

Market Initiatives in the Western Interconnection

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assuring the wide area view

Today's Discussion

Complexity of the Western Interconnection

The Case for Markets

Peak/PJM Value Proposition



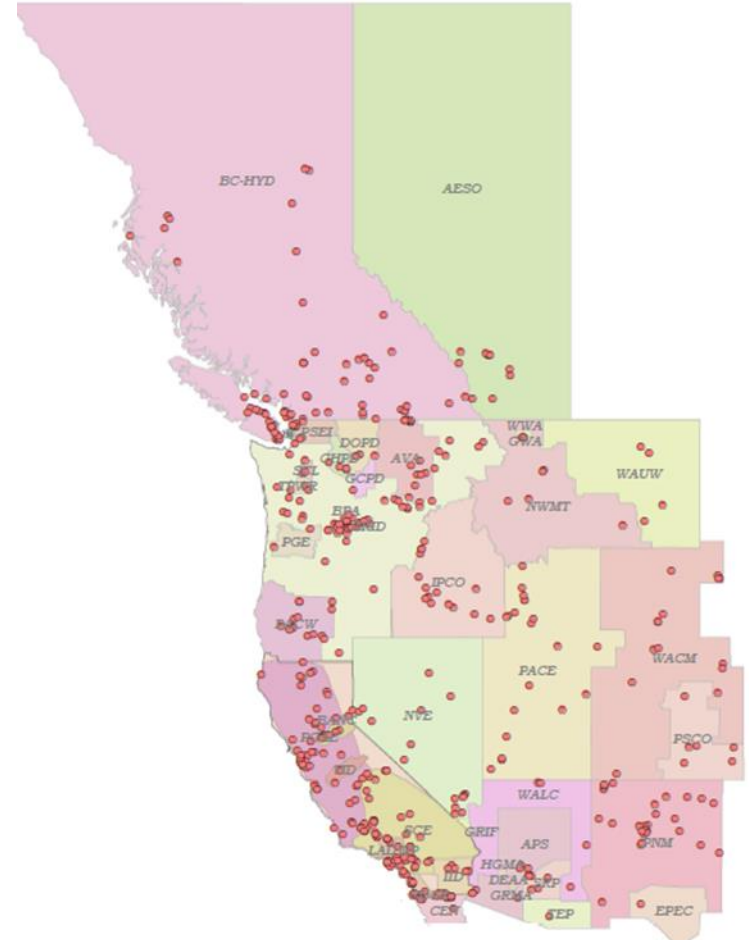
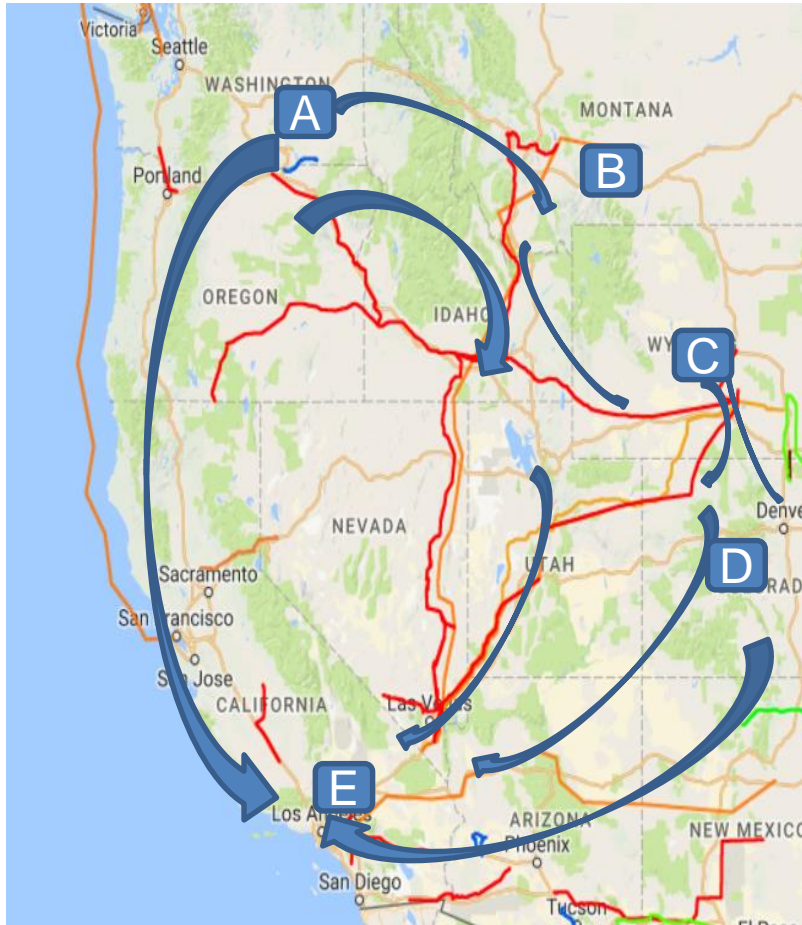
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The West – A Complex Machine

- 255 Remedial Action Schemes (RAS)
- 110,129 miles of transmission
- 2,157 miles of 500kV or higher
- 1,000 miles between operations centers
- 1.6 million sq miles of service territory
- 74 million people
- 38 Balancing Authority Areas (BAA)



Complexity and Challenges of the West



Generation Mix



**Peak's mission is to maintain high levels
of Bulk Electric System reliability regardless of the challenges**



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The Case for Markets

- Drive reliable operations
- Unlock value of diversity – geography, weather, fleet attributes, timing
- More efficient use of transmission system
- Market signals offer basis for investment, trade and new construction/upgrades
- Provide new economic opportunities for participants



Market Design Philosophy

- An efficiently functioning marketplace would appropriately value generation and transmission assets
- Market prices should reflect actual operating conditions and encourage the right behaviors
- Participants are partners with the grid operator in maintaining reliability through price signals
- The bulk of trading activity will rightly take place in the forward markets, but this requires reliable underlying reference pricing
- Proper hedging mechanism to provide financial assurance to Firm Transmission customers when transmission constraints exist

Market Operations

- Energy
- Ancillary Services
- Capacity

Reliability

- Grid Operations
- Supply/Demand Balance
- Transmission Monitoring



Strategic Drivers for Western Entities



- Reduce O & M costs
- Cost-effective energy market
- Governance for the West by the West



Strategic Direction for Peak

- **Fundamental Principles**

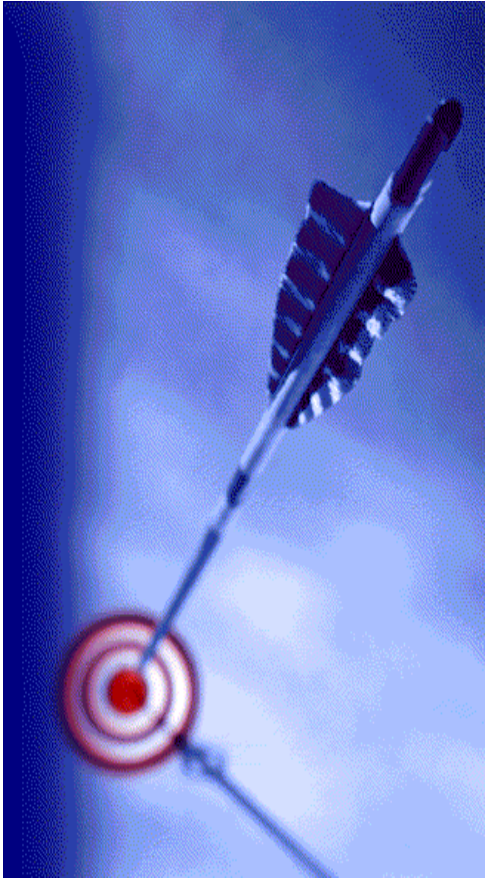
- Reduce Reliability Coordinator (RC) costs
- Advance reliability in the West
- Maintain West-wide View
- Industry demand for Market(s)

- **Strategic Solution**

- Partner with PJM Connex to advance Peak's reliability mission while simultaneously enhancing Peak's value proposition



Peak/PJM Connex Value Proposition



- Responsive and flexible governance – *by and for the West*
- Brings together the combined knowledge, relationships and capabilities of PJM and Peak
- Ability to promptly deliver the market you want
- Track record of timely and effective delivery
- Cost effective and value conscious
- Multi-state, public policy balance

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