

Renewable Energy in Michigan's 21st Century Energy Plan

Tom Stanton, Chairman
Renewable Energy Workgroup
May 10, 2006 Workgroup Meeting

Outline of presentation

- Review Governor's directions
- Workgroup & project priorities by resource & technology (biomass, solar, wind, etc.)
- Workgroup & project schedule
- Work products & sub-groups
 - Establish sub-group participants & leaders
 - Set preliminary sub-group meeting schedule

The Governor's Directions...

- meeting the state's **short and long-term electric needs** for residential, industrial, commercial and governmental customers in way that that ensures a **reliable, safe, clean and affordable supply**;
- developing Michigan's **electrical infrastructure** to further the state's competitive business climate, grow jobs, and provide **affordable rates for all customers**;
- **reducing reliance on fossil fuels through energy efficiency, alternative energy, and renewable energy technologies** consistent with the goal of assuring reliable, safe, clean and affordable energy;



The Governor's Directions (2)...

- **protecting natural resources and the environment from pollution**, physical or visual impairment, or destruction and future risks associated with fossil fuels;
- developing a **renewable portfolio standard** which will establish targets for the share of the state's energy consumption that should come from renewable energy sources;
- identifying **new technology options** to generate, transmit, or distribute energy more cleanly or more efficiently;



The Governor's Directions (3)...

- **fostering continued growth of alternative and renewable energy technologies within the state** by ensuring development of the **intellectual capital, financing, infrastructure, and other resources necessary** for the growth of the industry; and,
- identifying any **legislative or regulatory changes** necessary to its implementation, together with any **financial, funding, or incentive mechanisms** needed to best position the state to meet the energy challenges of the future.



Workgroup Priorities

- Update Capacity Need Forum (CNF) data & modeling:
 - Confirm or modify, as needed
 - Further investigate resource options
- Develop Policy Recommendations:
 - Legislative changes
 - Regulatory changes
 - Financial, funding, & incentive mechanisms

Biomass Priorities

- More accurate resource assessments & technology characterizations
- Proposed changes in solid waste management regulations
- Appropriate *self-service power* tariffs for distributed biomass energy systems

Solar Priorities

- More accurate resource assessments & technology characterizations
 - Complete MREP/GLREA study of solar PV capacity value and contribution to peak electric power needs
- Property tax exemptions for small scale (residential) systems; property tax reform for commercial scale systems
- Appropriate self-service power tariffs for distributed solar energy systems

Wind Priorities

- More accurate resource assessments & technology characterizations
 - Estimating, by region, capacity values & contributions to peak needs
 - Understanding costs associated with integrating wind energy into Michigan grid
 - Transmission studies
- Appropriate self-service power tariffs for distributed wind energy systems
- “Wheeling” contracts/tariffs for large customers and/or long-term fixed prices



Others?

- Hydroelectric?
- Geothermal? (Consider as energy efficiency, demand-side option?)

Schedule

- By Memorial Day – Finalize agenda, establish sub-groups
- Now through early September – Sub-groups work on specific projects, with deliverables by mid-September
- Meetings:
 - Workgroup meetings June, July, August, September
 - Joint 21st Century Energy Plan Meetings: June 22, July 18; August 22
 - Early October – review & comment on Workgroup reports



Schedule (2)

- Draft project reports due by July workgroup meeting
- Some “critical path” projects due August 1
- Second draft project reports due by August workgroup meeting
- Final project reports due by early September
- Final Workgroup Report due September 29
- Comments on Workgroup Report(s) Oct 16



Calendar of Events

- May 24: MREP Financing Committee meeting by Teleconference and/or at MPSC Offices, 9:30 to 11 a.m.
- May 25: MREP Wind Working Group Meeting by Teleconference and/or at MPSC Offices, 9a-noon
- May 25: Midwest Natural Gas Initiative Teleconference Meeting on Utility Incentives & Decoupling, by Teleconference and/or at MSPC Offices, 2-3:30 p.m.
- June 16 MREP Legislative Update meeting at Muskegon GVSU MAREC (www.gvsu.edu/marec), 1-4p
- June 16-17-18 Onekama, at Manistee County Fairgrounds, Michigan Renewable Energy Fair (www.glrea.org)
- More? MREP Calendar of Events: www.mich.gov/mrep



Next Workgroup Meetings

- Wed, June 7, 1:30p
- Wed, July 12, 9:30a
- Wed, August 9, 1:30p
- Wed, September 13, 9:30a



Resource & Technology Update Subgroup

- Updated CNF data on renewable energy costs & resources available in Michigan (biomass, solar, wind, maybe hydroelectric & geothermal; data gathering & analysis -- AUGUST)
- Effective Load Carrying Capacity (ELCC) Values of Wind and Solar (data gathering & analysis -- JULY)
- Utility System Integration Costs of Variable Output Generators (literature review -- AUGUST)
- Transmission System Integration Costs of Wind (MISO queue & studies, literature review, possible new study -- SEPTEMBER)

Legislative Subgroup

- RPS
- Tax Policies
- Financing, Funding, & Incentives

Regulatory Subgroup

- Utility Rate & Tariff Issues (especially for self-service, distributed generation – coordinated with Alternative Technologies & Energy Efficiency Workgroups)
- Utility Incentives & Performance Standards
- Environmental policies for specific technologies (air emissions, solid waste, surface water, etc.)

Preliminary Timeline

TASK/PROJECT	MAY			JUN			JUL			AUG			SEP			OCT		
Finalize Timeline & Establish Subgroups																		
Workgroup Meetings		10			7			12			9			13				
Joint 21CEP Meetings					22			18				28						
Update CNF Data				O			D		D									
RPS Proposals				O			D		D	D				F				
Tax Policies Proposals				O			D			D				F				
Consumer Incentives				O			D			D				F				
Utility Rate & Tariff				O			D			D				F				
Utility Incentives				O			D			D				F				
Env't. Regulations				O			D			D				F				
Workgroup Reports					O			O		D		D	D		F			
Review & Comment																		
Notes: Numbers in cells indicate specific dates for meetings. For reports, O = outline, D = draft, F = final.																		

Related MREP & EDGE2 Reports

- May – UoM Student Report on Effects of Global Climate Change on Great Lakes
- May – MREP Economic Impacts Committee 2004-2005 summary of studies on economic impacts of renewable energy
- May – MREP Solar Committee report & proposals on solar easements & property tax exemptions/reform
- May – MREP Financing Committee proposal for research & UoM Student Preliminary Report on Financing

Related MREP & EDGE2 Reports (2)

- June – MSU Student Report on Investing in Green Energy
- June – 2005 state renewable energy data report, on production & use of renewables in Michigan, including utility green rate programs
- NOTE: June 10 Task Force Report to Sen. Patterson on Long-Range Legislative Solutions
- September – 2005 Michigan net metering program data report & evaluation report on net metering
- September – Report on Net Economic & Employment Impacts of Renewable Energy & Energy Efficiency in Michigan



Next Steps

- Discuss & refine work plans
- Sign up for subgroups
 - Identify subgroup leaders & project leaders
 - Set schedule for subgroup work
- Sign up for MREP email distribution list
- Noon: American Hydrogen Association Hydrogen from Renewable Resources Teleconference Meeting
- 1:30 – 4:00: 21st Century Energy Plan Alternative Technologies Workgroup meeting