
MEMORANDUM

TO: EIPC STAKEHOLDER STEERING COMMITTEE (SSC)
FROM: SCENARIO PLANNING WORK GROUP (SPWG)
SUBJECT: RECOMMENDATIONS ON FUTURES DESCRIPTIONS AND SENSITIVITIES
DATE: 2/1/2011

The purpose of this memo is to outline the Scenario Planning Work Group's recommendations to the SSC for approval at its February 7-8, 2011, meeting. These recommendations pertain to 1) the 72 sensitivities that will be run on the eight selected Futures; and 2) revisions made to the eight Futures descriptions reflecting SSC decision/discussion at the December 2010 SSC meeting.

I. Sensitivities

As a reminder, during the December SSC meeting, the SSC approved the following eight Futures:

1. Business as Usual (BAU)
2. Federal Carbon Constraint: National Implementation
3. Federal Carbon Constraint: State and Regional Implementation and Choice
4. Aggressive Energy Efficiency, Demand Response, Distributed Generation and Smart Grid
5. Federal RPS: National Implementation
6. Federal RPS: State and Regional Implementation
7. Nuclear Resurgence
8. Combined Federal Climate and Energy Policy

The SSC also agreed to limit Future #8 to four sensitivities, and set aside some additional sensitivities to try and yield key data initially sought by certain stakeholders through the previously proposed "Environmental Moderation" and "Free Market" Futures. In this vein, the SSC agreed that there should be three additional "Environmental Moderation" sensitivities (in addition to one sensitivity that had already been approved and was understood to fall into this category) and at least two "Free Market" sensitivities, all of which would be run on the BAU Future.

Having received this guidance from the SSC, members of the SPWG discussed each of the sensitivities suggestions that had been proposed for each of the eight Futures over the last several months, and determined which ones they believed would yield the most useful information to the diverse stakeholders involved in this analysis.

The list of proposed sensitivities can be found in the Excel spreadsheet accompanying this memo (**Appendix A – Sensitivities Spreadsheet**). Please note the following:

- Transfer limits sensitivity #1 (in each Future)
 - For the BAU case, the MWG has developed alternatives on how the transfer capability should be developed. Their proposal states “The MWG recommends that the EIPC/CRA soft-constraint approach is generally appropriate to be used to implement Sensitivity #1 of the BAU Future. The MWG recommends that, for the BAU Sensitivity #1, the soft-constraint approach setting the Overload charge to one standard deviation below shadow prices, with a floor set at \$2/MWh for those transmission interfaces that have congestion.” The SPWG is in general agreement with the proposed EIPC/CRA soft constraints approach as well.
 - For Futures 2, 5, and 8 the SPWG had a longer discussion about how the transfer capabilities should work. In these cases the SPWG was also in general agreement with the EIPC/CRA soft constraints approach. In these futures the soft constraint approach calls for the Overload charge to be set at two standard deviations below shadow prices. The objective of this was to open up the pipes more in these particular futures because these futures were believed to need a larger transmission buildout. Otherwise the futures that result from the model may not be the futures that were intended by the SPWG because generation choices would be limited by transmission limits.
- Transfer limits sensitivity #2 (in several Futures)
 - For the BAU case, the SSC decided that the interregional fees should be reduced. Initially the SPWG had accepted the EISPC proposal that these fees should be removed. The MWG has made recommendations on how to handle these fees in the BAU case and the SPWG did not weigh in on this.
 - For Futures 2, 5, and 8 the SPWG had a longer discussion and actively decided that the pipes needed to be opened more in these futures than the initial transfer limit sensitivity would allow. The SPWG recommends a sensitivity that would reduce the hurdle rates, wheeling charges **and** overload charges to increase the transfer limits in this case. The objective is to open up the pipes because these futures were believed to need a larger transmission buildout. Otherwise the futures that result from the model may not be the futures that were intended by the SPWG because generation choices would be limited by transmission limits.
- Terms such as high, low, etc. are relative to the input values that will be used in the “base” case for each Future. The actual inputs, and decisions about how different sensitivities will be modeled, will be determined by the MWG, with input from the SPWG and approval by the SSC.

- The SPWG also recommends that EISPC be allowed to determine how the final two sensitivities should be allocated.

The SPWG asks the SSC to approve these 72 sensitivities so the work groups may proceed with determining the modeling inputs in a timely fashion.

II. Revisions to Futures Descriptions

Additionally, during the December 2010 SSC meeting, the SSC discussed several questions/issues related to the Futures descriptions, where consensus had not yet been achieved within the SPWG. According the summary from the December meeting, the SSC made the following decisions on those issues:

- **Treatment of policies with expiration dates/sunsets in BAU:** The SSC decided that policies would be renewed or allowed to expire on a case-by-case basis, taking account of past experience, among other factors.
- **RES level in the two National RPS futures (5 & 6 above):** The SSC decided that the RES level would remain 30%, but for some sectors this is contingent upon there being no cap on imports of Canadian hydro.
- **Imports of Canadian hydro – cap/no cap:** SSC members discussed their interest in ensuring that that imports of Canadian hydro are accurately modeled, so that the result wouldn't show an infeasible level of imports, given Canadian demand, transfer limits, and capital costs and practical limits for hydro expansion. Others were concerned about inserting a cap that would artificially limit Canadian hydro, since imports already take place and there are plans for future expansion. This issue was not completely resolved. More information is needed about how this might be modeled. *[The MWG has made some recommendations on this issue that are discussed in their memo.]*
- **Carbon Capture and Sequestration (CCS) in the Carbon Constraint and RPS Futures:** There were no objections to CCS becoming viable at some point during the period of the study, with one sector noting that this is contingent upon a “reasonable” set of cost assumptions being selected.

Having received this guidance from the SSC, the SPWG revised the Futures Descriptions to reflect these decisions. The revised version of the Futures descriptions is attached (**See Appendix B – Revised Futures Descriptions**). The sections pertaining to the issues listed above have been highlighted in yellow, along with other minor edits that were made for the sake of clarity/consistency.

The SPWG asks that the SSC approve these revised Futures descriptions, so the document may be finalized and employed by the Modeling WG as they identify the modeling inputs needed to accurately model the Futures, as described.