MTEP Futures Weighting and Criteria Feedback per June 14, 2017 Planning Advisory Committee Process Reforms

By: OMS Transmission Planning Work Group, July 14, 2017

During the June 14th PAC meeting, MISO proposed three reforms to the existing MTEP Futures weighting process. The OMS Transmission Planning Work Group offers the following comments on each of the proposed reforms. These comments do not represent any particular State or Commission's view. These are initial comments with the understanding of further feedback, review, and next steps to be determined at the August Planning Advisory Committee.

I. Equal Weights

First, MISO has proposed to assign equal and even weights to each MTEP Future, citing the uncertainty of the future and noting each scenario warrants consideration. During the June 14th presentation, MISO staff also asserted that assigning equal weighting to each MTEP future would prevent bias by stakeholders and increase predictability.

This problem has been with us since the first MTEP evaluation with futures. MISO and stakeholders have long recognized the possibility that a sector suggest weightings that are designed to promote their business case or advance certain favored policies, and as a result, MISO has the ability to reject "stacked ballots." Furthermore, the wide variety of MISO sectors minimizes some of these concerns.

The TPWG understands the concern, but thinks that the proposed solution could introduce more uninformed bias to the evaluation of MEP transmission projects for approval. Specifically, assigning equal and even weighting to each future would move the opportunity "gaming" upstream to the discussion of future definitions. Another unintended consequence could be the removal of futures that seem comparatively less likely.

Also, the futures are not necessarily created to be of equal probability which would warrant the equally assigned weighting. This is especially true for the MTEP18 futures, which were developed prior to this proposed new methodology. The futures scenarios are to be feasible, with internally consistent metrics, and represent a range of potential directions in the universe of choices while providing broad bookends.

Without compelling rationale, the TPWG suggests keeping the existing sector voting/weighting process with transparency of the votes for the MTEP18 cycle. Since the MTEP18 scenarios have already determined under the current methodology, the application of any changes to the weighting process should be deferred to MTEP19.

Before moving forward with any reforms to the weighting process, the TPWG suggests that MISO research best practices and present its findings to stakeholders. For example, the approach used by other industries, RTOs, or general statistical techniques could be examined.

II. "Base" MEP Criteria – Half Future's B/C greater than 1.0

The TPWG agrees with the concern MISO noted related to the current weighted B/C methodology allowing a risky outcome (i.e., scenario project having a particularly high B/C ratio under a single future and not cost effective in many other futures). This concerns the distribution of revenue under different scenarios. So the simple weighting methodology can ignore the downside risks which can be greater than the upside benefits. The proposal says the project must have equal to or be greater than 1.0 in one half of the scenarios. The logic is an improvement. But the "one-half" of scenarios needs to be tested more robustly. With 3 or 4 scenarios, this would be a good process to remove a potentially higher risk project that would not recover costs.

Summary on Half Future's B/C greater than 1.0

The TPWG agrees with the direction, but would prefer to see more metrics with the proposal to achieve the desired effect of not including higher risk projects. Such suggestions at the time could be a negative floor of say, -0.8. Another solution would be to look at the standard deviations of the different scenarios. This of course is a little more difficult when dealing with 3 or 4 scenarios samples.

III. Sensitivity Evaluation of weighted B/C of any future's sensitivities equal to or greater than 1.0

The sensitivity studies and checking for a range of outcomes is another good technique for a more comprehensive evaluation. The criteria suggested is the average of all sensitivities maintain a B/C greater than 1.0. The proposal shows how a set of 3 sensitivities for Future #1 would average 2.2 and preforming the same for the other futures would change the weighted B/C from 1.4 to 1.3. This would be a recommended project. The second example, illustrated a sensitivity on two of the four futures and the sensitivity weighted B/C was changed from a base of 1.4 to 0.9 and thus not recommended. The sensitivities are to be "performed and determined on an as needed basis."

The direction is good, but the proposal is incomplete. For example, a sophisticated study participant could artificially deflate or buttress potential candidate projects by suggesting particular sensitivities. The intent of maintaining a positive weighted B/C is correct. But the open ended process to determine sensitivities is completely arbitrary and undefined, leaving the door open for potential gaming opportunities. Some unanswered questions include: Is the sensitivity one metric and one numeric change? Is the sensitivity a variation of the scenario concerning some dependent variables? Is the sensitivity a test of the independent variables?

This proposal needs more development on how to do sensitivity testing, purpose, methodology, etc.

Summary on Sensitivities B/C greater than 1.0

The direction of testing robustness with sensitivities is good, but there are too many gaps in the techniques and evaluation as proposed and this should be refined.