New York Independent System Operator Comments
in Response to Proposed Reliability Rule 133

Introduction

The New York State Reliability Council ("NYSRC") recently issued Proposed Reliability Rule 133 ("PRR 133") which would retire system restoration training and testing requirements that were designed for use by steam turbine units that may not be able to satisfy certain testing requirements applied to other types of generation. If the proposed changes are adopted, the NYSRC rules would no longer address the inclusion of steam turbine units in system restoration plans except to the extent that they are capable of satisfying NERC and NPCC testing requirements generally designed for different unit technologies. The NYSRC has requested comments on PRR 133, and the NYISO submits these comments in response.

The NYSRC has the authority to create Reliability Rules that are more stringent or more specific than those established by NERC and NPCC. The Energy Policy Act of 2005 provides that the State of New York "may establish rules that result in greater reliability within that State, as long as such action does not result in lesser reliability outside the State than that provided by the reliability standards." Pursuant to that authority, the NYISO respectfully suggests that the NYSRC consider developing a rule to maintain testing requirements for steam turbine units that aid system restoration but are not capable of satisfying NERC and NPCC testing requirements for black start service.

Background

The NYSRC Reliability Rules define a New York Control Area System Restoration Plan ("NYCA SRP") that is composed of two separate, coordinated elements. The first element is a statewide plan maintained by the NYISO that provides for the restoration of electric service by means of a 345 kV transmission "backbone" that is energized by hydroelectric units in Western, Eastern, and Northern New York ("NYISO SRP"). The second element consists of individual system restoration plans maintained by the local transmission owners ("TO SRPs").

In 2012, the NYSRC implemented a number of revisions to its Reliability Rules regarding the requirements for generators that provide system restoration service. Many of those changes addressed issues raised by steam turbine unit owners that had provided notice of intent to withdraw from the program citing, among other things, concerns regarding testing requirements that they asserted could cause harm to those units.

In response to these notices of intent to withdraw, the NYSRC performed an evaluation of the impact of the withdrawal of the steam turbine units. In consultation with the NYISO and the local Transmission Owner, the RCMS concluded that the withdrawal of those units from the program at that time could result in up to a five hour delay in system restoration under certain scenarios. The NYSRC concluded that an additional five hour delay would mean that the affected TO SRP would no longer provide for *safe, orderly, and prompt* system restoration as required by the Reliability Rules. At that time, the steam turbine units were determined to be

important resources under certain scenarios because of their ability to reenergize large segments of networked loads in New York City.

In an effort to retain the steam turbine units, the NYSRC developed and adopted testing rules that were designed to address the generation owners' concerns about the condition and operating characteristics of the units. In September 2012, the NYSRC issued Proposed Reliability Rule 112A, which proposed to modify the testing requirements for steam turbine units to more closely align them with the operating characteristics of the units. Among other things, the revised testing criteria required that a steam turbine unit perform a full start-up test only once every three years, rather than every year. The unit would be permitted to perform a less extensive test during the intervening years to satisfy its annual testing requirement.

The steam turbine testing procedure initially required those units to perform a full test annually, including starting-up from a hot condition, synchronizing to the transmission system within six hours, and becoming firm to the system and operating within eight hours. The test procedure did not require energizing a bus. To address concerns about excess cycling of older steam turbine units, the more limited "intervening years test" required successful operation of various auxiliary functions, but did not require the steam turbine to synchronize to the transmission system.

The final rule was approved by the NYSRC on October 12, 2012. The NYISO revised its tariffs to reflect the new testing protocols and to establish a related compensation structure shortly thereafter.

Proposed Revisions

With PRR 133, the NYSRC proposes to align the NYSRC's Reliability Rule F.1 with the more stringent NERC and NPCC training and testing requirements for all units and to retire Reliability Rule F.2. PRR 133 states that "the NERC system restoration training requirements are more stringent than virtually all NYSRC system restoration training requirements associated with Reliability Rule F.2."

Currently, the Reliability Rules do not require steam turbine units to energize a bus as part of their testing requirements. The NYSRC proposes to modify its requirements to align with NERC EOP-005 and NPCC Directory 8, which together require that a unit demonstrate the ability to energize a bus and demonstrate its ability to operate in a stable condition for a minimum of ten minutes. The proposed changes to the Reliability Rules would eliminate the testing requirements designed to accommodate steam turbine units and would apply the same testing requirements to all system restoration units, regardless of technology type.

Comments

The proposed rule change would eliminate a framework for testing and certifying steam turbine units that provide system restoration services, but which do not satisfy certain NERC and NPCC standards for testing black start units. While the NYSRC rules have never required these units to satisfy all of the NERC and NPCC requirements, the NYSRC nevertheless concluded in 2012 that they can provide a material benefit to system restoration. Among other things, they were found to speed restoration under certain scenarios because of their ability to help reenergize large segments of integrated network load.

NYISO understands and agrees that steam turbine units cannot be identified as black start units for purposes of satisfying NERC standards and NPCC criteria without satisfying the testing requirements they impose. However, if steam turbine units were found to be beneficial as part of a system restoration plan, they could be included in an SRP as system restoration resources employed to restore the bulk power system following a blackout *in addition* to those units needed to meet the NERC and NPCC black start requirements.

As an alternative to removing the training and testing framework for steam turbine units that cannot satisfy NERC and NPCC standards, the NYSRC should consider maintaining the current framework and revising its rules to allow for the inclusion of such units as a *supplement* to a future SRP that otherwise satisfies NERC and NPCC requirements. Revisions of this nature could clearly establish that units used to satisfy NERC and NPCC requirements must test according to the rules set by those organizations, while also allowing for the inclusion of additional resources that test according to the rules developed by NYSRC. This would make clear that the inclusion of system restoration units that do not qualify as NERC or NPCC black start units does not pose a NERC or NPCC compliance issue for an entity including those units in its SRP.

Maintaining such a framework would not, in itself, *require* the inclusion of supplemental units – it would simply *allow* for it by specifying the training and testing requirements that apply to steam turbine units when they are included in an SRP. Whether an individual SRP should include such units would be up to the entity that maintains the SRP and the NYSRC in its evaluation of the plan.

Section 15.5 of the NYISO Services Tariff provides for the compensation of generators participating in a black start and system restoration plan "that are capable of starting without an outside electric supply *or are otherwise integral to the restoration of the NYS Transmission System after an outage,*" and specifically contemplates participation by steam turbine units. (Emphasis added.) Preserving testing requirements in the NYSRC rules for steam turbine units that are unable to provide NERC or NPCC black start service, but which are able to aid system restoration and are eligible for compensation under the NYISO's tariff for doing so, is consistent with the NYSRC's mission to develop reliability rules that are more specific and stringent than NERC standards and NPCC criteria. While it may be concluded that testing requirements for steam turbine units are not necessary at this time, preserving those testing requirements might provide for enhanced restoration capabilities in the future.