Clean Power Plan
Activity in MISO

International Energy Agency
September 28, 2015
Midcontinent Independent System Operator (MISO)

- End-use Customers: 42 million
- Maximum Demand: 126,000 MW
- Transmission (69 - 500kV): 66,000 miles
- Generation: 176,000 MW
- Market Participants: 391
- Gross Market Charges: $20.3 billion (2013)
Draft Rule Analysis
Draft Rule - Lower cost compliance strategies put an additional 13GW of coal capacity at-risk for retirement.
Key takeaways from draft CPP analysis

- Regional compliance produces cost savings versus state and sub-regional approaches.

- Multi-billion dollar transmission build-out would be necessary for compliance in the scenarios studied.

- Renewables build-out furthers this need as renewable generation is usually sited in locations with better renewable resources but weaker transmission ties.

- Transmission expansion will be needed to mitigate reliability impacts of compliance, largely driven by coal retirements.

- CPP constraints significantly increase congestion regardless of compliance approach.

- Generation dispatch would change dramatically from current practices, requiring additional study to fully understand the ramifications.
Three futures are proposed to represent a broad view of potential outcomes of the final CPP

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<th>Clean Power Plan (CPP)</th>
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<td>• CO₂ emissions reduction targets are modeled.</td>
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<th>Accelerated CPP Future (ACF)</th>
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<td>• Accelerated economic maturity of renewables and demand-side resources driven by technological advancements and public policy, along with sustained competitive gas prices</td>
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<td>• CO₂ emissions reduction targets are far exceeded.</td>
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<th>Partial CPP Future (PCF)</th>
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<td>• Legal challenges to the rule slow or halt compliance, resulting in partial CPP implementation.</td>
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<td>• Early CO₂ emissions reduction targets are achieved but further reduction is not pursued.</td>
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The final CPP is a complex regulation that requires significant collaboration

- The Clean Power Plan provides many options for compliance whose impacts must be examined:
  - Regional, sub-regional, and state-level compliance
  - Rate and mass compliance
  - Emissions standards and state measures plans
- Transmission needs for electric and gas will be identified and solutions developed for cost effective compliance based on three futures
- Use the same optimized electric and gas production cost model as used for the Draft Rule analysis.
Contact info

• EPA regulations webpage
  https://www.misoenergy.org/WhatWeDo/EPARegulations/Pages/111(d).aspx

• Additional questions? Please contact:
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