



Michael Forte
Chief Engineer, Central Operations
Consolidated Edison Company of New York, Inc.
4 Irving Place (Room 1450-S)
New York, NY 10003-3502

June 16, 2011

Mr. Henry Chao
Vice President, Systems & Resource Planning
New York Independent System Operator
10 Krey Boulevard
Rensselaer, NY 12144-9681

Re: Con Edison's Transmission Planning Criteria

Dear Mr. Chao:

Consolidated Edison Company of New York, Inc. ("Con Edison") submits the enclosed revised statement of its Transmission Planning Criteria ("Planning Criteria") for inclusion in the Form 715 of the New York Independent System Operator, Inc. ("NYISO"). In addition, Con Edison requests the NYISO post this letter on its website in order to inform market participants of the changes to the Con Edison Planning Criteria that Con Edison has posted on its website. The revisions are required to maintain the reliability of the Con Edison system and consist of new or revised criteria relating to: (i) blackstart capability, (ii) automatic fuel switching, and (iii) reactive power requirements. To facilitate compliance with the new criteria, Con Edison is providing the following explanation regarding the need for these criteria and their implementation consistent with the NYISO's Tariff and interconnection procedures.

The purpose of the Planning Criteria is to ensure that all interconnections of new transmission and generating facilities to the Con Edison transmission system are accomplished in a manner that maintains system reliability. The Planning Criteria apply to all new projects, whether those projects are proposed by Con Edison or by developers.

Blackstart Capability

The establishment and maintenance of adequate blackstart capability is vital to system reliability. The amount of blackstart capability that is functional at appropriate locations throughout New York City determines the time required to restore the in-City electric system after a blackout. The current Planning Criteria does not require the installation of blackstart capability for electric generators. No new blackstart resources have been constructed in New York City since the New York energy markets opened in 1999. Moreover, existing in-City generators having blackstart capability may retire at some point in the foreseeable future or be committed less frequently, and their blackstart capability would have to be replaced. Accordingly, Con Edison has adopted the blackstart requirement stated in the enclosed Planning Criteria.

The revised Planning Criteria requires all developers of new or re-powered generators interconnecting to the transmission system within Con Edison's service territory to install blackstart capability unless Con Edison's analysis demonstrates that the capability of a particular generator would not be beneficial in the restoration of the system. That analysis would be performed at an early stage of the NYISO's standardized review process for individual interconnection proposals. The analysis that will be used to make this blackstart determination is the same analysis that is currently used to evaluate and revise Con Edison's and the NYISO's Restoration Plans. The analysis evaluates whether a particular generator provides a benefit under those plans in terms of reduced restoration time or enhanced flexibility. Consistent with current practice, Con Edison will perform the analysis and present it to the NYISO for its review. If the analysis indicates that a project provides a benefit to the Restoration Plan, the project must be designed, constructed, and operated to provide blackstart service. Con Edison does not anticipate that all generating projects will be required to have blackstart capability.

The new blackstart criterion will be applied in a manner consistent with the NYISO Tariff and procedures. The existing NYISO Tariff allows new blackstart resources to recover their costs for providing blackstart services. The rates and terms applicable to blackstart service will continue to be prescribed by the NYISO Tariff. Con Edison will designate as blackstart resources all generators that are now required by the Planning Criteria to install and maintain blackstart capability. This designation shall be maintained for the period over which the generator recovers its blackstart costs. Although Con Edison believes that the duration of the recovery period should be the manufacturer's estimated life of the generator project, that recovery period is a matter appropriately addressed in a stakeholder process. Con Edison has requested the NYISO to initiate such a stakeholder process. In any event, Con Edison recommends that the generator's commitment to have blackstart capability and to provide blackstart service pursuant to the NYISO Tariff, and Con Edison's commitment to designate the generator as a resource in Con Edison's Restoration Plan, be stated in the generator's Interconnection Agreement.

Automatic Fuel Switching

Local Reliability Rule I-R3 of the New York State Reliability Council (“NYSRC”) rules states that *“The New York State Bulk Power System shall be operated so that the loss of a single gas facility does not result in the loss of electric load within the New York City zone”*. The loss of a single Con Edison gas transmission pipeline may result in the simultaneous loss of multiple electric generators. In the past, this reliability obligation was entirely satisfied through the requirement that selected steam generators located in New York City burn a minimum amount of fuel oil (“Minimum Oil Burn”). Minimum Oil Burn requires that designated steam generators at certain system load levels burn varying amounts of oil in anticipation of a gas transmission pipeline contingency. Without Minimum Oil Burn, this contingency would cause these generators to disconnect from the system due to the loss of gas fuel. Steam generators have gas and oil burners that make it possible for them to simultaneously use gas and oil. Upon a loss of gas pressure, units on Minimum Oil Burn continue to operate without tripping. With Minimum Oil Burn, simulations made by Con Edison and reviewed by the NYISO demonstrate that the system can withstand this reduction in electric supply and maintain system reliability.

Existing in-City steam generators having the capability for Minimum Oil Burn may retire at some point in the foreseeable future or be committed less frequently; however, Con Edison still needs to ensure that the system complies with the NYSRC Rule I-R3. As the in-City generating fleet evolves, new generation will likely be dominated by combined cycle units. These new units need to provide the system security traditionally provided through the steam units with their Minimum Oil Burn capability. Notwithstanding this, combined cycle units cannot simultaneously burn gas and oil. A loss of gas pressure would result in the unit tripping before it can be manually switched to oil, which is not helpful if its output is needed to prevent a system collapse. To prevent tripping, such units must have controls that make it possible to automatically switch fuels at any output level without going offline. Therefore, automatic fuel switching is the equivalent means for combined cycle units to survive the loss of gas pressure as is Minimum Oil Burn for steam units.

The Planning Criteria is being revised to require that new or re-powered gas-fired generation that propose to interconnect to the Con Edison gas transmission system must be designed, constructed, operated and tested so that the facility can automatically switch fuel from natural gas to liquid fuel within 45 seconds of experiencing low gas pressure without reducing the output from that facility. While this requirement is now being included in the Planning Criteria, the last three gas-fired generating facilities that were connected to Con Edison’s gas transmission system have installed automatic fuel switching in compliance with their NY PSC Article X provisions or pre- *pro-forma* Interconnection Agreement. The inclusion of this requirement in the Planning Criteria simply formalizes what has long been recognized as an appropriate measure to support system reliability.

Because in-City combined cycle units typically utilize interruptible gas as their primary fuel and therefore must also install liquid fuel capability, the incremental cost of automatic fuel switching is limited to installing the relevant controls.

Reactive Power Requirements

The design criteria incorporate the reactive power requirement of the NYISO Tariff into Con Edison's Planning Criteria. Section 9.5.1 of the NYISO's *pro-forma* Interconnection Agreement states that generation developers shall maintain an effective power delivery at a demonstrated maximum net capability at the point of interconnection at a power factor within the range established by the Transmission Owner. In implementing this requirement, Con Edison has required that new generating facilities be designed to provide reactive power, 0.85 lagging to 0.95 leading, at the point of interconnection. In the past, some developers have procured, prior to the execution of an Interconnection Agreement, certain key plant components that do not comply with the power factor requirement. When this happened, it was too late to make the design changes to comply with the power factor requirement. Accordingly, Con Edison is revising its Planning Criteria to incorporate this requirement so that developers are alerted at the initiation of the project-review process. The Planning Criteria is an appropriate vehicle for providing this early notice because it is among the earliest documents that a Developer of a new facility receives. In addition, the Planning Criteria state that this reactive power requirement applies to normal system conditions (i.e., when all design facilities are in service) and under steady-state conditions occurring after design criteria contingencies described in the NYSRC rules.

Sincerely,



Copy to:

Stephen Whitley (NYISO)
John McAvoy (Con Edison)
Edward Schrom (NY PSC)