



RPPTF

Toll-free call-in number 866-398-2885

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March 14, 2013

9:30 am, Eastern Standard Time

- Blue Text denotes concepts captured during the March 14th session
- *Italicized, red text denotes revisions reflecting meeting notes, action items, etc.*

- Review Action Items
 - Fran Barrett
- Market Efficiency – Open Item – Inclusion of ISA & FSA Units
 - Paul McGlynn
- Multi-Driver Use Cases and Pro/Cons
 - Steve Herling
- Order 1000 Interregional update
 - Paul McGlynn
- RPPTF Tasks and Schedule
 - Fran Barrett

- 9:30 Call to Order
 - Roll Call Announcements
- 9:45 Action Items
- 9:55 ME Inclusion of ISA/FSA Units
- 10:15 Working Session
- 12:00 Lunch
- 12:45 Continued Pros/Cons/Requirements
- 1:45 Interregional Update
- 2:30 Tasks Schedule

- Status - The Market Efficiency discussion has been tabled
- As we concluded the ME dialog, a topic arose associated with the potential to include FSA units. An approach was requested to:
 - permit PJM to remove select item(s) from ME analysis,
 - reduce modeling error due to completion, technological or timing risks resulting from large generation (e.g. nuclear generation station) or *FSA-related* transmission ($\geq 500\text{kV}$) projects
 - ensure a large project and or associated planned transmission does not skew or mask likely congestion should the project not proceed
 - allow PJM to exercise judgment and care
 - be designed to enable transparent and clear communications to stakeholders, *including posting of all FSA generation proposed as exclusions*
 - *address and remove any duplicates*
 - *ensure “suspended” ISA projects are not included and duly noted*
 - ensure any true-up to the analysis would be made in the subsequent annual RTEPP
 - *provide a forum, (such as the TEAC), to*
 - *challenge planned inclusions and or exclusions on the FSA listing*
 - *enable collective discussion and decision making*

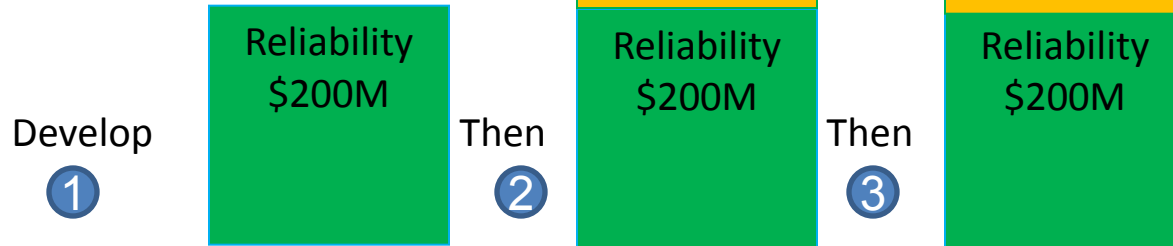
RPPTF – *Multi-Driver Use Cases and Pro/Cons/Requirements*

Note: This session is intended as a working session to capture stakeholder ideas - the following Pros/Cons/Requirements are supplied to “seed” the dialog.

Use Case #4 – “Incremental Only”

Would you support an “incremental” assignment of benefit to contemporaneous projects of different driver type to resolve a planning objective?

*Estimated Cost of 3 Projects in isolation = \$800M
(R\$200M, ME\$100M, PP\$500M)*



Approach suggests an incremental (direct) apportionment by driver type

Resulting Combined Solution = \$600M

Order of solution development and analysis of apportionment

- Reliability (R) upgrades and projects must always be pursued, therefore Reliability customers are never harmed
- Leverages economic utility of multiple projects to efficiently accomplish more robust solution
- For Market Efficiency (ME), only need to justify incremental cost against benefits/costs test
- States – likely view as a “pro” as cost of the Public Policy (PP) portion is reduced
- All drivers equitably share in a proportional dollar-weighted apportionment of aggregate cost reductions
- Perceived as fair and equitable. All Drivers benefit
- Often not best opportunity for incremental solutions or developments that a parallel approach will likely solve
 - Corollary – For PP, it is reasonably likely that States will desire a distinct, single state incremental, and unique solution – whether chosen or not
 - requires a self check and carries perceptions of self interest

- May be perceived as unfair or inequitable to Reliability customers
- No distribution of economic efficiency applied to the R Projects
- When PP is overlaid upon R and or ME, perception of PP receiving underlying benefits (free rider)
- Risks: Pursuing bigger/better/more robust solution (*Complexity Risk*)
 - Siting
 - Completion
 - Project delay(s)
 - Attendant costs
 - *Project Exit Risk – what if a project pulls out in year 2, year 3, year4??*
- Timing of State decision
 - May not be consistent with timing of underlying R project (PP Project may miss the bus)
 - Public Policy considerations may impact other projects. Should it be treated similar to Merchant Transmission Project.
- Challenges the hierarchy that one type of project is always first.
- *Cost serves as the ratio share to determine apportionment*
 - *Attendant controls necessary to ensure least cost construction*
- *May not be a standalone ME solution that passes the benefit/cost ratio test*
- *State – PP share of cost may be perceived as increased*
 - *(however, remains lower cost than if pursued in isolation)*

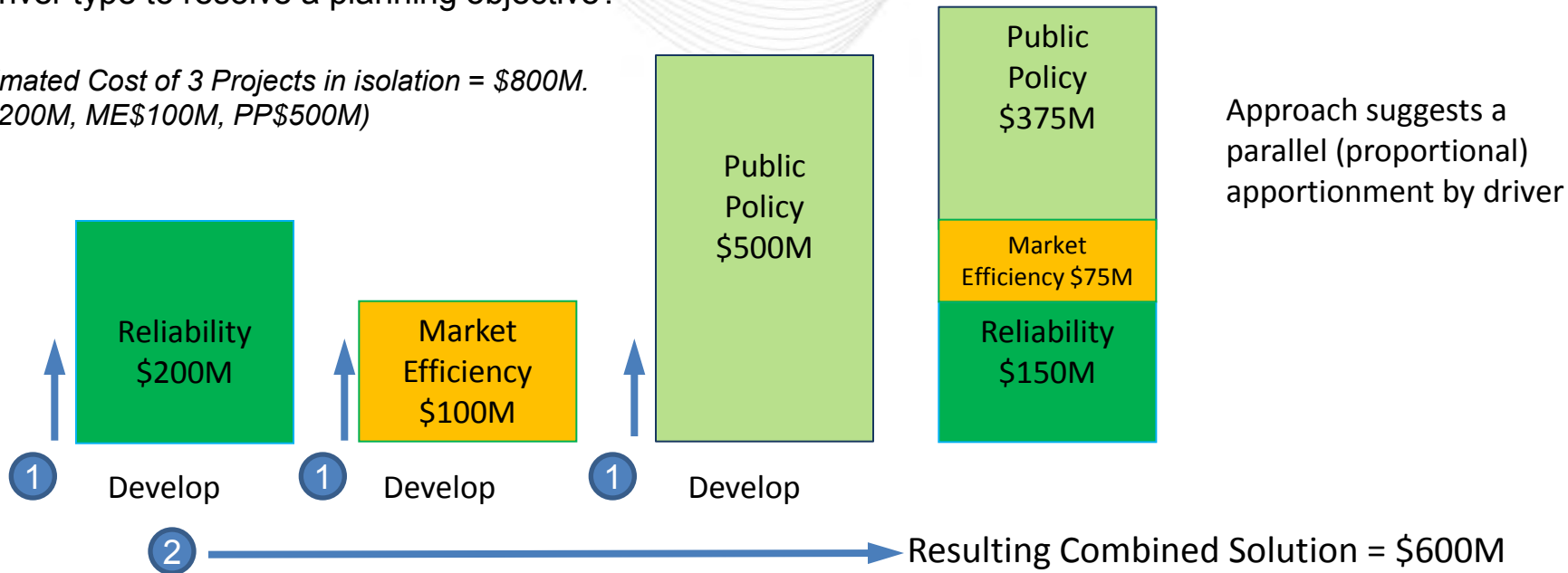
- **Assumptions**
 - *Reliability is paramount. It is non-discretionary*
 - *For all use cases – (all 3 approaches) – no driver will pay more as a result of a combining drivers into a solution*
- Requires a hierarchy (R, then ME, then PP)
 - (rules of the road)
 - Timing of Reliability Projects are non-discretionary and not subject to cost benefit.
 - ME is subject to cost benefit
 - PP may or may not be subject to cost benefit
 - Does this necessitate other windows or additional windows
 - Process Mechanics
 - Criteria on what a multi-driver project would look like in PJM. Do you consider Reliability first.
 - Supplemental projects rather than merchant transmission for Public Policy projects
 - The required in service date for R projects cannot be altered or delayed by MDA or add risk to Reliability without some other project to bridge the gap. Must Comply with Nerc Standards
 - Reliability is a requirement, however specific projects for Reliability may have their in service need date altered for specific reasons.
 - How to weigh the risks
 - Is there an MD approach to alter the PJM approach

- *Differentiation of Driver types - Reliability is not subject to a cost/benefit basis*
- *Timing for Reliability needs/projects cannot be altered / delayed by Multi-Driver Approach*
- *Further understanding / work needed for PP as a project “initiator”*
 - *(Does existing PJM point-to-point process serve as a guidepost?)*

Use Case #5 – “Parallel Only”

Would you support an assignment of benefit by “apportionment” across contemporaneous projects of differing driver type to resolve a planning objective?

Estimated Cost of 3 Projects in isolation = \$800M.
(R\$200M, ME\$100M, PP\$500M)



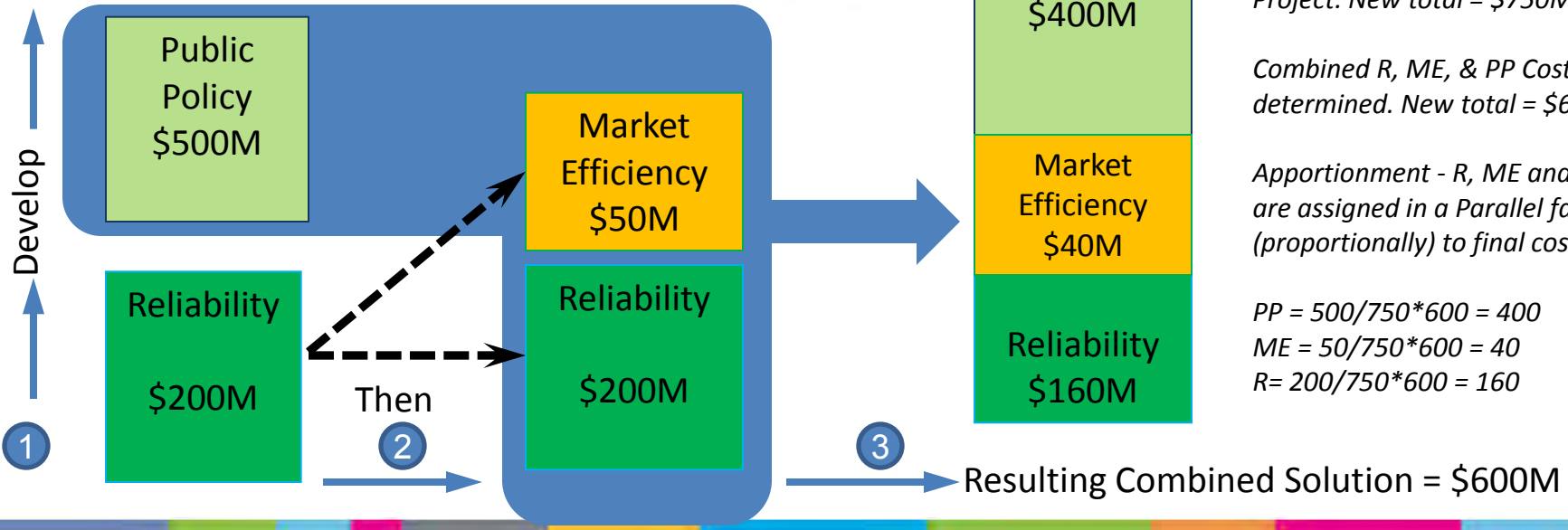
- Leverages economic utility of multiple projects to efficiently accomplish more robust solution
- All drivers equitably share in a proportional dollar-weighted apportionment of aggregate cost reductions
- Perceived as fair and equitable. All Drivers benefit.
- Often not best opportunity for incremental solutions or developments that a parallel approach will likely solve
 - Corollary – For PP, it is reasonably likely that States will desire a distinct, single state incremental, and unique solution – whether chosen or not
- *Reliability (R) upgrades and projects must always be pursued, therefore, Reliability customers are never harmed*
- *For Market Efficiency (ME), only need to justify incremental cost against benefits/costs test*
- *States – likely view as a “pro” as cost of the Public Policy (PP) portion is reduced*

- Cost serves as the ratio share to determine apportionment
 - Attendant controls necessary to ensure least cost construction
- May not be a standalone ME solution that passes the benefit/cost ratio test (test based on full cost of project,)
- Risks: Pursuing bigger/better/more robust solution
 - Siting
 - Completion
 - Project delay(s)
 - Attendant costs
- Timing of State decision
 - May not be consistent with timing of underlying R project (PP Project may miss the bus)
- State – PP share of cost may be perceived as increased
 - (however, remains lower cost than if pursued in isolation)
- Timing - Public Policy considerations may impact other projects
- Challenges the hierarchy that one type of project is always first.
- Project Exit Risk – *what if a project pulls out in year 2, year 3, year 4?*

- Requires a self check and carries perceptions of self interest
- *Who is conducting planning services for States?*
- *Approach requires more PJM control and reduction of risks*
- *Approach must increase odd of ME construction (case where ME cost is increased but fails to trigger)*
- *Must meet NERC Criteria*

Use Case #6 - Incremental for R+ME then Parallel

R & PP approach developed, then R + ME developed.
 Estimated Cost of 3 Projects in isolation = \$800M.
 (R\$200M, ME\$100M, PP\$500M)



3 projects in isolation = \$800M

First Pass – ME project costed incrementally with identified R Project. New total = \$750M

Combined R, ME, & PP Cost determined. New total = \$600

Apportionment - R, ME and PP costs are assigned in a Parallel fashion (proportionally) to final cost.

$$PP = 500/750 * 600 = 400$$

$$ME = 50/750 * 600 = 40$$

$$R = 200/750 * 600 = 160$$



Incremental for R+ME then Parallel - Pros

- Leverages economic utility of multiple projects to efficiently accomplish more robust solution
- R Projects share in distribution of economic efficiency (second pass with PP)
- Perception that it reduces risk and increases the odds of market efficiency construction (carry over to Incremental)
- General savings by all parties
- More PJM control, less uncertainty about the R + ME projects moving forward

- No distribution of economic efficiency applied to R projects (first pass)
- Timing of State decision
 - May not be consistent with timing of underlying R project (PP Project may miss the bus)
- State – PP share of cost may be perceived as increased
 - (however, remains lower cost than if pursued in isolation)
- *Project Exit Risk – what if a project pulls out in year 2, year 3, year4??*
 - Risk a potential for a future loss of project by a designated entity
- Perceived as potentially inequitable; initial allocation between only two functions of consolidated cost savings. (under PJM review)
- Potential to encourage transmission construction for lesser level of cost savings (under PJM review)

Incremental for R+ME and Parallel - Requirements

- *The MDA will require clarity of commitments before the project proceeds, during construction and after conclusion.*
- *The required in service date for R projects cannot be altered or delayed by MDA or add risk to Reliability without some other project to bridge the gap.*
- *Must Comply with NERC Standards*

PJM Recommendations *(to date...)*

Note: Must still advance the concepts around generation interconnection.

- Continue practice of incremental development and apportionment for Reliability (R) and Market Efficiency (ME) Projects
 - Look for opportunities to make R upgrades more robust to accommodate ME upgrades/projects
 - Continue practice of incremental development and apportionment for Reliability (R) and Market Efficiency (ME) Projects where the solution is physically unrelated to R solution.
- Apportion Public Policy (PP) projects incrementally for physical upgrades to identified R and or ME Projects
 - *Action Item – PJM to further consider Incremental PP for Physical upgrades*
 - *Action Item – PJM to further consider Incremental vs. non-incremental*
 - Seek opportunity to identify more robust / bigger solutions to enable PP adoption

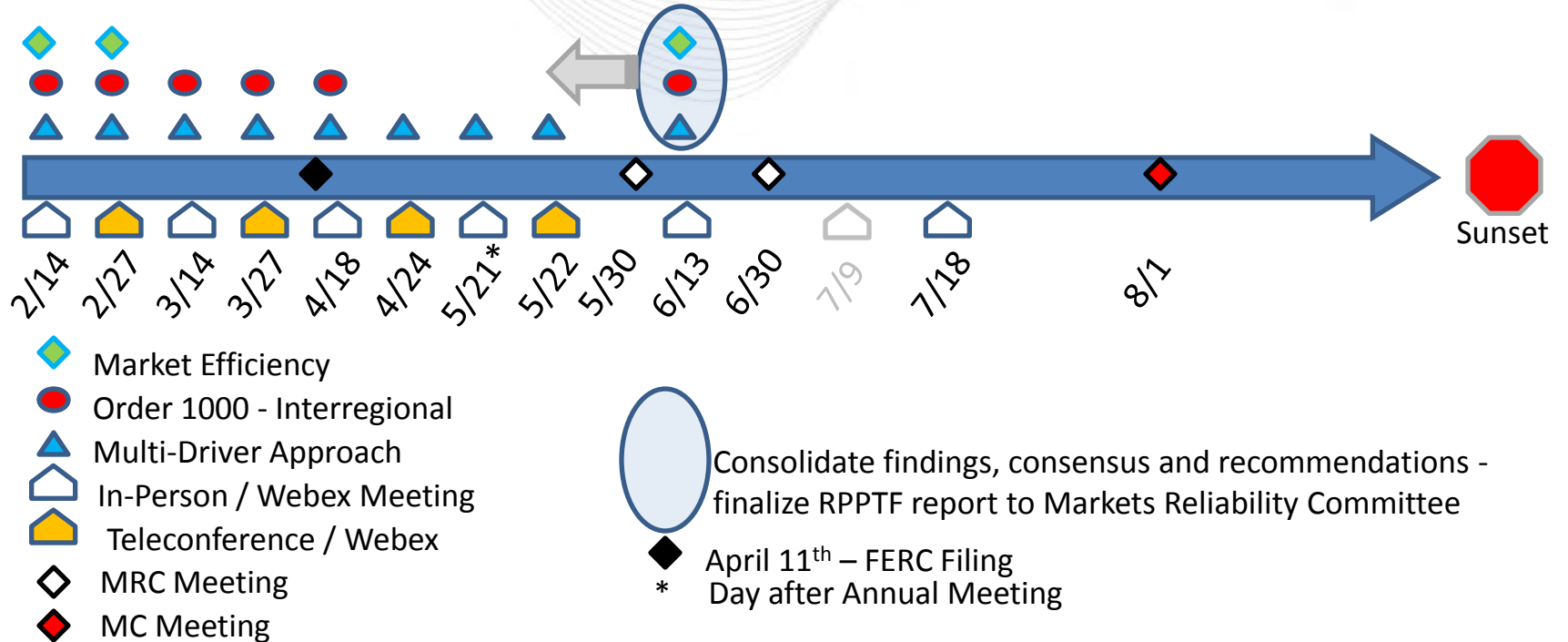
- Apportion R, ME and PP in a parallel fashion for a solution involving contemporaneous R, ME and PP projects
 - A “combined” solution may not reflect the same discrete elements or locations and an overarching solution may replace some or all individual R, ME, & PP elements
 - Combine R & ME incrementally, even if “combined” solution does not reflect the same discrete elements or locations



RPPTF – *Order 1000 Interregional update*

RPPTF – *Tasks and Schedule*

- Market Efficiency
 - Benefit/Cost (tabled)
 - Generator Expansion (tabled)
 - Adjusted Production Cost (tabled)
 - Consideration of Large Projects-Inclusion of ISA&FSA Units(to be addressed)
- Multi-Driver Approach
 - Reliability (in process)
 - Market Efficiency (in process)
 - Public Policy (in process)
 - Generator interconnection & Merchant Transmission (pending)
- Order 1000
 - Regional Compliance Filing (filed)
 - Interregional Compliance Filing (in process)



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