

SBG Communication Protocol

March 10, 2010



- SBG Definition
- SBG Mitigating Actions
- SBG Report
- Actions Taken when an SBG Event is Forecast
- Control Actions for an SBG Event in Real-Time
- Next Steps

- SBG is a condition where market actions require the reduction of generation that results in the loss of fuel or creates reliability, regulatory, safety or equipment concerns
 - For example:
 - Loss of fuel includes hydro spill (not storage), wind reductions
 - Reliability includes requiring a unit remain in service when the de-commitment would result in an inability to meet demand requirements in a future period
- SBG can be a global or local concern

- To date, we have taken many actions to address SBG events:
 - Use of an average demand forecast for all hours except ramp hours
 - Created new SGOL eligibility rules
 - Discussions with commissioning units regarding timing of tests and SBG expectations
 - Discussions with NUGs in advance of SBG events (via OEFC)
 - Currently developing a formal protocol regarding NUG shutdowns during SBG
 - Publishing an SBG Forecast report
 - Advanced discussions with a subset of MP's that may have to take action as a result of an SBG event
 - Ongoing coordination with OPA and RES contract holders regarding obligations within the contracts and IESO-AM

- We publish an SBG Forecast report on the IESO public website on the market data webpage (<http://www.ieso.ca/imoweb/marketdata/sbg.asp>)
 - We calculate SBG for this report by subtracting the forecasted Ontario demand from the forecasted baseload energy
 - Baseload capacity is the sum of all available nuclear, must-run hydroelectric, self-scheduling, commissioning, intermittent generators
 - The SBG forecast does not include imports or exports
 - The method of calculating SBG for this report is different than the definition of SBG presented on Slide 3
 - Expect the report title to reflect how we believe participants are using the report (i.e. to forecast the potential for nuclear reductions)

- If SBG is not forecast:
 - We may contact market participants to identify their spill, shut down, gas support, etc. requirements in case of an unexpected SBG event
- If SBG is forecast we may take the following actions:
 - Talk with market participants identifying potential SBG events and our need for manoeuvres, spill or shut downs (including NUGs)
 - Issue SAA (3 - 4 days out if nuclear manoeuvre expected)
 - Issue SSR (1 - 2 days out if nuclear manoeuvre expected)
 - Issue SSR (up until real-time if conditions change)
 - a nuclear manoeuvre of greater than 250MW

- We may take the following actions if there is an SBG event in real-time:
 - Allow the DSO to dispatch based on economics
 - Expand the Net Interchange Scheduling Limit (NISL) to 1000MW and issue SSR (PD-2)
 - Cut imports equal to nuclear MW reduction amount (PD-1 into real-time)
 - Issue an SSR soliciting bids and offers (i.e. open the mandatory window)
 - Talk with market participants identifying potential SBG events and our need for manoeuvres, spill or shut downs

- If, as a result of equipment, safety, regulatory reasons, a resource can no longer respond to dispatches:
 - The Generator must declare their inability to move
 - Constraints will be applied appropriately and the event will be identified for review to the compliance and surveillance unit within the IESO
 - For example, manoeuvring or spill limitations
- All resources will be dispatched on economic merit order including those offered at -\$2000:
 - This includes self-scheduling and intermittent facilities.
 - Intermittent and Self Scheduling facilities are required to submit a price at which they will reduce with their schedules.

- IMDC to reflect SBG actions