

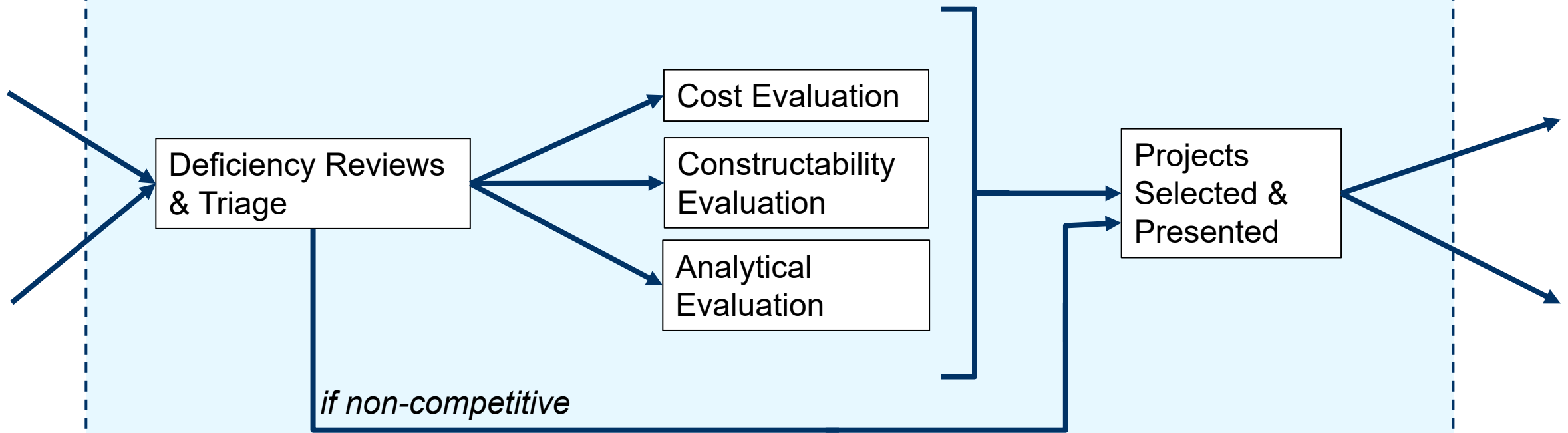
Project Selection

Julia Spatafore
Lead Engineer

Tarik Bensala
Sr. Engineer

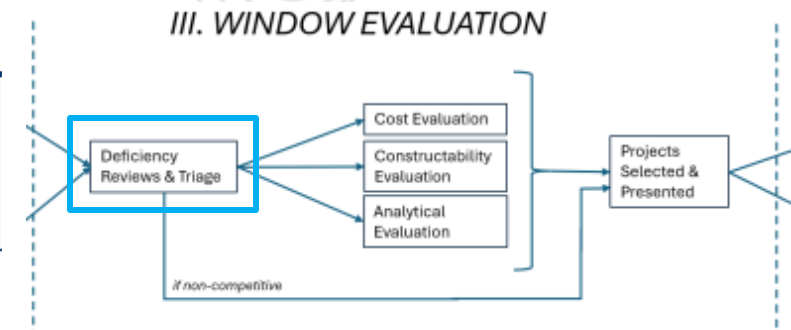
Disclaimer: While materials are current at the time of publishing, applicable requirements may change. PJM Governing Documents control.

III. WINDOW EVALUATION



Initial Evaluations

- **Triage criteria:** At minimum, all proposals must accomplish the following:
 1. Address the applicable flowgates
 2. Do-No-Harm
- **For competitive projects,** PJM will work to build contingency & case files & run all analyses (priority Generator Deliverability first) for every individual competitive proposal.
 - At minimum, the projects must satisfy the above triage requirements
- **For non-competitive projects,** PJM can present & finalize what passes the triage criteria above.



External Communications During Window Evaluation

- PJM schedules 1-on-1 meetings with all proposing entities to discuss their proposals & ask questions at length
- PJM continuously corresponds with the proposing entities via email as needed to address deficiencies
- PJM presents proposal summaries, maps, cluster summaries at TEAC meetings

III. Window Evaluation: Analytical Evaluation

Reliability Analyses

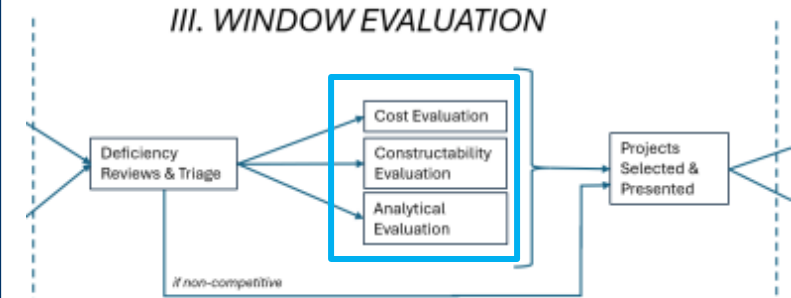
- Transient stability, voltage, thermal, and short-circuit performance
- NERC reliability planning criteria
- *Clusters/Scenarios*
- *Bulk, Regional, Transfer studies*

Market Efficiency Analyses

- Congestion relief as proposed?
- Meet established 1.25:1 benefit-to-cost metric?

Public Policy Analyses

- Ability to satisfy public policy objectives



PJM has taken components of different proposals and combined to develop scenarios/modified solution

PJM has also worked with incumbent TO(s) to address any unaddressed/unaccounted for upgrades

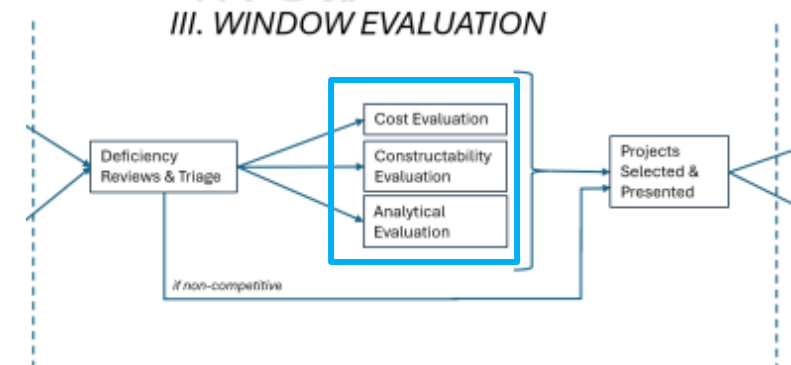
Typical Examples:
Breakers, terminal equipment,
reconductor

External Communications During Window Evaluation

- PJM presents progressing decision process (presenting Short List & eventually final selections) at TEAC

Assessment of project/construction risks:

- Cost Estimate
- Cost Containment (Voluntary)
- Project plan
 - Permits required
 - Right of way acquisition
 - Project one-line diagram
 - Station(s) general arrangement
 - Transmission line route
- Schedule
 - Right of way acquisition
 - Long lead procurement
 - CPCN requirements
 - Construction
- Outage Coordination
- Operational plan



External Communications Post Final Selection

- Following final selection of projects, PJM corresponds with incumbents to review and finalize incumbent cost, scope and schedules for their scope assigned in support of other proposing entity proposals.

III. Window Evaluation: Constructability & Cost Evaluation

PJM will develop independent cost estimates for the proposals that provide a basis for the cost reviews.

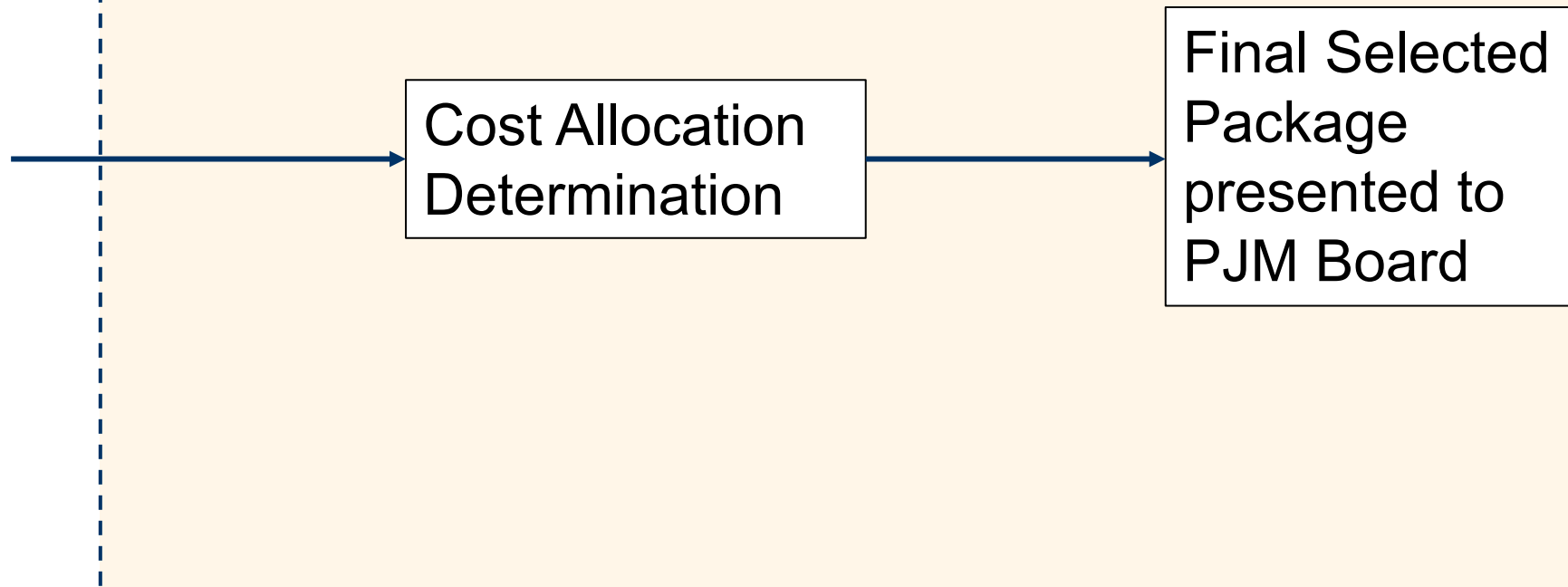
These cost estimates are based on engineering expertise and the most recent material and equipment costs.

PJM also engages in detailed cost analysis of the competing proposals, which involves modeling the total revenue requirement of the proposed projects over their intended life, and assessing the effectiveness of any proposed cost containment mechanisms in mitigating cost overruns.

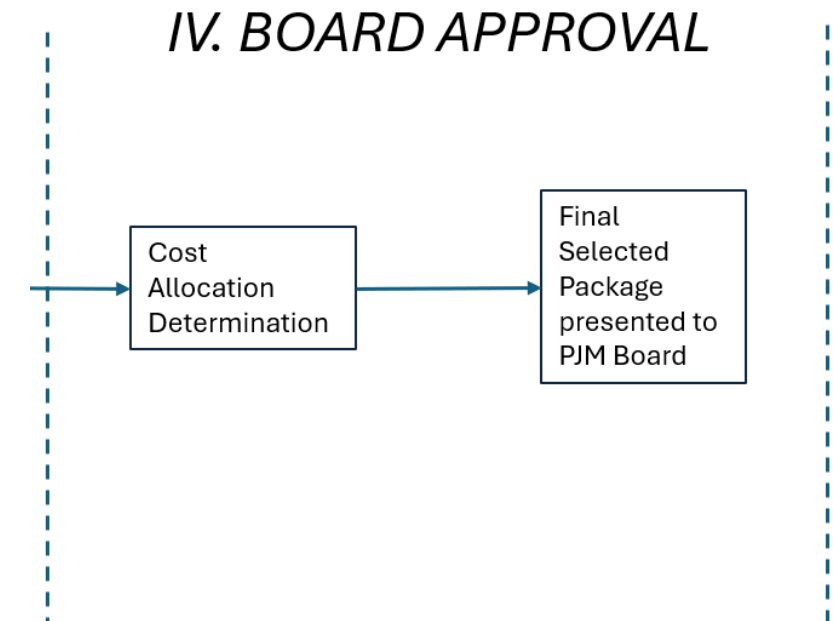
The independent cost estimates are broken into eight categories assuming AACE Level 3 (-20 to +30% accuracy) (same categories required in submitted proposal component cost breakdowns)

- | | |
|---|---|
| <ul style="list-style-type: none">• Materials and equipment• Engineering and design• Construction and commissioning• Permitting/routing/siting | <ul style="list-style-type: none">• Right of-way (ROW)/land acquisition• Construction management• Company overheads and other miscellaneous costs• Project contingency (30%) |
|---|---|
- **Cost Estimate Risk Assessment** – Assessed based on comparison between the developer's proposed cost and the independent cost estimate.
 - **Cost Containment Risk Assessment** – Assessed based on effectiveness of cost containment mechanisms proposed.

IV. BOARD APPROVAL



- PJM documents and publishes RTEP Reliability Report ([example](#)) & Constructability/Financial Analysis Report ([example](#)) posted after projects are selected.
- All projects get finalized from **TO Planner/Competitive Planner** → **Planning Hub**
- Cost Allocation specialists apply FERC approved (TO Proposed) Costs Allocation Tariff provisions to generate cost allocation calculations
- PJM administers the Designation Process and DEA's Drafting
- PJM develops and posts the TEAC Board White Paper summarizing the PJM Board Approved Projects. [Example](#)



RTEP Process Education

Project Selection

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