MEMORANDUM

TO: Management Committee Members
FROM: NYISO Staff
RE: Procuring Reserves During Reserve Pickup

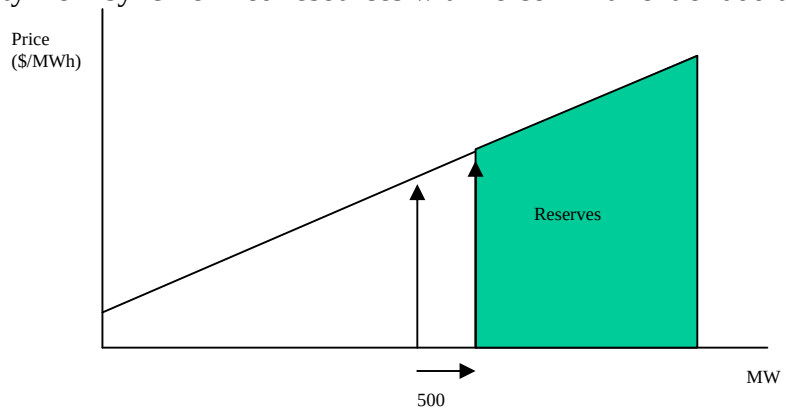
A Market Participant has requested that that the Management Committee only conditionally approve RTS by adding a requirement that the NYISO reconsider using the market design that will attempt to maintain the required levels of spinning reserve while returning the NYCA control error to zero following the loss of a unit. The NYISO offers this further explanation to clarify the actual impact of this particular element of the RTS design. The NYISO does not object to continuing a discussion on this, or any other point. However, staff believes that this aspect of the RTS design cannot either be eliminated or redesigned. NYISO staff does not agree that this design will result in unnecessary uplift, increased maintenance or increased emissions simply to come up with a better price. Indeed, the overall RTS design should reduce uplift by avoiding unnecessary GT starts.

It is generally accepted that maintaining prices that accurately reflect the cost of energy during reserve pickups is an appropriate design objective and that the RTS approach is a method that will accomplish this objective. Some participants have expressed the belief that the proposed approach may have an undesirable effect at times if it results in an increased commitment of quick start resources to meet load and reserve requirements during reserve pickups and that these effects could be avoided as reliability rules provide time to recover reserves following an event.

The NYSRC and NPCC rules for recovery of reserves establish an outer bound for what is acceptable and both sets of rules direct recovery of reserves sooner rather than later if possible. As a result, the inclusion of reserve constraints during a reserve pickup dispatch is not unfounded. Furthermore, in the NYISO's opinion, procurement of reserves during reserve pickup will not result in an increased commitment of quick start resources. This is because the RTS software will commit these resources only when there is not sufficient capacity remaining on dispatchable online units to meet the load plus the spinning reserve requirement. The NYISO does not believe, given identical conditions, that RTS will require more commitments to solve for reserve during a reserve pickup than the existing system needs today to solve for reserves at the end of a reserve pickup event.

In fact, under RTS, the NYISO expects that fewer quick start commitments may be made because RTD will be considering load pickup and schedule changes with a one hour forecast evaluation as compared to the SCD five minute forecast evaluation. Most RPU's under current operation are due to SCD's limited ability to meet load pickup and schedule change energy requirements without resorting to the capability associated with reserve pickup units, thus the RTS design should reduce the need for reserve pickups in the future.

As the example presented to the BIC, and shown below, demonstrates, the presence of the reserve constraints in many cases will have little or no effect during events where the total online capacity remains adequate after the loss of a unit. In these cases the typical outcome would be the dispatch of economic regulation capacity and latent capacity from synchronized resources with no commitment of additional resources.



As prevailing conditions become more severe the commitment of quick start resources becomes more likely; but such a commitment is consistent with the operational necessity that is created by the resulting synchronized capacity deficiency. The reserve pickup process of responding to a loss of supply, like any other dispatch interval that is merely responding to an increase in demand, can eventually reach a condition where remaining online capacity is unable to meet the load and reserve requirements. In such circumstances any design, be it RTS or SCD today, has but two choices, to start unsynchronized resources or go short of spinning reserve. Additionally, unlike the current process when a reserve pickup is complete, reserves will continue to be maintained on the units selected during the pickup and GT starts will not be needed to restore the reserve margin on previously selected lower cost units, appropriately scheduled for energy.

A shortage in these circumstances reflects the very limited availability of reserves to respond to the next system event and sends a price signal to the market consistent with the reliability conditions faced on the system. It should be noted that the 15-minute RTC commitments, as opposed to the one-hour BME commitments, and the forward look ahead of RTD are more likely to result in reducing reserve pickup events to circumstances associated with a loss of supply rather than for area control error associated with load pickup periods, as we see more frequently today. This should actually reduce uplift for Loads.

The inclusion of demand curves in the RTS design together with solving for reserve constraints during a reserve pickup, automates the kinds of actions that would be taken by the NYISO system operations staff today while at the same time producing consistent price signals that appropriately reflect the value of energy during the event. Appropriate price signals encourage the desired response to such an event.

In summary, the RTS software as designed should not result in an increase in commitment of GT resources during reserve pickups in response to short term losses of

supply. Conversely, it will most likely reduce the need for such commitments. As previously stated, the NYISO is willing to continue discussions. However, spending significant further time and effort looking for a more efficient means of responding to temporary shortages, in the NYISO's view, is less likely to result in an improved design than it is to delay implementation of RTS.