11/10/2004

Subject: Security Constrained Unit Commitment and Real-Time Commitment Rules

Security Constrained Unit Commitment (SCUC) and Real-Time Commitment (RTC) use the same software but address different time frames. This results in some differing rules for initialization status, startup time, minimum run time and minimum down time.

Details:

SCUC is a day-ahead analysis that results in the economic scheduling of generation for the 24 hours of the next day. RTC is the real-time analysis that results in economic schedules of generators for each hour of the day. Every fifteen minutes, RTC studies ten future points in time, separated by 15 minute intervals and produces schedules for each 15-minute interval. Figure 1 illustrates the RTC process:

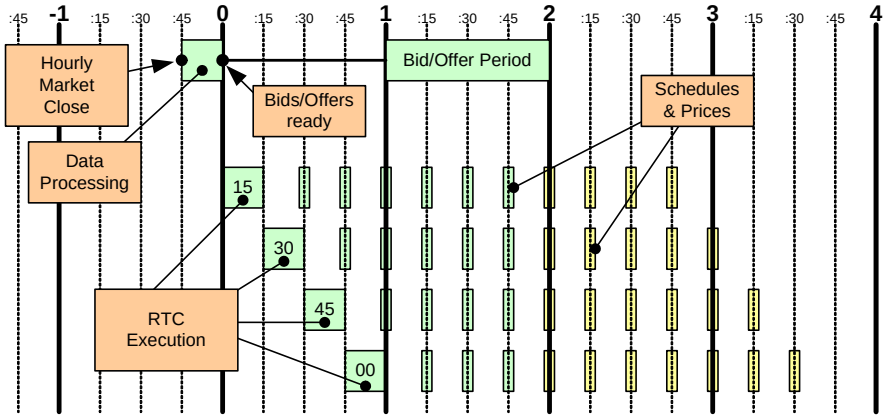

Figure 1

Initialization Status

When SCUC initializes at 5:00 a.m. for the following day, the statuses of the units that bid into the Day-Ahead Market (DAM) are based on their current operating mode at the time of initialization, with modifications. The modifications are the projected changes for the remainder of the day from the previous day's DAM schedules. If a unit is not in the mode that SCUC expects it to be at the time of initialization, the current mode of the unit overrides the projected change. No units are considered must run in SCUC.

RTC honors all day-ahead commitments of internal generation resulting from SCUC, except for 10 and 30-minute start gas turbines. The unit statuses at the time of initialization are based on the current operating mode at the time of initialization, modified to include projected changes from the previous quarter hour's evaluation.

Startup Time

Either a startup versus downtime curve or a notification time can be provided for SCUC. If both are provided, the startup versus downtime curve overrides the notification value.

SCUC posts the results for the next day's DAM at 11:00 a.m. If a unit is down at posting time, the startup time is measured from the time of posting. The unit is recognized as unavailable until the startup notification period has elapsed.

If a unit is running but projected to come down after posting time, a bid for the unit in SCUC indicates that it is willing to operate. Neither a startup versus downtime curve nor a notification time value is recognized.

In RTC, all units will receive binding startup notifications consistent with startup time included in their real-time bids. RTC can commit units with a startup time of 30 minutes or less. For instance, units that submit a 30-minute start-up time will receive a binding startup notification from the RTC that posts its results 30 minutes before the scheduled start of the unit and units that submit a 10 to 15-minute start-up time will receive a binding startup notification from the RTC that posts its results 15 minutes before the scheduled start of the unit.

Minimum Run Time

In SCUC, the minimum run time is honored within the 24-hour evaluation period only; requirements across midnight are not recognized. A unit must bid appropriately to enable commitment in the next day.

~~RTC honors minimum run time to a maximum of one hour.~~ The minimum run time values allowed in RTC can be as little as 15 minutes. The longest Minimum Run Time allowed for generators that are economically committed by RTC in the Real-Time Market shall be one hour, unless the generator is a Real-Time Minimum Run Qualified Gas Turbine. For Real-Time Minimum Run Qualified Gas Turbines, the Minimum Run Time assigned by RTC for economic commitment shall be two hours.

See section titled 'Qualification for a Real-Time Minimum Run Qualified Gas Turbine' below for requirements to qualify as a Real-Time Minimum Run Qualified Gas Turbine.

Minimum Down Time

SCUC honors the minimum down time within the 24-hour evaluation period only; requirements across midnight are not recognized. A unit must bid appropriately to preclude commitment in the next day.

The minimum down time is honored by RTC unless a unit has at least one hour of a Day-Ahead Market commitment included as part of the 10 period RTC window. In this situation, RTC will

automatically reset the bid minimum down time parameter to one hour at the start of its evaluation.

Qualification for a Real-Time Minimum Run Qualified Gas Turbine
A Market Participant must first qualify its unit(s) with the NYISO via its Customer Representative.

The Real-Time Minimum Run qualification is intended to more appropriately represent the physical operating characteristics of a combined cycle unit. Characteristics that qualify combined cycle units for this treatment include using waste heat from the gas turbine exhaust to make steam for the generation of additional electricity via a steam turbine.

When choosing to qualify for minimum run treatment, you must qualify all bidding points of a Generator where the term Generator is more explicitly defined in the Market Services Tariff.

If the unit is approved, the Real-Time Minimum Run Qualified parameter will be applied by NYISO Customer Relations in the NYISO Market Information System (MIS).