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Climate Risk Management and the Electricity Sector

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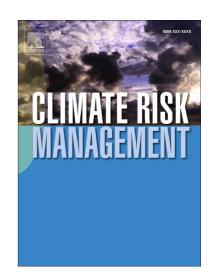
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## **ACCEPTED MANUSCRIPT**

#### Climate Risk Management and the Electricity Sector

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**Abstract:** The electric utility industry is an important player in the climate change arena, both as a significant emitter of global emissions and as an industry vulnerable to the impacts of climate change. A climate risk management approach uses risk assessments and decision analyses to identify potential adaptation options. We review the existing literature on climate risk management in the electric utility industry, with a focus on four areas of interest: (1) climate change impacts; (2) measurements of risk; (3) stakeholder engagement and cross-sectoral collaboration; and (4) adaptation actions. Overall, we find significant emphasis on the identification of potential climate change impacts and opportunities for adaptation, but less attention paid to assessments of risk, stakeholder engagement, and cross-sectoral collaboration in climate risk management. We find considerable diversity in the types of adaptation actions, methods for measuring risk, and mechanisms for engaging stakeholders. We offer some suggestions to move beyond more fragmented approaches to climate risk management, including the adoption of more holistic approaches, heightened stakeholder and cross-sectoral engagement, and greater collaboration between researchers and electric utilities.

#### **Highlights**

- The electric utility industry is an important player in the climate change arena
- There is diversity in the types of adaptation actions, methods for measuring risk, and mechanisms for engaging stakeholders in climate risk management in the electric utility industry
- There is significant emphasis on the identification of potential climate change impacts and opportunities for adaptation in climate risk management in the electric utility industry

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