



S&P 500	2,171	+25	+1.09%
GlobalDow	1,104	+13	+1.14%
Gold	1,965	+30	+1.53%
Oil	1,165	+18	+1.56%
	77.56	0.09	0.12%



POWER SUPPLY | GENERATION | FINANCIAL | MEMBER SERVICES | RISK MANAGEMENT | SUSTAINABILITY

## PJM Markets & Reliability Committee Meeting

# What TDUs and Customers Want?

- Consistent with FERC direction and principles of coordination, openness, transparency, information exchange and comparability:
  - 1) the ability to ensure that planned facilities are indeed necessary and economical
  - 2) transparent criteria, assumptions and models
  - 3) meaningful opportunity for review and input
  - 4) consistency and uniformity to the extent practical



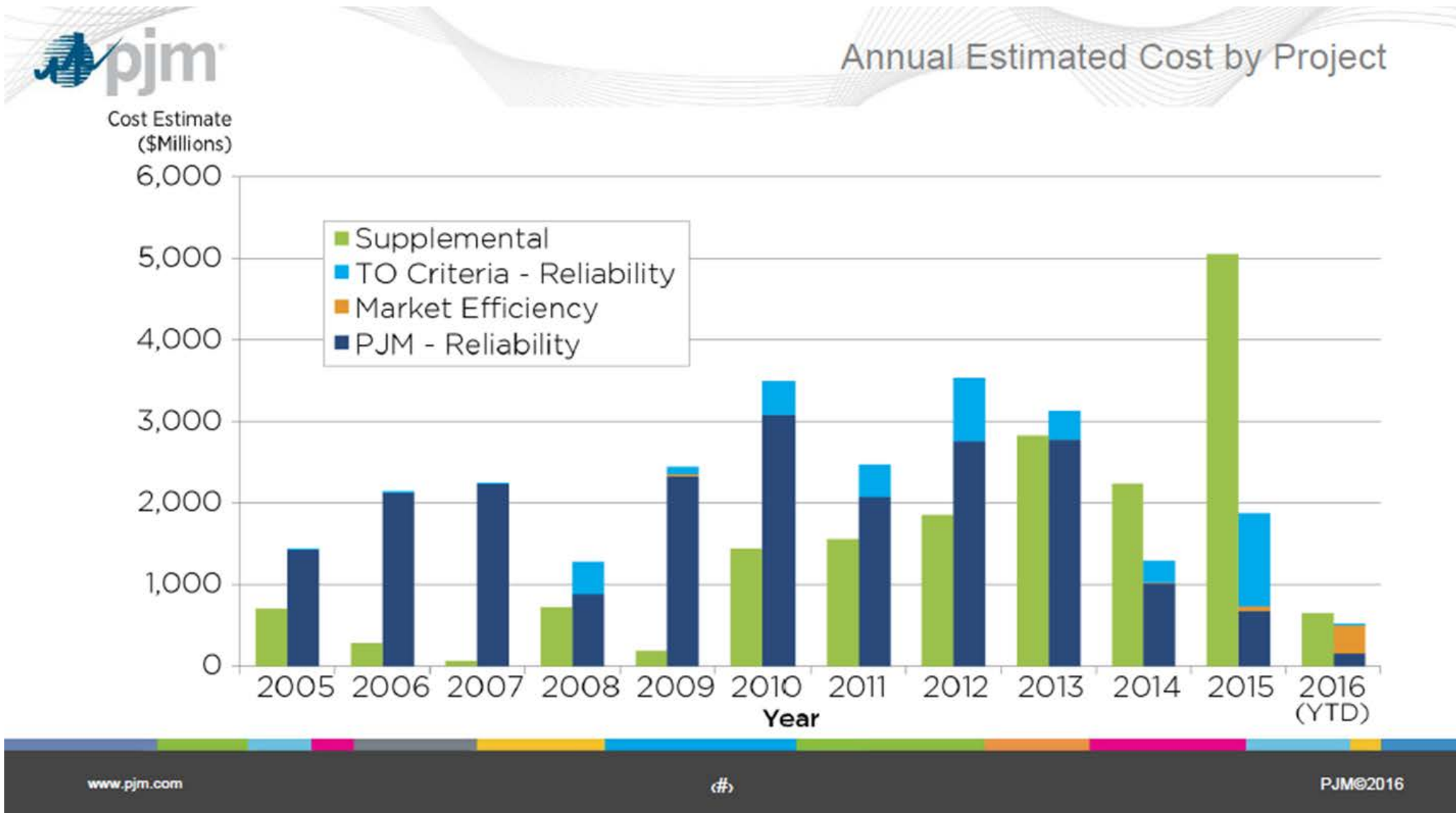
# Baseline vs. Supplemental

- Can do this with Baseline Projects, but not Supplemental
  - A Supplemental Project is defined as a transmission expansion or enhancement that is not required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by PJM, and is not a state public policy project pursuant to section 1.5.9(a)(ii) of Schedule 6 of the Operating Agreement.  
PJM, Intra-PJM Tariffs, Operating Agreement
- Have criteria and models for Baseline (includes TO criteria); little for Supplemental assessment practices and narrative evaluation
- ER13-198 clarifies applicability to Supplemental Projects

# Planning Process

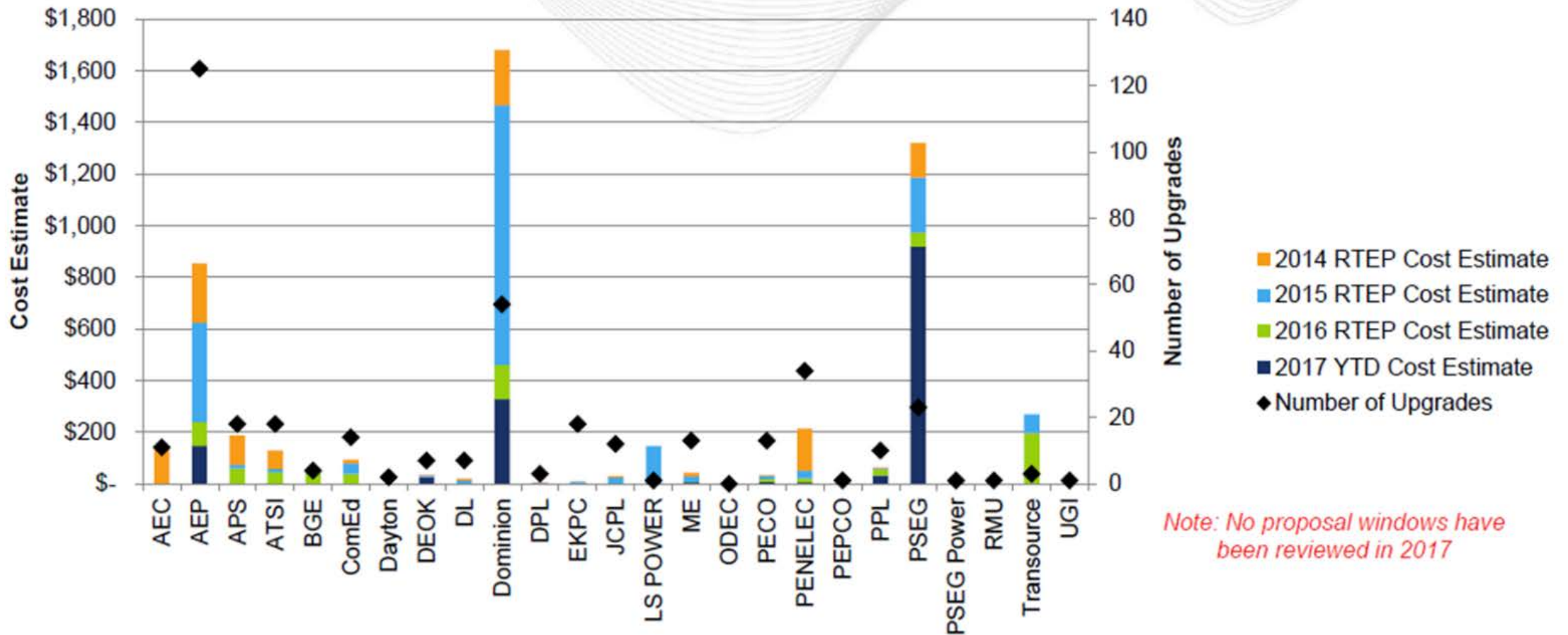
- Transmission Owners have been making changes to the process
  - Unilaterally
  - Absent stakeholder consultation or collaboration
  - Presentation material format changes each meeting
  - Detail within varies greatly among TOs
  - Detail still insufficient
- Still a long way to go
  - Large number and \$ amount of projects not part of Board review

# PJM's Assessment of Supplemental Projects





# Baseline Upgrades by Transmission Owner

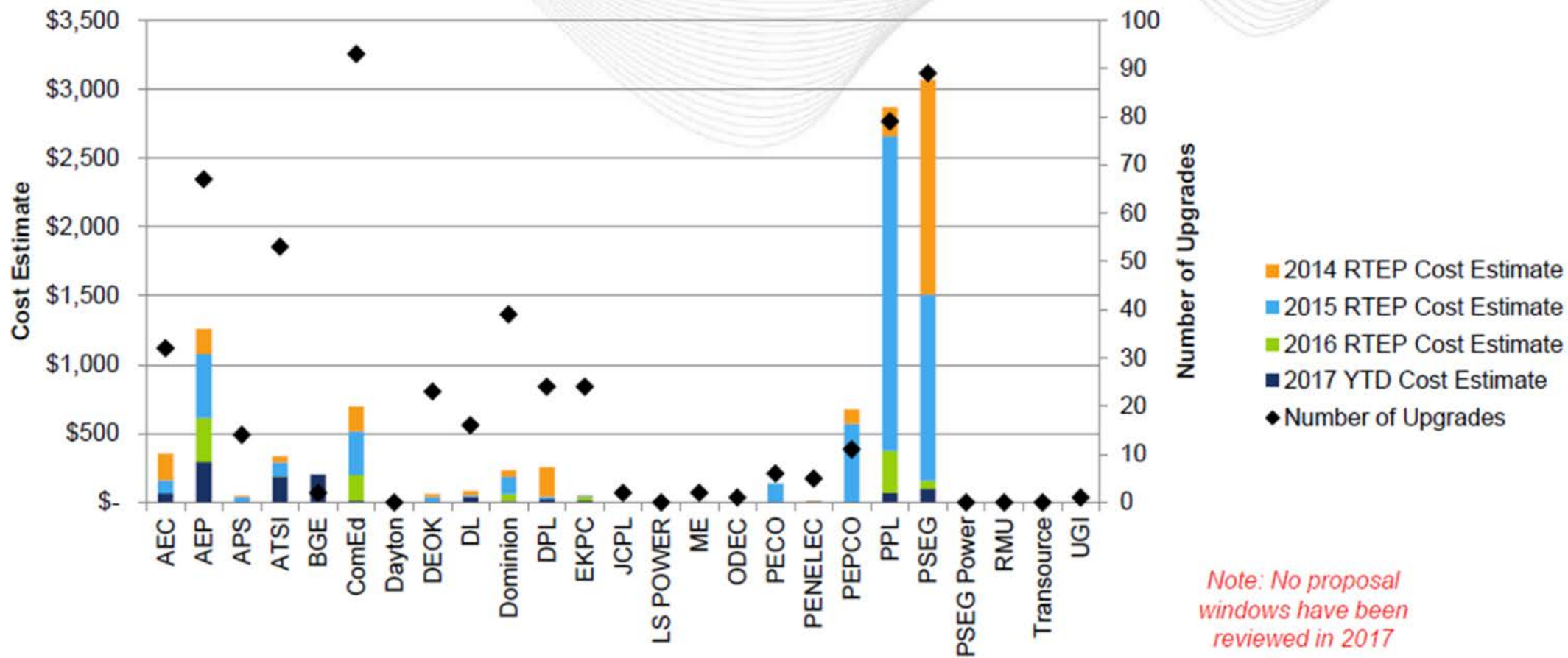


*Note: No proposal windows have been reviewed in 2017*





# Supplemental Upgrades by Transmission Owner

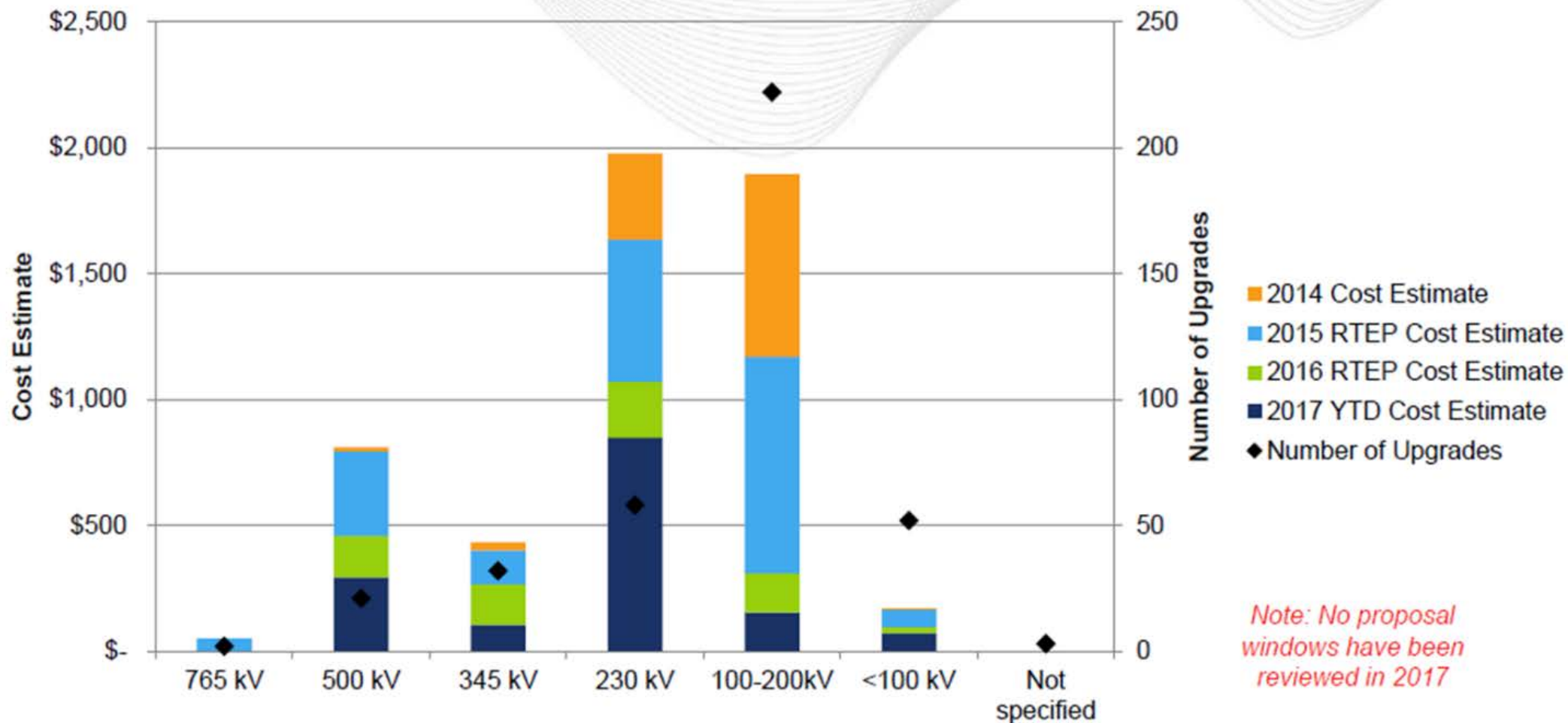


*Note: No proposal windows have been reviewed in 2017*





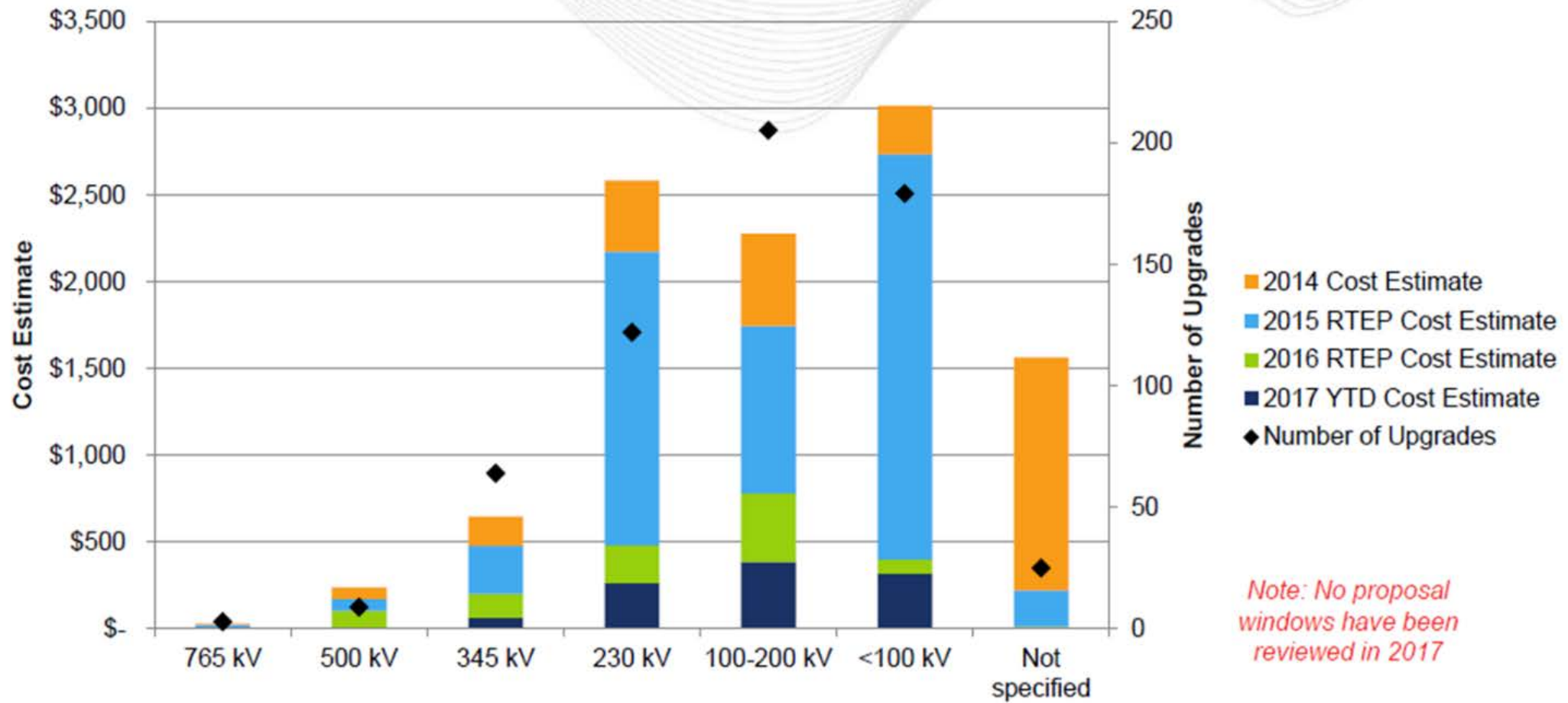
# Baseline Upgrades by Voltage



*Note: No proposal windows have been reviewed in 2017*



# Supplemental Upgrades by Voltage



*Note: No proposal windows have been reviewed in 2017*

# Reconvene TRSPTF

- Recently, more facilities outside the PJM review process than inside:
  - Approximately \$9.9B in Supplemental Projects versus \$5.2B in Baseline
  - Current Western Sub Regional RTEP:
    - Almost \$1B in projects
    - Over 60% supplemental
    - Projects that combine Baseline and Supplemental
- Better results with independent evaluation
  - Richland to Naomi Junction (5/4/17 TEAC)
    - PJM Solution \$1.7 M
    - Incumbent over 5 times higher

# Reconvene TRSPTF

- The world is significantly different than when original transmission facilities were built.
- Upcoming changes will be even more transformative.
- We need to give serious thought as to how we replace aging infrastructure:
  - Load growth flat or negative
  - Increase in renewable resources
  - Increase in intermittent, \$0/MWh resources
  - Change in economic life of units due to accelerated obsolescence
  - Distributed generation
  - Smart Grids