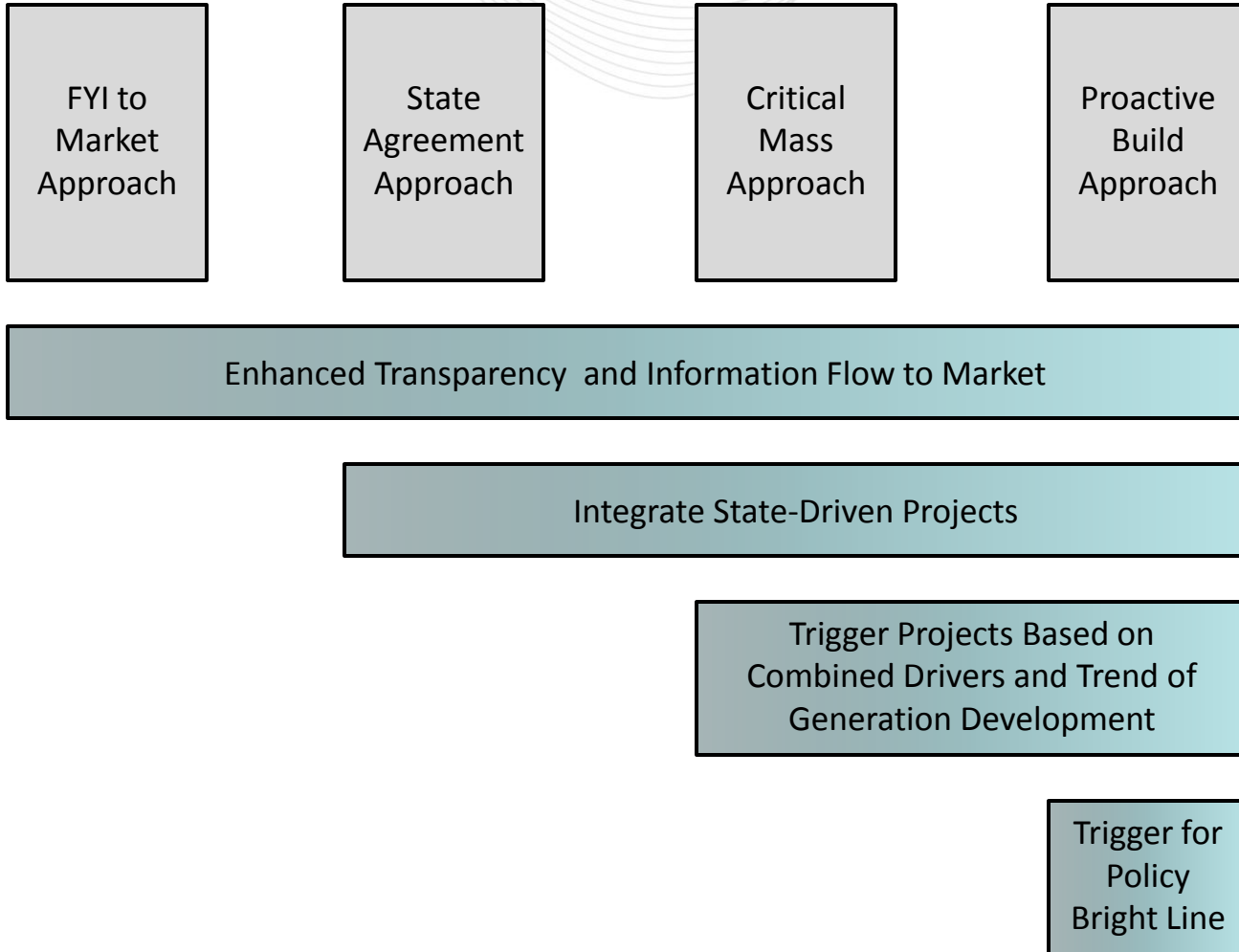


# PJM Planning Process Strawman

RPPTF  
July 22, 2011  
Steve Herling



- FYI to Market Approach
  - Perform extensive scenario planning analysis
  - Provide wide range of results to market – allow market to decide what resources and associated transmission should proceed to meet goals other than reliability
  - Results could include performance of various solution options, but no action would be taken by PJM
  - Provide for greater stakeholder interaction on front and back end

- FYI to Market Approach
  - More extensive stakeholder discussion of input assumptions and scenarios for analysis
  - Discuss desired information with TEAC before each RTEP cycle
  - Produce text documents to support TEAC slides
  - More documentation of deliverability margins & limiting facilities
  - Discussion of assumption impacts

- **State Agreement Approach**
  - Allows one or more states to decide how to meet goals
  - Integrate state selected projects into RTEP
  - Need to define manner of commitment to project to insure on-going integrity of RTEP
- **Cost Allocation Issues**
  - Upgrades to be paid for by states sponsoring project – allocation to be determined by those states
  - Safe harbor for sponsoring states from costs to meet similar policy goals by other states
  - Allocation could be based on a blend of needs – see Critical Mass Approach

- State Agreement Approach
  - Stakeholder discussion of input assumptions and scenarios will provide for analysis of specific state policy initiatives
  - Analysis would identify all related upgrades to support chosen driver (e.g. satisfaction of RPS requirements)
  - Subsequent analyses would have to protect capability associated with state sponsored project
  
  - Projects do not need to be discrete – state needs could be met by some portion of capability of more robust projects
    - Allocation would consider sharing of capability across multiple needs

- Critical Mass Approach
  - Can be used to consolidate baseline reliability, market efficiency, and interconnection needs
  - Commits to a project larger than needed for “bright line” drivers based on expectation that sufficient additional drivers exist and are likely to move forward
  - Allows transmission projects for renewables, or other generation, to be included in RTEP when some percentage of associated generating capacity commits through an executed ISA or other trigger

- Drivers
  - Critical Mass projects can be based on:
    - Reliability drivers coupled with pending interconnection projects
    - At-risk generation drivers (through Proactive Build) coupled with pending interconnection projects
    - Pending interconnection projects, alone
    - Any of the above coupled with State Agreement project drivers
    - Any of the above coupled with Market Efficiency project drivers
  - Would also integrate drivers from neighboring systems
    - Reliability criteria violations
    - Generation interconnection requests



- Critical Mass Options
  - Identify Critical Mass projects only when some portion of capability is associated with “bright line” drivers, such as reliability criteria violations
  - Identify Critical Mass projects even if 100% of capability is associated with interconnection projects

- Questions
  - How much capability should already be accounted for through “bright line” drivers?
  - How many other potential drivers must exist related to excess capability above “bright line” drivers to provide reasonable certainty that Critical Mass project will be needed?
  - How do we integrate interconnection analysis with RTEP analysis for a Critical Mass project?
  - How do we establish cost responsibility for generators related to a Critical Mass project?

- Integration With Interconnection Queue
  - Cannot perform System Impact Studies with and without Critical Mass project – would double the workload and make backlog issues worse
  - Impact Studies will identify incremental upgrades – Critical Mass will identify comprehensive upgrades for multiple projects
    - Incremental upgrades may be cheaper or more expensive than share of comprehensive upgrades
    - Incremental upgrades may be faster to build
    - Incremental upgrades are often obsolete and replaced by bigger upgrades as subsequent Impact Studies are completed

- **Integration With Interconnection Queue**
  - Need to identify cost allocation/assignment approach for interconnections (access fee vs. but-for vs. pro rata cost assignment)
    - Will not have identified a but-for cost via a System Impact Studies without Critical Mass project – again, would double the workload and make backlog issues worse
  - Attachment facilities would be identified separately and be a separate charge to the generator

- Critical Mass Options – Capability for Interconnection Projects
  - Offer capability through some form of solicitation
    - Give priority based on queue position (?)
    - Would need to segregate interconnection projects and Critical Mass project from other Impact Study analyses – can't allow capability to be taken for free
  - Will have to complete solicitation quickly and move projects to execution of ISA – can't carry projects in traditional System Impact Studies and Critical Mass projects as same time
  - Solicitation allows later queued projects to jump ahead if others are not willing to subscribe to Critical Mass project

- Critical Mass Options – Capability for Interconnection Projects
  - Lock into Critical Mass project and move “next” group of interconnection customers onto that capability
    - What constitutes “next” group of customers?
    - Critical Mass project cost shares may be higher or lower than Impact Study upgrades depending on how they are determined
    - Customers with System Impact Study in hand may not want to face potential delays or uncertainty of moving to Critical Mass project
  - If we allow customers to opt out of Critical Mass project we still have the issue of segregating the capability from those Impact Study analyses

- **Critical Mass Options – Capability for Interconnection Projects**
  - Lock into Critical Mass project and retool any interconnection customer that doesn't have an executed ISA
    - Simple to implement
    - Creates potential delays for projects that are close to execution of ISA
    - Could create big cost swings for some interconnection customers – would depend on what changes are made to cost allocation process for interconnection customers

- **Cost Allocation Issues**

- Allocations for projects will likely be unique based on drivers
- Develop guidelines based on drivers, but not specific formulaic approach
  - Would likely need to identify percentage of capability attributed to various need drivers and then allocate within those drivers, e.g. 50% required for reliability criteria violations
  - Same capability can provide multiple values, e.g. reliability and market efficiency
- File specific project allocation for each project at FERC
- Need to address identification of cost responsibility for generators using capability of Critical Mass projects



- Critical Mass Approach
  - Access fee is simple to implement
    - Could be higher or lower than but-for cost for individual projects
    - Could leave some portion of project cost to be borne by network service customers
    - Could create different treatment for different projects in queue
      - Do we apply access fee to all generators?
      - Do we apply access fee only to renewable resources?
      - Do we apply access fee only to resources associated with Critical Mass projects?

- Critical Mass Approach
  - Pro-rata cost assignment is less simple to implement
    - Could be higher or lower than but-for cost for individual projects
    - Use of Critical Mass project may not be best indicator of contribution to multiple violations driving need to transmission upgrades
    - Use of portion of capability by other drivers may not be readily calculated to the MW
    - Should ensure that all project costs (portion not associated with other drivers) are borne by generators
    - Could create different treatment for different projects in queue

- Proactive Build Approach
  - Design “Bright Line” triggers related to various policy initiatives
  - Triggers will represent fairly high hurdles for proactive action
- Cost Allocation Issues
  - Depending on nature of trigger, cost allocation could follow current rules or be project specific (similar to Critical Mass)

- Proactive Build Approach
  - At-risk generation triggers will be defined for scenario analyses to coordinate with amounts removed in baseline
    - Lower levels of retirement of at-risk generation will require transmission upgrades in the RTEP
    - Trigger level to be determined
    - Criteria tests to be determined – load deliverability, NERC Category C?
    - Target regional, rather than local violations (may exclude NERC Category C)
    - Higher levels of retirement of at-risk generation will provide results for FYI and State Agreement Approaches
  - Other triggers can be identified in the future, but none are contemplated at this time

- **Include Some Treatment of At-Risk Generation**
  - Remove generation not cleared in two RPM BRA from baseline analysis
    - Issue with identifying generators that do not clear in RPM
  - Perform specific proactive retirement analyses for critical at-risk generation units
    - Identify required transmission upgrades to facilitate retirement
    - Maintain analysis confidentially, to be better prepared for retirement announcements
    - What criteria for selection of generators to study?

- Include Some Treatment of At-Risk Generation
  - Remove some portion of generation subject to environmental regulations from baseline
    - Increase CETO based on percentage of at-risk generation – leave individual generators in CETL analysis cases
  - Will identify more regional issues rather than local issues
  - May only utilize with respect to scenario analysis and decision framework (possibly Proactive Build)
  - Need to choose percentage of at-risk generation to evaluate
  - Study larger LDAs (global LDAs)
  - No issue of publicly identifying generators

- Work with stakeholders to develop recommendations regarding strawman framework
- FERC filing must be made in December in order to implement changes in 2012 RTEP cycle
- Review by the MRC and MC would have to be in the September – November timeframe
- Provide recommendations to Board in September – November timeframe coincident with MRC and MC review
  - Decide on independent action if no consensus is achieved with stakeholders