

August 6, 2008

Nancy McNeil
Clerk of the Board
Nova Scotia Utility and Review Board
1601 Lower Water Street, 3rd Floor
P.O. Box 1692, Unit "M"
Halifax, NS B3J 3S3

Re: An Application by NSPI to amend the Generation Interconnection Procedures (GIP)

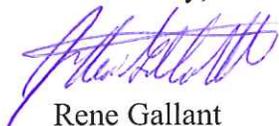
Dear Ms. McNeil:

Please find attached an Application, made pursuant to sections 65, 68 and 72 of the *Public Utilities Act*. By this Application, Nova Scotia Power Inc seeks approval from the Utility and Review Board (UARB) of the following:

1. An expedited written process for stakeholder comment, and a Decision by the UARB prior to September 20, 2008;
2. Immediate and temporary relief from the current requirements of the GIP relating to the queue position of projects and establishment of a non-discriminatory prioritized queue based on 'First Ready' criteria; and
3. Establishment of a stakeholder process to consider revisions to the GIP in the long term.

By copy of this letter and attachment, NSPI is providing Notice of this Application to all current project owners in the GIP queue, as well as to all participants in the Open Access Transmission Tariff proceeding (NSUARB-NSPI-P-880).

Yours truly,



Rene Gallant
General Manager Regulatory Affairs

c: Dan Muldoon
Bruce Outhouse, Q.C.
GIP Queue project owners
Participants – P-880



Application to Revise The Generation Interconnection Procedures

August 6, 2008

INTRODUCTION

The Generation Interconnection Procedures (GIP), an element of the Open Access Transmission Tariff (OATT), establish the requirements for an interconnection queue and for the necessary, lengthy and complex studies required to ensure safe and reliable connection to Nova Scotia Power Inc's (NSPI) transmission system. The large number of projects in the queue, related in part to renewable and low-emitting energy developments, is constraining the effective and timely addition of new generation and challenging the ability of NSPI to meet the Provincial Renewable Energy Standard.

NSPI requires relief from the strict rules that establish the interconnection queue for new generation developments, in order to meet the legislated Renewable Energy Standard requirements for 2010. This Evidence supports the request for temporary relief, and proposes a process to develop revisions to the GIP for the longer term.

This situation is not unique to Nova Scotia. It is being experienced in jurisdictions around North America, particularly those with FERC-based OATT and GIP requirements. Most of these jurisdictions are currently taking similar operational and regulatory steps to address the queue constraints in the short and long term. Within the Nova Scotian context, this Application is consistent with the activities occurring in other jurisdictions on the issue of GIP queue constraints.

Summary of Request

In this Application, made pursuant to sections 65, 68 and 72 of the *Public Utilities Act*, NSPI seeks Board approval of the following:

1. An expedited written process for stakeholder comment, and a Decision by the UARB prior to September 20, 2008;

2. Immediate and temporary relief from the current requirements of the GIP relating to the queue position of projects and establishment of a non-discriminatory prioritized queue based on 'First Ready' criteria;
3. Establishment of a stakeholder process to consider revisions to the GIP in the long term.

Background – the Interconnection Queue and Renewable Energy Standards

The *Electricity Act*, S.N.S. 2004, c. 25 establishes certain public policy requirements for the Province of Nova Scotia in respect of market development and renewable energy. The *Electricity Act*, which received Royal Assent in October 2004, has three primary policy objectives. This statute:

1. Allows wholesale customers to purchase electricity from any competitive supplier;
2. Requires NSPI to develop and file for UARB approval a nondiscriminatory open access transmission tariff (OATT); and
3. Establishes renewable energy standards for suppliers of electricity in Nova Scotia.

On May 31, 2005, the Nova Scotia Utility and Review Board (UARB, the Board) approved an Open Access Transmission Tariff for NSPI. The OATT is based on the model developed by the United States Federal Energy Regulatory Commission (FERC), articulated as a pro forma tariff in FERC Orders 888 and 889. The OATT became effective on November 1, 2005. The OATT is beneficial to customers of NSPI because it supports the integration of the NSPI electrical system with the rest of North America and facilitates the import and export of electricity.

Standard Generator Interconnection Procedures are an appendix to the OATT and were specifically approved by the Board. The GIP are applicable to generating facilities desiring connection to the NSPI transmission system. The GIP describes, in detail, the

procedures involved with administering generation interconnection requests, including application content, costs and fees, the order and process for completing system studies and engineering, procurement and construction processes, and provides standard interconnection and operating agreements. The GIP establishes a queue for the required processes and analyses, which protects the chronological order in which projects have been placed into the queue by virtue of the date and time of receipt of a valid application to interconnect (the “queue”).

A more detailed explanation of the OATT and GIP requirements is attached as Appendix A. The GIP can be accessed at <http://oasis.nspower.ca/generation.shtml>.

In 2007 the Province of Nova Scotia established by regulation a renewable energy standard (RES). The *Renewable Energy Standard Regulations*, N.S.Reg. 35/2007 require NSPI, in the years 2010, 2011 and 2012, to supply 5% of its sales from renewable energy sources, acquired from Independent Power Producers (IPPs) from facilities constructed in Nova Scotia after 2001. Beginning in 2013, the RES requirement increases to 10%. For the 2013 requirement NSPI is permitted to own renewable generation facilities. If NSPI fails to meet the RES requirement, the Company may be fined up to \$500,000 per day (s.14(1)).

To meet the 2010 RES requirements, NSPI has recently completed a large-scale market solicitation for renewable energy. The renewable energy procurement process has been a success for NSPI, renewable generation developers, NSPI’s customers and for the Province. As a result of the renewable energy RFP, the Company has contracted for over 240 MW of clean, cost-effective energy and is poised to meet the 2010 RES requirements.

At the request of the Minister of Energy, the UARB has reviewed the effectiveness of NSPI’s renewable energy procurement process. On December 14, 2007 the Board expressed its conclusion that NSPI’s process would be suitable for the Company to meet

the RES. The Board's review and oversight is enabling the development of renewable energy in Nova Scotia, and is appreciated.

Background – the Queue Constrains Project Development

Seven renewable energy development projects that will enable NSPI to meet the RES have been announced across Nova Scotia. Contracts have been signed with developers. These projects total over 240 MW at an estimated capital cost of \$566 million. These projects are all in the GIP queue. The developers of these projects are prepared to undertake construction, and indeed must do so promptly to allow their projects to be commissioned and operational.

Major component ordering and construction by developers cannot be prudently delayed while the power system studies that are required by the GIP are completed for other projects in the queue. Project developers must know the specific interconnection requirements associated with their projects and sites. The entire process of studies and planning can take a period of months (or even years) depending upon the size, complexity, nature and location of the generation project, and its position within the queue.

Currently, projects that are in a higher position in the queue (that is, projects that were filed earlier in time) must be studied in advance of lower positioned projects. In addition, whether or not a higher queue-position project actually proceeds to interconnection can affect the system studies, and interconnection costs, of lower queue-positioned projects. The GIP does not provide for the system operator to adjust the queue position of a project based upon the project's likelihood or readiness of interconnection. Projects that may not have a power purchase agreement or material transmission reservation could delay the interconnection of a lower positioned project that already has a contract or transmission reservation and is ready to take the necessary steps to interconnect.

NSPI has received 135 applications (55 Transmission and 80 Distribution) for generation interconnection covering 3535 MW (3225 Transmission and 310 Distribution). This is more than the total current generating capacity of the NSPI system. The following table summarizes the interconnection activities for both transmission and distribution systems:

GIP Activities Summary		
	Transmission	Distribution
Interconnection Requests	55	80
MW requested	3225 MW	310 MW
Studies Complete or (In progress)		
Feasibility Studies	31 (0)	80+ (0)
System Impact Studies/Re-studies	7 (7)	29*
Facilities Studies	3 (0)	*Combined Study
Executed Generator Interconnection Agreements	2 (1)	16 (2)
Withdrawn Requests # (MW)	27 (1782 MW)	

An update on NSPI efforts to date to complete interconnection studies and the existing OATT/GIP processes is provided as Appendix B. The GIP queue is posted and maintained by the Nova Scotia Power System Operator (NSPSO) on the Open Access Same-Time Information System (OASIS). The current GIP queue may be accessed at http://oasis.nspower.ca/documents/GIP_Queue.pdf.

The volume and position of projects currently in the queue is constraining NSPI's ability to meet the requirements of the RES regulations. If the NSPSO were to complete the necessary study work for all projects currently in the queue, this work would not be complete before the end of the second quarter of 2011. The NSPSO cannot complete the work for the projects that have PPAs with NSPI in time to meet the 2010 RES requirements.

In addition to the delays in study results, the effects of higher queued projects on lower queued projects may make the lower queued projects no longer viable due to the

uncertainty of cost responsibility assigned to them from higher queued projects. The scope of the studies conducted includes the effects of all higher queued projects, which introduces technical and cost uncertainty thereby diminishing the value and timeliness of the studies. This uncertainty increases as studies examine the projects lower in the queue.

The NSPSO is able to complete the work in sufficient time to support 2010 RES compliance by creating a priority queue for those projects that have and can demonstrate a commercial readiness to develop their projects and interconnect to NSPI's transmission system. Entry into the priority queue will be on a non-discriminatory basis as explained later in this Application.

Background – Other Jurisdictions are Experiencing Similar Challenges

This circumstance is not unique to Nova Scotia. It is a challenge faced by Regional Transmission Organizations ('RTO'), Independent System Operators ('ISO') and utilities across North America with FERC-based GIP processes. The challenge is exacerbated in those jurisdictions, including Nova Scotia, that have established renewable energy standards. In addition to the benefits and importance of such RES requirements, these standards have resulted in a large number of interconnection applications for renewable energy projects, often without regard for whether a project is certain to become operational or when that may occur.

A brief overview of the experience of other jurisdictions is presented in this Evidence. Additional background information and details may be found in Appendix C.

On December 11, 2007 the FERC held a technical conference on queuing practices, recognizing some Transmission Providers were not processing their interconnection queues with the timeliness originally envisioned, in some cases greatly exceeding the timelines in their tariffs. Surges in the volume of new generation development were taxing the existing queue management approach in some regions. Additionally, the unprecedented demand in some regions for new types of generation, principally

renewable generation, placed further stress on queue management. FERC sought information from RTOs and ISOs with respect to challenges that they faced in the current queuing procedure. Solutions were identified that can be effective in addressing those challenges.

At the commencement of this technical conference, FERC Chairman Joseph T. Kelliher stated:

Order No.2003 adopted a first come, first served approach towards queue management. That approach has the manifest virtue of preventing undue discrimination and preference in queue management. However, there are competing policy goals, such as the need for new electricity supply, the demand for renewable energy, driven in large part by state renewable portfolio standards, and the need to complement newly established capacity markets.¹

Chairman Kelliher sought advice, at that time, about both short-term solutions to deal with immediate queue problems, and longer term approaches.

This FERC process, and processes occurring in various jurisdictions in North America, has identified steps that can be taken to address queue constraints. Several of these steps can be taken within the context of existing GIP requirements. These include adding resources to manage studies, advancing and enforcing timelines, and timely charging and recovery of costs for the studies. These steps help to minimize misuse of the queue for speculation purposes. The NSPSO has exercised these reasonable operational options to advance the queue in Nova Scotia.

NSPI proposes proceeding in a fashion consistent with other jurisdictions where it has been concluded that immediate changes to the GIP are necessary. A short term waiver of queue requirements by the creation of a priority queue will allow immediate relief and the achievement of the public policy goals outlined in legislation. For the longer term, NSPI proposes the engagement of stakeholders in designing effective revisions to the GIP.

¹ December 11, 2007, FERC Technical Conference on Interconnection Queuing Practices, AD08-2-000, copy attached as Appendix D.

This is similar to the approach that is being taken in California, and which has been recently approved by FERC following an application by the California Independent System Operator² (CAISO).

These steps will help to ensure queue constraints are resolved and important public policy goals are met, while guarding against the potential for undue discrimination and preference.

Request – Create a Temporary Priority Queue, Work on Long Term Change

NSPI cannot knowingly violate either the terms of the OATT or the RES regulation. It appears, however, that the situation described puts the Company in a position where it may be unable to comply with both the OATT (GIP) and the 2010 RES regulation. In addition, the renewable energy projects that have been successful in NSPI's recent RES solicitation, and which will contribute to meeting the RES, require certainty about the interconnection of their projects, including certainty of timing and cost of interconnection in order to proceed. The loss of these important and economic renewable energy projects could result in higher costs for NSPI customers.

A timely solution is required which will provide an opportunity for NSPI to meet the 2010 Renewable Energy Standard and move the Generation Interconnection Process forward in a more efficient way, while maintaining the non-discriminatory nature of the NSPI OATT.

Changes to the interconnection queue process are required. Without this, projects which have been confirmed to be economically viable for their investors and the lowest cost solutions for NSPI and its customers will be, at best, delayed. In some cases delay could threaten the viability of these projects.

² Please refer to Appendix C for details.

A speedy resolution of the queue constraints is in the best interests of NSPI's customers, the Province of Nova Scotia and competitive generation developers. Expediting the interconnection of those projects that contribute to meeting the 2010 RES requirement supports the objectives of the *Electricity Act*, compliance with the OATT, and the Province's public policy objectives as established by the RES.

NSPI has examined activity in other jurisdictions. As noted above, the NSPSO has taken all reasonable actions to manage the queue and thereby resolve this problem within the current GIP restrictions. Revisions are required to the OATT GIP to promote efficient queue operation and to enable those renewable generation projects that are ready to proceed to advance in a timely and efficient manner.

NSPSO's analysis confirms that if the interconnection activities for the 'First Ready' projects (including NSPI RES projects) can proceed promptly in priority, NSPI will have the opportunity to meet the RES requirements. The NSPSO has developed a work plan to process and study 'First Ready' projects in a prioritized queue with work on all projects beginning by the end of September 2008. With this approach the majority of RFP projects could be in position to be interconnected in time to contribute to the 2010 RES requirements.

RECOMMENDATION

NSPI proposes a two stage reform process, similar to that undertaken by the CAISO as recently approved by FERC. NSPI seeks a waiver to temporarily suspend the operation of the queue under the GIP and create a priority queue to allow the Nova Scotia Power System Operator to focus on expediting the interconnection of projects that demonstrate a readiness to interconnect, including renewable generation facilities that contribute to meeting the Provincial RES for 2010.

The second stage would see NSPI expeditiously initiate a stakeholder process to seek input on revisions to the GIP with a goal of seeking long-term solutions to the problems of queue constraint.

1. Temporarily suspend the GIP requirements to create a priority queue

NSPI seeks a waiver to temporarily suspend the operation of the queue under the current GIP to allow the Nova Scotia Power System Operator to focus available resources on completing studies for the interconnection of parties that demonstrate a readiness to interconnect, including the parties with whom NSPI has contracted for renewable energy generation pursuant to its 2007 procurement process.

This temporary suspension of the current GIP queue requirements will create two groups of projects:

- Group 1 – those generation projects that meet established, non-discriminatory ‘First Ready’ criteria; and
- Group 2 – all other generation projects

Projects which fall under the Group 1 categorization will be studied in priority over those in Group 2.

Within Group 1, during the waiver period, there would be a prioritization of projects based on the ‘First Ready’ criteria. A ‘First Ready’ queue will determine the order of performing the Interconnection Studies and other GIP activities for the projects in Group 1 and to determine the cost responsibility for the facilities necessary to accommodate the project.

Projects will be sequenced in the ‘First Ready’ queue based on the date and time that they are determined to have met the criteria. If one or more projects meet the criteria

simultaneously, they will be sequenced in the 'First Ready' queue according to their original queue date.

The 'First Ready' queue (Group 1) would include projects that meet the following objective criteria for priority. The First Ready queue criteria would be:

- a. A project's power or capacity has been identified by a load-serving entity as needed to meet demand, reliability or renewable portfolio standard requirements; and
- b. The project has a signed Power Purchase Agreement (PPA) (for a minimum of 50% of project capability) in place as of August 1, 2008, or that have UARB approval in the case of a utility project, for which the developer has or must engage in activities such as procurement of long lead time equipment in reliance on the signed PPA; and
- c. The project demonstrates an ability to secure financing and move forward with the associated GIP and project activities; and
- d. A long-term Transmission service reservation has been made
 1. Reservations must be for at least one year
 2. Reservations must be for at least 50% of the project capability
 3. Connection Applicant must hold the reservation directly, or contract with another market participant that holds the required transmission reservation.

The initial prioritized 'First Ready' queue will be established based on all projects that meet the above criteria by August 1, 2008. Projects that meet the criteria following this date will be entered into the 'First Ready' queue based on the date they are deemed to have met the criteria. All other projects will be maintained in the Group 2 non-priority queue based on their original queue date, or for new projects, the date of their interconnection request.

The 'First Ready' criteria will be used to determine the order of performing the Interconnection Studies and the cost responsibility for the facilities necessary to accommodate the project. Other processes and requirements will continue to be in accordance with the GIP. The effects (including transmission capacity and cost implications) of formerly higher-queued projects now in the Group 2 non-priority queue will not be considered in studies of 'First Ready' queue projects.

The non-priority queue (Group 2) will typically include those projects for which

- a. An executed Power Purchase Agreement does not exist as of August 1, 2008; or
- b. Are solely for export purposes and do not contribute to a legislated RES; or
- c. Cannot demonstrate imminent project viability; or
- d. Have not made a long term Transmission service reservation; or
- e. Do not contribute to meeting a legislated renewable energy standard.

Projects in Group 2 will maintain their original queue sequence in respect of each other. As a result, the effects of projects (formerly higher-queued) now in Group 2 will not be considered in studies of the Group 1 projects. Interconnection Requests in the Group 2 queue will not have interconnection studies initiated beyond the Feasibility Study stage. Other GIP activities in progress on Group 2 projects will be temporarily halted.

NSPI proposes the above steps as an interim solution to clear the queue backlog. This will enable NSPI to focus on ensuring that legislated RES requirements are met. In all respects other than the establishment of a First Ready priority queue the GIP requirements, obligations, activities and agreements will remain unchanged, pending the outcome of the longer term stakeholder process described below.

Assuming Board approval prior to September 20, 2008 to proceed with this temporary waiver of the GIP queue requirements, NSPI has determined from its analysis that it will

have the opportunity to meet RES requirements. If the Company is required to follow the current GIP, it is likely unable to achieve 2010 RES compliance.

2. Initiate stakeholder process to consider revisions to GIP processes

NSPI proposes this action as a second phase of GIP reform process. Even with a temporary waiver to permit a streamlining of the queue, there remains a need to review the GIP in its entirety. This will assist in determining a long-term, non-discriminatory solution to address the constraints posed by the GIP to generation developers and NSPI and its customers.

NSPI submits that a stakeholder process will be required to review various options for reform that will allow the system to operate on a first-ready basis. The waiver/suspension period requested will operate until such time as a revised GIP can be approved and implemented, after a complete stakeholder process can be undertaken and reviewed.

NSPI commits to commencing the stakeholder process no later than November 30, 2008, prior to which Terms of Reference would be drafted and approved by the Board. The Terms of Reference would include a target deadline for completion of the review process, and final submission of proposed changes to the UARB no later than May 30, 2009. The Company would welcome the involvement and assistance of Board staff and consultants in this stakeholder process.

Notice and Comments from Affected Stakeholders

The stakeholders that would be affected by this Application can be readily determined – these stakeholders are the project proponents presently in the queue.

Upon filing, NSPI has provided a copy of this Application to all project proponents currently in the queue. The Company has also posted a copy of this Application on the

OASIS website. Finally, NSPI has provided a copy of this Application to all registered participants in the UARB OATT proceeding (NSUARB-NSPI-P-880).

By providing Notice of this Application directly to each of these stakeholders, NSPI respectfully suggests that interested stakeholders have been properly and sufficiently informed.

This is a timely issue in light of the approaching RES requirements and experiences in other regulatory jurisdictions. NSPI seeks timely relief. Similar applications in other jurisdictions have required, and been granted, shortened timelines for stakeholder input when temporary relief has been requested (and granted). The Company respectfully requests an expedited process for UARB consideration of this matter. NSPI proposes that the Board seek written stakeholder input by August 29th, 2008, to enable a Board Decision prior to September 20th, 2008.

CONCLUSION

In conclusion, NSPI seeks UARB approval of the following:

1. An expedited written process for stakeholder comment, and a Decision by the UARB prior to September 20, 2008;
2. Immediate and temporary relief from the current requirements of the GIP relating to the queue position of projects and establishment of a non-discriminatory prioritized queue based on 'First Ready' criteria;
3. Establishment of a stakeholder process to consider revisions to the GIP in the long term.

Similar applications in other jurisdictions with FERC-based OATTs and GIPs have been received favourably by regulatory bodies, which have recognized the importance of enabling the timely interconnection of renewable generation. This is particularly the case when generation projects contribute to meeting a legislated public policy objective.

In addition to short term relief resulting from a First Ready priority queue, NSPI proposes a stakeholder process to consider longer term solutions. This recognizes that the next stage of renewable energy requirements are already legislatively mandated to occur in 2013. This stakeholder process will begin with the establishment of Terms of Reference no later than November 30, and be completed no later than May 30, 2009.

Assuming Board approval prior to September 20, 2008 to proceed with this temporary waiver of the GIP queue requirements, and with other successful undertakings, NSPI will be in a position to meet legislated 2010 RES requirements.

Appendix A

NSPI's OATT and GIP

An Overview

The NSPI OATT was developed as a FERC compatible non-discriminatory transmission tariff, modeled on the FERC pro forma transmission tariff set out in FERC Orders 888 and 889. The purpose of this was to ensure Nova Scotia's continued access to external electricity markets and to facilitate the development of wholesale competition and competitive generation in Nova Scotia. These objectives were established by the Province of Nova Scotia through its 2001 Energy Strategy and developed through the work of the Electricity Market Governance Committee (EMGC).

The OATT was developed in collaboration with Board consultants and stakeholders which included wholesale customers, industrial customers, the Province of Nova Scotia and the New Brunswick System Operator. The OATT was filed with the Board as a "consensus proposal", receiving the support of all parties.

The OATT establishes the rules and rates which apply to wholesale customers and independent power producers accessing the NSPI transmission system. Associated with the OATT and included in the Board's approval of the OATT is the Standard Generation Interconnection Procedures (GIP). NSPI's GIP is modeled on FERC Order 2003. The OATT and GIP are administered by the Nova Scotia Power System Operator, which is a functionally independent area of NSPI, operating pursuant to Board approved Standards of Conduct.

The GIP provides the framework for new generators seeking to interconnect to the NSPI transmission system. Key elements of the process, from application to construction, are listed in the table below. A brief description of each and indication of typical timelines for each phase is also provided:

Generator Interconnection Process Sequence	Timeline	GIP Ref.
Interconnection Customer submits Interconnection Request c/w \$10,000 deposit & site control demonstration	Acknowledge within 5 days by NSPI Address deficiencies within 10 days by IC	Section 3.1
Interconnection Customer/NSPI hold Scoping Meeting	Within 30 days or later as agreed	Section 3.3.4

Interconnection Customer signs Feasibility Study Agreement	Within 30 days by IC	Section 6.1
Perform Feasibility Study	45 days by NSPI	Section 6.2 & 6.3
Interconnection Customer signs System Impact Study Agreement c/w \$25,000 deposit	Within 30 days by IC	Section 7.1 & 7.2
Perform System Impact Study	90 days by NSPI	Section 7.3 & 7.4
Interconnection Customer signs Facility Study Agreement c/w \$25,000 deposit	Within 30 days by IC	Section 8.1
Perform Facility Study	90 Days For \pm 20% Cost Estimate, or 180 Days for a \pm 10% estimate by NSPI	Section 8.2 & 8.3
Interconnection Customer requests Optional Studies (if desired)	Within 15 days by IC	Section 10.1
Interconnection Customer signs Optional Study Agreement c/w \$10,000 deposit (if required)	Per mutually agreed time	Section 10.1
Perform Optional Studies (if required)	Per agreed date	Section 10.2 & 10.3
Interconnection Customer comments on Facilities Study	Within 30 days by IC	Section 11.1
Negotiate Interconnection Agreement	Within 30 days by NSPI	Section 11.1
Execute Interconnection Agreement	Within 30 days by IC	Section 11.2
NSPI Equipment Procurement	According to GIA negotiated milestones / timelines	App 6 (GIA)
NSPI Facilities Construction	According to GIA negotiated milestones / timelines	App 6 (GIA)
NSPI Facilities Commissioning	According to GIA negotiated milestones / timelines	App 6 (GIA)

Consistent with the non-discriminatory foundation of the OATT, the rules of the GIP are applied to all parties equally. Applications are addressed by the NSPSO on a “first-come, first-served basis”. The process is largely unaffected by the viability of the project or the potential effect of the application on the power system and other applications.

For mid-sized applications, the GIP process can extend over a period of 12-15 months. The principal reasons for the required timelines are the scope and complexity of the studies themselves, GIP permitted time delays to allow study review and initiation of study agreements by the interconnection customer, delays in obtaining project physical and electrical information from developers and generator manufacturers, GIP allowed time to develop and negotiate Interconnection Agreements.

With respect to the Interconnection Studies, these are a key element in understanding the technical requirements and impacts of the facilities on the NSPI system.

- A key objective of these engineering studies is to ensure that the safety, integrity and reliability of the transmission system is preserved after the interconnection of the generating facility, to ensure NSPI's Reliability Authority and service obligations continue to be met in a manner consistent with good utility practice.
- The interconnection studies seek to identify and address the impacts that a proposed generating facility will have on the transmission system, as well as to identify the cost to interconnect the facility and to address the adverse impacts identified.
- The feasibility study provides a preliminary evaluation of the system impact and a high level cost estimate to interconnect, but without performing detailed technical analysis
- The System Impact Study examines the impact of the interconnection on the safety and reliability of the system and incorporates the steady-state (load flow), short circuit, and stability analysis of the power system, under a variety of n-1 transmission element loss contingencies (stressed operating conditions). The results help identify any exceeded thermal ratings of equipment, fault interrupting capabilities, deficiencies or unacceptable stability conditions. The SIS also identifies a list of facilities required interconnect the facility and to address the adverse impacts identified. It includes a high level estimate of the cost and time to construct those facilities.
- The Facilities Study determines the electrical configuration of the interconnection facilities, specifies and estimates the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the SIS to interconnect the generating facility, this includes NSPI's substation equipment, transmission lines, protection systems, communication system, metering systems necessary to integrate the generating facility. It also provides an estimate of the time required to complete the engineering and construction of these facilities.

- These studies examine the generating facility under study, and must assume that the existing generation fleet, all higher queued generation (not yet connected) and all upgrades identified and associated with those higher queued generators are considered. A higher queued generator can subsequently modify their technical criteria, capacity and/or configuration (as permitted in the GIP) and therefore initiate the requirement for a re-study to confirm the study results. If there are any new impacts, this also requires re-study of all lower queued projects' study results. Withdrawal of a higher queued project also drives these re-studies.

This hierarchical and inflexible framework is best-suited to a relatively static power system, where generation applications are infrequent and large in scope. The GIP processes are not suited to newer generation technologies, such as wind, which have a very short in-service timeline. During a period of substantial generation expansion, as is currently being experienced across North America, the FERC-based interconnection framework is not proving effective.

Reasons for this include the following:

- The power system is a dynamic system. The location and nature of a generation addition will affect other generators on the system differently. Where a large-scale generator is planned, other generation additions cannot be accurately studied until the plan for the large-scale generator is completed.
- The process does not operate effectively when the volume of generation applications is large. As studies are piled on top of studies, the technical validity and cost certainty of the later study results are compromised. Further, should the earlier applications withdraw from the queue process; in many cases the studies of lower queued projects must be redone.
- The expansion of renewable generation across North American driven by increasingly stringent environmental-related legislation has led to a surge in wind generation development. The distributed and intermittent nature of wind generation is very challenging to study accurately when large amounts of wind are being modeled. Technical certainty may be compromised as a result.
- The recognition that queue position has value, often disproportionate to the cost of remaining in the queue, has led to large queues. Parties are encouraged to remain in the queue and have studies completed in the absence of firm plans to develop the sites.
- The serial nature of the GIP builds in an interdependence of study results between projects. Changes to or withdrawal of higher queued projects will necessitate re-studies of lower queued projects, affecting the project timing and cost responsibility, thereby introducing unacceptable business uncertainty for developers.

The weaknesses noted above are being recognized across the electricity industry.

Appendix B GIP Queue

Status as of August 1, 2008

NSPI has received 135 applications (55 Transmission and 80 Distribution) for generation interconnection covering 3535 MW, (3225 Transmission and 310 Distribution). The following table summarizes the interconnection activities broken down for both transmission and distribution systems:

GIP Activities Summary		
	Transmission	Distribution
Interconnection Requests	55	80
MW requested	3225 MW	310 MW
Studies Complete or (In progress)		
Feasibility Studies	31 (0)	80+ (0)
System Impact Studies/Re-studies	7 (7)	29
Facilities Studies	3 (0)	
Executed Generator Interconnection Agreements	2 (1)	16 (2)
Withdrawn Requests # (MW)	27 (1782 MW)	

Currently there are 26 applications in the queue for a total capacity of 1398 MW. The table at the end of this Appendix B provides a listing of active interconnection applications as of July 31, 2008. This information is provided publicly at the NSPSO Open Access Same-time Information System (OASIS).

To address this volume of applications, NSPI has implemented a number of measures. The NSPSO has:

- Assembled an NSPI technical team comprised of NSPI's senior engineering specialists and interconnection engineer.
- Assembled study criteria and scope.
- Created regional study areas (clusters) based on electrical characteristics of the power system and location of projects
- Established contracts with leading study consultants (SNC Lavalin, Stantec, Hatch, EPRI and ABB)

- Assigned an NSPI Study Lead to each consultant/project.
- Initiated studies at the possible start dates for studies where feasible from an electrical interaction point of view.
- Grouped projects for studies where electrically and geographically feasible to optimize study time and cost.
- Instituted project management with weekly updates and reporting

Despite these efforts, NSPI projects that it will be approximately 36 months before the applications in the queue are fully studied. This is particularly concerning because seven of the applications in the queue are under contract to NSPI as a result of the renewable energy RFP.

NSPI's current work plan projects that the interconnection work, including required studies and construction and commissioning of interconnection facilities for all queued projects, including those contracted to NSPI's renewable energy RFP will not be completed before Q3, 2012. This will not allow the RFP projects to be in-service by 2010 and as result NSPI may fall short of the requirements of the RES. These projections do not include any re-studies that may be required as discussed previously.

Nova Scotia Power - Interconnection Request Queue



Publish Date: Thursday, July 31, 2008

ID #	Request Date	County	MW Summer	MW Winter	Interconnection Point Requested	Type	Inservice date YY/MM/DD	Status	Service Type	Studies Available
8	14-Oct-03	Guysborough	15	15	L-5527B	Wind	2008	Generator Interconnection Agreement Tender	N/A	
17	23-Jul-04	Lunenburg	100	100	L-6004	Wind	Nov 1, 2008	Impact Study Complete	NRIS	
42	22-Nov-04	Cape Breton	100	100	New 138kV Line	Wind	Nov 1, 2008	Impact Study in Progress	NRIS	
45	19-Jan-05	Cumberland	35	35	L-6535	Wind	2008	Optional Study in Progress	N/A	
46	25-Jan-05	Colchester	32	32	L-6513	Wind	Nov 31, 2008	Impact Study Complete	ERIS	
56	19-Aug-05	Cumberland	34	34	L-5058	Wind	Nov 31, 2008	Impact Study in Progress	ERIS	
67	27-Apr-06	Annapolis	40	40	L-5026	Wind	Oct 31, 2010	Impact Study in Progress	ERIS	
68	27-Apr-06	Digby	35	35	L-5533	Wind	Oct 31, 2010	Impact Study in Progress	ERIS	
82	15-Nov-06	Colchester	45	45	L-5040	wind	Dec 1, 2009	Impact Study in Progress	ERIS	
84	22-Dec-06	Pictou	50	50	L-7004	wind	Dec 2008	Impact Study Agrmnt Complete	ERIS	
86	09-Jan-07	Pictou	50	50	L-7003	wind	Jan 1, 2009	Impact Study Agrmnt Complete	NRIS	
114	23-Mar-07	Pictou	60	60	L-6511	wind	Nov 30, 2009	Impact Study Agrmnt Complete	NRIS	

Nova Scotia Power Interconnection Request Queue: Page 1 of 3

ERIS - Energy Resource Interconnection Service
 NRIS - Network Resource Interconnection Service
 N/A - Not Applicable

ID #	Request Date	County	MW Summer	MW Winter	Interconnection Point Requested	Type	Inservice date YY/MM/DD	Status	Service Type	Studies Available
115	23-Mar-07	Pictou	120	120	L-7003	wind	Nov 30, 2009	Impact Study Agrmnt Complete	NRIS	
117	13-Apr-07	Shelburne	10	10	L-5027	wind	September 1, 2009	Impact Study Agrmnt Complete	ERIS	
126	16-Apr-07	Cumberland	70	70	L-6513	wind	Dec 31, 2009	Impact Study Agrmnt Complete	ERIS	
128	17-Apr-07	Cumberland	40.5	40.5	L-6535	wind	November 20, 2009	Impact Study Agrmnt Complete	ERIS	
130	17-Apr-07	Cape Breton	200	200	L-7012	wind/water pumped	December 31, 2009	Impact Study Agrmnt Complete	NRIS	
131	17-Apr-07	Cape Breton	11.5	11.5	L-5580	wind	November 30, 2009	Impact Study Agrmnt Complete	ERIS	
137	17-Apr-07	Richmond	10	10	1C	wind	Nov 30, 2009	Impact Study Agrmnt Complete	NRIS	
140	20-Apr-07	Antigonish	30	30	L-7004	wind	November 1, 2009	Impact Study Agrmnt Complete	NRIS	
141	20-Apr-07	Digby	30	30	77V	wind	November 1, 2009	Impact Study Agrmnt Complete	NRIS	
149	05-Jul-07	Cumberland	70	70	L-6536	wind	Nov 20, 2009	Feasibility Study Complete	ERIS	
150	16-Aug-07	Richmond	10	10	1C	wind	Nov 30, 2009	Impact Study Agrmnt Complete	NRIS	
151	22-Aug-07	Halifax	50	50	91H	steam turbine	June 30, 2010	Impact Study Agrmnt Complete	NRIS	
156	16-May-08	Antigonish	49.5	49.5	L-6511	Wind	December 31, 2010	Interconnection Request Valid	NRIS	
157	16-May-08	Guysborough	100.5	100.5	L-6515	Wind	December 31, 2010	Interconnection Request Valid	NRIS	

Nova Scotia Power Interconnection Request Queue: Page 2 of 3

ERIS - Energy Resource Interconnection Service

NRIS - Network Resource Interconnection Service

N/A - Not Applicable

ID #	Request Date	County	MW Summer	MW Winter	Interconnection Point Requested	Type	Inservice date YY/MM/DD	Status	Service Type	Studies Available
Totals: 1398 1398										

Nova Scotia Power Interconnection Request Queue: Page 3 of 3
 ERIS - Energy Resource Interconnection Service
 NRIS - Network Resource Interconnection Service
 N/A - Not Applicable

Appendix C Activity in Other Jurisdictions

United States (FERC Based Tariffs)

As noted in the Evidence, the challenge faced by NSPI in the application of the GIP is not unique. On December 11, 2007 FERC held a technical conference on queuing practices, recognizing some Transmission Providers were not processing their interconnection queues with the timeliness originally envisioned, in some cases greatly exceeding the timelines in their tariffs. Surges in the volume of new generation development were taxing the current queue management approach in some regions. Additionally, the unprecedented demand in some regions for new types of generation, principally renewable generation, placed further stress on queue management. FERC sought information from Regional Transmission Operators (“RTO”s) and Independent System Operators (“ISO”s) with respect to challenges that they faced in the current queuing procedure and solutions that have proven effective in addressing those challenges.

Arising out of the technical conference, FERC issued an order dated March 20, 2008³ directing the RTOs and ISOs to file reports on the status of their efforts to improve the processing of their interconnection queues. FERC also provided guidance in this order to assist the RTOs and ISOs and their stakeholders in those efforts.

Until recently, concerns over the potential for undue discrimination have led the FERC to reject proposals of transmission owners to manage the interconnection queue process in a manner that might disadvantage projects with early queue positions. In the March 20 Order, however, FERC acknowledged the problems that rigid adherence to the “first-come, first-served” queue policy are creating for the advancement of renewable energy projects, and signaled its openness to more flexible queue management. The March 20 Order suggests that FERC would accept a broad array of solutions to expedite the interconnection process.

Following FERC’s March 20 Order, six RTOs/ISOs filed status reports. Since having filed their status reports two RTOs/ISOs have made petitions to FERC to propose reform to their GIP tariffs; the California Independent System Operator Corporations (“CAISO”) and the Midwest Independent Transmission Operator, Inc. (“Midwest ISO”).

A procedure proposed by the California Independent System Operator (“CAISO”) in a recent filing provides an indication of potential solutions. The CAISO indicated that it was implementing interconnection process reform by establishing a schedule for a future queue cluster window to define the boundary of the current backlog of interconnection requests. The CAISO also filed for waivers of the LGIP in order to reform its interconnection procedure. On July 14, 2008, the FERC authorized the waiver of the LGIP procedures in order to “pause” temporarily certain studies to allow the CAISO to

³ 122 FERC ¶ 61,252 (2008) (the “March 20 Order”).

focus on expeditiously completing “later stage” interconnection requests. A second filing by CAISO seeks amendments to the CAISO tariff to implement new reform procedures.

I. DISCUSSION

A. Background on Order No. 2003

FERC’s first broad pronouncement on avoiding undue discrimination in transmission access took place in 1996 in Order No. 888, which required transmission-owning utilities to file standardized open access transmission tariffs (“OATTs”).⁴ In a series of orders issued from 2003 through 2005 (collectively “Order No. 2003”), FERC broadened its open access policy by requiring utilities to file amended OATTs that include as appendices *pro forma* LGIP and a “Large Generator Interconnection Agreement” (“LGIA”).⁵ The gist of this policy was that utilities must process requests by developers of generation for transmission interconnection in a transparent, expeditious, non-discriminatory manner.

The *pro forma* LGIP (which NSPI has largely adopted in its Standard Generator Interconnection Procedures (“GIP”)) contains provisions that address assignment of queue positions, using the queue position to determine the order of performing the interconnection studies and the responsibility for costs, and the ability to cluster interconnection requests for the purpose of the interconnection system impact study.⁶

The GIP (like the LGIP) only permits a transmission provider to withdraw or re-prioritize customers in the interconnection queue under certain limited circumstances, driven by the actions, omissions or failures to act of the interconnection customer. Withdrawal from the queue can occur under two scenarios. The interconnection customer may voluntarily withdraw its interconnection request at any time by written notice to the transmission provider.⁷ Otherwise, if the customer fails to adhere to all the requirements of the GIP, the transmission provider will deem the interconnection request to be withdrawn. The customer is then provided 15 days to cure its default, or to notify the transmission provider of its intent to pursue dispute resolution. Any withdrawal of the interconnection customer results in the loss of interconnection customer’s queue position.⁸

Re-prioritization of an interconnection customer’s queue position can occur if it makes a major modification to its project. As explained in Section 4.4 of the LGIP, major modifications are defined as “those modifications that have a material impact on the costs

⁴ *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996), *order on reh’g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 (1997), *order on reh’g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh’g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff’d in relevant part sub nom.* Transmission Access Policy Study Group v. FERC, 225 F.3d 667 (D.C. Cir. 2000), *aff’d sub nom.* New York v. FERC, 535 U.S. 1 (2002).

⁵ *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh’g*, Order No. 2003-A, 106 FERC P61,220 (2004), *order on reh’g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh’g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005).

⁶ GIP §§ 4.1 and 4.2

⁷ LGIP § 3.6; GIP § 3.6.

⁸ *Id.*

or timing of any interconnection request with a later queue priority date.” Any changes to the point of interconnection, except those deemed acceptable under the LGIP,⁹ are considered major modifications, as are extensions of more than three cumulative years in the commercial operation date. Again, NSPI’s GIP incorporates each of these *pro forma* provisions.¹⁰

FERC has explained that the standard interconnection procedures and agreement were based on the needs of traditional synchronous generation facilities and that a different approach might be more appropriate for generators relying on non-synchronous technologies,¹¹ such as wind plants.¹² Accordingly, FERC amended its Large Generator Interconnection rules to provide separate standards for low voltage ride-through and power factor design criteria for wind plants, and requiring that wind plants meet those standards if the transmission provider shows in the system impact study that they are needed to ensure the safety or reliability of the transmission system.¹³ Additionally, the Commission adopted a SCADA requirement applicable to all wind generators. FERC noted that “[r]ecognizing these unique characteristics is not favoring one form of generation over others; it simply removes barriers to wind plant development that are not necessary to protect safety or reliability.”¹⁴

B. Early FERC Decisions

The problem of delays associated with lengthy queues pre-dates Order No. 2003. However, FERC traditionally demonstrated a reluctance to accept utility proposals that would allow flexibility in the first-come, first-served approach.

In *Arizona Public Service Company*,¹⁵ the company (“APS”) filed proposed revisions to its OATT to help more efficiently process the growing requests for interconnection spurred by the expanding electricity market in the southwestern U.S. APS’s modified interconnection procedures provided for the establishment of milestones that interconnection applicants must meet to retain their priority in the queue. Under one such change, APS proposed to “adjust” a generator’s queue position whenever any change to its request might impact the anticipated time for completion of an interconnection study unless no other generator was affected.

In a decision that anticipated the policy of Order No. 2003, FERC required APS to modify this provision to clarify that such an adjustment would occur only if the change

⁹ Under the LGIP, the following changes in the Point of Interconnection are acceptable: (i) any change that occurs prior to the return of the executed Interconnection System Impact Study Agreement to the Transmission Provider (Section 4.4.1); (ii) any change resulting from unexpected results under the Interconnection Feasibility Study (Section 6.1); and (iii) any change resulting from unexpected results under the Interconnection System Impact Study (Section 7.2).

¹⁰ GIP §§ 4.1, 4.4 and 4.4.5.

¹¹ A wind generator is considered non-synchronous because it does not run at the same speed as a traditional generator. A non-synchronous generator possesses significantly different characteristics and responds differently to network disturbances.

¹² Order No. 2003-A at P 407 n.85.

¹³ *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186, *order on reh’g*, Order No. 661-A (2005).

¹⁴ Order No. 661 at P 68.

¹⁵ *Arizona Public Service Co.*, 94 FERC ¶ 61,027 (2001).

was material.¹⁶ APS committed to include language in its Interconnection and Operating Agreement that an interconnection customer that is in jeopardy of losing its queue position would be provided advance notice and the specific reasons behind such notice.¹⁷ FERC also required APS to specify the general standards that it would use to determine whether a generator interconnection applicant retains its place in the queue, and agreed that the specific milestones could be negotiated between APS and the interconnecting generator on a case-by-case basis.¹⁸

In *Xcel Energy Operating Companies*,¹⁹ a utility proposed tariff modifications designed to accommodate a state-imposed resource solicitation program that required load-serving entities (“LSEs”) to file plans to develop new generation to meet forecasted increases in their native load. Under the program, after acceptance of the plans by the state, the LSE was required to issue a request for proposal to meet its projected need. The LSE was responsible for determining all interconnection and transmission upgrade costs under the program.

The utility proposed to allow an LSE, upon receiving resource solicitation bids, to request its own position in the interconnection queue as agent for the bidders. With a single queue position, the LSE would perform clustered feasibility and system impact studies on combinations of bids and determine the costs for the portfolio.²⁰ After receiving the studies, the LSE would select one of the studied portfolios before starting the interconnection facility study. Before completion of the interconnection facility study, the LSE could change the interconnection customers included in the portfolio. Ultimately, the LSE's queue position would contain only the portfolio of projects chosen as a result of the solicitation.

FERC rejected Xcel's proposal because it appeared to allow projects submitted as part of the State process to jump ahead of other projects in the queue.²¹ In response, Xcel modified its proposal to create an optional cluster study that would allow the transmission provider to analyze combinations of bidders to provide upgrade cost information for the LSE to determine the overall least cost portfolio. FERC also rejected this proposal, concerned that such a change would allow a vertically integrated LSE to receive valuable information from multiple interconnection studies that could aid it in discriminating in favor of its own generation.²²

Xcel once again modified its proposal, agreeing to strike from its proposed procedures the following provision: "the LSE must withdraw any Interconnection Requests no longer being considered for inclusion in the Resource Solicitation Process." Xcel did so believing that most losing bidders would withdraw from the interconnection queue to

¹⁶ *Id.* at 61,077.

¹⁷ *Id.* at 61,078.

¹⁸ *Id.*

¹⁹ *Xcel Energy Operating Co.*, 109 FERC ¶ 61,072 (2004).

²⁰ *Id.* at P 11.

²¹ *See Xcel Energy Operating Co.*, 106 FERC ¶ 61,260 (2004); *Xcel Energy Operating Co.*, 107 FERC ¶ 61,313 (2004).

²² *Id.* at P 17.

avoid the expense of studies for projects that would never be constructed, and that such a change would not result in queue management issues.²³ FERC accepted this modification subject to certain conditions, including that if the LSE replaces a project in its selected portfolio (normally a material modification), the LSE may retain its position in the queue, provided such LSE held harmless lower queued interconnection customers from the effects of this material modification.²⁴ FERC stated that Xcel’s approach offered “an innovative approach to queue management that will facilitate least cost planning without disadvantaging other generators in the queue.”²⁵

As it has become increasingly clear that the mechanics of the queue mechanism, as originally designed, lead to unintended inefficiencies in the interconnection process, FERC’s policies have evolved. In a decision from 2007, FERC appeared to take a slightly more liberal approach to interconnection queue administration, albeit in a highly technical context.²⁶ The case arose under the California Independent System Operator (“CAISO”) tariff, which generally provided a six-month “Cluster Window” for interconnection system impact studies, *i.e.*, it authorized CAISO to study the collective impact of interconnection requests received over a six month period. CAISO petitioned FERC for a one-time waiver of that provision to allow it to study the impact of interconnection requests, primarily of wind generators in a particular region of California, received over a 33 month period. CAISO argued that in the particular circumstances of that region, examining together the requests received over the longer period would result in a more efficient study process.

One developer, Calpine, had submitted a request to interconnect a project that fell within the proposed 33 month period. It objected to the CAISO waiver request on the grounds that the enlargement of the Cluster Window would result in its project going through an unnecessary second evaluation and possibly being assigned a different transmission cost allocation.²⁷ In a cursory decision, FERC rejected Calpine’s objections, noting that: (1) Calpine was already exposed to a revision of its cost allocation if an earlier project dropped out of the queue; (2) Calpine would have a subsequent opportunity to challenge the cost allocation; and (3) the California PUC and the affected utility supported the waiver.²⁸

C. Recent FERC Response to Renewable Energy Interconnection Issues

Since the adoption of the *pro forma* LGIP and LGIA by transmission providers, more than half of the states in the U.S. have adopted renewable energy portfolio standards that require LSEs to provide a certain percentage of their electricity to end-use customers from new renewable resources. This has spurred an interest in financing and developing

²³ *Id.* at P 20.

²⁴ *Id.* at P 28.

²⁵ *Id.* at P 22.

²⁶ *California Independent System Operator*, 118 FERC ¶ 61,226 (2007).

²⁷ *Id.* at P 18.

²⁸ *Id.* at PP 26-29.

new renewable generation. However, the interconnection queues have become a bottleneck in which many renewable generators languish.

In response to widespread concerns over these bottlenecks, FERC held a technical conference on December 11, 2007, and subsequently issued the March 20 Order, which provided general guidance on these practices. FERC recommended that all transmission providers evaluate whether changes were needed to their queue management practices to ensure the expediency required under Order No. 2003. FERC acknowledged that it was likely that there would be reforms that would require tariff changes, but suggested that the transmission providers examine their existing practices to make use of all of the “streamlining options” available under Order No. 2003, such as combining the feasibility and system impact studies, performing system impact studies on a clustered basis, and authorizing the use of third party consultants to conduct interconnection studies.

In addition, FERC acknowledged that the following, additional changes might assist with interconnection queue issues: (i) increasing the amount of the deposits required at the various stages of the process; (ii) elimination of the feasibility study as a separate step; (iii) adoption of a “first-ready, first-served” approach; and (iv) other methods of clustering.

D. Recent Proposal by the CAISO

In compliance with the requirements of the March 20 Order, regional transmission organizations (“RTOs”) submitted to FERC reports describing the status of their queues and efforts to make improvements. The CAISO, in its report,²⁹ stated that it was taking steps pursuant to its existing CAISO Tariff authority to implement interconnection process reforms. The CAISO’s proposal may point the way for a potential implementing NSPI’s queue reforms. The CAISO indicated that it was implementing interconnection process reform by exercising its discretion under the LGIP and establishing a schedule for a future queue cluster window to define the boundary of the current backlog of interconnection requests. The CAISO stated that it anticipated that it will make two filings with the FERC to transition to the reformed procedures, which will facilitate relieving the current backlog and improve future queue efficiency.

On May 15, 2008, CAISO filed a “Petition for Waiver of Tariff Provisions to Accommodate Transition to Reformed Large Generator Interconnection Procedures, and Motion to Shorten Comment Period” (the “Waiver Petition”). The Waiver Petition represented a first step in a comprehensive reform of the large generator interconnection procedures in the CAISO. The second step involves a tariff amendment filing to revise the CAISO Tariff to incorporate the CAISO’s “Generator Interconnection Process Reform” (“GIPR”). The CAISO determined that the Waiver Petition was necessary as an early and efficient step to streamline the processing of pending Interconnection Requests (“IRs”) and to facilitate the transition to a new paradigm for addressing the interconnection queue.

²⁹ See “Interconnection Status Report of the California Independent System Operator,” Docket No. AD08-2-000 (April 21, 2008).

FERC granted the CAISO's request for a shortened comment period for Interveners. On July 14, 2008, following receipt of comments from Interveners, and following several meetings with both stakeholders and CAISO's Board, FERC granted the CAISO's waiver request³⁰.

In granting its request, FERC has allowed the CAISO's request to create three study groups:

1. the serial study group – IRs which are currently in the queue but are in later stages of the current Large Generation Interconnection Procedures (“LGIP”) process and are most likely to be significantly disrupted if they were subjected to the new GIPR procedures. Three categories were identified as “later stage”: 1) they are the subject of an executed ISIS agreement specifying an original Interconnection Systems Impact Study (“ISIS”) results due date prior to May 1, 2008; 2) they have a Purchase Power Agreement (PPA) with a load serving entity approved or pending approval by the California Public Utilities Commission (CPUS) or a local regulatory authority as of May 1, 2008; or 3) they are the next IR in the queue order to interconnect to a new transmission project that has received land use approvals from any local, state, or federal entity, as applicable, up to the capacity studied by the CAISO;
2. the transition cluster – IRs submitted on or before June 2, 2008 that generally would be processed under the GIPR revisions;
3. a Generator Interconnection Process Reform (GIPR) Cluster – IRs submitted between June 3, 2008 and a later specified date.

The CAISO waivers or suspension period are effective until either 1) a time to be specified in the commission's order on the GIPR filing; or 2) July 31, 2008 if the GIPR filing has not been made by that date.

In granting the waivers, the FERC relied on the fact that the CAISO had identified the interconnection request that would be completed “efficiently” under the existing LGIP. The CAISO anticipates a second filing seeking amendments to the CAISO tariff to implement reformed procedures developed during the pause.

FERC found the CAISO's proposed criteria to be a reasonable approach to distinguishing between projects in the early stage of development and projects in the late stage of development. The CAISO's prioritization for processing IRs will allow the CAISO to expedite the completion of many IRs in the queue, and enable them to focus on a permanent resolution of issues relating to processing large numbers of IRs.

In addition, while FERC's policy on interconnection queues has been evolving, FERC has also become more willing to grant exceptions to its requirements generally (not just in the interconnection context) to foster the development of renewable power. For

³⁰ *California Independent System Operator*, 124 FERC ¶ 61,031 (2008).

example, in a case involving the CAISO,³¹ FERC permitted the “roll-in” into regional transmission rates of costs of major transmission lines that would serve regions with the potential for significant wind development. With the support of the California PUC, the CAISO had explained, in making its case to FERC, that the Order No. 2003 requirement for generators to bear the full cost of interconnection was posing a major obstacle to wind power development because individual wind projects were relatively small and were located in a region remote from the existing transmission grid. The decision demonstrates FERC’s willingness to look for innovative solutions to foster the development and interconnection of renewable resources.

E. Recent Proposal by the Midwest ISO

On June 26, 2008, the Midwest ISO filed with FERC a petition containing revisions to its Open Access Transmission and Energy Markets Tariff in which it proposes to revise its Interconnection Queuing Practices. See Appendix 5.

The filing was made following a 9 month stake holder process. Midwest ISO proposes that their Tariff be revised to consist of 4 phases: 1) Pre-Queue; 2) Application Review; 3) System Planning & Analysis; and 4) Definitive Planning

The plan proposes several changes to their current interconnection queue. It creates a ‘fast-lane’ for generation projects that have already made significant progress through the development process. These projects will be pushed through a shortened study timeline. This change represents a major change from current regulations which require projects to be processed on a first-come, first-served basis.

The proposal also includes a sliding project deposit scale to collect funds upfront that are closer to actual study costs that will be incurred for any given project. It further adds new, more rigorous progress milestones that are intended to demonstrate increasing levels of commitment and readiness on the part of projects in the queue. Finally, it will allow projects to be suspended only under extreme conditions, reducing uncertainty for generation projects that entered the queue after the project to be suspended.

NSPI is currently monitoring status of this docket.

Canada

New Brunswick

New Brunswick operates with an Open Access Transmission Tariff which predates FERC Order 2003, and does not contain the GIP found in post 2003 FERC compatible OATTs. On June 1, 2007, New Brunswick introduced new Market Procedures (MP-21) to address similar problems in their queue. See Appendix 6. In particular, s. 5.3.3

³¹ *California Independent System Operator Corp.*, 119 FERC ¶ 61,061 (2007) (“CAISO Order”).

introduces a move away from “first-come, first-served” to a “first ready, first served” as follows:

5.3.3 The undertaking of System Impact Studies will be based on the following priority:

- System Impact Studies in the generation SIS queue and the load SIS queue will have equal priority, and will be worked on concurrently;
- Transmission reservation status – First priority in both the generation SIS queue and the load SIS queue will be given to projects that have committed to a long-term firm transmission reservation. The SO will designate a project as having committed to a long-term firm transmission reservation if it meets the following criteria:
 - The transmission reservation must be long-term firm for at least one year, and
 - The transmission reservation must be for at least 50% of the project size, and
 - The Connection Applicant may commit to this reservation by holding it directly, or by contracting with another Market Participant that holds the required transmission reservation.
- For projects that are equal in terms of transmission reservation status, the SO will undertake System Impact Studies in order of their date stamps. The SO may choose to group related applications for efficiency or workload considerations, but shall continue to assume that implementation would follow date stamp order.

Ontario

Ontario has an OATT that is not based on the FERC pro forma. The Ontario Market Manual Part 2.10, section 3.3.2 outlines a first-ready, first-served approach by providing that projects received after April 30, 2005 are assigned a queue position based on the date of a PPA execution or the date of a Connection Cost Recovery Agreement (CCRA).

British Columbia

British Columbia has one Generator Interconnection Queue for both the Standard Generator Interconnection Procedures and the Interconnection Procedures for BC Hydro’s Competitive Electricity Acquisition Process (CEAP). The queue positions are

issued differently according to the interconnection process being followed. Customers following the SGIP are treated individually and are given their own time and date stamp upon entering the queue. These interconnections requests move through the interconnection process individually. Customers participating in the CEAP enter the queue as a group. A time and date stamp is given to the entire group and CEAP participants move through the interconnection process as a group. This enables the combined impact of all of the interconnection customers to be studied and evaluated collectively.

Alberta

Alberta operates with an Open Access Transmission Tariff which predates FERC Order 2003, and does not contain the GIP found in post 2003 FERC compatible OATTs. They are, however, facing similar issues with respect to queue management. The Alberta System Operator has been engaged in a stakeholder consultation process and issued a discussion paper on interconnection business practices on February 1, 2008.

The discussion paper proposes changes to the interconnection process by suggesting certain key modifications to the system:

- Allocation of transmission capacity for planning purposes and project work priority to be established at the time the customer's PPA is submitted (Queue Position);
- Interconnection customers will be required to meet standard process milestones in order to maintain their Queue Position and avoid cancellation of their project, unless, prior to the expiration, they demonstrate that, for reasons 'outside their control', achieving the milestone was not possible and provide a commitment to meet the milestone within a reasonable extension;;
- Failure to meeting the Interconnection Process Milestones will result in cancellation of the Customer's Queue Position, forfeit of the Customer's application fee, and reassignment of any transmission capacity that may have been allocated to the project;
- If the customer wishes to proceed with the interconnection project, a new PAA and application fee are required and the project's Queue Position will be based on its new PAA submission date;
- In the event of a cancelled project, costs and the RAS for subsequent (later Queue Position) related projects will be reassessed accordingly.



**Federal Energy Regulatory Commission
December 11, 2007
Technical Conference on Interconnection
Queuing Practices
AD08-2-000
Statement of
Chairman Joseph T. Kelliher**

"The purpose of the technical conference today is to discuss issues related to the interconnection queue in different regions of the country. The interconnection queue process is governed by Order No. 2003, which standardized the agreements and procedures related to the interconnection of large generating facilities. The rationale for this important rule was that establishment of a 'standard set of procedures as part of the [Open Access Transmission Tariff] for all jurisdictional transmission facilities will minimize opportunities for undue discrimination and expedite the development of new generation, while protecting reliability and ensuring that rates are just and reasonable.' I believe this objective is still sound.

We pursued this goal by establishing a set of comprehensive queue management procedures. However, some regions of the country are experiencing various challenges to the interconnection queue process. In general, surges in development of new generation are taxing the queue management system.

Unprecedented demand in some regions for renewable generation presents different challenges. The planning horizon for wind generation facilities may be shorter than other generation facilities. Wind facilities can generally be brought online more quickly, so any delay in the interconnection process is significant. There also is the reality that many states have adopted aggressive renewable portfolio standards, which drives much of the demand for new renewable energy facilities.

In regions that have adopted capacity markets, such as New England, the queue issues are different still. The question of whether a resource that is chosen through a capacity market auction move to a higher place in the queue has arisen.

Queue management issues are not limited to the organized markets, they extend outside regional transmission organizations and independent system operators.

Order No. 2003 adopted a first come, first served approach towards queue management. That approach has the manifest virtue of preventing undue discrimination and preference in queue management. However, there are competing policy goals, such as the need for new electricity supply, the demand for renewable energy, driven in large part by state renewable portfolio standards, and the need to complement newly established capacity markets.

To me, the purpose of this conference is to identify the various challenges relating to the queue management process with some precision and to explore possible process reforms. Perhaps there are different approaches to the queue management process that better serve these competing policy goals, while still guarding against the potential for undue discrimination and preference. There is sufficient flexibility within Order No. 2003 to adopt certain reforms.

Within this context, we ask that speakers differentiate their proposed solutions between short-term approaches to deal with immediate queue problems and longer-term approaches."