

Memorandum

**To: Members of the Management Committee**

**From: Tim Bush**

**Date: October 29, 2003**

**Re: SMD Operation During Reserve Pickups**

Dear Management Committee Representatives,

We will be asked to approve filing of tariff revisions that are required to implement the RTS system at our meeting tomorrow. While I do not think that we should delay this approval, I am quite concerned with one aspect of the software design, and I believe that the approval should be given with a requirement that the NYISO reconsider the way the Real time Dispatch treats reserve pickups in its corrective action mode.

The current design has a feature where the software will attempt to maintain the required levels of spinning reserve while using that reserve to return the NYCA control error to zero following the loss of a unit. The ISO has stated that this mechanism is designed to insure that the LMP's during this event properly reflect the cost of the reserve pickup. While I do not dispute the need for appropriate pricing during reserve pickups, the method chosen by the ISO needs to be looked at realistically.

It is likely that many of the reserve pickups will be for smaller units, during non peak conditions, as there are few large units, and generally the load levels are much lower than peak most of the time. As the software attempts to maintain the spinning reserve as it picks up generation, it will likely have to choose resources with non-spinning 10 minute reserve for its pickup – or combustion turbines. Since a reserve pickup event is transient in nature, it is likely that these turbines may not be needed after the system settles out following the event, but they must be kept on for an hour to satisfy the minimum run criteria for a GT.

This has several undesirable characteristics

- The turbines will experience unneeded starts, and short run times that will lead to more frequent failures and need for maintenance. This will result in an overall lowering of the level of reliability that we currently experience
- The generation supplied during the times when the turbines are not needed will be paid for as out of merit generation and included in uplift
- Emissions will increase unnecessarily, potentially using up credits that will limit the turbines availability during times of real need.

The ISO has stated that they feel a transient shortage of reserve is no different from a shortage that results from high load conditions. This is not correct. As stated before, reserve pickups are a transient event, and in many cases, the reserve levels following a pickup will settle out to be nearly equal to those measured before the pickup. In addition, there is flexibility built into the reliability criteria,

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allowing 30 minutes ( 90 to 105 minutes under NERC criteria) to reestablish the 10 minute reserve following unit loss. This flexibility recognizes that we are not required to maintain reliability at any cost, but that there is a level of acceptable risk that allows time to re-position the system following a contingency. This is clear in the planning arena as well, where the system is planned to reliability level that limits a loss of load from inadequate resources to once in 10 years.

It is unfortunate that the ISO persists in a design that will result in unnecessary uplift, increased maintenance and emissions, simply to come up with a better price. We, the Management committee should send them a message that this design is flawed and needs to be reconsidered.

As I do not think that this impacts the tariff language, we should not delay its approval, but as stated earlier, we should attach a requirement to this approval requiring that this aspect of the overall design should be reconsidered. I plan to offer an amendment to the approval motion to reflect this, and hopefully can count on your support.