

2012 LTRA Emerging and Standing Issues Templates

Emerging Issue #RAS-5: Transmission Siting and Permitting

Emerging Issue	Item	Specifics
Horizon	Number of years	On-going and beyond
Status	Emerging or Standing	Standing
	Technical Group	Reliability Assessment Subcommittee
Background	Description	<p>Siting difficulties have always been difficult for utilities. Siting of new bulk power transmission lines brings with it unique challenges due to the high visibility, their span through multiple states and/or provinces and, potentially, the amount of coordination/cooperation required among multiple regulating agencies and authorities. Lack of consistent and agreed upon cost allocation approaches (specific to transmission construction), coupled with public opposition due to land-use and property valuation concerns, have, at times, resulted in long delays in transmission construction. When construction is delayed, special operating procedures to maintain bulk power system reliability may be needed. For example, it took the American Electric Power Company fourteen years to obtain siting approval for a 90-mile 765 kV transmission project, while it required only two to construct it.</p> <p>Province and State Renewable Portfolio Standards (RPS) will increase renewable resources located where wind power densities and solar development are favorable. U.S. federal RPS is also under consideration in Congress. Grid expansion is needed to support the dispersed nature of renewable resources. Finally, additional generation sources, especially large plants such as nuclear facilities, may require grid expansion to assure deliverability. The limited timeframe provided to meet RPS mandates requires that the current siting and approval processes be expedited to ensure meeting mandated energy requirements.</p>
	What changes during the 10-year horizon?	Significant change in resource mix
	What is the impact to regional reliability?	Lack of sufficient transmission to support a changing resource mix
Assessment Factors	Resource Adequacy Considerations [Yes/No]?	Yes. Should needed transmission not be completed in time, generating capacity may not be fully deliverable and derates in resources could occur.
	Transmission Adequacy Considerations [Yes/No]?	Yes. Transmission projects missing target completion dates could result in insufficient transmission potentially causing transmission constraints.
	Resource Siting Impacts [Yes/No]?	Yes. Difficulties in transmission siting is the primary concern.

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	Operations Impacts [Yes/No]?	Yes. Operational measures and procedures may need to be implemented where transmission is not available.
	Remaining Uncertainties	<ul style="list-style-type: none">• Permitting and approval process• Project timeline• Project costs