



Perspective on Regional Challenges





Judy M. Poferl President and CEO – NSP Minnesota September 15, 2011



Xcel Energy Service Territories



- Maintain reasonably priced, reliable energy
- Address risk through advanced, balanced, and diverse energy portfolio
- Create value for customers, shareholders and employees

Gas Customers1.9 MElectric Customers3.4 M



Our Focus RESPONSIBLE BY NATURE™ Reasonable cost

Reasonable cost Safe service Reliable service Forward-looking Fuel diversity Environmental leadership Innovation for the future



Built to Last

- Strategy
 - Invest in our core electric and gas businesses
 - Provide safe, clean, reliable and affordable energy
 - Meet policy objectives and manage risk
- Demonstrated benefits to stakeholders
 - Satisfy customers
 - Achieve policy objectives
 - Earn fair total return for shareholders



Xcel Energy's Perspective

- Clarity and certainty of rules is essential
 - Aging infrastructure
 - Long-lead time, long-lived assets
 - Reliability investments
- Significant capital required
- Investments must demonstrate value
 - Cost
 - Reliability
 - Environment
 - Risk





Mitigating Risk is Key

- Early adoption of clean energy initiatives
 - Reduces long-term environmental and compliance risk
 - Secures place at the table
 - Gives us time and lowers costs
- Enhance flexibility
 - Retirements, retrofits and repowering
 - Emission controls
 - Nuclear power uprates and life extensions
 - Grid expansion and improvements



The Challenges

Evolving environmental policies
Federal and regional transmission policies
Expansive agenda









EPA Initiatives

Propose or finalize at least seven major rulemakings

- Focused on air quality
- Would require billions of dollars in scrubber, SCR and other environmental costs
- Anticipated to result in widespread power plant retirements

• Timing

- Usually requires compliance within three to five years
 - Exception: Cross State Air Pollution Rule (CSAPR)
- Need several years for planning, engineering, procurement and installation

EPA Initiatives

Non-CO₂ Environmental Regulatory Timeline for Coal Units











Key Decisions



Retire and Replace

Natural gas supplemented with renewables? Higher operating costs? More volatility? Retrofit More retrofits in the future? Future carbon costs? Costs over useful life?



Emission Reduction Initiatives

Retrofit "anchor" coal units Minnesota Emissions Reduction Project

- Retrofit one unit to BACT level controls
- Retire five units
- Construct two natural gas combined cycle units

Preserve valuable assets for the future

Retire "heritage" coal units Black Dog Proposal
Retire 270 MW of remaining coal
Construct natural gas combined cycle unit

Maintain reasonable long-term cost

Approach requires significant investment and supportive regulation



Industry Response

U.S. vs Xcel Energy, 2010-2021

	Dereentere	Retrofit Cost for	
	of Coal Fleet Retired/Replaced/Fuel Switched	Coal Units (Fleet-wide Average, \$/kW)	Retrofit Cost as Percentage of Market Cap
U.S. (EEI/ICF Analysis)	18% - 31%*	\$667 - \$685*	n/a
AEP (largest U.S. coal generator)	24%	\$261 - \$367	31% - 43%
Southern Company	~40%	\$700 - \$1100	29% - 45%
Xcel Energy	15%	\$130 - \$371	9% - 25%

* EEI / ICF analysis results reflect scenarios with and without carbon regulation

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Concurrent Strategies

Nation's No. 1 Wind Provider
Industry leader in energy efficiency programs
Transmission investments
Commitment to innovation

Energy Innovation Corridor

- Energy innovation Corric
- Electric vehicles



Savings

Demand 2.1 million kW

Natural Gas 9.3 million MCF

Electricity 4.8 billion kWh

Results: Equivalent of removing 4 million metric tons of CO₂ emissions



System Wind Resources

- Over 3,000 turbines
- Three operating companies
- Three market structures
 - MISO
 - WECC
 - SPP





That Was Then....





This Is Now: Grand Meadow Wind Farm





Wind Power



- Provides value today and in the future
- No need to take projects
 - Ahead of RES
 - Creates economic pressure
- Current prices are significantly lower than previously seen



Wind Challenges

Wind production forecast error
Largest hourly change (MWs)

	Wind	Net Load
NSP	+567	+1,094
PSCo	+750	-1,066
SPS	+294	- 597

System operational impacts





Solutions

Better understand wind

 Partner with experts
 Improve forecasts
 Improve wind event detection

 Increase flexibility on system

 Operator vigilance
 "Flex reserve" requirement
 Gas nominations





Energy Markets Matter

- NSP: 1,293 MWs
 - 116,000 MW MISO footprint
 - Substantial import/export capability
- SPS: 653 MWs
 - 46,000 MW SPP footprint
 - Limited transmission
 - North/South flow issues
- PSCo: 1,258 MWs
 - 7,900 MW Balancing Authority
 - Limited import/export capability
 - Highest penetration level





Energy Efficiency





CFLS: THE BOLD, BEAUTIFUL LIGHT OF EFFICIENCY.

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Demand-Side Management

- Lower costs to customers by reducing the need for new power plants
- Give customers greater control over their costs
- C&I customers are the key to the success of our programs





Regulation of GHGs (Carbon Dioxide)

- Congress
 - Impasse (Can't pass anything/Can't stop EPA)
- Supreme Court
 - <u>AEP v. Connecticut</u>
 (June 2011)
 - Preemption of state common law claims remains unclear
- EPA regulation







Regulation of Existing GHG Sources

- EPA regulation under CAA
 - State plans must meet
 Federal guidelines
 - Likely to be stack-bystack limits
 - Risk of stranding "Train Wreck" retrofits
- Our strategy
 - Seek credit for state clean energy initiatives
- Lower cost, greater benefit

Xcel Energy Emissions Reductions in Colorado





Looking Forward

- Continue to pursue balanced, diverse energy portfolio
 - Likely slowed due to recession
- Address coal infrastructure
 - Long-term Sherco plan
- Explore and implement cost-effective new technologies
- Advocate for flexible, low-cost energy and environmental policies



Transmission Active Project Highlights





Transmission Projects





Transmission Development Process





Cost Allocation Working Group





FERC Order 1000 Federal ROFR Provisions

 Removes Federal ROFR for projects selected in a regional transmission plan for purposes of cost allocation

Limitations

- Does not apply to a facility not selected in a regional plan
- Does not apply to upgrades to transmission facilities
- Allows, but does not require, use of competitive bidding
- Does not preempt state or local laws or regulations



FERC Order 1000 Timeline Required Compliance Q2/Q3 2013

Jul 1.

2012

Apr 1,

2012

October 2011 60 Days After the Final Rule is Published in the Federal Register April 2013 Compliance Filing Interregional Transmission Coordination & Interregional Cost Allocation

Jan 1.

2013

October 2012 Compliance Filing Local & Regional Transmission Planning Processes & Regional Cost Allocation

Oct 1

2012

FERC Order No. 1000

Oct 1.

2011

Jul 21.

2011

"Final Rule on Transmission Planning & Cost Allocation by Transmission Owning and Operating Public Utilities"

Jan 1.

2012

FERC Order No. 1000

Apr 1,

2013

Jun 10.

2013

Compliance



The Challenge Ahead

NSP Planned Infrastructure Investments ~ \$7.2 Billion Between 2010 and 2015



Potential rate impact may average about 3.8% per year

Multiple rate cases, multiple rate riders



Stakeholder Alignment

Policymakers	Building long-term goals	
Customers	Having access to sound environmental programs and options	
	Keeping rates reasonable	
Regulators	Implementing an efficient and effective framework for oversight and cost recovery	
Community	Creating jobs and energy sustainability	
Shareholders	Reducing risk and providing growth	



Value Proposition

Stakeholders

- Continued advancement of policy objectives
- Addresses rates more comprehensively and predictably
- Regulatory efficiency
- Improved line of sight to business

<u>Company</u>

- Improves opportunity to earn sustainable ROEs
- Facilitates required investments with fewer riders
- Pre-determined increases will improve budget decisions



The Path Forward

Policy Makers and Stakeholders

Customers

Energy Provider Efficient Investment

Business Innovation Advanced Technologies



Built to Last

- Solid strategy to meet customer needs and grow our business, adding long-term value
- Proactive initiatives have been achieved at minimal cost, balancing price and environmental risk
- Positioned to meet new requirements that may come in the near future
- Committed to continued work with stakeholders to ensure reliability, safety, and value over the long term



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