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Discussion for:

Long-Term Resource Planning for Electric Power Systems Under Uncertainty

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My Opinion on the Paper

- A good read!
- One of the finest background sections I have read in a long while
- A good summary of problem space
- An effective introduction to stochastic optimization

Discussion Topic 1: Risk

- Pursuant to the risk term in the formulation introduced on page 16
- Can the authors expand on the sources and measures for risk as considered by likely users of the proposed planning process?

Discussion Topic 2: Government Application

- For various government agencies (both federal and state), how might effective optimization under uncertainty inform policy decisions and their planned evolution over time? Particularly with regard to technology incentives?

Discussion Topic 3: Stakeholders

- What are other key stakeholder groups and their interests? How are these interests modeled in the proposed formulations? How are they at odds? Is this conflict included in the stochastic formulation, or is that even the best approach? If not, what is the proper way to represent these?

Discussion Topic 4: Regret

- What are the measures and sources of regret in grid planning? How are they perceived differently by different stakeholder groups?

Discussion Topic 1: Similar Problems

- **Are there examples of similar planning problems that have been described and analyzed using stochastic programming similar to those described in this paper?**

Discussion Topic 6: Specific Uncertainties

- **Can the authors expand upon their treatment of regulatory uncertainty as it relates to key issues (for example, nuclear power vs. renewable energy etc.)? How does the proposed planning analysis account for ongoing technology development?**