

DRAFT
Forward Capacity Market
Generator Interconnection Process Stakeholder Group
Conditional Qualified Capacity Resources & Interconnection Process Issues
Term Sheet
Version 2.0
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1) Current Forward Capacity Auction Qualification Rule regarding Overlapping Impacts

Under current Forward Capacity Market (“FCM”) Rules, where, as a result of the initial interconnection analysis, the ISO determines that because of overlapping interconnection impacts, New Generating Capacity Resources that are otherwise accepted for participation in the Forward Capacity Auction (“FCA”) cannot provide the full amount of capacity that they each would otherwise be able to provide, those New Generating Capacity Resources will be accepted for participation in the Forward Capacity Auction on the basis of their Queue Position, as described in Schedules 22 and 23 of Section II of the Transmission, Markets and Services Tariff (the Large/Small Generator Interconnection Procedures or L/SGIP), with priority given to resources that entered the queue earlier.¹

This term sheet describes potential changes to the Interconnection Procedures and FCM participation rules for generating resources. Some proposed changes to the Interconnection Procedures are described in the following Sections:

- Section 2 – Changes to the Large Generator Interconnection Procedure (“LGIP”) Interconnection Queue Processes – Milestone/Financial Requirements
- Section 3 - Changes to the L/SGIP Interconnection Queue Processes – Capacity & Energy Interconnections
- Section 4 - Changes to the L/SGIP Interconnection Queue Processes – Optional Studies

In the later Sections of the Term Sheet, three areas of proposed changes are discussed

- Section 5 – FCM Qualification
- Section 6 – Forward Capacity Auction Mechanics
- Section 7 – Long Lead Resources

¹ The analysis of overlapping interconnection impacts under FCM is intended to determine if proposed New Generating Capacity provides incremental capacity to the system. This means that proposed New Generating Capacity will be qualified at the level at which it can operate without re-dispatch of other capacity resources. The details of the Overlapping Impact test are contained in Planning Procedure 10

In these sections, two alternatives are discussed. Alternative A describes the proposed changes in the case of implementing what have been called “Condition Resources”. Alternative B describes the proposed changes for the “Single Queue” approach.

2) Changes to the Large Generator Interconnection Procedure (“LGIP”) Interconnection Queue Processes – Milestone/Financial Requirements²

The following changes to the LGIP process are intended to increase the likelihood that generating projects that are maintaining queue positions and consuming study effort are viable projects with a demonstrated ability and willingness to proceed to completion.³

Option 1

Feasibility Study (Steady-state & Short circuit screening)

- \$50,000 non-refundable study deposit due with Interconnection Request (“IR”)
 - Balance applicable to System Impact Study (“SIS”)
- Payment of 100% of study estimate balance due with Feasibility Study Agreement

System Impact Study (after Feasibility Study)

- Greater of 100% of study costs or \$250,000 non-refundable study deposit due with System Impact Study Agreement
 - Refundable (net administrative and study costs) upon Interconnection Agreement (“IA”) execution
 - \$250,000 Not refundable unless IA is filed
- Binding Financial Commitments for the greater of \$1M or 5% of the cost of the Interconnecting Transmission Owners Interconnection Facilities and Generator Interconnection Related Upgrades as estimated in the Feasibility Study, due with System Impact Study Agreement

System Impact Study (no Feasibility Study)

- \$250,000 non-refundable study deposit due with IR
 - Balance applicable to Facilities Study
 - Refundable (net administrative and study costs) upon IA execution
- Payment of 100% of study estimate balance due with System Impact Study Agreement
 - \$250,000 Not refundable unless IA is filed
- Binding Financial Commitments for \$1 M due with System Impact Study Agreement

² The changes listed in this section of the term sheet are proposed to apply only to the Large Generator Interconnection Procedures. Changes to the Milestone/Financial requirements are not proposed for the Small Generator Interconnection Procedures (SGIP). The SGIP applies to generators smaller than 20MW.

³ Similar approaches are being considered by others such as the California ISO and the Midwest ISO

Facilities Study

- Greater of 25% of study costs or \$250,000 non-refundable study deposit due with Facilities Study Agreement
 - Refundable (net administrative and study costs) upon IA execution
 - \$250,000 Not refundable unless IA is filed
- Additional Binding Financial Commitments for 5% of the Interconnecting Transmission Owners Interconnection Facilities and Generator Interconnection Related Upgrades due with Facilities Study Agreement

Interconnection Agreement

- Graduated Binding Financial Commitments at IA
 - 20% of the cost of the Interconnecting Transmission Owners Interconnection Facilities and Generator Interconnection Related Upgrade as estimated in the Facilities Study, less financial commitments that have already been provided, due at IA execution
 - Remaining financial commitment due within 6 months of executed IA

Expedited Interconnection (no Facilities Study)

- Payment of 100% of estimated costs of Engineering studies (otherwise performed in Facilities Study)
- Graduated Binding Financial Commitments at IA
 - 20% of the cost of the Interconnecting Transmission Owners Interconnection Facilities and Generator Interconnection Related Upgrade as estimated in the System Impact Study, less financial commitments that have already been provided, due at IA execution
 - Remaining financial commitment due within 6 months of executed IA

Option 2

Same as Option 1, except that some of the requirements would be based on \$/MW (expressed in maximum net MW) in an effort to avoid displacement of smaller resources (but still greater than 20MW) that may not be able to support higher financial thresholds.

Option 3

Same as Option 1, except that the developer can demonstrate project progress in lieu of increased financial requirements to align with FCM milestone rules and incorporate more triggers for being excused from the queue

- Provide copies of major permit applications (including state siting and air permit if applicable) at System Impact Study Agreement execution
- Provide copies of major permit approvals (including state siting and air permit if applicable) and commitment to purchase major equipment (including generator/turbine and step-up transformers) at IA execution

- Meet the FCM Critical Path Schedule qualification requirements (i.e. have a qualified critical path schedule)

Option 4

Same as Option 1 except that the developer can demonstrate project progress in lieu of increased financial requirements through confidential submissions to ISO demonstrating that the sum of “at-risk project expenditures” and paid financial assurances exceeds the amount of the proposed additional financial requirements.

- At-risk project expenditures are those project expenditures that may not be recouped if the project is terminated and would include expenditures to obtain permits for the specific site, lease payments, non-refundable deposits toward the purchase price of the land, site-specific design, surveys, or interconnection studies, non-refundable equipment deposits, and actual construction costs. Examples of project expenditures that may be recouped if the project is terminated-and that would not be counted as “at-risk” investments-include payments to purchase the land (which may be recovered if the land is sold), any recoverable deposits for equipment, and generic designs that may be used elsewhere.
- “Paid financial assurances” are those non-refundable study or interconnection upgrades costs deposited with ISO or made through Binding Financial Commitments.
- Financial requirements may need to be greater than proposed in Option 1 because they will include at-risk project investments.
- There will be no need to demonstrate completion of specified milestones related to the LGIP interconnection process so long as the developer has demonstrated that at-risk investments plus paid financial assurances are greater than financial requirements. However, there would be the need to demonstrate completion/achievement of FCM milestones.
- The amount of the financial requirements should be expressed as \$/MW.

3) Changes to the L/SGIP Interconnection Queue Processes – Capacity & Energy Interconnections

- a) The same overlapping transmission deliverability standard used in the FCM will be incorporated into the Open Access Transmission Tariff (“OATT”) L/SGIP. The adoption of this criterion would meet the FERC requirement to address an intra-zonal deliverability standard in the L/SGIP. An “Energy Only” interconnection option would be allowed for those resources that do not elect to become capacity resources. The mechanics of the interaction between the Queue and FCM qualification are discussed in later Sections of this Term Sheet.
- b) Generators would identify which interconnection type is being pursued. A generator may change from a Capacity Interconnection to an Energy Interconnection without a new queue position. The IR for a Capacity Interconnection would need to specify both the Qualified Capacity (i.e.; the amount that will be available for capacity sales) and the amounts available for

energy sales (i.e.; the ambient temp-based capacities that are on the current IR). However, changing from Energy Interconnection to Capacity Interconnection would require a new queue position, this change being considered a material modification.

- c) Demonstration of site control would be required for any generator seeking a capacity interconnection
- d) All generators over 20 MW that seek distribution interconnects that are not under FERC's jurisdiction become FERC jurisdictional if they wish to participate in an FCA. Their position in the ISO queue will be determined when they apply to ISO. If FERC cannot assert authority over transmission facilities for which it does not yet have jurisdiction, an alternative is to require that all entities wishing to participate in the FCM must follow the procedures which mirror the L/SGIP. The Transmission Owner ("TO") will notify its customers of this requirement when they apply to the State queue.

4) Changes to the L/SGIP Interconnection Queue Processes – Optional Studies

- a) Under an optional study, a developer can specify which earlier queued generation to model in the feasibility study or the system impact study. This would allow the generator to attempt to anticipate the eventual outcome of the overlapping impact analysis. The analysis would be conducted in accordance with either alternative A or B below.
- b) The generator could interconnect with a subordinate Energy Interconnection status to earlier queued units without completing upgrades needed if both it and an earlier queued resource are interconnected. If the earlier queued units also interconnected later, then the later queued project would be limited in operation until any needed Energy Interconnection upgrades are completed. If the earlier queued unit withdraws from the queue, then the developer's subordinate status is eliminated.

5) FCM Qualification

a) Qualification - Alternative A: Conditional Resources

- i) Analysis would be limited to the "group" of resources that are otherwise qualified for each FCA. Only resources intending to participate in the FCA for the specific Capacity Commitment Period would be able and required to be studied for overlapping impacts as part of the "group." Long-lead resources would be included in the group study as described in the long-lead section below. Studies would assess the resources collectively and individually, thereby providing the necessary support for the conditional treatment of generating capacity resources with overlapping impacts at the same location. Overlapping impacts would continue to be determined sequentially, based on queue position. In subsequent auctions, resources that have cleared in a previous FCA will be modeled as existing resources.

- ii) Earlier Queued resources that meet the overlapping impact standard will be defined as the Primary Resource within the FCA. The current Queue Position process will remain as the foundation on which the qualification of Conditional Qualified Capacity Resources, as defined below, is to take place.
- iii) New generating capacity resources with overlapping transmission impacts at a specific location in competition with the Primary Resource for interconnection space may competitively participate in the FCA. The later transmission queue resource(s) at the same location would be allowed to conditionally qualify for the FCA along with the primary resource. These resources will be defined as the Conditional Resource(s) within the FCA.
- iv) Information Provision. Resources that overlap with earlier queued resources will be informed of the queue position number of those earlier queued resources. [Question: When will they be informed? Should it be as early as possible so that the Conditional Resources can assess whether to proceed or to seek another location?]

b) Qualification - Alternative B: Single Queue

- i) All resources that elect Capacity Interconnection are studied for overlapping impacts regardless of commercial operation date and regardless of indication of interest to seek qualification for an FCA. [For discussion at the Friday meeting – Is an alternative to study only those that qualify plus those that have already cleared that are ahead in the queue?]
- ii) Capacity Resources are studied sequentially for overlapping impacts according to Interconnection queue position.
- iii) Interconnection Cost responsibility (including costs to address overlapping impacts) is determined by queue position only and is independent of clearing in an FCA.
- iv) Information Provision. Resources that overlap with earlier queued resources will be informed of the queue position number of those earlier queued resources.
- v) Later queued resources with overlapping impacts can qualify for the FCA.
- vi) Later queued resources may clear in the FCA and interconnect with “subordinate status” to earlier queued resources.
- vii) Resources that must build upgrades if an earlier queue position resource becomes a capacity supplier may elect to wait to build those upgrades until the need is clear. If they fail to complete them and the earlier resource is a capacity resource their resource will be taken out of the capacity market and its owner must cover [Question: how long can they cover?] through a reconfiguration auction until the upgrades are complete. This is identical to what a resource that has a long-term outage must do.
- viii) The later queued resources may not be able to meet their obligation in later Commitment Periods if an earlier queued resource clears in a later FCA and the needed upgrades are not in place but the later resource will have at least 3 years notice of the need.

- ix) There may be additional milestone/financial requirements applied to the later resource as to their responsibility to complete upgrades required for the earlier resource.
- x) The standard for waivers in the case where transmission upgrades are not complete will not change.

6) Forward Capacity Auction Mechanics

a) Auction Mechanics - Alternative A: Conditional Resources

- i) As long as the Primary Resource remains in the FCA, it may clear the auction. A Primary Resource that withdraws would be replaced by the Conditional Resource(s) later in the transmission queue, provided the Conditional Resource(s) has not withdrawn at an earlier price. A Primary Resource must be willing to sell at the capacity clearing price in the FCA.
- ii) Since both resources may participate in the FCA a constraint needs to be added to the clearing algorithm recognizing that at most only one of the resources can be accepted. The criteria that would determine how the accepted resource would be selected are still under discussion with the stakeholders. The two proposed choices are as follows:
 - (1) That decision can be made based on economics, where the accepted resource results in a lower total cost than the alternative resource regardless of generator interconnection queue priority.
 - (2) That decision can be made based on the current approach where the generator queue position would have priority, assuming that both resources are willing to provide capacity at the prevailing price.
- iii) In either case, it would not be possible for a mutually exclusive generating capacity resource to “block” another resource simply by having a higher transmission queue position. In other words, the higher queued resource must also clear in the FCA in order to block a lower queued resource. This feature limits the magnitude of the advantage offered by the higher transmission queue position to a Primary Resource.
- iv) The disclosure of a Primary Resource and Conditional Resource(s) status prior to the FCA is also still under discussion with the stakeholders, but conditional resource(s) would not be informed of the exit of the Primary Resource because it reveals the Primary Resource’s reservation price.
- v) Efforts to study and consider options that would permit interconnection priorities to be decided on a market basis rather than based on the earlier submission of an interconnection application will continue to be pursued. In order to assess the impact of the proposed modifications and the need for additional changes the following information will be included in filings to the FERC pursuant to Section III.13.8.2. Filing of Forward Capacity Auction Results and Challenges Thereto:
 - (1) Identification of each Primary and each Conditional Resource that qualified for the FCA and the MW of capacity offered by each;
 - (2) Each Primary Resource that was selected in the FCA;

- (3) Each Conditional Resource that was not selected in the FCA;
- (4) Each long-lead time resource that secured an interconnection position in the FCA; and
- (5) Each lower queued resource that was selected in the FCA subject to the higher priority of a long-lead time resource.

b) Auction Mechanics - Alternative B: Single Queue

- i) Resources that overlap will compete on price in the FCA if the needed upgrades are feasible by the Commitment Period. If only the earlier queue position resource clears the outcome is the same as Alternative A above. If only the later queue position resource clears it may proceed without the upgrades, provided however that if the earlier queue position resource clears in a subsequent FCA the later queue position resource must complete the upgrades or it will not qualify as capacity. If both clear the FCA the later queue position resource must build the upgrades or it will not be considered a capacity resource.
- ii) If the upgrades for the later queue position resource cannot be built in time, the FCA can include both resources but the later queue position resource will not be considered until after the earlier queue position resource drops out of the FCA.

7) Long Lead Time Capacity Resources

a) Long Lead - Alternative A: Conditional Resources

- i) Power plants with development life-cycles that are longer than the time between when the FCA is conducted and the beginning of the Capacity Commitment Period will be allowed advance opportunity to study and “secure” transmission plans/obligations sufficient for FCM participation through the LGIP process. The long-lead facility would participate in “near-term” FCA Overlapping Impact analysis and adhere to the FCM qualification requirements (i.e. quarterly CPS milestone submittals), thereby securing its overlapping interconnection space until a FCA occurs in which the facility elects to clear and obtain an obligation. In order to sustain this treatment, such resources would have to demonstrate compliance with a project development schedule. The resource would also have to provide similar financial commitments as those resources that have cleared in the FCA, as well as the increased financial requirements for queued resources described above, and would have to begin immediate payment such that transmission construction of any needed upgrades may proceed to minimize uncertainty for other projects.
- ii) So long as a facility continues to satisfy the applicable financial requirements, it may secure its queue position against other resources with overlapping interconnections through the following process:
 - (1) The long-lead time resource must obtain an initial interconnection analysis during the qualification process in the same way as a new resource that seeks to participate in the next FCA. (FCA-aa)
 - (2) The long-lead time project must specify a Capacity Commitment Period not more than xx years later in which it expects to be a capacity resource. (FCA-xx)

- (3) Other resources with overlapping interconnections will be included in the initial interconnection analysis for FCA-aa and may be qualified to participate in that auction. If those resources with lower priority queue positions qualify for and clear in FCA-aa they may receive capacity payments for that relevant Capacity Commitment Period, subject to the long-lead time project's later qualification for and selection in FCA-xx. Such a resource need only pay interconnection costs for the Capacity Commitment Period for FCA-aa based on its queue position relative to the other resources clearing in the at auction.
- (4) If the long-lead time project does not satisfy the requirements for at-risk investment or does not clear as a capacity resource in FCA-xx it will be removed from the capacity interconnection queue and will not be entitled to that queue priority. In that event, the lower queue position resource that cleared in FCA-aa (will/may?) continue as an existing capacity resource for all purposes.
- (5) If the long-lead time project clears as a capacity resource in or before FCA-xx it will pay interconnection costs based on its secured interconnection queue priority. In that event, the lower queue position resource that cleared in FCA-aa would remain a capacity resource by paying for interconnection upgrades based on the presence of the long-lead time project.

b) Long Lead - Alternative B: Single Queue

- i) Resources with long-lead times can determine needed upgrades associated with participating as a capacity resource by studying, in a study similar to the optional study described above, the addition of resources ahead of them in the queue.
- ii) When the long lead resource participates in qualification for the FCA associated with its on-line year, the resource will have been proceeding towards an interconnection that considers the impact of all higher queued resources