

Dogwood Energy

Missouri's Transmission Grid: At the Intersection of RTO Planning and Policy



August 31, 2011

Overview

- ▶ Regional Transmission Organization (RTO) Primer
 - ▶ Southwest Power Pool (SPP)
 - ▶ Midwest Independent System Operator (MISO)

- ▶ Missouri – Split Among Major RTO and Non-RTO Utilities
 - ▶ Kansas City Power & Light (and subsidiaries) – SPP Members
 - ▶ AmerenUE – MISO Member
 - ▶ Associated Electric Cooperative, Inc. (AECI) – Unaffiliated with RTOs

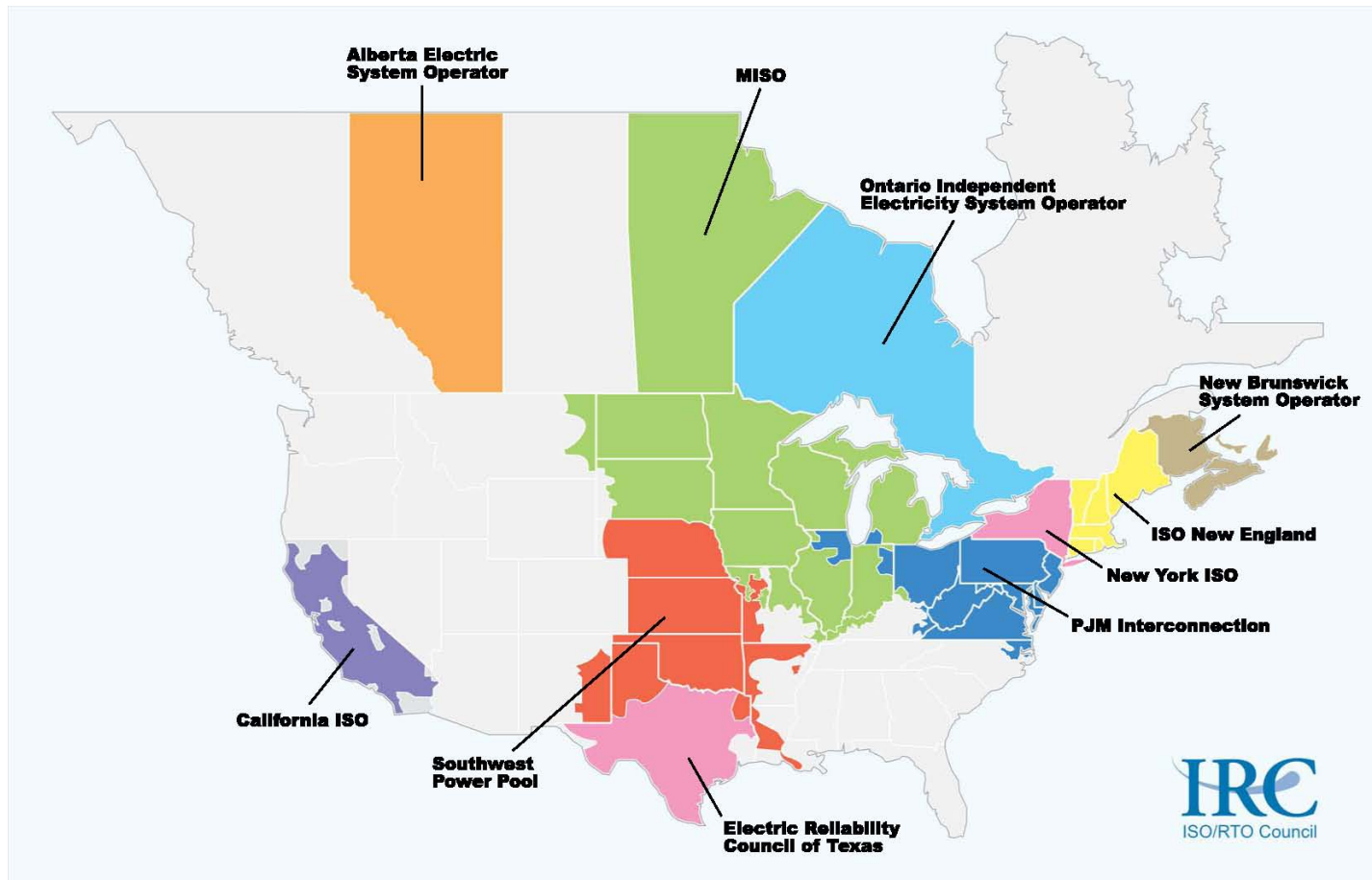
- ▶ Difficulties Planning and Building Regional Transmission Networks Across RTO and Non-RTO Utility Seams

- ▶ Missouri Regulators and Utilities Taking the Lead

- ▶ Concluding Observations

RTO Primer

- ▶ Regional Transmission Organizations formed as a result of FERC's Order 2000
 - ▶ Seven RTOs / ISOs Currently Operating in United States



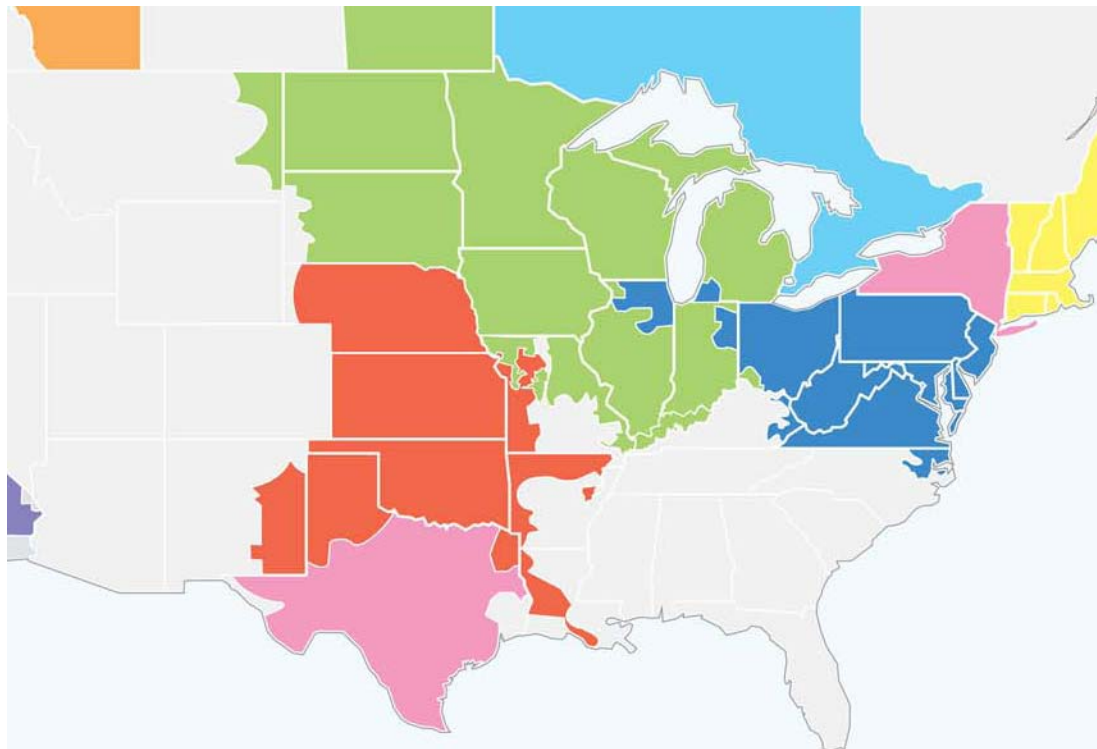
RTO Primer (cont'd)

- ▶ Utilities Form or Join RTOs on a Voluntary Basis
- ▶ Even Though Voluntary, two-thirds of Americans live in regions covered by RTOs / ISOs
- ▶ RTOs Perform Specific, Standard Functions, Including
 - ▶ Reliability Coordination
 - ▶ Regional Transmission Tariff
 - ▶ Regional Energy Market Operation
 - ▶ Regional Transmission Planning
- ▶ RTOs Enable Regional Transmission Cost Allocation
 - ▶ SPP Has Integrated Transmission Planning Process (ITP)
 - ▶ MISO Has Multi-Value Project Portfolio (MVP)
- ▶ Regional Transmission Approved Based on Positive Cost / Benefit

Missouri's Split Grid

- ▶ Missouri – Split Among Major RTO and Non-RTO Utilities
 - ▶ Kansas City Power & Light (and subsidiaries) – SPP Members
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- ▶ Result is Multiple RTO / Non-RTO “Seams” In Missouri



Regional Transmission Difficulties

- ▶ Coordination of Certain RTO and Non-RTO Functions Across Seams Can Be Difficult
- ▶ Seams Agreements Among RTOs and Non-RTO Utilities Solve Many Potential Problems
- ▶ Regional Transmission Facility Construction and Cost Allocation Can Be Particularly Difficult to Resolve Across A Seam
 - ▶ Justification of New Regional Transmission Facilities Can Be Difficult When Benefits “Bleed” Over A Seam And Don’t Match The Costs Incurred
 - ▶ Failure to Appropriately Allocate Costs for New Facilities Needed For Granting Transmission Service Can Lead to Higher Costs
- ▶ Regional Transmission Connections Across Historical Seams Are Usually The Least Robust – Missouri Is No Exception
- ▶ Robust Transmission System Needed To Facilitate Next Generation of Resources and Keep Costs Competitive

Missouri PSC Taking Lead Role

- ▶ Difficult to Fix Without Interested Parties Taking the Lead; No Forcing Function At FERC On These Issues

- ▶ Fortunately, Missouri PSC And Regulated Utilities Having Been Stepping Up to Take a Leading Role
 - ▶ Missouri PSC Held A “Missouri Transmission Priorities” Workshop Last Year
 - ▶ Missouri Utilities Actively Participating In SPP Stakeholder Groups, Such As Seams Steering Committee
 - ▶ Missouri Commissioners Have Been Active on SPP’s Regional State Committee (RSC), Which Is Responsible for Cost Allocation Within SPP
 - ▶ Missouri PSC and Staff Are Probably The Most Active Regulators in SPP of Any “Seam” State In The RTO

- ▶ Primary Solution Is Known: Need For Enhanced Seams Agreements Between SPP, MISO and AECI To Positively Resolve Issues For Missouri’s Benefit

Concluding Observations

- ▶ Progress Has Been Slow, But Awareness of Issue Is Increasing
- ▶ However, Critical Mass Not Yet Reached To Get A Solution Approved In The Near Future
- ▶ An Appropriate Goal Could Be The Development of a Proposed Seams Cost Allocation Methodology and a Portfolio of Missouri Transmission Projects For Endorsement By SPP, MISO and AECI
 - ▶ Proposal Could Be Limited In Scope to Just Missouri to Obtain Approval More Quickly , Or Limited to a Certain Set of Transmission Projects on an “Experimental” Basis
 - ▶ Attempting To Resolve All Parties’ Concerns Across All Seams of an RTO Is Likely to be More Difficult Than Solving the Concerns of Parties in Missouri
 - ▶ If Missouri Can Reach A Consensus on How To Proceed for Missouri Transmission Projects, Why Wait to Bring Home The Benefits For Its Citizens?