MSWG EXPANSION TCC AWARD PROCESS
Project Update III

Prepared for NYISO Market Structure Working Group

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LECG
ECONOMICS
FINANCE

AGENDA

- Timeline
- TCC Options
- Expansion Awards (Obligations)

DRAFT TIMELINE
TCC EXPANSION AWARDS FOR AC FACILITIES

TCC Options

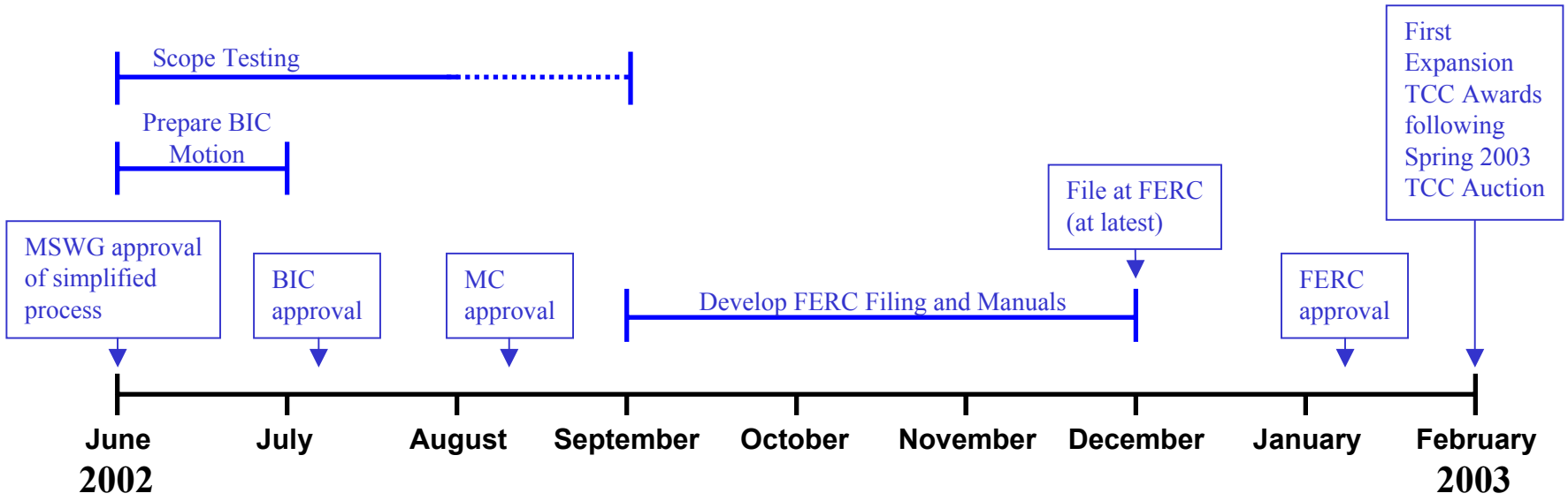
Evaluate AC vs. DC Auction Model in NY, choose approach

DC model with options could be implemented by Spring 2003 Auction (includes BIC and MC approval, tariff filing and approval, manual development, MP training and model changes)

AC model with options could be implemented by Fall 2003 Auction

Fall 2003

TCC Obligations



The MSWG has discussed the feasibility of offering awards of TCC options to parties that expand the transmission system.

- Questions have remained about the software approach that should be used to perform the simultaneous feasibility test to implement these concepts.
- At our last meeting, we discussed the current status of DC and AC approaches to performing the simultaneous feasibility test with TCC options, and some next steps for the NYISO.

Two software vendors have completed DC models for conducting a joint auction of TCC options and obligations. A third vendor has built a prototype model.

- Models solve in minutes for NY-sized systems or larger.
- PJM is performing market trials on one of these models.
- Software for a DC auction model could be implemented relatively quickly in NY.
- But… impact of using a DC model in NY would need to be evaluated.

The NYISO currently uses an AC model in its TCC obligations auction. No software currently exists to perform an AC auction of options and obligations.

- The design of a full AC security analysis for an auction model with TCC options is difficult because in an AC model the shift factors depend on the net injections at each bus, so that they depend on the combination of options that is exercised.
- Since our last discussion, Bill Hogan has proposed a computationally feasible (approximate) analytical formulation for an AC model for a joint auction of TCC options and obligations.
- Software vendors have reviewed Hogan's analytical approach and have provided estimates of implementation time.

Decide whether an AC or DC model with options should be used in New York.

1. Perform comparative study of the revenue adequacy of a DC obligations model vs. AC obligations model in New York.
   - The NYISO will undertake this work with support from a subcontractor.
   - Will reveal the issues that would be encountered in moving to a DC model in NY, and the market impacts.
2. Complete analytical specification of an AC auction model with options.
   - This is for the most part complete; some remaining discussions with software developers.
3. Review results of PJM market trials with DC options model.

EXPANSION AWARDS — Remaining Tasks

A few tasks remain to be done in order to complete the process for awarding expansion TCCs as obligations.

- LECG/NYISO
  - Perform full-scale proof in concept of expansion TCC award process using SCOPE.
  - Test Englander approach for the unauctioned period on the SCOPE model.
- MSWG/LECG/NYISO
  - Decide which optional parts of the award process to include/exclude from the final recommendation to the BIC.
  - Determine implementation timeline.
  - Prepare tariff filings, manuals, etc.

EXPANSION AWARDS

The revised expansion TCC award process preserves the structure and objectives of the original MSWG proposal and provides choices to expanders when possible.

While providing choices to expanders is beneficial, it also introduces complication. The NYISO and LECG will propose possible simplifications to the MSWG.

- Types of expansion awards offered.
- Choices for awarding mitigating TCCs.
- Approaches to resolving infeasibility in the final award step.

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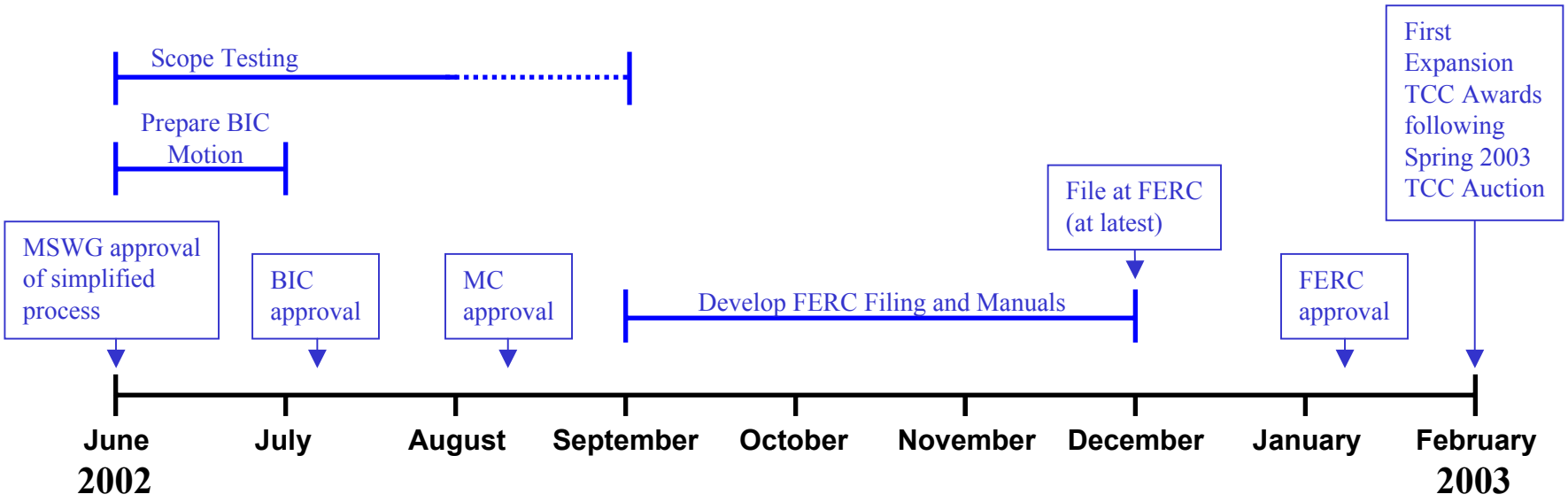
TCC Obligations