

Generation Fuel Diversity

1251(a)(12) EPACT

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Section 1251(a)(12)

- Each electric utility shall develop a plan to minimize dependence on one fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.



Montana-Dakota's Generation

Montana

Miles City Combustion Turbine	23 MW
Glendive Portable Generator	2 MW
Glendive Combustion Turbine 1	36 MW
Glendive Combustion Turbine 2	42 MW
Lewis and Clark Station	<u>52 MW</u>
	155 MW

North Dakota

Coyote – Jointly Owned	
440 MW Plant	107 MW
Williston	11 MW
Heskett Unit #1	29 MW
Heskett Unit #2	<u>74 MW</u>
	221 MW

SOUTH DAKOTA

Big Stone – Jointly Owned	
480 MW Plant	104 MW

WYOMING

Power purchased from BHPL



Generation Fuel Diversity

- Montana-Dakota's existing generation defines fuel
 - 75 percent (366 MW) coal
 - 25 percent (114 MW) gas/oil
- Renewable – 19.5 MW wind
 - Equipment Contract Signed
 - Commercial Operation at end of 2007



Generation Fuel Diversity

- Technology diversity
 - Cyclone
 - Fluid bed
 - Stoker
 - Tangential/Pulverized coal
 - Combustion turbines – various designs
 - Wind turbines



Generation Fuel Diversity

- Coal supply diversity
 - 29 percent mine mouth
 - 28 percent by unit train
 - 28 percent by short haul train
 - 15 percent trucking



Generation Fuel Diversity

- Integrated Resource Plan
 - Supply side planning including:
 - Fuel type, cost, availability
 - Consideration of MISO market
 - Resources to meet economic development
 - Renewable resources
 - Least-cost and best-cost considerations



Generation Fuel Diversity

- Cost effective future supply from
 - Regional coal
 - Regional natural gas/oil
 - Regional wind



Summary

- IRP and supply availability will drive resource optimization and fuel choice
- There is **no good reason** to depart from the existing standard for determining generation resource choice and corresponding generation fuel mix
- A Generation Fuel Diversity Standard should NOT be adopted

