



Operationalizing Gas Pipeline Contingencies

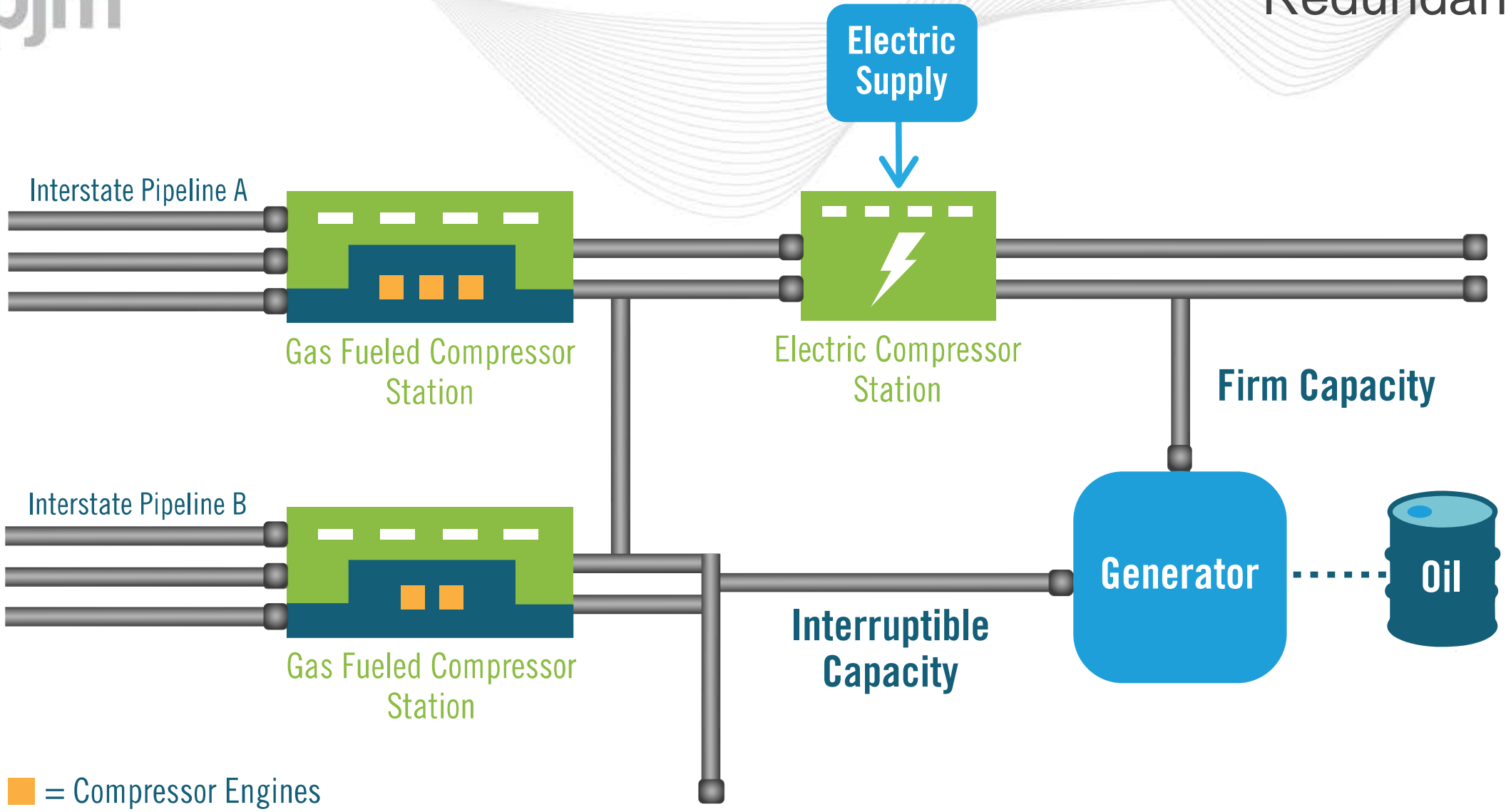
PJM Members Committee Webinar
November 27, 2017



Current initiative is to create operating procedure to evaluate gas infrastructure redundancy and operationalize gas contingencies under

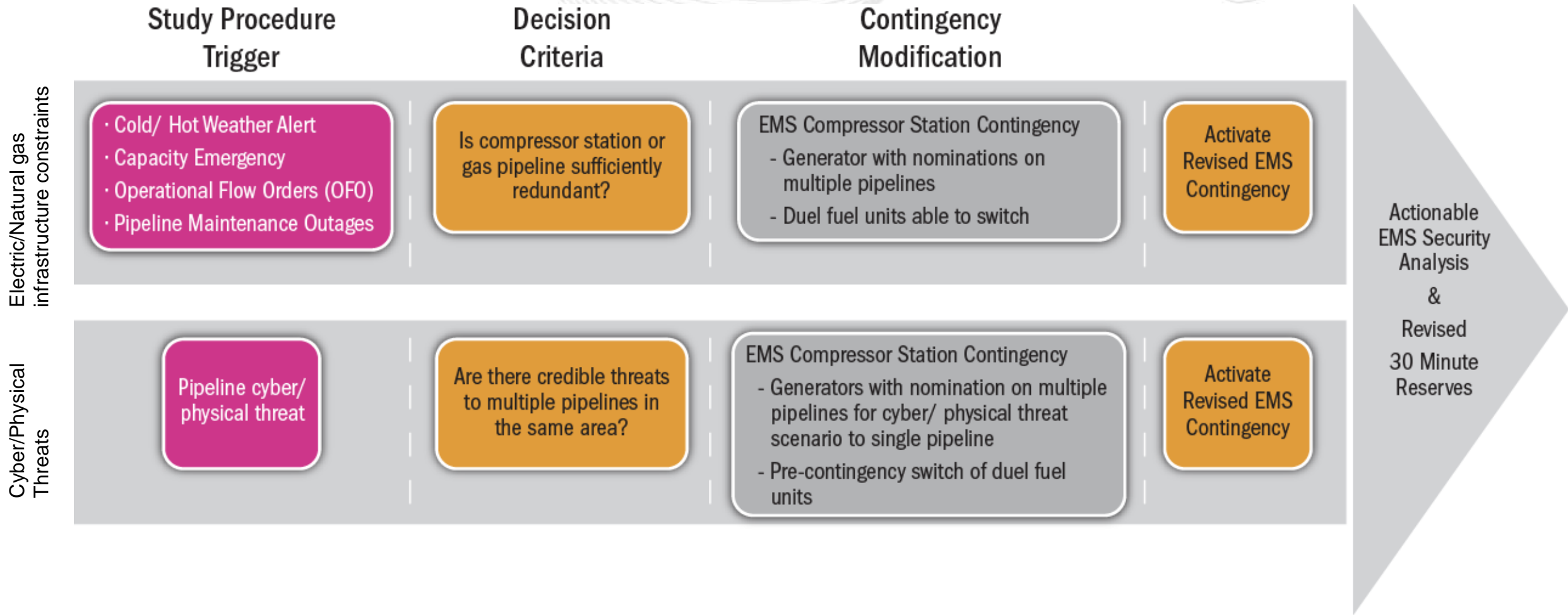
- **Electric/Natural gas infrastructure constraints/failures and**
- **External threat conditions (cyber/physical threats)**

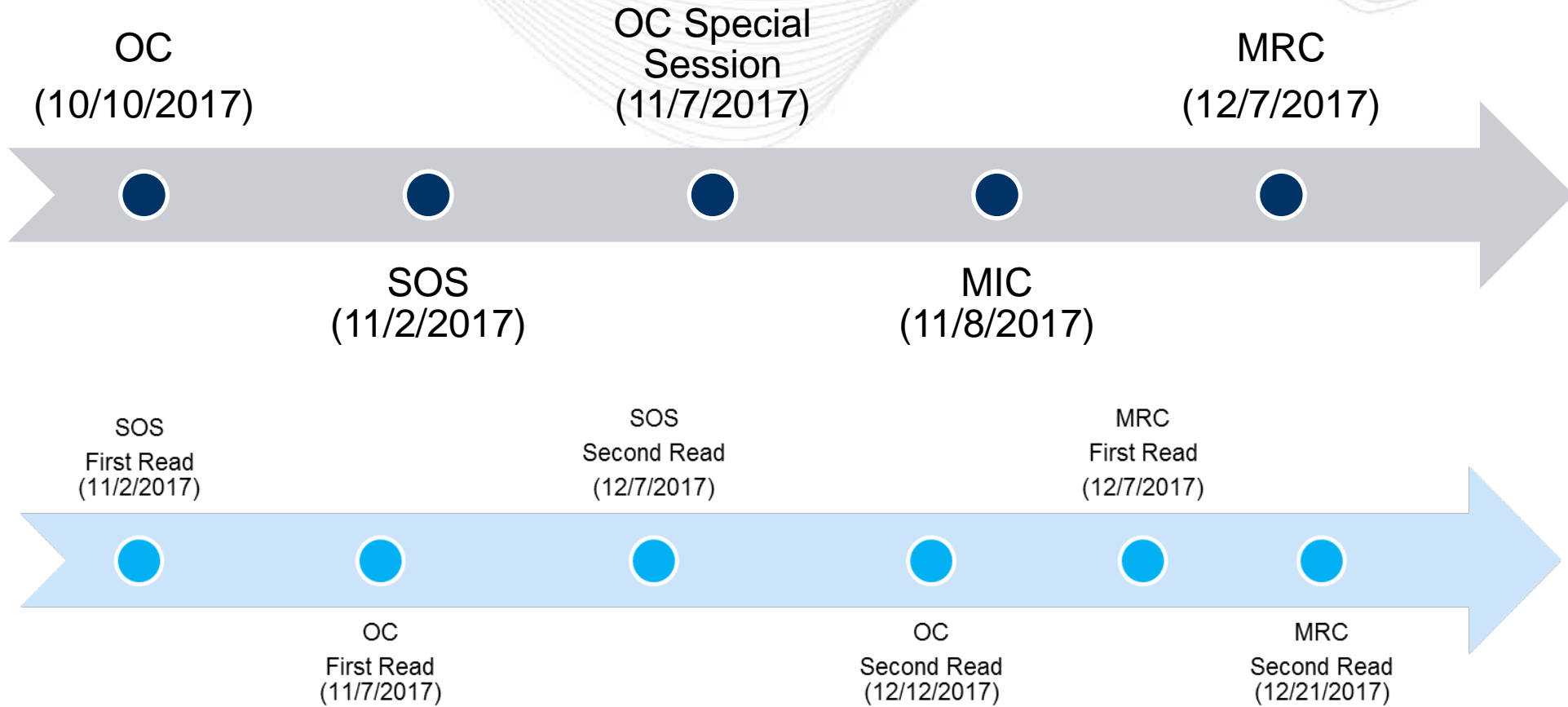
- Define Gas infrastructure redundancy criteria
- Refine Gas unit exposure time
- Define Operating procedures to include triggers, thermal/voltage and reserve requirements.
- Define new process with
 - Decision flow diagram
 - Outline assessment steps in Operating Memo and PJM Manuals.



■ = Compressor Engines

Operationalizing Gas Pipeline Contingencies Process Flow Diagram





- Revise PJM M03 and M13 manual language to provide additional transparency, providing additional detail to address stakeholder feedback.
- Work with members to effectuate necessary changes to address Market Settlements and Environmental/Emissions impacts concerns, as necessary.
- Continue outreach to the interstate pipelines and local distribution companies to confirm specific contingency assumptions and infrastructure redundancies.
- Continue review of critical contingencies and assumptions with impacted generation owners.
- Work closely with stakeholders in 2018 to automate processes.
- Continue to engage stakeholders for their feedback on the process, and incorporate member feedback whenever possible as part of implementation.