

The background of the slide is a photograph of several high-voltage electrical transmission towers and power lines stretching across a blue sky with scattered white clouds. The towers are made of metal lattice and are positioned at various points across the frame, creating a sense of depth and perspective.

Transmission Expansion Advisory Committee Market Efficiency Update

April 9, 2015



Market Efficiency Long Term Proposal Window Update

- **93 Market Efficiency Proposals**
 - 34 Transmission Owner Upgrades
 - Cost range of \$0.1M to \$81.16M
 - 58 Greenfield Projects
 - Cost range of \$9.2M to \$432.5M



2014/15 RTEP Long Term Proposal Window: Market Efficiency

AREA of Proposal	Number of proposals
APS	6
APSOUTH and/or AEP-DOM Area	44
ATSI	2
BGE/PPL	4
ComEd	15
DEOK	8
DPL	1
DUQ	4
PECO	5
PSEG	3
Grand Total	93

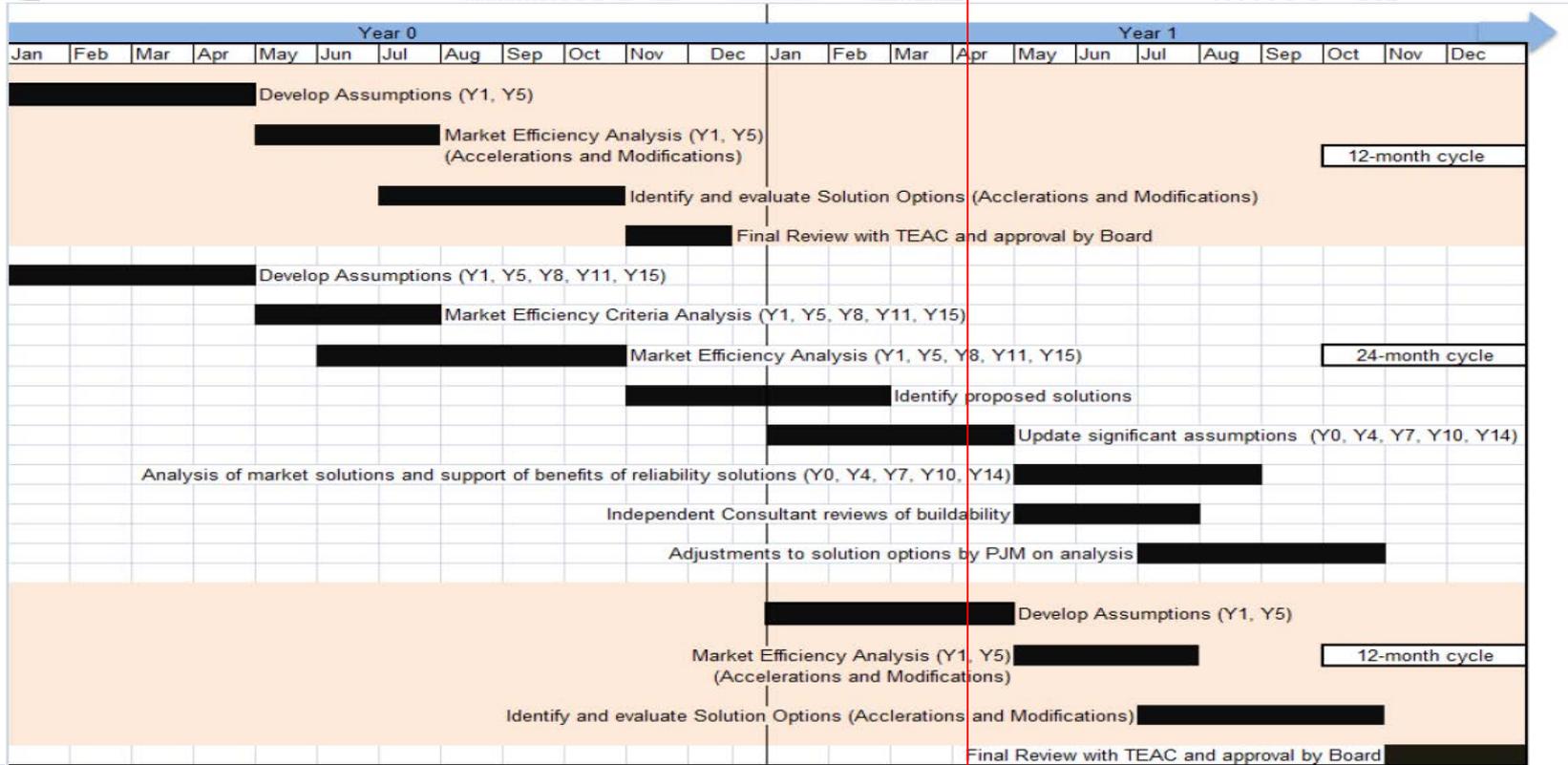


Market Efficiency Project Study approach:

- Step 1: Review projects
 - PJM will contact proposer if need clarification of modeling.
 - PV Analysis being conducted by PJM to verify participant supplied data for reactive ratings.
 - Approved base line reliability projects may eliminate need for several projects.
- Step 2: First pass of project evaluations assuming proposer supplied data.
- Step 3: Determine if there are any obvious optimal projects in focused areas.
 - Areas with quick fixes or lower cost reinforcements
- Step 4: Detailed Analysis in areas with many project submissions (i.e. ApSouth)
 - Sensitivity using 2015 Assumptions, reactive limits, in-service date, etc.
 - Study multiple combinations of project



Market Efficiency Timeline





2014-2015 24-Month Market Efficiency Cycle Timeline

- Long Term proposal window: November 2014 - February 2015

- Analysis of proposed solutions: March 2015 - November 2015
 - ✓ Determination of major assumptions (i.e. Load forecast, Fuel prices, Generators) that are significantly different in 2015 and can be used in sensitivity analysis for proposed projects: March 2015
 - Independent consultant review of cost and ability to build
 - Review of analysis with TEAC: June 2015-November 2015

- Determination of Final projects: December 2015
 - Final review with TEAC and Board approval
 - Projects may be approved earlier if analysis and review complete



2015 12-Month Market Efficiency Cycle

- 12 month cycle used to complete near-term (year 1 through year 5) analysis to identify approved RTEP projects that can be accelerated or modified based on Market Efficiency criteria.
- Develop Market Efficiency 2016 and 2020 cases: January 2015-April 2015
 - Update of 2015 and 2019 Long Term Proposal Market Efficiency cases
- Analysis of approve RTEP projects for accelerations and modifications: May 2015-August 2015
- Determination of final candidates: August 2015-November 2015
- Recommendation to PJM Board: December 2015

Questions?

Email: RTEP@pjm.com

- 4/6/2015 – Posted to TEAC
- 4/14/2015 – Updated Slide 3 TO Upgrade details