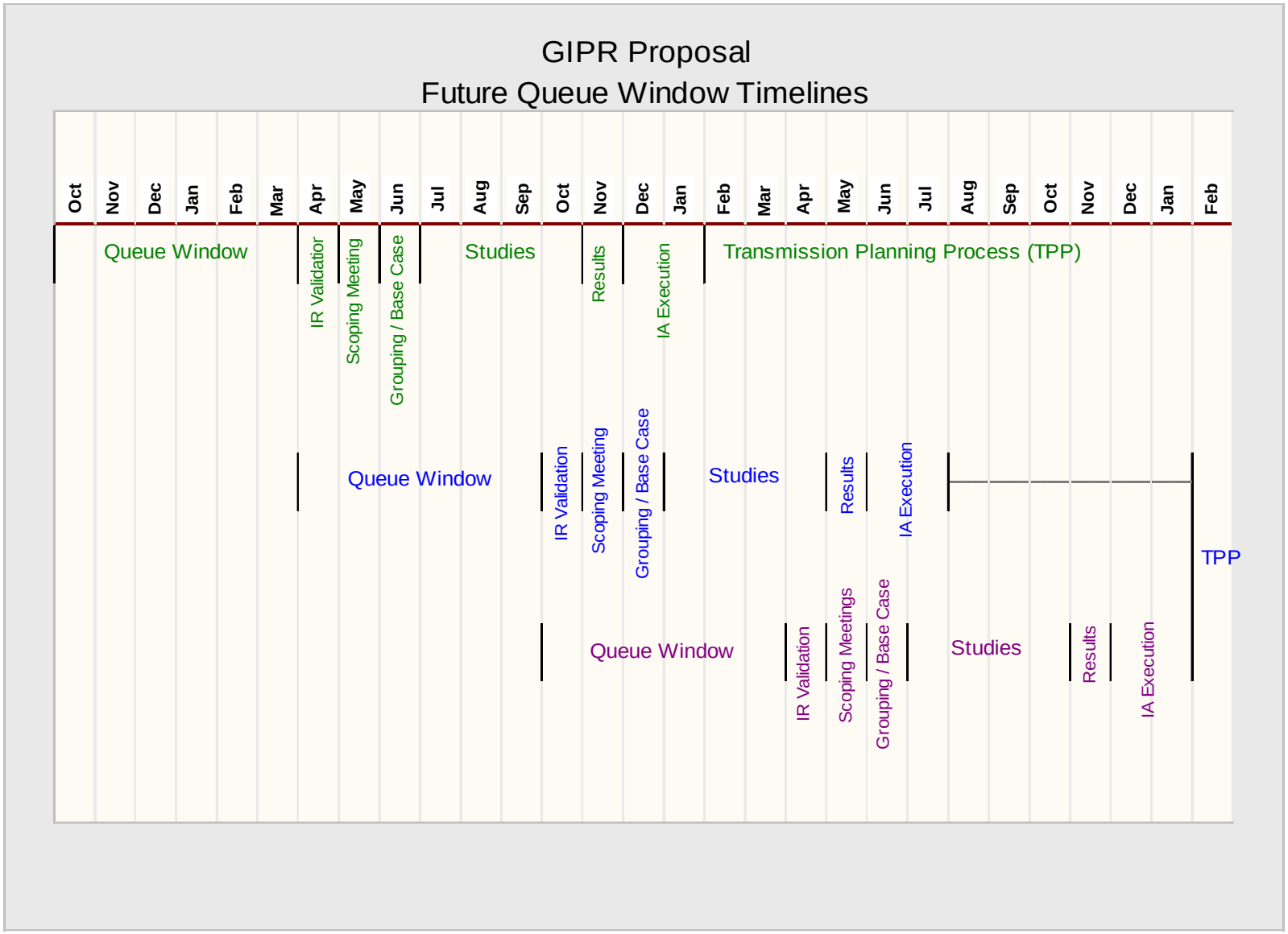
5.9 Proposal Timelines

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
91-210 (120 days)	Step 5	Studies
211-240 (30 days)	Step 6	Results Meetings
240-300 (60 days)	Step 7	IA Execution
	Step 8	Transmission Planning Process

[4] 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. This process would require an IC funded operational study to determine the actual facilities and any additional technical requirements for generators to actually go on-line.

GIPR Proposal Timelines
Clearing Group and 1st Queue Window




GIPR Proposal
Future Queue Window Timelines
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Transmission Planning Process (TPP)
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IR Validation
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Current LGIP / White Paper GIPR Proposal / Revised GIPR Proposal