

RECOMMENDATIONS FOR IMPROVEMENTS

IN THE NYSRC IRM PROCESS

Con Edison, December 21, 2010

On December 10, the NYSRC approved an IRM of 15.5% for the 2011-12 Capability Period. The current IRM is 18%. The following are well-known and important events that were experienced this year in reaching this decision:

- The Assumptions Matrix presented to the EC for approval in August cited a new EFORd true-up process modeling change that was expected to have a low impact. In fact, it became known later that it had a high impact as modeled and calculated.
- The details of the modeling of the EFORd true-up assumption, and the lack of consensus around the methodology used, were not known and established until the beginning of November, a few days prior to the November meeting in which the EC was to approve the Base Case IRM. The EC agreed to remove this assumption and the Base Case was approved afterwards in a special conference call meeting.
- A data error was found by GE a few days prior to the December meeting in which the EC was to approve the IRM Report containing the results of the Sensitivity cases. This prompted a re-computation of the Tan 45 process and a delay in the EC meeting that approved the IRM.
- As had been requested several years before, and after the necessary non-disclosure agreements had been signed, the NYISO did not have its process ready to make available the Base Case to TOs with MARS capability so that they could participate in the data correctness examination process.
- Another error was found that affected the result of the no-wind sensitivity results a few days before the revised date the EC was to make its final decision on the IRM.
- The results of the sensitivity agreed to by the EC to remove the effect of all modeling changes was released literally hours prior to the EC IRM decision time. There were some questions raised on whether the sensitivity captured the intended objective but there was no time to investigate this further. The sensitivity was removed from the report so that the quality of the report would not be in question.
- There was no time to calculate the results of another sensitivity, which was also removed from the report for the same reason.
- In the end, the Tan 45 process for calculating the IRM was performed 3 times at a tremendous personal effort of those involved, which squeezed out and diverted the attention from additional analysis on this year's IRM Base Case result and in getting all sensitivities calculated.

NYSRC Process in Developing and Approving the IRM

The NYSRC entrusts the work of developing an annual IRM report to ICS. Each year starting in January ICS reviews the assumptions that will go into the study which are sent to the EC in August for approval. It is during this

timeframe that enhancements are proposed. The EC gets the list of all assumptions and the projected impact on the IRM of every change from the previous study. The NYISO then develops a new model based on approved physical and modeling changes. Draft IRM Base Case results are available for ICS review in the October timeframe with the goal of recommending a Base Case IRM to the EC in November for its approval. The final step is for the NYISO to calculate the results of a number of sensitivities around the base case for ICS to have the report ready for EC approval at its December meeting. At that same meeting, the EC considers the results of the Base Case and all sensitivities and votes on the IRM.

Recommendation: Propose that the NYSRC modify its Own Process

To help prevent another experience as this year's where the NYSRC literally ran out of time, we will propose the following process changes:

- ICS needs to be able to have the time to follow its process of fully vetting any proposed changes before recommending their adoption by the EC.
- The ICS review of modeling enhancements must include the evaluation of their impacts through actual calculations. If the NYSRC IRM modeling is the best anywhere, modeling enhancements over time should have asymptotically smaller impacts on the results. It is imperative that prior to their approval, the qualitative (low, medium, high) designations of the impact of modeling changes in the Assumptions Matrix be based on actual calculations.
- To allow enough time to perform this review and calculation, and to minimize the possibility of backing out model enhancements, as happened this year, it is recommended that such enhancements be fully and methodically studied one year, and if recommended for adoption and approved, they be implemented the following year. If appropriate, modeling enhancements can be presented as sensitivities in the year they are being studied as long as they do not affect the base case results.
- EC to approve the Assumptions Matrix in the July timeframe, one month earlier than current practice, to allow for more time for analysis and verification of all aspects of the IRM Study. This requires a serious commitment by NYISO Management to provide all assumptions to ICS well in advance of July so the task of building the model can begin immediately following ICS/EC approval.
- Database review for errors is to be given a very high priority. GE and the TOs with MARS capability must have enough time to perform this task to minimize the possibility of finding errors at the last minute. This process should start no later than August 1. GE must complete its formal review within one month.
- A preliminary Base Case IRM is to be presented for discussion (not approval) to the EC at its September meeting, and preliminary Sensitivity results at its October meeting. Data errors that may be found, and issues that may be spotted while performing the sensitivity studies, can affect the evaluation of the correctness of the Base Case IRM or Sensitivities. There is no need to lock in the final Base Case and Sensitivities results through an early approval date prior to its full review and verification.

- Sensitivity impacts are relative to the reference case from where they are run. They normally evaluate the effect of a change in a parameter or assumption. As long as this effect can be isolated from the rest of the reference case, the results are largely independent of the reference case. As such, sensitivities can be calculated based on different reference cases if it becomes necessary.
- The month of November should be reserved for reviewing all results and make sure they are all consistent and correct. As results are obtained, and on a timely basis, the NYISO must share with ICS members the output MARS files that would enable them to conduct a full review.
- The IRM Report, containing the final Base Case results and Sensitivities, is to be presented to the EC for approval at its December meeting.