Project Statistics
Overview

- This is an information-only posting, prepared based on stakeholder feedback and is anticipated to be updated following the periodic PJM Board meetings along with the “TEAC Whitepaper” documents that are typically posted.

- Each slide summarizes projects based on the estimated costs presented at the TEAC or Subregional TEAC meetings.
  - Costs are provided by the Designated Entity or Transmission Owners. Cost estimation methods may vary by company. Estimated costs in this document may include cost caps or cost containment even though it isn’t specifically noted.
  - Cost estimates may change over time as new information is known and incorporated into the estimate by the project sponsor, this document reflects the current estimates that are provided to PJM.
  - A single cost is provided for each project identifier, without any additional breakdown (for example, cost by state).

- This information is not part of the TEAC agenda. PJM requests feedback in writing through the Planning Community tool.

www.pjm.com
2017 Changes to the RTEP Baseline Projects

- **Start of Year**: $24,498.10
- **New Projects**: +$3,203.16
- **Cost Change**: +$371.31
- **Cancellations**: -$189.97
- **End of Year**: $27,882.60

**Estimated Cost ($ million)**
2017 Changes to the RTEP
Generation and Merchant Network Upgrade Projects

- **Start of Year**: $4,823.66
- **New Projects**: $2,943.97
- **Cost Change**: ($183.69)
- **Cancellations**: ($356.04)
- **End of Year**: $7,227.90
2017 Supplemental Projects
Presented by TOs to TEAC/Subregional TEAC Meetings

- Start of Year: $17,364.46
- New Projects: $2,617.92
- Cost Change: $184.66
- Cancellations: ($355.79)
- End of Year: $19,811.25

Estimated Cost ($ million)
New Projects in 2017 Project Drivers

Estimated Cost of Baseline Projects Approved by PJM Board

- Baseline Load Growth Deliverability & Reliability
- Congestion Relief - Economic
- Generator Deactivation
- Operational Performance
- Short Circuit
- TO Criteria Violation

Estimated Cost of Supplemental Projects Presented by TOs to the TEAC

- Equipment Material Condition, Performance and Risk
- Operational Flexibility and Efficiency
- Infrastructure Resilience
- Customer Service
- Other
- Multiple Drivers
New Projects in 2017
Baseline Project Drivers

Estimated Cost of Baseline Projects
Approved by PJM Board

- Baseline Load Growth Deliverability & Reliability
- Congestion Relief - Economic
- Generator Deactivation
- Operational Performance
- Short Circuit
- TO Criteria Violation

Estimated Cost of Baselines Projects
Driven by TO Criteria Violations

- Aging Infrastructure
- Other TO Criteria
New Projects in 2017
Supplemental Project Drivers

Estimated Cost of Supplemental Projects
Presented by TOs to the TEAC

- Equipment Material Condition, Performance and Risk
- Operational Flexibility and Efficiency
- Infrastructure Resilience
- Customer Service
- Other
- Multiple Drivers

Estimated Cost of Supplemental Projects
with Multiple Drivers

- Equipment Material Condition, Performance and Risk / Customer Service
- Equipment Material Condition, Performance and Risk / Infrastructure Resilience
- Equipment Material Condition, Performance and Risk / Operational Flexibility
- Operational Flexibility and Efficiency / Customer Service
Distribution of New Baseline and Supplemental Projects Approved by the PJM Board (baseline) or Presented (supplemental) in 2017
Distribution of New Baseline and Supplemental Projects Approved by the PJM Board (baseline) or Presented (supplemental) since 2005
Baseline and Supplemental Projects by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline (Approved by PJM Board)</th>
<th>Supplemental (Presented to TEAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$1,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>2015</td>
<td>$3,500</td>
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<td>$1,500</td>
</tr>
<tr>
<td>2017</td>
<td>$3,000</td>
<td>$3,000</td>
</tr>
</tbody>
</table>

Estimated Cost ($ million)
Baseline and Supplemental Projects by Year

- **2014**
  - Baseline Projects Approved by PJM Board
  - Supplemental Projects Presented to the TEAC

- **2015**
  - Baseline Projects Approved by PJM Board
  - Supplemental Projects Presented to the TEAC

- **2016**
  - Baseline Projects Approved by PJM Board
  - Supplemental Projects Presented to the TEAC

- **2017**
  - Baseline Projects Approved by PJM Board
  - Supplemental Projects Presented to the TEAC

Legend:
- NERC/PJM Criteria Violations
- TO Criteria Violations
- Supplemental Projects

www.pjm.com
Baseline and Supplemental Projects by Year

**Estimated Cost ($ million)**

- **2014**
  - NERC/PJM Criteria Violations: $1,000
  - TO Criteria Violations: $0

- **2015**
  - NERC/PJM Criteria Violations: $1,000
  - TO Criteria Violations: $500

- **2016**
  - NERC/PJM Criteria Violations: $500
  - TO Criteria Violations: $250

- **2017**
  - NERC/PJM Criteria Violations: $2,500
  - TO Criteria Violations: $1,500

Legend:
- Not Eligible for Competitive Window
- Eligible for Competitive Window
Baseline Projects by Designated Entity Approved by PJM Board 2014-2017
Baseline Projects by Designated Entity
Approved by PJM Board 2014-2017

Estimated Cost ($ million)

- AEC
- AEP
- APS
- ATSI
- BGE
- ComEd
- Dayton
- DECK
- DL
- Dominion
- DPL
- Exelon
- JCPL
- LS POWER
- ME
- NIPSCO
- PECO
- PENELEC
- PEPCO
- PPL
- PSEG
- PSEG Nuclear
- PSEG Power
- RMU
- Transource
- UGI

- Not Eligible for Competitive Window
- Eligible for Competitive Window
Supplemental Projects by Transmission Owner
Presented to the TEAC/Subregional TEAC Meetings in 2014-2017

Estimated Cost ($ million)

2014 2015 2016 2017

AEC AEP APS ATSI BGE ComEd DEOK DL Dominion DPL EKPC JCPL ME ODEC PECO PEN-ELEC PECO PPL PSEG UGI
Baseline Projects by Voltage
Approved by PJM Board 2014-2017

- Estimated Cost ($ million)

- Voltage Levels: <100 kV, 100-200 kV, 230 kV, 345 kV, 500 kV, 765 kV, Not Specified


www.pjm.com
Baseline Projects by Voltage
Approved by PJM Board 2014-2017

The chart shows the estimated cost of baseline projects by voltage level approved by the PJM Board from 2014-2017. The projects are categorized by voltage levels: <100 kV, 100-200 kV, 230 kV, 345 kV, 500 kV, 765 kV, and Not Specified. Each category is represented by a bar graph with the following color codes:

- Not Eligible for Competitive Window: Gray
- Eligible for Competitive Window: Orange

The horizontal axis represents the voltage levels, and the vertical axis represents the estimated cost in million dollars. The data is sourced from www.pjm.com.
Supplemental Projects by Voltage
Presented to the TEAC/Subregional TEAC Meetings in 2014-2017

[Bar chart showing estimated costs by voltage level and year (2014, 2015, 2016, 2017).]

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