Heartland Consumers Power District

Ratepayer Impacts from

EPA's Proposed 111(d) Carbon Regulation

July 31, 2014

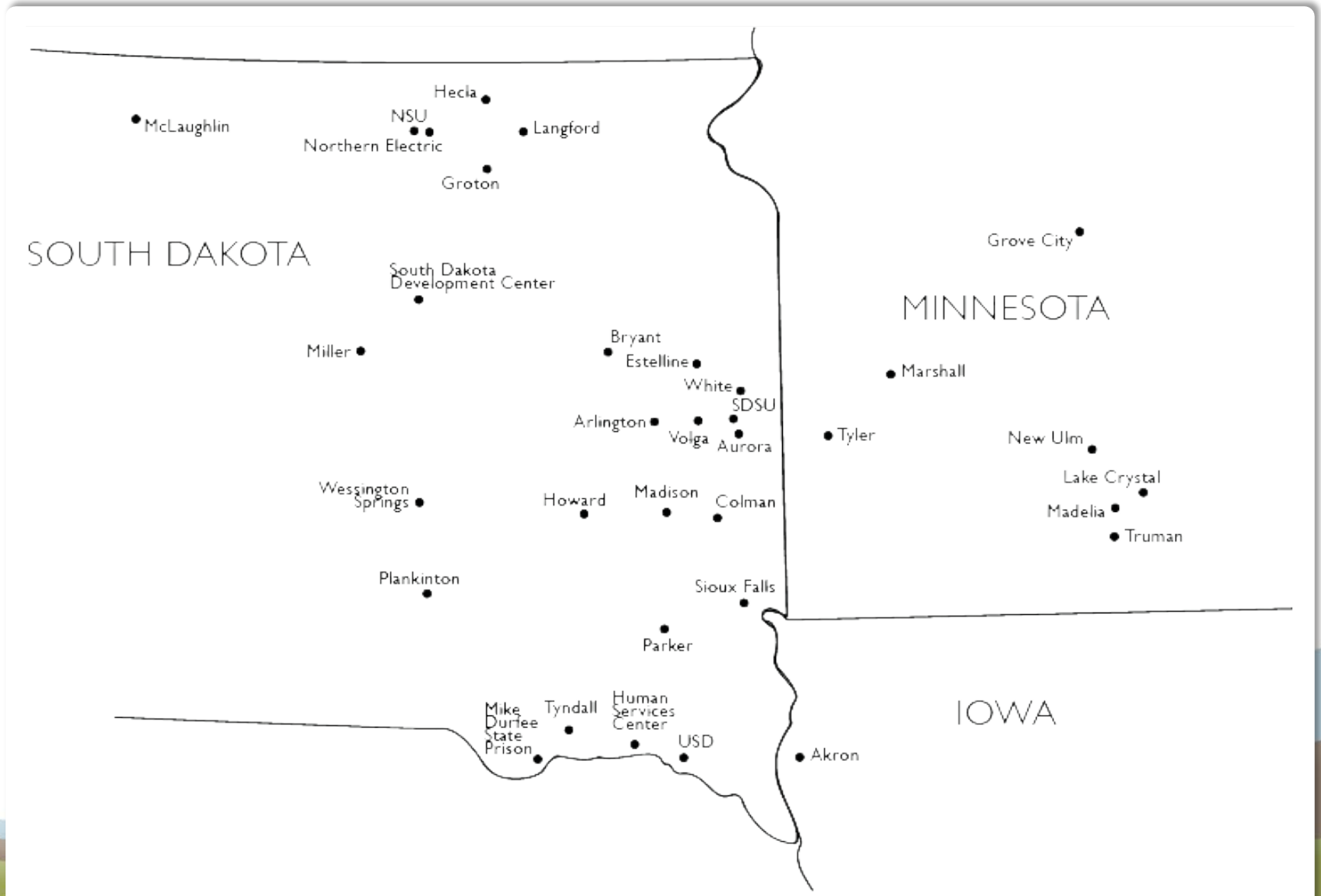
HEARTLAND
CONSUMERS POWER DISTRICT

HCPD Overview

HCPD Headquarters, Madison, SD

- Public corporation & political subdivision of the state of SD
- Formed in 1969 under SD's Consumers Power District Law
- Authorized to sell, transmit and deliver electric power and energy at wholesale within and outside SD
- Non-profit, cost-based operation
- Non-jurisdictional to PUC or FERC
- Typically a supplemental supplier to customers' WAPA allocation

HCPD Customers



HCPD Primary Resources

Whelan Energy Center Unit 2

- 225 MW, coal-fired generating plant
- Near Hastings, NE
- 36% ownership = 82 MW
- Operational in 2011
- Partner with four other public power utilities

Laramie River Station

- 3-unit, 1,710 MW coal-fired generating station
- Near Wheatland, WY
- 3% undivided share = 51 MW
- Operational in 1980
- Partner with five other public power utilities

Wessington Springs Wind Energy Center

- 34 turbines, 51 MW total
- Near Wessington Springs, SD
- Purchase Power Agreement for full output
- In service February 2009
- Fulfills commitment to REO for SD and RES for MN

EPA's "Building Block" Options

- Block 1 – Process efficiency
  - Obtain 6% reduction in process efficiency at coal fired plants
  - Not realistic to achieve this level of improvement at existing plants
- Block 2 – Re-dispatch of energy
  - Displace coal-fired generation with natural gas-fired generation
  - HCPD has no natural gas-fired generation – have the option to build
- Block 3 – Renewable energy
  - Increase use of renewable energy
  - HCPD already has significant renewable resource – could add more?
- Block 4 – Energy efficiency
  - Achieve an annual 1.5% improvement in energy efficiency
  - Heartland sells at wholesale to meet our customers' capacity and energy requirements – **no mechanism to require energy efficiency**

Individual State Implementation

- Displace coal-fired generation in WY and NE to meet state targets

	Building Block 2 – Add natural gas fired generation (NGCC)		Building Block 3 – Add more renewable resources	
Case	2020 Interim Goal	2030 Final Goal	2020 Interim Goal	2030 Final Goal
Added Resource	125 MW	135 MW	105 MW	115 MW
Rate Impact (Increase over base)	65-85%	75-95%	20-30%	25-35%

Regional Approach

- Displace coal-fired generation in WY and NE to meet targets but also take credit for wind resource in SD

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Summary

- Range of impacts from EPA's proposed rule is based on preliminary analysis and many assumptions
- EPA's Building Block approach does not work well for HCPD
- Capacity factor of coal-fired plants drops in many cases to below practical levels effectively shutting down the plant
- All renewable resource approach (Building Block 3) is not practical as HCPD would have insufficient dispatchable resource to meet capacity obligations
- Installing significant gas-fired generation (Building Block 2) is not feasible in the time provided nor possible for HCPD due to financial constraints
- Only solution may be a combination of renewable and gas-fired generation but the rate impacts are substantial (likely >60%)
- HCPD supports a regional approach
- Rule does not consider infrastructure requirements, unique situations, small utility impacts, etc.