

Resilience in System Planning



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- NERC Planning Standards
 - Currently plan to critical “stressed” conditions so that Operations may manage the system given the actual conditions on any given day.
 - NERC TPL Extreme Events (i.e. Maximum Credible Disturbances)
 - Historically considered extremely low probability event
 - Only require a system assessment and exploration of potential solutions
 - Introduction of “worst offenders”

- Resilience Criteria – Range of Possibilities
 - Do “no harm” (i.e. don’t make an existing problem worse)
 - Opportunistic – incorporate resilience as a factor in RTEP proposal selections
 - Standalone - address resilience as a stand-alone driver
- Resilience Criteria would require new analytical procedures and tools
 - Assess Vulnerabilities
 - Develop Resilience Indices

- Fuel Security in Ops / Markets – Resource Adequacy in Planning
 - IRM implications for resource type issues (e.g. elimination of all of a certain type or resource – RTO wide)
 - Fuel disruption scenarios more plausible with introduction of more gas resources
 - Impact of gas system failures on bulk electric system
 - Localized risks
 - Risk management

- Resilience Challenges
 - Transparency & Stakeholder Communication
 - Siting given States historic preferences
 - Cost and cost allocation