

Renewable Energy Objectives/Standards



Midwest Rural Energy Council
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Otter Tail Power Company Three States, Three Sets of Rules

- MN – Others will address
 - MN rules are the same for IOU's, G&T Coops, Municipal Power Agencies, and Power Districts
- SD – Does not have an REO or RPS, but is working on one – expect it to be similar to ND
- ND – 10% of retail sales by 2015
 - Totally voluntary objective
 - No penalty for non-compliance
 - Applies to all retail providers of electricity
 - Compliance can be obtained by purchasing REC's

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2

North Dakota Qualifying Technologies

- Solar
- Wind
- Biomass – agricultural waste, wood & wood waste, animal waste, and landfill gas
- Hydro – new or increased capability after 1/1/2007 only
- Geothermal
- Hydrogen, if generated by a qualifying technology
- Recycled energy from unused waste heat

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3

North Dakota REO Rules

- Qualifying energy must be tracked through regional tracking system (M-RETS)
- Hydro that does not qualify can be subtracted from baseline retail sales before calculating 10% objective
- After August 1, 2007 the retail provider must make an economic determination that qualifying energy is more cost-effective than existing alternatives – results must be reported to the PSC in annual progress reports

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4

MN and ND Differences for Otter Tail Power

- Biomass co-fired with coal at Big Stone counts in ND, but not in MN
 - BSP can use up to 10% alternative fuels
 - Currently less than 1% of fuel is biomass, typically waste or research seed that must be destroyed
- Company owned small hydros (<5 MW in 8 units) count in MN, but not in ND
- Green pricing energy (*Tail Winds*) does not count in MN, but does count in ND

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5

REO/RES Impacts For Otter Tail Power

- The REO/RPS requirements have little impact on the Company's resource plan
- The resource plan already includes enough renewable energy to equal 15% of retail sales, system-wide by 2015
- The new MN 1.5% of retail sales conservation goal significantly reduces the renewable energy requirement
- The current Otter Tail resource plan includes up to 280 MW of new renewable resources, mostly wind

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6

Current REO/RPS Resource Otter Tail Power

- 4.3 MW of small OTP owned hydro
 - 8 units
- FPLE ND Wind II – 21 MW
- FPLE Langdon Wind Energy Center – 19.5 MW
- OTP owned Langdon WEC – 40.5 MW
- Hendricks Wind I – 0.9 MW
- Borderline Wind – 0.9 MW
- Customer owned wind generation – 2.1 MW
 - 7 units

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7

Future REO/RES Resources Otter Tail Power

- 2 PPA's in place for new customer owned wind facilities – 1.66 MW
- Currently working on PPA's for 4 units of customer owned wind facilities – 4.75 MW
- Working on PPA for up to 4.5 MW of MSW fired generation
- Working on potential for up to 20 MW of anaerobic digestion
 - 10 MW at ethanol plant
 - 10 MW of animal waste

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8

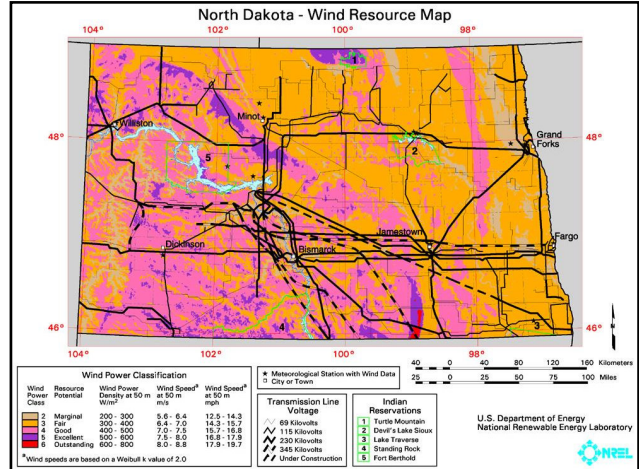
North Dakota Wind Incentives

- ND wind sites are more economic than MN or SD

State	Income Tax Incentives	Property Tax Incentives	Sales, Use and Contractor's Excise tax Incentives
North Dakota	15% tax credit (3% for first five years, five year carryforward, expires in 2011, transferable)	85% reduction in tax (expires in 2011)	Exempt from taxation (expires in 2011)
South Dakota	No state tax	Partial exemption (tax only on base, foundation, tower, and substations)	Lower rates and/or refunds depending upon size and cost
Minnesota	None	Only land is taxable (a production tax is paid in lieu of property taxes)	Exempt from taxation

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9



Transmission Constraints

- Physical Constraints
 - North Dakota Export Boundary – Due to high energy exports from ND, limits are in effect to keep the system stable during disruptions
- Process Constraints
 - MISO queue – If interconnection requests are handled sequentially, MISO has many years of requests and studies backed up – If interconnection requests are bundled, there are still many years of interconnection requests and studies waiting.
 - A project can go no longer be studied out of sequence.

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11

Other Constraints to Wind Development

- Equipment
 - Turbine supplies are short.
- Regulatory – Federal PTC expires at end of 2008 – many projects are in limbo until Congress acts.
- Small development
 - States want local ownership, but small developers do not have the skill sets, knowledge, background, or upfront financing that it takes to develop wind.
 - Small development also has little leverage to purchase turbines over big developers.

February 29, 2008

12

Questions

