State and Federal Policy and Wholesale Market Design

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What are the kinds of things the system operator or planner might experience differently?

- More renewables
  - Increasing uncertainty
  - Increasing common mode unavailability
- Less resources able to follow dispatch
- Shrinking unforced capacity reserve margin
- Shifting risk patterns
  - Summer to winter
  - Daytime to nighttime
- Enhancements to risk analysis and accreditation (correlated outages)
- Align compensation with expected performance during risk periods

Future work may consider:
- Movement towards sub-annual designs markets
- Investigation of shorter forward periods
ISO/RTOs are Focusing on Reserve Markets

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<th>CAISO, MISO and SPP have products.</th>
<th>MISO is also reevaluating scarcity pricing levels.</th>
<th>ERCOT implemented two new longer-term Reserve products.</th>
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<td>SPP is also implementing an Uncertainty Reserve Product.</td>
<td>NYISO opened a stakeholder process to discuss Balancing Intermittency and is considering an additional reserve product.</td>
<td>ISONE filed a set of reforms this fall to make targeted enhancements to their day-ahead reserve markets. One of their goals is to address fuel procurement incentives.</td>
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Some ISO/RTOs have implemented and are further investigating ramping products. Investigation of multi-period dispatch, pricing and settlement processes are also being researched.

Two common trends:
- Scheduling and pricing for all flexibility needs.
- Integration of out-of-market activities into market outcomes.