Status of Loss Issues and Requests to the ISO for Explanations and Review: 12-10-01

Loss related issues have been discussed at the last two MSWG meetings in NY (11-16 and 12-6). Below is a brief summary of the questions put to the ISO and the status of the responses:

1 The first question had to do with what was meant by unaccounted for losses?

Actually there are both unaccounted for losses AND load that need to be considered.

A brief explanation. For each sub-zone (SZ) the customer loads are added up and distribution losses added in. Then the ISO calculates sub-zone loads by adding up generation in each SZ and summing the tie flows. The difference is unaccounted for load and losses.

Since the load including losses in NY needs to be a zero sum i.e. all allocated out, the difference between the two loads above needs to be allocated out to the LSEs. There is one more twist: the ISO has to identify SZ losses and subtract them out of the allocation to LSEs as these losses have been paid for by load in the marginal loss component of LBMP.

I have asked the ISO to provide the particulars of how they come up with the gross amount of losses that then need to be allocated (OPEN ISSUE).

2 This issue went to NMPC's complaint that the ISO was distributing the overall losses to SZ's using fixed percentages. This is in fact true and continues today and the ISO is not really sure what to do about it other than they know they cannot continue the way it is.

The ISO is loathe (for good reason) to do anything to the process for RT loss calculations so they stated last Thursday that they would consider use of either DA or HA loss averages to derive the percentages to allocate out the losses to SZ's. (OPEN ISSUE)

3 The ISO was asked for a summary of the inputs to the B-Matrix calculations (process used to calculate RT losses and to provide any benchmarking studies that they had performed.

At best we received a partial answer: the ISO claims that the inputs, even if tie flow meter points were switched, would not seriously impact the loss allocation as the ISO has to allocate total ISO losses not those calculated by SZ. I can accept this for the moment unless the ISO were to begin allocation of losses based on B-matrix derived losses.

As to benchmarking studies. In September 2000, the ISO put in Jacobian matrix based loss calculations into the DA and HA processes. When they checked the penalty factors (one direct check of model accuracy) against those produced out of the B-Matrix used for RT and SCD, they claim they were very close. They did not offer to provide any comparisons. (ISSUE?)

4 I had suggested several alternatives for fixing the loss allocation %s. As indicated in item 1 above the ISO is going to consider use of either DA or HA loss averages as a proxy for RT loss allocations. I have my concerns about this as when we have looked at monthly average marginal losses, DA and RT averages differ by several percent in some months. (ISSUE?)

5 This issue went to how the ISO determined losses in the DA model – answered in item 3 above AND the magnitude of the marginal losses.

The ISO recognized, as did other participants, that the DA and RT losses on average had some substantial differences but the cause could only be discovered by examining relative power flow levels through the zones. They clearly did not want to get into this level of analysis. As to the magnitude issue, they believe that since the incremental losses for RT based on the B-matrices and those from the newer Jacobean based calculations were very close that, by inference, the magnitudes were OK as well. (ISSUE?)