



Energy Promotion and Development Division

Montana Department of Commerce

**General Government Sub-Committee
Montana Legislature**

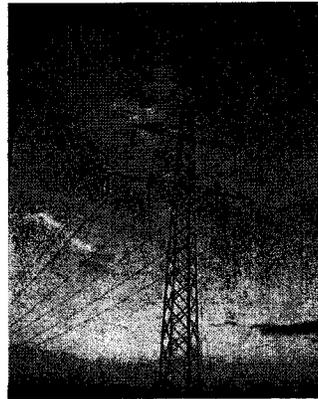
January 25, 2011

About the Energy Division

- Created in 2007 to implement State's commitment to energy development in Montana
- Front-line for state support for energy development in Montana
- Assist in all aspects of potential energy projects, both energy production facilities and the supportive energy delivery infrastructure
- Work with the Governor's Office and state and federal agencies to help facilitate processes related to permitting, siting, workforce, and financial assistance

What we do

- Due diligence/research on potential partnerships, businesses, and technologies
- Identify and secure funding assistance for energy development projects
- Bring national energy companies to Montana to explore our resources
- Facilitate discussions between potential partnerships
- Monitor energy projects and assist as needed



EPDD Mission



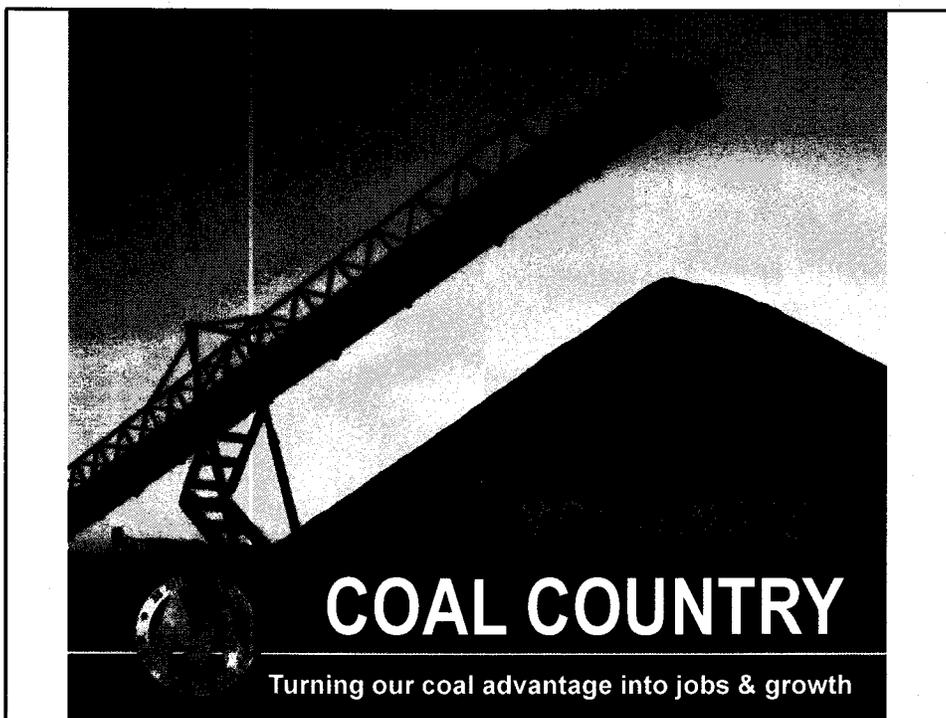
Energy Promotion and Development Division

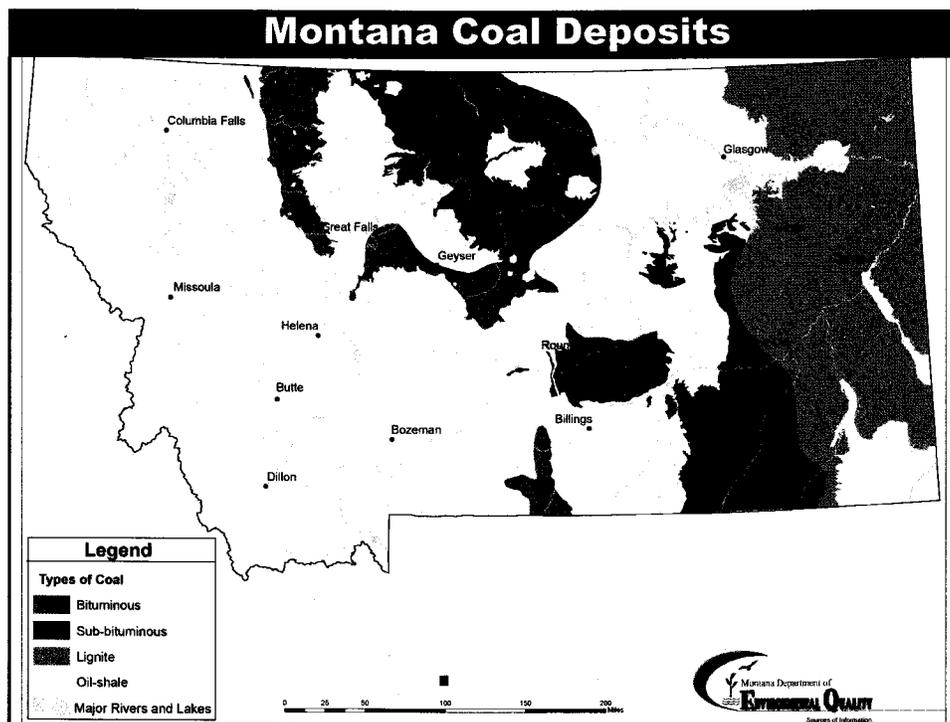
Montana Department of Commerce

- Create high quality jobs
- Increase tax base
- Increase Montana energy production

Montana Energy Resources

- #1 in U.S. coal deposits
- #1 in wind potential class 3 and above. #2 in overall potential
- Over 50 wind farms in various levels of production
- More than 15 locations for potential geothermal energy
- Oil production doubled in the last decade





Montana is Coal Country



Montana's Coal Reserves

120 Billion Tons

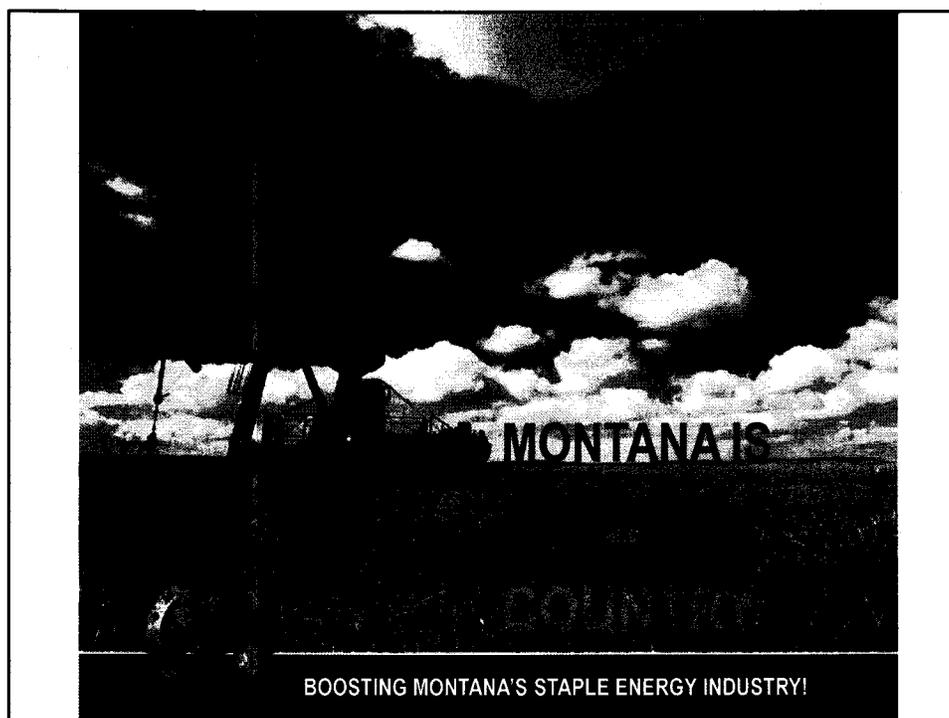
28% Nation's Coal

8% World's Coal

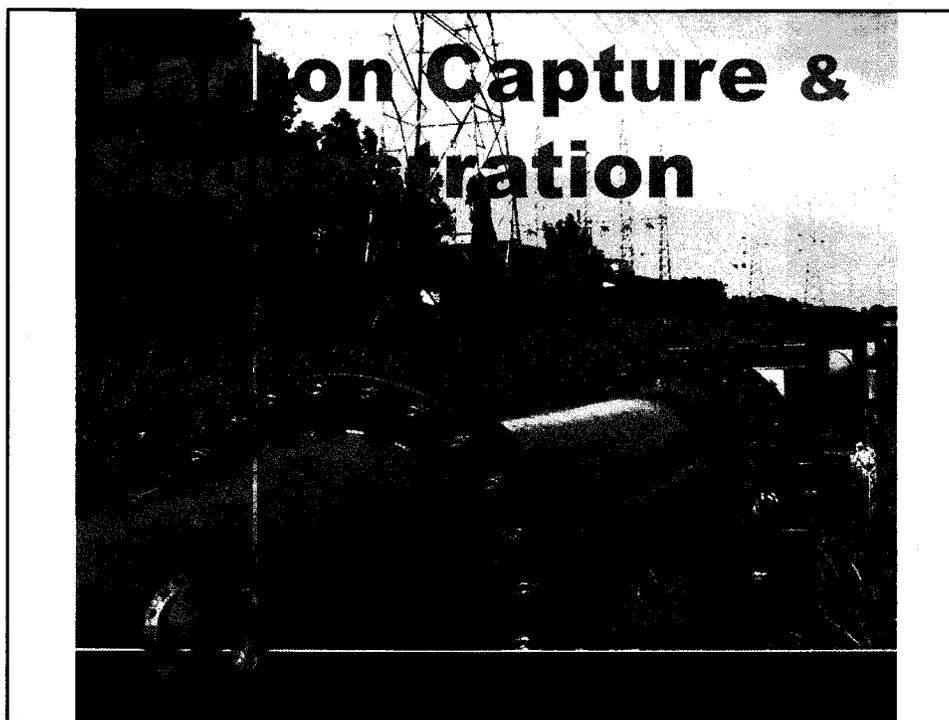
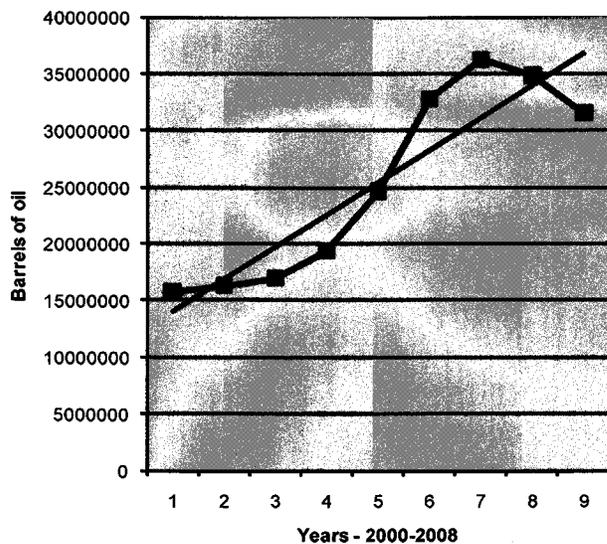
Montana is Coal Country

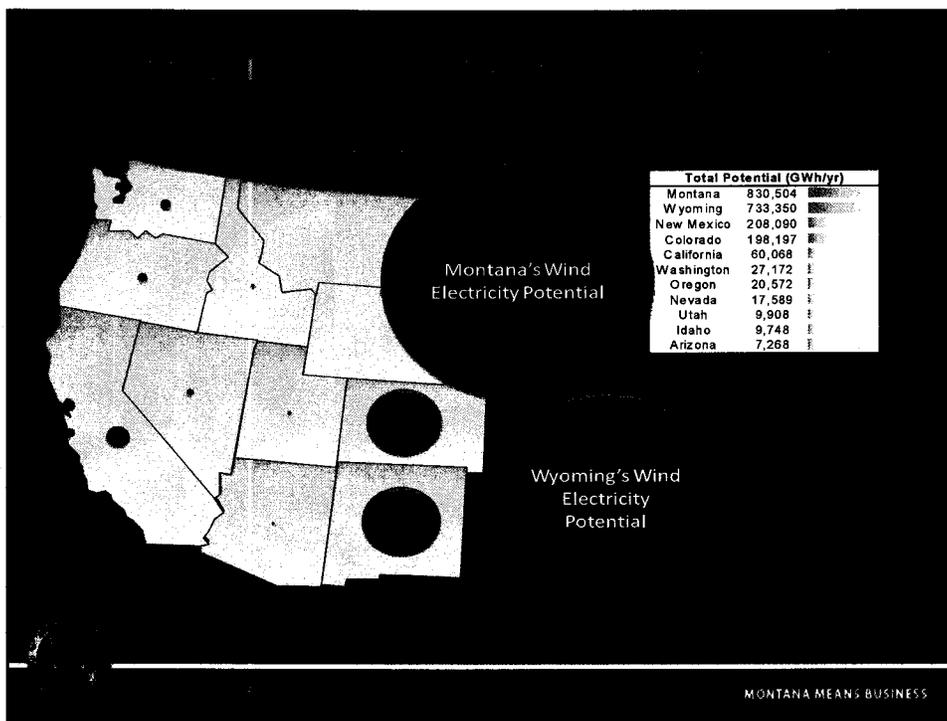
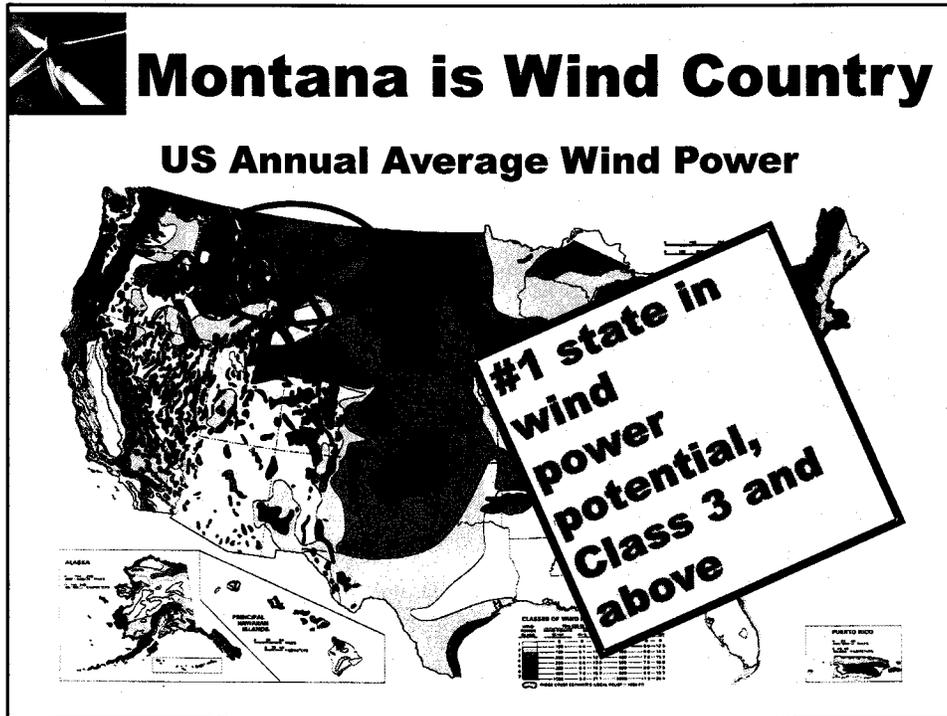
Recent Coal Projects in Montana

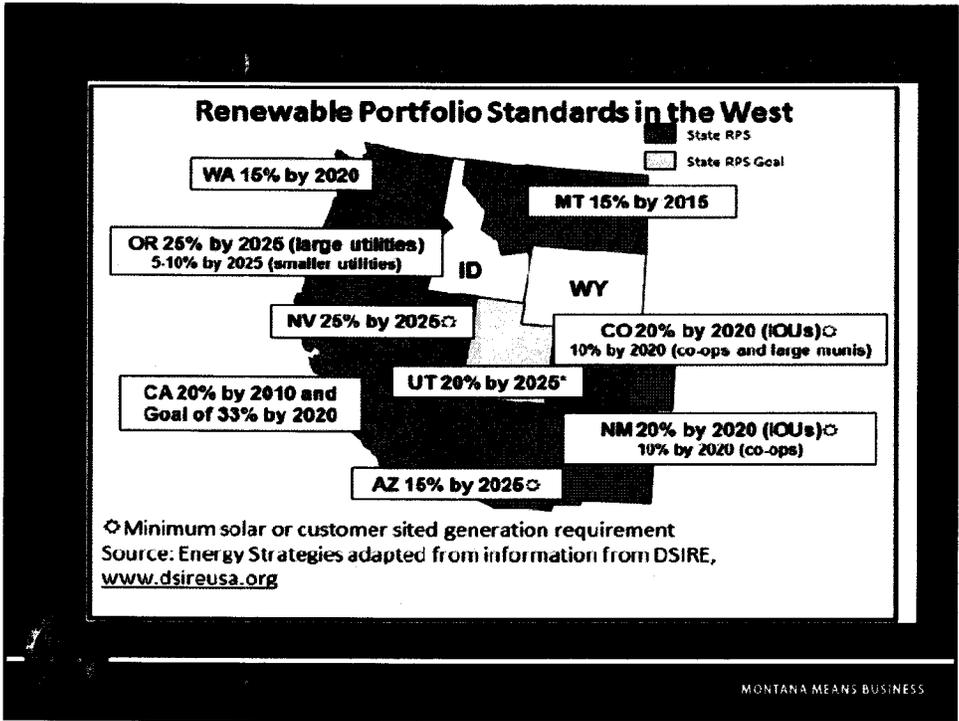
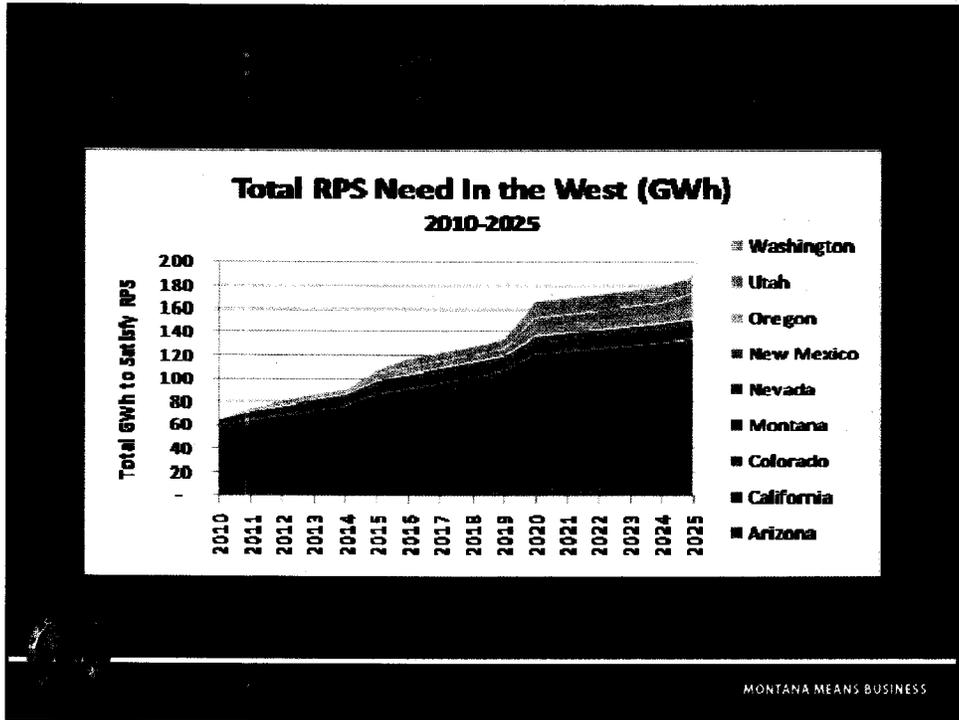
- Signal Peak
- Many Stars CTL
- Otter Creek Tract State Leasing
- Ambre Energy
- Working with other developers, but not at announcement stage



Montana Oil Production



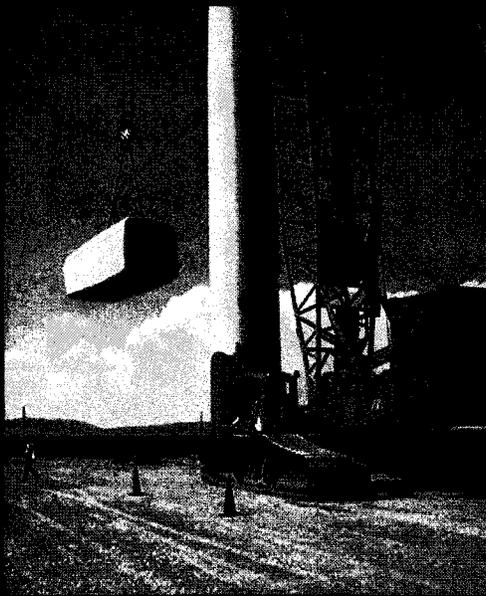




Montana has the fastest national growth rate for wind energy, going from 1 MW of installed capacity in 2005 to 386 today.

Near term development could add up to an additional 700 MW

50 projects in various stages that could produce over 5,000 MW

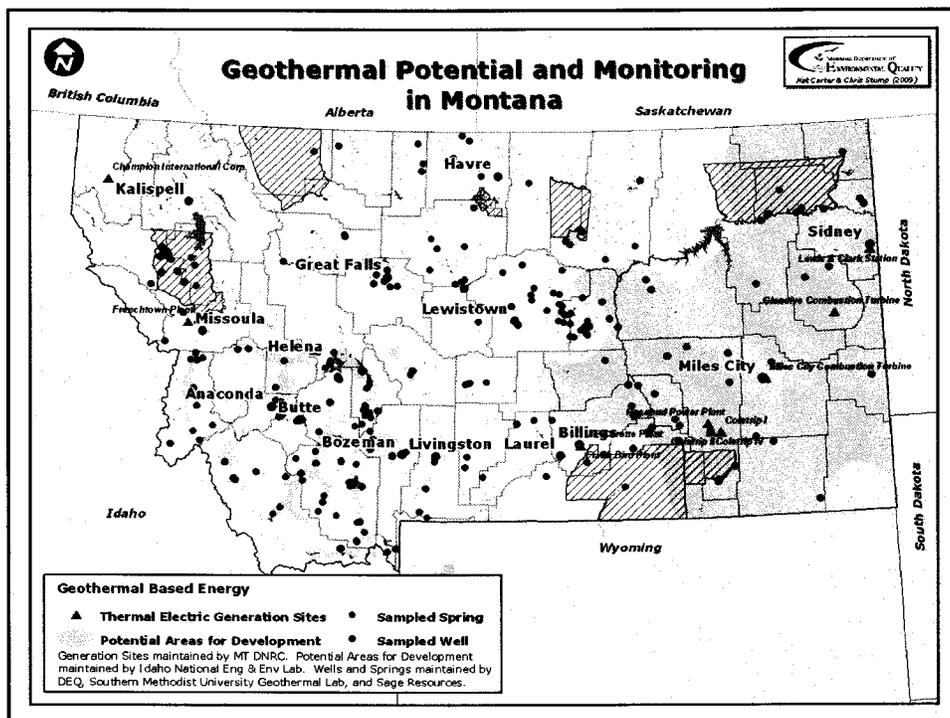
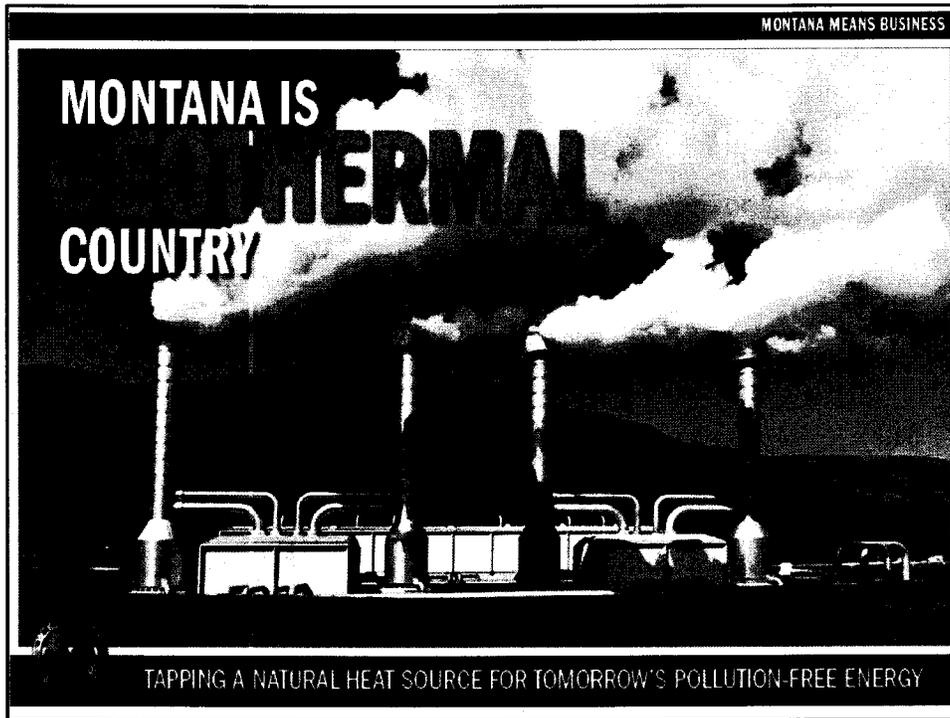


MONTANA MEANS BUSINESS

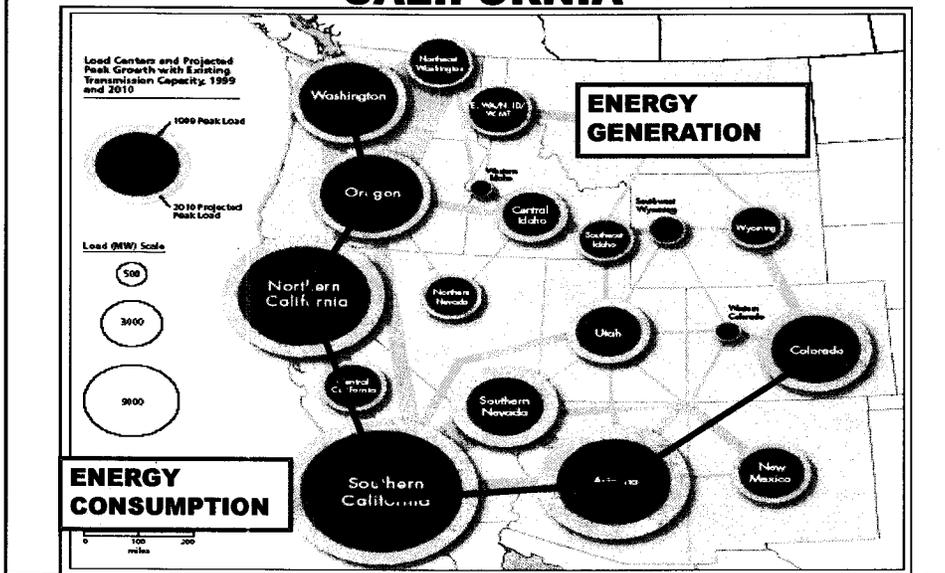
**BIOFUELS
BIOMASS**

**AND
COUNTRY**

DEVELOPING BIOMASS FUELS FOR TOMORROW'S ENERGY



MONTANA POWER CAN SERVE THE PACIFIC NW, THE SOUTHWEST AND CALIFORNIA



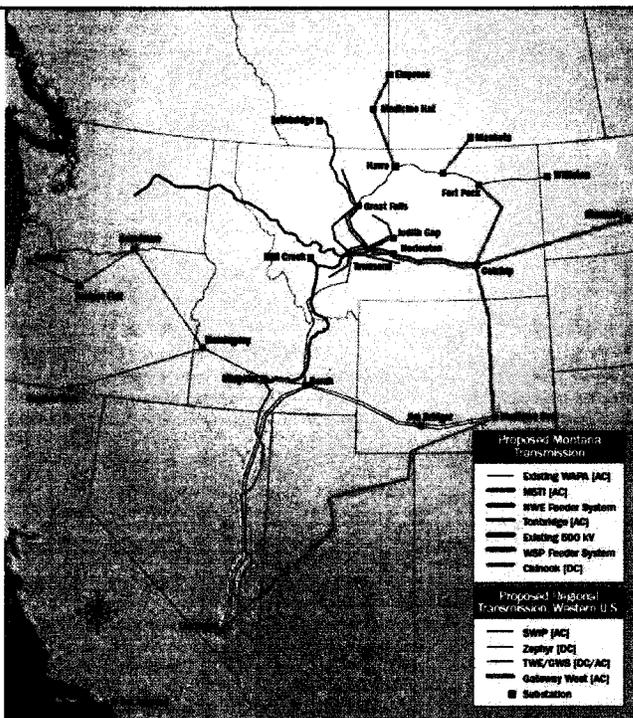
Montana Transmission for America

High-capacity, high-voltage interstate lines

- Montana Alberta Tie Line
- Mountain States Transmission Intertie
- Chinook
- Wind Spirit

Wind Collector Systems

- NorthWestern Energy
- Wind Spirit



Transmission Project Advancements in 2010

- Montana Alberta Tie Ltd (MATL)
- ✦ 600 MW capacity
 - ✦ 1st fully merchant line in the West
 - ✦ 180 construction jobs, 20 permanent
 - ✦ Provides capacity for \$1.2 billion of Wind Farm development

- ❖ EPDD Assistance
 - ✦ Regulatory and Financing technical assistance



Wind Project Advancements in 2010

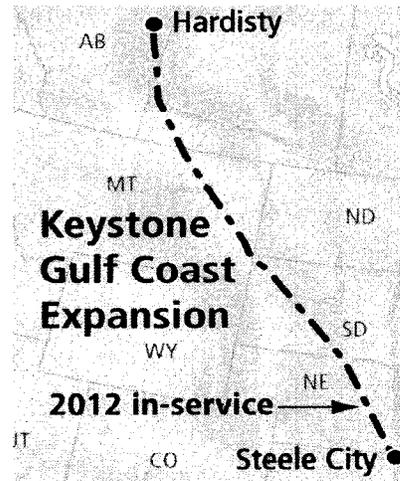
- Rim Rock Wind Farm (proposed)
 - ✦ 309 MW
 - ✦ \$700 million investment

- ❖ EPDD Assistance
 - ✦ Regulatory and Financing technical assistance



Oil Project Advancements in 2010

- Keystone XL Pipeline
 - Baker on-ramp open season a success, will provide capacity for 65,000 Bbl/day
 - \$60 million annual tax revenues
- ❖ EPDD Assistance
 - Pipeline and interconnection technical assistance



Coal Project Advancements in 2010

- Ambre Energy
 - ✦ Mine development/expansion
 - ✦ Port development
- Otter Creek Lease
 - ✦ \$86 million bonus bid
 - ✦ Mine development/RR coordination



Hydro Project Advancements in 2010

- Turnbull Hydroelectric Project
 - ✦ 13 MW
 - ✦ \$10 million investment
 - ✦ No change in irrigation capability
- ❖ EPDD Assistance
 - Facilitated water rights solution



Project Advancements in 2010

- Biomass
 - AACT - Algae Aquaculture Technologies
 - ✦ \$350,000 grant from the Montana Department of Environmental Quality
 - ✦ Produces energy and fertilizer
 - MSU Northern – BNSF Project
 - ✦ 24,000 gallons of Montana biodiesel will be utilized at a 20% blend in BNSF switch engines
 - ✦ 1 year pilot project includes emissions testing, oil analysis, fuel analysis, injector evaluation, engine performance, fuel consumption, and durability
- ❖ EPDD Assistance
 - Participated in grant review

Economic Benefits Glacier and Rim Rock

Forecast Project Payments to Local Montana Entities

<i>US\$ millions</i>	<u>Glacier 1</u>	<u>Glacier 2</u>	<u>Rim Rock</u>	<u>Total</u>
Term	25 Years	25 Years	25 Years	
Property Taxes	57.0	49.6	166.8	273.4
Montana Energy Tax	1.6	1.5	6.7	9.9
Landowners Royalty	30.5	27.8	85.9	144.2
Total	89.1	78.9	259.4	\$427.4
Total per Year (Average)	3.6	3.2	10.4	\$17.1

Source: NaturEner

Economic Benefits Glacier and Rim Rock

Engineering	19	28	47
Direct Construction	206	303	509
Indirect Construction	80	117	197
Material Suppliers	<u>181</u>	<u>266</u>	<u>447</u>
Total	486	714	1,200

Source: NaturEner

Economic Benefits of Select Projects

- TransCanada Keystone XL Pipeline and Baker on-ramp
 - \$1.1 billion in capital investment in Montana
 - \$60 million in annual property taxes
 - 790 Construction jobs
 - 15 permanent jobs
 - 65,000 bbl/day on-ramp will provide more market access for Montana producers
- Arch Coal Otter Creek Mining Operation
 - 500+ construction jobs
 - 200 permanent jobs per mine (2 mines proposed)
 - \$5 billion potential in state and local taxes over the life of the mine

Economic Benefits of Select Projects

- ✘ Turnbull Hydroelectric Project - 13 MW
 - \$10 million capital investment
 - 30 construction jobs
 - 1.5 permanent jobs
- ✘ NorthWestern Energy Mill Creek Regulating Plant– 150 MW
 - \$206 million capital investment
 - 75 construction jobs
 - 11 permanent jobs
- ✘ Basin Electric Natural Gas Peaking Plant– 91 MW
 - \$100 million capital investment
 - 50 construction jobs
 - 7 permanent jobs
- ✘ Basin Electric Waste Heat Recovery Plant– 5.5 MW
 - \$10 million in capital investment
 - 10 construction jobs
 - 1 permanent jobs

State and Local Tax Impact

	MW	Property Taxes 2010	~ Property Taxes After Tax Abatement Expiration
Glacier Wind Farm	210	\$3,708,734	\$6,200,000 (expires 2018)
Judith Gap	135	\$1,441,874	\$2,300,000 (expires 2015)
Diamond Willow	30	\$81,369	\$110,000 (expires 2017)
Horseshoe Bend	9	\$211,888	\$350,000 (expires 2017)
Totals	384	\$5,443,865	\$8,960,000

Economic Benefits of Transmission Development (MT DLI)

Economic Impacts Estimates for Montana Transmission Projects							
Project							
MSD	\$616,431,000	742	186	1203	301	\$68,865,272	\$120,046,544
MAIL	\$162,132,000	360	180	720	360	\$52,492,984	\$92,173,816
NEW Collectors	\$842,455,000	2082	416	3980	796	\$272,759,520	\$482,279,520
Overhead	\$1,474,639,000	1776	592	2878	959	\$164,735,952	\$287,169,472
TransCanada Chinook Line	\$939,502,000	1131	283	1833	458	\$104,947,160	\$182,945,424
NorthWestern Big Horn (Cotton)	\$215,751,000	546	273	1034	517	\$86,951,160	\$140,643,872

Energy Development is Long Term

Select project targeted in-service dates

- MSTI – 2015
- Chinook – 2015
- Grasslands Wind Spirit – 2016
- Many Stars CTL – 2016
- MATL has been in the making for over 5 years

Other EPDD Activities

- **Wrote, awarded and implemented a \$50,000 grant** from the National Governor's Association to support renewable energy development.
- **Wrote and have been awarded a grant for \$100,000 from the US DOE** in 2009 to carry out wind energy development activities

Other EPDD Activities

- Formed and facilitating an active Transmission Working Group consisting of 169 stakeholders that is leading transmission development efforts in the state.
- Spearheaded process that obtained the approval of the Montana Board of Investments (MBOI) as a loan guarantee partner to the US DOE under its Financial Institution Partnership Program (FIPP).

Summary of EPDD Activities

- Information conduit
 - EPDD has a 4,000 member email distribution list which EPDD uses to distribute our newsletter, schedule meetings and to otherwise inform developers, government, affiliated organizations, and citizens on energy development in Montana
- National and State presence
 - EPDD is an active participant in regional / national transmission planning activities
- Direct interaction with energy leaders
 - Whether it is developers, investors, or top government officials, EPDD's communication with all key players has proven to increase process efficiency in both the public and private sector

Economic Benefits of EPDD

- **Small Division – Big Output**
 - The work of EPDD helps to bring energy projects to Montana and to bring them to fruition. These projects bring hundreds of millions of dollars of revenue into the state and billions of dollars worth of capital while providing high paying jobs throughout Montana.
- **EPDD is a revenue generator**
 - Just as Made in Montana promotes Montana products under the Department of Commerce, EPDD promotes Montana energy projects that contribute millions of dollars to Montana's economy.

DECISION PACKAGE 55001

Total Budget 2012	Total Budget 2013	Biennial Budget 12-13
\$455,000	\$455,000	\$910,000

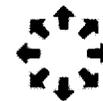
Testimonials

MONTANA ALBERTA TIE LTD
A TONBRIDGE POWER COMPANY



"Time and again we found the need for counsel, guidance and advice and found such to be invaluable in the Energy Promotion and Development Division"

-Johan Van't Hof, CEO



NaturEner

"The support that we have received from the Energy Promotion and Development Division has greatly facilitated our accomplishments on these two wind farm projects and our progress would not have been as smooth or as timely as it has been without the Division's capable assistance."

-Jose Maria Sanchez Seara, CEO

Testimonials



TransCanada
In business to deliver

"In sum, we have found the (Energy Promotion and Development) Division staffed by knowledgeable public servants who have been supportive of TransCanada's business development activities, who have been responsive to our requests for assistance and direction, and have been pro-active in promoting economic development in Montana."

-Scott Farris, Director of
Government Relations

ambreenergy

"The assistance provided to Ambre by your team in the Energy Promotion and Development Office of the Montana Department of Commerce has been invaluable. As a new participant in the US energy industry, the support provided by the Montana Government has been excellent and we appreciate greatly the guidance and assistance provided."

-Michael Mewing, President

Testimonials

Turnbull Hydro, L.L.C.

"EPDD's guidance and counsel helped us identify a clear path to resolving our water rights issues that had the potential to delay and potentially kill the project."

-Ted Sorenson, President

Invenergy

"Invenergy appreciates the efforts put forth from the Energy Promotion and Development TEAM within the Montana Department of Commerce as it supports activities and policies relating to renewable energy will continue to bring economic benefits to the State."

-Mark Jacobson, Director
of Business Development

Energy Promotion & Development Division

Thank You



**Energy Promotion
and Development
Division**

Montana Department of Commerce

PO Box 200501
Helena MT 59620-0501
406.841.2030
commerce.mt.gov/energy