AI in Energy - Smart Grid Optimization & Blackout Risks

Context

A national energy provider is deploying AI to optimize electricity distribution, aiming to reduce energy waste and predict power outages.

The Dilemma

During a major storm, the AI system automatically shuts off power in certain areas to prevent overload, but some critical infrastructure (e.g., hospitals) is affected.

Decision Factors

- Business Impact: AI improves energy efficiency and cost savings.
- Technical Feasibility: The model predicts failures but lacks human judgment.
- Ethical & Legal Risks: Risk of harming vulnerable populations during outages.
- Reputation: Public trust is crucial for utility providers.

Final Decision Options

- Proceed with AI-based automation.
- Modify AI decision-making with human oversight in critical cases.
- Abandon full AI automation and return to manual intervention.