



NGA POLICY ACADEMY ON TARGETING CLEAN ENERGY FOR ECONOMIC DEVELOPMENT

National Governor's Association Center for Best Practices
& the State of Minnesota

Governors are uniquely positioned to...

- Bring public and private stakeholders together
- Encourage work across traditional state agency jurisdictions
- Leverage state strengths and opportunities
- Advance policy innovation

Governor Dayton's 7 Priorities for Job Creation

1. Invest in infrastructure, such as roads, bridges, border-to-border and high-speed Internet.
2. Increase exports of state products, and entice foreign investment in Minnesota.
3. Increase access to capital for new businesses and small businesses.
4. Continue reform efforts, improving services and reducing cost.
5. Continue to streamline government regulations.
6. Align our education system to prepare Minnesotans for the jobs in demand.
7. Close the educational achievement and employment and maximize the potential for all Minnesotans regardless of race, class and place in Minnesota

Minnesota's Unique Strengths

- Starting from a strong policy foundation:
 - Policy leadership, especially in renewable energy (RES), energy efficiency, and biofuels
 - 3rd in the nation in wind power generation
- Strong Assets:
 - Abundance of natural resources
 - Concentration of Fortune 500 companies
 - Strong research universities
- Poised for Continued Growth
 - One of fastest growing economies
 - Highly educated workforce

Minnesota's Unique Strengths Cont.

- National leader in setting aggressive clean and renewable energy standards
- Strong industries in wind, solar, biomass, energy efficiency, advanced transportation and green chemistry
- Leadership poised to work closely with national experts to develop strategic action plan to set priority for state clean energy and economic development.

Participants

Core Team

- Ellen Anderson, Senior Advisor to the Governor (Co-Chair)
- Robin Sternberg, Deputy Commissioner, DEED (Co-Chair)
- Bill Grant, Deputy Commissioner, Commerce (Co-Chair)
- Will Seuffert, Executive Director, Environmental Quality Board
- Representative Melissa Hortman, Chair, Energy Committee, MN House of Representatives
- Molly Pederson, Policy Advisor, Governor's Office

Expanded Team

- Katie Clark Sieben, Commissioner, DEED
- Nancy Lange, Commissioner, Public Utilities Commission
- Dave Frederickson, Commissioner, Agriculture
- Matt Entenza, Senior Advisor to the Governor
- Tracy Anderson, 3M
- Pete Aube, Potlatch Lumber
- Bill Blazar, Minnesota Chamber of Commerce
- Bill Faulkner, Red Oak Holdings
- Ben Fowke, Xcel Energy, Inc.
- David Foster, BlueGreen Alliance
- Cheryal Hills, Region 5 Development
- Lynn Hinkle, MN Solar Energy Industries Assn.
- Steve Kelley, Humphrey School of Public Affairs
- Pete Klein, St. Paul Port Authority
- Dave McMillan, Minnesota Power
- Michael Noble, Fresh Energy
- Bruce Peterson, St Cloud Community and Technical College
- Sherry Ristau, Southwest Initiative Foundation
- Beth Soholt, Wind on the Wires
- Sheldon Strom, Center for Energy and Environment
- David Saggau, Great River Energy
- Ken Smith, District Energy St. Paul
- Teresa Spaeth, Agricultural Utilization Research Institute

Key Stakeholders

- GreaterMSP Partnership
- Bio Business Alliance of Minnesota-
- Regional Development Commissions
- Biofuels Task Force
- Agricultural Utilization Research Institute
- Minnesota Forest Industries
- Great Plains Institute
- MN Energy Workforce Consortium
- Minnesota Clean Tech Open
- Center Point Energy
- Minnesota Pollution Control Agency
- Department of Natural Resources
- Climate Adaptation Team
- Minnesota Electric Auto Association
- Defense Alliance
- Natural Resources Rehabilitation Institute-University of Minnesota.
- BlueGreen Alliance
- Fresh Energy
- Corn Growers Association
- Minnesota Power
- Great River Energy

Foundations for Comprehensive Strategy

- Existing cabinet-level initiatives focusing on economic development and energy/clean tech/environmental Policy:
 - Environmental Quality Board
 - Minnesota Business First Stop
 - Next Gen Energy Board
- Other Key Efforts:
 - Solar Manufacturing Roundtable
 - Solar Incentives
 - Minnesota Forest Resource Council
 - Sweden- Minnesota Bioenergy MOU
 - Industry Research - U of M, AURI, NRRI
 - Supply Chain Survey

Foundations for Comprehensive Strategy cont.

State Boards & Commissions	Minnesota Business FirstStop Type: coordination & process Improvement Sectors: <ul style="list-style-type: none"> Solar Wind Bio State Agencies: <ul style="list-style-type: none"> Employment & Economic Development (Chair) Commerce Natural Resources Transportation Labor and Industry Revenue Pollution Control Agriculture IRRRB 		NextGen Energy Board Type: policy advisory & grant making Sectors: <ul style="list-style-type: none"> Bio State Agencies: <ul style="list-style-type: none"> Agriculture (Chair) Employment & Economic Development Commerce Natural Resources Pollution Control Agency 		Environmental Quality Board (EQB) Type: policy advisory & regulatory Sectors: <ul style="list-style-type: none"> Environmental Policy Climate Change State Agencies: <ul style="list-style-type: none"> Agriculture (Chair) Employment & Economic Development Commerce Administration Health Transportation Natural Resources Transportation Pollution Control Agency Board of Water & Soil Resources (co-chair) 	
	Mission: work with businesses to take the confusion out of starting, expanding or relocating a complex business in Minnesota by helping to coordinate all state agencies that have a role in the development process Guiding Authority: <ul style="list-style-type: none"> Gov. Dayton's Jobs Plan (1/18/2012) Minnesota Statutes, Chapters 116J, .035 Sub. 8. & 116I.438: 		Mission: The Board will research and recommend how the state can invest its resources to most efficiently achieve energy independence, agricultural and natural resources sustainability, and rural economic vitality. Guiding Authority: <ul style="list-style-type: none"> Minnesota Statutes 41A.105, Subdivision 3 		Mission: to lead Minnesota environmental policy by responding to key issues, providing appropriate review and coordination, serving as a public forum and developing long-range strategies to enhance Minnesota's environmental quality. Guiding Authority: <ul style="list-style-type: none"> Minnesota Statutes, Chapters 103A, 103B, 116C, 116D and 116G 	
Working groups & Coordinating bodies	Energy & Environment Interagency Team State Agencies: <ul style="list-style-type: none"> Commerce (Chair) Employment & Economic Development Natural Resources Transportation Labor and Industry Revenue Pollution Control Agency Agriculture IRRRB 		Interagency Pollution Prevention Advisory Team State Agencies: <ul style="list-style-type: none"> Pollution Control Agency (Chair) Administration Agriculture Commerce Corrections Education Health Human Services Military Affairs Natural Resources Public Safety Transportation 		Ad-hoc Environmental Agencies Sub-Cabinet State Agencies: <ul style="list-style-type: none"> Commerce Natural Resources Pollution Control Agency Health Mn Board of Water & Soil Resources 	
	Mission: a group of representatives from state agencies that cooperate in the execution of the Governor's Executive Order to strengthen State agency environmental, energy and transportation sustainability. Guiding Authority: <ul style="list-style-type: none"> Executive Order 11-13 (2011) 		Mission: Developing and implementing strategies, initiatives and measure to help human and natural systems cope with climate change impacts		Mission: To evaluate and update the Minnesota Climate Change Advisory Group recommendation from 2008 and report on State agency efforts to implement the recommendations	
NGOs	Bio <ul style="list-style-type: none"> Bio-Business Alliance Great Plains Institute Natural Resource Research Institute (U of M) Agricultural Utilization Research Institute Midwest Renewable Energy Association Minnesota Cup: Energy & Clean Tech Fresh Energy Defense Alliance: Power & Energy Cluster Minnesota Farmers Union Minnesota Farm Bureau 		Wind <ul style="list-style-type: none"> Wind on the Wires Windustry Great Plains Institute Midwest Renewable Energy Association Minnesota Cup: Energy & Clean Tech Fresh Energy Defense Alliance: Power & Energy Cluster 		Solar <ul style="list-style-type: none"> Minnesota Solar Energy Industries Association Solar Minnesota Coalition Great Plains Institute Midwest Renewable Energy Association Minnesota Cup: Energy & Clean Tech Fresh Energy Defense Alliance: Power & Energy Cluster 	
	Efficiency <ul style="list-style-type: none"> Neighborhood Energy Connection Clean Energy Resource Teams Energy Efficient Building Association The Minnesota Project Center for Energy and the Environment 		Conservation & Sustainability <ul style="list-style-type: none"> Izaak Walton League: Minnesota Division Environmental Law & Policy Center Institute for Agriculture & Trade Policy Great Plains Institute: Ag energy Network The Minnesota Project Center for Energy and the Environment 			

Minnesota's Challenges

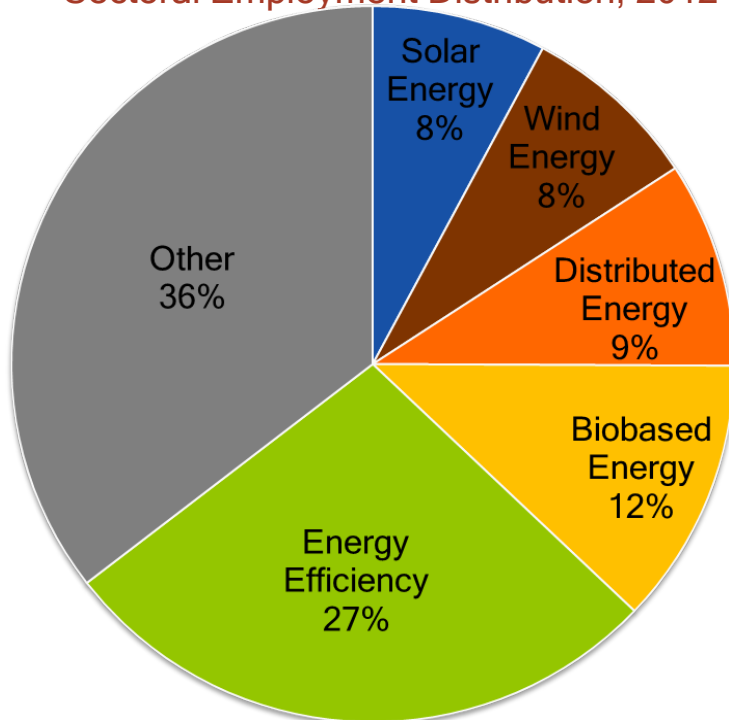
- Barriers and agency silos
- Need for capital to support emerging industries
- Need correlation between clean energy, state domestic product, economic development, and job creation
- Market and policy uncertainty
- Need for R&D to bring technology to commercialization

Purpose of the Policy Academy

- Identify opportunities for growth and job creation up and down the supply chain
- Identify most effective strategies to grow key sectors
- Create comprehensive plan bridging clean energy and economic development across agencies
- Leverage expertise and support of private/NGO/philanthropy/academic sectors

Clean Energy in Minnesota

Sectoral Employment Distribution, 2012



- DRAFT PRELIMINARY:
- In 2012, there were 16,701 clean energy jobs
- Average annual wage per worker of \$65,231 in 2012.
- Total payroll paid by Minnesota firms exceeded \$17 billion in the 15-year period.

Industry Engagement Objectives

- Validate market data and research
 - supply and demand, key drivers, financial instruments, investor preferences, customers, workforce
- Identify barriers and gaps
- Focus on and prioritize key opportunities
- Develop recommendations to drive industry sectors

Engagement Outcomes

- Establish baseline data to track and measure outcomes
- Stakeholder agreement for a cohesive plan and set of recommendations
- Strengthen ecosystem and industry partnerships

THANK YOU!

- QUESTIONS?

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