

Draft RCMS meeting with NYISO on Governor Response and Data Checks by the NYISO

On Tuesday February 23, 2009 a contingent from RCMS meet with the NYISO to discuss how they obtain and check data from generators on a yearly basis and update the databases the NYISO uses

At a number of meetings over the past year, which include the NPCC and the NYISO, there have been statements made the governors are not working or their actual responses do not meet the study results when studies are performed. It was recommended that RCMS review with the NYISO how it collects the data and reviews the data for validity.

The NYISO on a yearly basis sends out to each generator connected to the system a request for data changes about their machines and connecting equipment. A questionnaire and machine data that they have on file for each generator is sent to the respective generator to review and provide back to the NYISO. Each generator is expected to respond with changes they have made to the generator data or control systems. Generators respond with their data, which is scrubbed by the NYISO. The NYISO has many years of history for each generator that they review for comparison and utilize that data in its data scrub. The NYISO reviews the data for generators that are connected on the distribution system, but places concentration on those that are connected to the transmission system.

The NPCC recent studies reviewing disturbances that have occur on the system have shown that the models of those units do not necessarily fit what actually occurred. Some of the explanations for those differences are a result of:

Some units were on load following and could not respond. (In the case of load following units they were meeting their base points and could not be respond to governor controls to move ahead.)

Some units were already at maximum generation and could not respond

Some units (gas units) operate on sliding pressure and cannot respond

In some cases units did respond, but because they have control systems to keep them on their base points so they do not over generate, they are pulled back to the base point.

The NYISO has a tariff to with sever penalties if a generator does not follow base points that it is given by the ISO computer. In the case of NYPA and other hydro projects it has been found that their governors do respond to frequency excursions. The largest projects are the St. Lawrence and Niagara Projects.

The NYISO is utilizing its system analysis data manual and its tech bulletin # to monitor the generation characteristics. Each year the NYISO sends out the most recent machine parameters and control data to the generator for verification. The Generators are required to respond in a short period of time to respond the NYISO request. Following the receipt of data from the NYISO engineers review the data for validity. Should they find results that make no sense they immediately contact the generator to clarify the misfiled data. The NYISO compares the data with the data library that has on the generator.

Tech bulletin # written by the NYISO covers generators that have been out of service for maintenance. This bulletin requires the generator to tell the NYISO if any changes have been made while out of service and what those changes are. All changes that affect unit parameters and control systems are to be provided to the NYISO. (a copy of tech bulletin# is attached)

NPCC audits its own data through a consultant. A spin off from Hydro Quebec – Power tech Lab institute performs a data scrub of the generators that are modeled in the NPCC data base. Generally they aid NPCC in developing the summer, winter and light loading stability cases for NPCC studies. The cases put together for NPCC do not reflect all the generation that would be in the NYISO representation for the New York. NPCC only models the units on the higher voltage systems.

NYISO has had difficulty with wind farm control systems and not being able to get stable results in stability runs. ISO planners have been working with the manufacturers to get more acceptable data.

This year for the audit

The NYISO will provide RCMS with tracing documentation of when they send the data, the response rate of the generators. The ISO will provide the NYSRC with information on when the data is sent and responses to those data requests.