

DRAFT
Forward Capacity Market
Generator Interconnection Process Stakeholder Group
Conditional Qualified Capacity Resources & Interconnection Process Issues
Term Sheet - Version 3.1
June 2, 2008

1) Overview

The current Forward Capacity Market (“FCM”) Rules state at Section III.13.1.1.2.3(f):

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 within the ISO New England Control Area. 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 following Sections, three areas of proposed changes to FCM participation rules 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 Sections 5-7, two basic alternatives are discussed. Alternative A describes the proposed concepts for implementing the “Conditional Resources” approach. 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

	Current Schedule 22 Requirements	Proposed Schedule 22 Requirements
Interconnection Request (“IR”)	<ul style="list-style-type: none"> • \$10,000 refundable deposit due with IR <ul style="list-style-type: none"> ○ Balance applicable to Feasibility Study or System Impact Study deposit 	<ul style="list-style-type: none"> • A completed IR, requesting a Capacity Interconnection, is required by the Show of Interest deadline for those resources seeking to be considered in the qualification analysis for the given FCA • \$50,000 non-refundable study deposit due with IR <ul style="list-style-type: none"> ○ Balance applicable to Feasibility Study or System Impact Study deposit
Interconnection Request	<ul style="list-style-type: none"> • Additional \$10,000 refundable deposit or demonstration of Site Control within a cure period 	<ul style="list-style-type: none"> • Site Control required with a Capacity IR
Feasibility Study Agreement	<ul style="list-style-type: none"> • Additional deposit of the greater-of \$10,000 or estimated monthly study cost due with Feasibility Study Agreement 	<ul style="list-style-type: none"> • Deposit of 100% of estimated study cost balance due with Feasibility Study Agreement⁴. Funds remaining beyond the initial \$50,000 deposit (above) are refundable or may be applied to the System Impact Study Agreement Deposit.

² The changes listed in this section of the term sheet are proposed to apply only to the LGIP (Schedule 22 of the Tariff). Changes to the Milestone/Financial requirements are not proposed for the Small Generator Interconnection Procedures (SGIP) which applies to generators smaller than 20MW.

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

⁴ The standard scope of the Feasibility Study will be refined to be less comprehensive and to provide earlier indication of major interconnection issues and difficulties, including a review of overlapping interconnection impacts. The proposed refined scope will be described in the draft Tariff language.

<p>System Impact Study Agreement (SISA)</p>	<ul style="list-style-type: none"> • Deposit of the lower-of estimated study cost, or, \$50,000 	<p>Developer to elect one of the following three choices to be made available under the Tariff:</p> <ol style="list-style-type: none"> 1 Greater of 100% of study costs or \$250,000 refundable⁵ study deposit due with SISA <p>OR</p> <ol style="list-style-type: none"> 2 Refundable deposit of the lower-of estimated study cost, or, \$50,000, AND, copies of major permit applications (including state siting for generator, generator lead, fuel lateral and air permit if applicable) <p>OR</p> <ol style="list-style-type: none"> 3 Refundable deposit of the lower-of estimated study cost, or, \$50,000, AND, demonstration of “at-risk”⁶ project expenditures in at least the amount of increased deposit requirement described in choice 1 above
<p>Facilities Study Agreement</p>	<ul style="list-style-type: none"> • Deposit of the greater-of \$100,000 or estimated monthly study cost due with Facility Study Agreement 	<p>Developer to elect one of the following three choices to be made available under the Tariff:</p> <ol style="list-style-type: none"> 1. Deposit of the greater-of 25% of study costs or \$250,000 refundable study deposit due with Facilities Study Agreement <p>OR</p> <ol style="list-style-type: none"> 2. Refundable deposit of the greater-of \$100,000 or estimated monthly study cost due with Facility Study Agreement,

⁵ Refundable deposits are refundable net of study, engineering and administrative costs incurred, including Transmission Owner study, engineering and administrative costs as applicable

⁶ 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, 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 reused.

		<p>AND, copies of major permit applications (including state siting for generator, generator lead, fuel lateral and air permit if applicable)</p> <p>OR</p> <p>3. Refundable deposit of the greater-of \$100,000 or estimated monthly study cost due with Facility Study Agreement, AND, demonstration of “at-risk” project expenditures in at least the amount of increased deposit requirement described in choice 1 above</p>
Interconnection Agreement		<ul style="list-style-type: none"> • Refundable deposit of 100% of estimated costs of Engineering studies (if Facilities Study bypassed – i.e. expedited interconnection)
Interconnection Agreement	<ul style="list-style-type: none"> • Commit to upgrade expenditure schedule 	<p>Developer to elect one of the following two choices to be made available under the Tariff:</p> <p>1. Commit to upgrade expenditure schedule AND Provide copies of major permit approvals (including state siting for generator, generator lead, fuel lateral and air permit if applicable)</p> <p>OR</p> <p>2. Payment of 20% of the Interconnecting TO and Generator Interconnection Related Upgrades as estimated in the Facilities Study, due at IA execution</p> <ul style="list-style-type: none"> ○ If TO expenditure schedule calls for an initial payment of greater than 20% of the total upgrade costs, then payment of the scheduled initial payment ○ Commit to remaining upgrade expenditure schedule

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, meeting 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 choose not to elect to become capacity resources. The Minimum Interconnection Standard (MIS) and associated Schedule 22 and 23 provisions will be applied to “Energy Only” resources.
- 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. Resources that are meeting the requirements to obtain a Capacity Interconnection may operate as “Energy Only” until such time as the requirements of the Capacity Interconnection are complete, without the need for a new queue position.
 - i) A one-time opportunity (with a deadline to be indicated in the Tariff language) will be provided for resources currently in the Interconnection Queue to elect to be considered for Capacity Treatment at their current queue positions.
- c) All generators over 20 MW that seek distribution interconnects 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) In addition to anticipating the eventual outcome of the overlapping impact analysis, the generator could study and 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

Alternative A – Conditional Resources	Alternative B – Single Queue
<p>Overlapping impact 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.</p>	<p>Same [Although the requirement to be in the interconnection queue as a condition of participation in the FCM means that overlapping impact analysis may already be complete for the given interconnection queue position]</p>
<p>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.</p>	<p>Same</p>
<p>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 interconnection 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.</p>	<p>Same</p>
<p>Information Provision. In the Qualification Determination Notification, or in the Feasibility Study/System Impact Study, Resources that overlap with earlier queued resources will be informed of the queue position number of those earlier queued resources. A primary resource will be informed of the queue position of any conditional resources relevant to that primary</p>	<p>Same</p>

resource.	
Any resource that clears in the FCA becomes an Existing Resource for subsequent FCAs and, with the exception of cases involving earlier queued long-lead time resources clearing in a later FCA as described in Section 7 below, will not have additional overlapping impact upgrade responsibilities beyond those associated with the FCA in which the resource cleared.	Interconnection cost responsibility (including costs to address overlapping impacts) is determined by queue position only and is independent of clearing in an FCA. Later queued resources may clear in the FCA and interconnect with “subordinate status” to earlier queued resources.
Not Applicable	Resources that must build upgrades if an earlier queue position resource becomes a capacity supplier may elect to not build those upgrades immediately but wait until the need is clear. If the resource fails to complete the upgrades prior to the earlier-queued resource coming on-line, their resource will lose its capacity status and applicable Financial Assurance (or portion thereof) and the owner must cover [Question: how long can they cover?] through one or more bilateral transactions or reconfiguration auctions until the upgrades are complete. Alternate: Resources will be allowed to cover for the years they are already committed for (in earlier FCAs) but not be allowed to participate in future FCAs until the ISO determines that the upgrades will be complete consistent with the FCA qualification timeline.
Not Applicable	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.

6) Forward Capacity Auction Mechanics

a) Auction Mechanics - Same for Alternative A and Alternative B

- i) As long as the Primary Resource remains in the FCA, it may clear the auction. A Primary Resource that withdraws could be replaced by the Conditional Resource(s) later in the transmission queue, provided the Conditional Resource(s) has not withdrawn at an earlier price.

- ii) Since both/all 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 resources 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.

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:

- Identification of each Primary and each Conditional Resource that qualified for the FCA and the MW of capacity offered by each, including indication if resources were partially qualified;
- Each Primary Resource that was and was not selected in the FCA;
- Each Conditional Resource that was and was not selected in the FCA;
- Each long-lead time resource that secured an interconnection position in the FCA; and
- Each lower queued resource that was selected in the FCA subject to the higher priority of a long-lead time resource.

7) Long Lead Time Capacity Resources

Alternative A – Conditional Resources	Alternative B – Single Queue
Power plants with development life-cycles that are longer than the time between the FCA and the beginning of the Capacity Commitment Period will be allowed advance opportunity to study and “secure” transmission	Same

<p>plans/obligations sufficient for FCM participation through the LGIP process.⁷</p> <p>Strawman#1: Any resource with less than 100MW of requested Qualified Summer Capacity must provide an engineering justification to the ISO in order to be eligible to elect Long-Lead Capacity treatment.</p> <p>Strawman#2: Combined Cycle resources, large steam powered resources (including coal-fired, oil-fired and nuclear resources), hydroelectric (including pumped storage) are eligible to elect Long-Lead Capacity treatment.</p>	
<p>The long-lead facility would be modeled in “near-term” FCA overlapping impact analysis and adhere to the FCM qualification requirements (i.e. Financial Assurance (FA) and quarterly Critical Path Schedule milestone submittals), thereby securing its overlapping interconnection space until an FCA occurs in which the facility elects to clear and obtain an obligation. Specifically:</p> <ul style="list-style-type: none"> • The resource will initially present a Critical Path Schedule in the same format as a resource seeking qualification for an FCA <ul style="list-style-type: none"> ○ The resource will provide updates to the CPS in advance of being considered in each FCA’s group study for overlapping impact analysis • Until the resource clears in an FCA, the resource will provide (incremental and cumulative) FA in the amount of either (i) $0.5 * \text{CONE} * [\text{Requested Summer Capacity}]$, or, (ii) $0.5 * [\text{PREVIOUS FCA CLEARING PRICE}] * [\text{Requested Summer Capacity}]$ by each deadline for which New Qualified Resources are providing \$2/kW FA in advance of participating in an FCA. The total amount collected would not exceed the full amount of FA that could be collected if the resource were to clear in an FCA. <ul style="list-style-type: none"> ○ Any such FA will count towards FA required once the resource clears an FCA ○ Previously provided FA is forfeited if the resource withdraws from the Interconnection Queue. Forfeited FA will be paid to load serving entities based on their Capacity Obligation share (consistent with the current Financial Assurance Policy in the case of forfeited FCM Financial Assurance). 	<p>Same</p>

⁷ Under current LGIP rules, the initially requested Commercial Operation date may not exceed seven years from the date of the IR, unless the developer can demonstrate an engineering justification for a longer lead-time

<p>Later queued resources seeking to qualify for “near-term” FCAs will be analyzed using a model that includes the long-lead resource and its upgrades. Later queued resources will be responsible for upgrades that are incremental to the upgrades of the long-lead resource. However, later queued resources may be responsible for the advancement of upgrades needed in earlier Capacity Commitment Periods should that later queued resource clear in the “near-term” FCA.</p>	<p>Same</p>
<p>In addition to the increased Schedule 22 requirements described in Section 2 above, long-lead resources shall begin immediate payment, as follows, such that transmission construction of any needed upgrades may proceed to minimize uncertainty for other projects:</p> <ul style="list-style-type: none"> • Binding Financial Commitments, as required by the transmission expenditure schedule, for the transmission upgrade costs that have been identified in the interconnection studies for the project <ul style="list-style-type: none"> ○ Some expenditures may be required before the resource clears in an FCA ○ If the long lead resource participates in an FCA but does not clear and subsequently elects to participate no further, then: <ul style="list-style-type: none"> ▪ The resource will be withdrawn from the Interconnection Queue ▪ Unspent portions of the commitments for transmission upgrades will be returned ▪ Unspent portions of refundable interconnection study deposits will be returned 	<p>Same? NOTE: The requirement could be the same as Alternate A or there could be a milestone requirement where the resource lower in the Queue must begin permitting/construction on a schedule that will have the facilities in-service when needed.</p>
<p>If the long-lead time project does not demonstrate compliance with the project development schedule or satisfy the requirements for Financial Assurance or meet the requirements for transmission upgrade expenditures, it will be removed from the capacity interconnection queue and will not be entitled to that queue priority. In that event, the later queue position resource that cleared in an earlier FCA will continue as an Existing Capacity Resource for all purposes.</p>	<p>Same? Removal from the queue will take place when milestones are missed. Failure to clear in the auction will not cause rejection if the price is 0.XX of Cone ,allowing resources to wait for reasonable prices</p>