

Energy Transmission and Production Projects	Agency/Program #: 6501-55-G1
	Division: Energy Promotion and Development
	Program:

Agency Name:	Department of Commerce	
Agency Contact:		
LFC Contact:	Sesso / Taylor	
LFD Liaison:	Matt Stayner	5830
OBPP Liaison:	Mark Bruno	54

Program or Project Description:

The division facilitates the promotion, planning, development, economic analysis, and coordination of energy facilities in and impacting Montana.

Fund Name:	Appropriation, Expenditure and Source				Approp & Expenditure numbers are as of September 30, 2009
	2010		2011		
	Approp.	Expended	Approp.	Expended	
General Fund	457,620	82,024	459,840		
State Special					
Federal Funds					
Total:	\$457,620	\$82,024	\$459,840	\$0	

Goal(s):

Increase the number of energy transmission and production projects completed in Montana.

Performance Measures :

Permits granted, Monies expended by private firms, new facilities opened

2011 Biennium Significant Milestones:	Completion Dates	
	Target	Actual
1		
2		
3		
4		
5		
6		

Performance Report: _____

Please See attached documents from Agency

LFD Narrative:

LFD Assessment: On-Track with exceptions

Data Relevance: The information provided by the agency relates to the legislative goals and performance measures, but does not provide any base line measurements.

Appropriation Status: Appropriation and expenditure data were provided.

Comments: The agency has provided a great deal of information regarding projects that the program has had some involvement with, but the involvement is often stated as "worked with", "supported", or "facilitated". These are fairly ambiguous statements and the exact activity that specifically leads to the achievement of the legislative goals is unclear. The program seems to be a value-added function to existing processes, but this value is unclear because the agency has not provided a baseline of project completion rate prior to the existence of the program verses the rate of project completion due to the program's efforts.

Options:

- 1) Dismiss from further review
- 2) Review again in June, 2010
- 3) Request additional information
- 4) Upgrade or Downgrade the rating

Potential Questions For The Committee:

How many new energy projects are proposed in Montana each year?

How many energy projects are completed in Montana each year?

What were the numbers for the previous questions prior to the implementation of the program?

What are the specific activities that the program undertakes in order to bring an energy project to Montana?

What are the specific activities that the program undertakes in order to bring an energy project to completion? And what distinguishes these from the efforts of other agency's programs?

Since this program is funded with OTO appropriations, would the elimination of funding for this program directly result in a reduction of private funding of energy projects or reduction in the number of completed energy projects in Montana?

Version	Date	Author
	11/21/2009	Stayner

Change Description

Montana's Energy Development

Since July 2007, the creation of the Energy Promotion and Development Office in the Department of Commerce

Wind Farms

Glacier / Rim Wind Farms – July, 2008

NaturEner USA began construction in 2008 on 510 MW of wind power generation near Shelby to be built in three phases. Governor Schweitzer spoke at the official ground breaking of the first phase on July 17, 2008, which became operational at the end of October 2008. Located in the hills between Cut Bank and Shelby, the first phase will generate 106.5 MW. Another 103.5 MW completed construction in October 2009. NaturEner plans to build an additional 300 MW of generation capacity in phase three in 2009 at another nearby wind site known as the Rim Wind Farm to connect to the Montana Alberta Tie Line (MATL) transmission line which is also slated to be constructed in 2009. EPDD has worked directly with NaturEner to work through and solve several development issues, including securing a Power Purchase Agreement.



Diamond Willow Wind Farm - January, 2008

Montana Dakota Utility's Diamond Willow wind farm near Baker was completed in 2008 and includes 13 turbines with a total capacity of 19.5 MW. The wind farm produces enough energy to power 7,000 residences. An expansion of an additional 10 MW is planned. In promoting wind energy development in Eastern Montana, EPDD has highlighted this project and continues to monitor and lend support when needed.



Beaver Creek Wind Farm - March 2008

This proposed wind farm is located north of Reed Point in Stillwater County. Developer Jon Chafin is proposing to construct 100 MW in the first phase of the project consisting of forty 2.5 MW wind turbines. Future phases of the project are designed to develop a total of 300 MW at the site. EPDD has worked hand in hand with Mr. Chafin to develop this project by offering support through the permitting process and identifying financial support.

Madison Valley Renewable Energy – September, 2008

This project has been given permission from the Madison County Commissioners to erect eight additional test towers on Norris Hill near Ennis. The company has leased enough ground to eventually produce 150 MW. EPDD has supported this project in

several ways including facilitating discussions with Montana consultants and engineers needed for early stage development.

Martinsdale Wind Farm – September, 2008

Martinsdale Wind Farm LLC, a subsidiary of Horizon Wind Energy, working in cooperation with the Montana Department of Natural Resources and Conservation (DNRC) is developing a wind energy facility of up to 300 megawatts known as the Martinsdale Wind Power Project (Project) in central Montana approximately 20 miles west of Harlowton, Montana. The multi phase project will initially consist of approximately 36 wind turbine generators producing approximately 60 MW, possibly expanding to 100 wind turbine generators producing up to 300 MW. Horizon expects the first phase to be constructed in early 2010. EPDD has monitored and supported this project since the inception and continues to support Horizon by working to address specific transmission needs for this project.

Sagebrush Energy – September, 2008

Sagebrush Energy is proposing to develop the Norris Hill Wind Project, a community sized wind energy project located near Norris Junction in Madison County. The project will provide clean affordable electricity to approximately 7,000 homes in Montana, generated from eight (8) wind turbines with a total capacity of 20 MW. EPDD gave strong support of this project during discussions with both the Ennis community and the Madison County Commission. We continue to monitor and support this project through the early stage development.

Wind Programs

Wind for Schools in Montana and the Wind Application Center at MSU – May, 2008

The US Department of Energy has selected Montana as one of five states to participate in the inaugural year of the Wind for Schools Program (WfS). The objective of Wind for Schools is to engage rural America in a discussion of wind energy while encouraging the growth of a knowledge and skill base for development of the wind industry. A 1.8 kW wind turbine will be erected this year at MSU to educate students, teachers and community members in wind energy through curriculum development and integration. In addition, NorthWestern Energy has awarded WfS a grant of \$46,000 to begin to implement the Program the fall of 2008. EPDD worked closely with WfS to obtain this grant, without which the project would not have been made possible. We continue to provide support in addressing the financial needs of this program.



Cascade County Shop – July, 2008

A new energy efficient County shop was erected in the summer of 2008 in Cascade County and the facility hosts an Entegrety Wind Systems 50-kilowatt wind turbine. The wind turbine will produce an estimated 85% of the county shop's electrical needs. EPDD continues to work with Cascade County to bring new technologies to make the county shop even more energy efficient.

Transmission Lines

Transmission Working Group and Montana Transmission Scenario – Ongoing

Transmission constraints are a major factor nationwide limiting the development of new energy resources, particularly renewable energy resources such as Montana's world class wind resource as well as new forms of clean coal based power production employing CCS technology. To address this need the EPDD facilitated the formation of the Montana Transmission Working Group (MTWG) in 2008. The MTWG is comprised of energy and transmission developers as well as a variety of other entities interested in working to overcome the barriers to and advancing increased transmission development in Montana. The EPDD has facilitated regular meetings of the MTWG having met 8 times in the last year. These efforts are bearing fruit as follows:

- The Montana Albert Tie Line (MATL) project, now under construction, will bring major economic benefits. The tax revenue collected from MATL alone will bring in an annual \$730,000 to the state and at least \$100,000 to each county through which the line runs. An expected 55 MATL-related jobs will result in \$4.6 million in wages while construction of the associated wind projects will require 1400 short-term jobs with an estimated \$53 million in wages. Once fully operational, the wind projects will continue to provide lasting economic benefits to Montana. We can count on \$6 million in annual wages from permanent jobs and \$8 million in annual county and state revenue. Additionally, land owners with wind turbines on their land will receive combined annual lease payments of \$2.7 million. All totaled, the economic benefit from wind energy development associated with MATL is \$16 million per year. Assuming a wind project life span of 20 years, we stand to see an impact of \$3.2 billion in Glacier, Toole, and surrounding counties alone. **MATL is one of EPDD's greatest successes. MATL officials agree that this project came together under EPDD leadership.**
- EPDD has been working to create a Montana Transmission Scenario which is a document describing the active transmission development project underway in the State. It is being developed in cooperation with the entities that are currently developing transmission in Montana. The Montana Transmission Scenario will

be released in November 2009 and will be a powerful marketing tool to facilitate and accelerate transmission development.

- Transmission development will not take place in isolation and EPDD is leading regional efforts involving the federal government, states and load serving entities throughout the West to facilitate and accelerate transmission development. On December 15, 16 and 17, 2009 EPDD will be playing a lead role in bringing all Montana wind and transmission developers together in San Diego as part of 3 days of meetings focused on transmission development. A key part of this important event will involve Montana wind and transmission developers meeting with load serving entities throughout the West in order to market Montana wind energy.

The following information provides a description of transmission projects underway in Montana and EPDD's role in advancing these important projects:



MATL – May, 2005 Announced. October 2008 Permitted.

The Montana Alberta Tie Line (MATL) is a 600 MW, 215 mile merchant (private) transmission line connecting Great Falls and Lethbridge, Alberta. The line is now fully permitted and fully financed. The Energy Division has played a key role in facilitating this project. We have been involved with this project since our office opened in the summer of 2007. We have facilitated both the Federal and State permitting process, helped secure a loan from the Department of Energy,

managed the Landowners Liaison Team, and positively promoted the project throughout the affected region. As noted previously, **MATL is one of EPDD's greatest successes. MATL officials agree that this project came together under EPDD leadership.**

Chinook – October, 2006 Announced.

TransCanada's Chinook Project is a proposed 800 mile high voltage direct current (HVDC) transmission line connecting central Montana through Townsend to Las Vegas, Nevada, with target markets in Las Vegas, Southern California and Phoenix. The project will use 500kV bi-pole lines to minimize land impact and provide for a total capacity of 3,000 MW. In 2006 Governor Schweitzer signed a Memorandum of Understanding with the states of Idaho and Nevada concerning the development of this project. TransCanada began an open season on the line on October 13, 2009. EPDD continues to assist TransCanada with several aspects of development including facilitating conversations with potential wind developers who would ship their product on the lines.

MSTI – July, 2008

Mountain States Transmission Intertie (MSTI), now in the permitting process, is a proposed project from NorthWestern Energy to provide 1,500 MW of new transmission capacity between the Butte area and mid-point Idaho. The company submitted permit applications to the state the first of July, 2008. MSTI is a 500 kV transmission line that would relieve constraints on higher-voltage systems and provide west coast market access to new Montana power generation projects. The project would be built between substations located near Townsend and Jerome Idaho with an in- service date of 2013. EPDD has participated in the many discussions regarding the route of this project. EPDD has also facilitated conversations between NorthWestern Energy and potential wind developers and load serving entities.

Colstrip 500 kV Transmission Line Upgrades – September, 2008

NorthWestern Energy, Bonneville Power Administration and other owners of this line have completed an initial technical study on a project to increase the capacity of the existing high voltage transmission line from Colstrip to the west coast by up to 650 MW. The initial study indicates the estimated cost for the Montana segment of this project is \$209 million. The next phase of the project includes a further more detailed study and analysis of needed improvements west of Montana, moving toward construction with a projected in-service date of the late 2011. EPDD has been working with project participants and wind developers to advance this project. Multiple ownership of this line presents unique challenges to completing this project and EPDD is working to resolve those challenges.

Natural Gas and Coal-fired Generation Projects

Anaconda Regulating Plant - February, 2008

NorthWestern Energy announced in February of 2008 its plans to construct a \$206 million natural gas fired load regulation plant near Anaconda. The company has filed permit applications with the DEQ and PSC in August 2008. The 200 MW plant will be built in two phases consisting of three 50 MW Pratt and Whitney turbines in the first phase with a second phase to be built later. NorthWestern plans to market this as firming power for future Montana wind farms. NorthWestern Energy broke ground in August 2009 and it is expected to be operational in 2010.

EPDD met regularly with local officials to help them understand the impacts and the opportunities that such a project would bring to the community.



Culbertson Peaking Plant - 2009

Basin Electric Power Cooperative in November 2007 announced the development of a 91 MW natural gas fired peaking plant in Culbertson. An air quality permit application was approved by the Montana DEQ in January, 2009. Construction began in June 2009

and is expected to be completed in May 2010. EPDD has monitored the construction of this important grid balancing plant for its potential to provide firming for wind energy.

Hydropower Generation Projects

Rainbow Dam Hydropower Project – May, 2008

PPL Montana is undertaking this project to raise the existing Missouri dam located near Great Falls 1.5 feet and install new turbines that will add 60 MW of clean power. The project cost is \$230 million the project ribbon cutting was held on October 15 with project completion expected in March 2012. , EPDD has monitored and promoted this project as efficient use of existing hydro facilities.



Gibson Dam Hydropower Project – August, 2008

The Gibson Dam on the Sun River on the Rocky Mountain Front near Augusta was originally built in the 1920's and it was designed for electricity generating turbines but they were not installed. Toll House of Bellingham Washington is conducting this \$25 million project to install the long awaited turbines. The developer is finalizing approvals as of late summer 2008 and the plant will produce 15MW of power. This project is currently on hold and EPDD is monitoring it.

Turnbull Hydroelectric Project – August 2009

The Turnbull Hydroelectric facility is proposing to install two small hydroelectric generation facilities on the Spring Valley Canal, a part of the Greenfield Irrigation District, totaling 15 MW of installed capacity. Turnbull already has approval from FERC and an agreement with NorthWestern Energy. EPDD has been involved with this project by assisting Turnbull in applying for a non-consumptive water right, assisting with potentially decreasing their tax liability, and working with Senator Tester's office in funding issues related to the Recovery Act.

Pipelines

Keystone XL Pipeline – July, 2008

TransCanada's Keystone XL Pipeline, announced in the summer of 2008, will transport crude oil 1,980 miles from Alberta through Montana and on to Nebraska. The Keystone XL is 36" crude oil pipeline and it is an expansion proposal that would connect to the existing Keystone Pipeline; 281 miles of the line will be located in Montana. Total investment in Montana will be approximately \$1 billion and will result in state and local tax revenues of more than \$50 million annually. EPDD has traveled Eastern Montana with TransCanada to directly address the general public about this important

development.

Pathfinder Natural Gas Pipeline – June, 2008

This energy infrastructure project, being developed by TransCanada, is a proposal for a natural gas pipeline to be built from the U.S. Rockies supply basins to markets in the U.S. Midwest. The 30” – 42” pipeline will move gas north-eastward from the Rockies supply basins, through the southeast corner of Montana, to connect to the Northern Border Pipeline Company system for delivery into the U.S. Midwest. The scheduled in-service date is November 2010. EPDD has met with the Community Relations director for project developer Northern Border Pipeline Company in order to provide assistance as needed with questions that may arise during the siting and permitting process.

Bison Natural Gas Pipeline – June, 2008

The Bison Pipeline Project is a proposed major transportation link between the natural gas reserves of the Rocky Mountain area, from the Powder River Basin to natural gas markets in the Midwest and the Chicago area. Bison Pipeline LLC is a wholly owned subsidiary of Northern Border Pipeline Company. TransCanada Northern Border Inc. serves as operator of Bison Pipeline LLC. The project has a targeted in-service date of November 15, 2010. The Bison Project's proposed route follows a portion of the proposed Pathfinder Project. The Pathfinder Project is sponsored by TransCanada Pipeline USA Ltd. During the two project's early review process, environmental activities for Bison and Pathfinder Projects are being coordinated to minimize the impact of the Projects on the land, landowners and other interested parties. EPDD has met with the Community Relations director for project developer Northern Border Pipeline Company in order to provide assistance as needed with questions that may arise during the siting and permitting process.

Manufacturing Plants



Chafin/Fuhrländer Wind Turbine manufacturing plant - March, 2008

Chafin/Fuhrländer, an LLC of Jon Chafin and the Fuhrländer AG of Germany, announced they will build a manufacturing plant in Butte to produce 2.5 MW wind turbines. The initial phase would employ 150 people, and the plant could create an additional 600 jobs if they decide to expand and build the 150 foot blades at the site. The Governor traveled to Germany in September 2009 to meet company officials in order to advance the project. EPDD has

been working with Butte officials as well as State and Federal financing programs to put together the financial package for this project as well as canvassing Montana wind developers to determine the potential for turbine orders from the future assembly plant.

PURSOL Solar Manufacturing Plant – August 2009

In the summer of 2009, Governor Schweitzer, the Ft. Peck Tribal Council, and solar-panel manufacturer PURSOL announced a partnership to bring a manufacturing facility to Poplar. This new venture will bring 300 high-paying jobs to the people of the Ft. Peck tribes. EPDD assisted the tribal council throughout the progress of this agreement.

Coal-to-Liquid Plants

Many Stars CTL – August, 2008

The Crow Tribe announced in August 2008 a partnership with the Australian-American Energy Co., a subsidiary of the Australian Energy Co., to build the Many Stars coal-to-liquid fuels plant outside of Crow Agency. The project would produce 50,000 barrels per day of diesel and other fuels. The \$7 billion plant would employ up to 4,000 during construction and would create 1,000 permanent jobs. EPDD has been instrumental in this project from the inception by making the initial introduction between the Crow Tribe and AAEC. We continue to monitor and support the project as they work through permitting, education, and workforce issues.



Bio-Fuel Plants

AE Biofuels – August, 2008

AE Biofuels, a California based company, working in conjunction with Montana Microbial Products, a Montana based company, opened a 9,000 square foot integrated cellulosic and starch ethanol commercial demonstration facility capable of producing 150,000 gallons of ethanol per year. A possible addition to expand capacity could produce 1.2 million gallons per year. EPDD has worked with AE Biofuels to market their testing services throughout the United States.



MSU-Northern Bio-fuels lab – May, 2008

This biofuels lab was opened in 2008 and is a state of the art facility located on the MSU-Northern campus in Havre. It tests organic fuel and lubricants to certify that they meet American Society for Testing and Materials standards. The lab can also test fuel additives to see if they will improve fuel quality. Northern will test samples from farmers and post test results on a Web site before it's added to expensive machinery. The Bio-fuels lab represents a significant cost advantage for bio fuel producers in Montana. Along with the Governor's Office and the Department of Environmental Quality, EPDD assisted MSU-Northern in acquiring the funding for this facility and opening the facility.

Earl Fisher Biofuels – August, 2006

This biodiesel plant located in Chester began operations in 2006 and currently produces 100,000 gallons of biodiesel per year with plans to expand to 1 million gallons per year. Current production uses Camellia seed for feed stock and product is marketed locally. Earl Fisher purchases locally grown Camelina and sells the fuel predominately local agricultural consumers. EPDD has helped market the product to potential customers.

Coal

Montana - Saskatchewan Carbon Capture and Storage (CCS) project, Ongoing

Montana possesses the nation's largest coal reserves and is the 6th leading producer of coal. Worldwide attention and effort are now being focused on reducing carbon emissions from fossil fuel use and in particular from coal burning power plants. The challenge to maintain coal as an important energy resource (over 50% of the nation's electricity is derived from coal power) relies on the development of CCS technology. To that end the Energy Promotion and Development Division has worked hard to promote and support Carbon Capture and Storage (CCS) technology. Our premier effort is the development of a cross border CCS pilot project with the Province of Saskatchewan, in the works since 2007. The Montana side of that project is \$100 million and in fact our work on that project is resulting in the current preparation of a \$67 million grant application by the Big Sky CO2 Partnership to the DOE. This application has a good chance for being funded and the opportunity for Big Sky Partnership to apply for these funds is as a direct result of EPDD's work. CCS technology will enable Montana coal development to continue to grow. EPDD continues to work with developers on advanced technology coal projects such as gasification (both central plant as well as in-situ coal gasification) in order address carbon emissions from coal making it a viable energy resource for the future.



Signal Peak (Bull Mountain) – July, 2008

This new mining operation was announced in July 2008. Signal Peak, located near Roundup, is Montana's only underground mine and is one of the most significant contiguous coal reserves in the United States. The new mine is poised to be the most productive single long-wall mining operation in the nation, with an estimated 15 million tons of coal to be produced per year, 10 million of which is committed to First Energy, one of the partner companies

in the project with Boich Companies. According to the companies, the estimated cost to

fully develop the mine is \$450 million, including a new coal preparation plant, and the costs associated with constructing a 35-mile rail spur to the Burlington Northern Santa Fe railway line near Broadview. Construction of the rail spur began in July 2008 and was completed summer 2009. The ribbon was cut on this mine in September 2009 and it is now fully operational. At full production the Signal Peak mine stands to increase Montana production by over 30%. EPDD has worked with the developers of the Bull Mountain / Signal Peak mine including providing guidance on power plant permit issues and we worked with coal to liquid developers who proposed this site for a plant which while it did not move forward served to call attention to this world class underground coal deposit now undergoing a major expansion.

East Decker – 2008

EPDD has worked extensively with Ambre Energy, an Australian company with an office in Salt Lake City, that has been in discussions with the mine's current owners concerning purchase of the facility. Ambre proposes a long term plan for East Decker that includes a development of low temperature – low pressure coal liquefaction plant to produce synthetic crude oil and metallurgical grade coal intended for steel production.

Nelson Creek – 2008

Great Northern Properties has indicated it will be submitting a permit in 2008 or 2009 for a new mine for this site located near to Circle. The company has been studying the feasibility to construct a mine mouth coal gasification plant at this site similar to a project they currently are developing in North Dakota. EPDD has met regularly with Great Northern Properties on topics such as development of in-situ coal gasification and the potential development of the Otter Creek tracks.

Spring Creek – 2005-2007

The Spring Creek Mine owned by Rio Tinto and located near Decker in Big Horn County has increased production from 13.1 tons to 15.7 tons per year between 2005 and 2007. The company has an expansion permit application in process as of late 2008. Call Neil Harrington for update This new permit would add 2,042 acres and 157 million tons of recoverable coal. EPDD has monitored and remained in contact with local Rio Tinto officials on this expansion.

Absaloka – March, 2008

Westmoreland Resources Incorporated (WRI) operates the Absaloka Mine in Big Horn County. The currently permitted mining area on the existing Tract III Coal Lease will sustain the current production rate of 6.5 to 7.0 million tons of coal per year only through 2009. A draft EIS was prepared in March 2008 for WRI to extend its mining permit. Within the Tract III Revision area, WRI is seeking approval of the Tract III Revision by MDEQ and OSM, IMDA lease approval, and OSM approval of the South Extension permit application that would add approximately 94 million tons of in-place coal reserves. WRI estimates that 77 million of these tons are recoverable and marketable. This would enable the mine to extend its productive life to 2020 or 2021 at the current

production rate of 6.5 to 7.0 million tons per year. EPDD has worked with two different companies proposing coal gasification plants that are looking at the Absaloka mine to supply the coal for the project.

Carpenter Creek – September, 2008

This 250 million ton reserve contains high BTU coal (10,800 - 11,000) located between Musselshell and Melstone. The developers propose building a 25 mile long rail line to Custer and would operate this as a surface mine. The developer is preparing to submit a mining permit application to MDEQ in late 2008. The developer is looking to sell coal to eastern US markets and to export this coal overseas with annual production in the range of 4 to 4.5 million tons per year and will employ 50 workers. EPDD has met with the mine's developers to discuss and offer guidance on mine permitting requirements.

Initiatives and Studies

Oil and gas production tax agreement – 2008

This agreement is between the Fort Peck Assiniboine and Sioux tribes and the State to split tax proceeds in order to encourage oil and gas production. The agreement was put in place to prevent native landowners from being taxed by both governments. The Governor's Office and EPDD continue to work with other tribes to execute similar agreements.

Wind Integration Study - March, 2007

The Governor's Office contributed \$25,000 toward the completion of a wind variability study. The study, finalized in September 2008, is intended to help address issues affecting the ability to integrate more Montana wind into the electricity grid. The Governor's Office and EPDD partnered with NorthWestern Energy, Montana Alberta Tie Line, WAPA and eight Montana wind developers fund this study. EPDD is now participating in follow-up work of a newly formed wind integration working group being led by NorthWestern Energy.

Delegations and Cross-border Partnerships

Montana-Alberta Oil and Gas Missions – 2007

Governor Schweitzer has traveled twice to Canada, once in 2005 and again in October 2007, in order to build partnerships to develop Montana energy and to entice Canadian companies with Montana's tax incentives. The Governor also hosted an energy mission in 2006 traveling with Canadian oil and gas companies to Billings, Baker and Sidney. EPDD planned and executed every aspect of the 2007 mission.



Iceland Visit to Montana – October 2007

In October of 2007, the Energy Promotion and Development Division, along with Senator Jon Tester, hosted a delegation of financial and engineering experts from Iceland to explore Montana's geothermal resources. Over the course of two days, the delegation met with several developers of potential geothermal projects and discussed all aspects of development from transmission to financial issues. The visit concluded with a formal invitation for a delegation to visit Iceland.

Idaho National Laboratory Tour, January - 2008

Governor Schweitzer and EPDD staff traveled to the Idaho National Laboratory (INL) in January, 2008 where they toured the facilities of this federal facility noted for its energy technology expertise. The Governor was seeking information as to how the world class resources of this federally supported facility can be utilized to develop Montana energy resources as well as meet his energy efficiency goals. One area of particular interest to the Governor is the work INL is doing related to the development of advanced battery technology and its application for plug-in hybrid electric cars.



Iceland Geothermal Mission – March 2008



In March of 2008, EPDD officials, along with members of the Public Service Commission and the state legislature, travelled to Iceland to learn more about geothermal energy development. The delegation toured several geothermal power plants, met with government officials, and learned a great deal from industry experts. Iceland, with a population of about 400,000, currently obtains about 25% of its electrical power and heats over 90% of its buildings using geothermal energy.

UN Ambassadors Visit Montana – October 2007

In October 2007, the Governor's Office and EPDD hosted a delegation of several UN Ambassadors for an educational look at Montana's history and economic future. The three-day visit included meetings with business leaders and educational professionals, a Native American celebration, and "A Conversation on Energy" hosted by Governor Schweitzer. EPDD facilitated all of the details of this high-level official visit.

European Union Fellowship, January 2010

In September 2009, the EPDD Senior Energy Development Specialist was awarded a prestigious fellowship with the European Union and will travel to Brussels in January 2010 to study energy policy.

Mon-Dak Energy Park, Ongoing

Since December 2008, EPDD officials have participated in a number of meetings centered on a proposed cross-border energy park between Sidney, MT and Williston, ND. A 100,000 barrel per day oil refinery is the heart of the proposed energy park.

Conferences and Workshops

EPDD has played a key role in several conferences and workshops focused on energy development in Montana.

Coal Bed Methane Workshop, January 2008

Governor Schweitzer invited members of the CBM industry along with representatives of state environmental groups to a workshop to discuss ways that CBM can be developed while protecting the environment. The Governor invited a leading expert from the Alberta Unconventional Gas Association to present information on how this issue is addressed in that Canadian province noted for its immense energy sector. Techniques such as drilling multiple wells from a single platform, water treatment and reinjection were discussed. This workshop was organized and facilitated by EPDD.

Harvesting Clean Energy Conference, 2008-2009

In January 2009, Montana hosted the 9th Annual Harvesting Clean Energy Conference, the Northwest's premiere gathering to advance rural economic development through clean energy production. Several state officials sit on the planning committee and the co-chair was from EPDD.

WGA Bioenergy Workshop, May 2009

Governors' Institute Workshop on Forest Health, June 2009

Wheeler Center – January 2009- EPDD was a key presenter and panel moderator to this well attended energy event.

Making It Work in Indian Country – August 2009

Grants Received

National Governor's Association Clean Energy States Grants, June - 2008

The Governor's Office was one of 10 states selected to receive a \$50,000 Clean Energy States Grant. The Governor's Office competed with applications submitted from all across the nation. The funds will be used to support the Transmission Working Group facilitated by EPDD.

Department of Energy Windpowering America Grant , May 2009

In May of 2009, EPDD was awarded a \$100,000 grant from the U.S. Department of Energy to further promote and develop Montana's wind energy resources. These funds will be primarily used to facilitate the Montana Wind Working Group.

Grants Administered

Biomass Feasibility Study, September 2009

During the 2009 Legislative Session, EPDD was appropriated \$475,000 in American Recovery and Reinvestment Act funds to assist private companies in studying the feasibility of biomass energy production in Montana. Two companies were selected and EPDD continues to administer these funds.

National Energy Coalitions

EPDD has taken an active role in national energy coalitions on behalf of Governor Schweitzer. These include:

- Western Governor's Association (WGA) Clean and Diversified Energy Initiative
- WGA Transportation Fuels of the Future
- WGA Western Renewable Energy Zones
- Western Climate Initiative
- Governors' Biofuels Coalition
- Governors' Wind Coalition

- Eastern Interconnection Planning Collaborative
- WECC/WGA Transmission Planning Committee

Energy Promotion and Development Division
Performance Report
Select Energy Project Economic Benefits Analysis

Introduction

The Energy Promotion and Development Division (EPDD) was created by the 2007 Legislature and has been in operation a little over two years. The EPDD is the front-line for energy development in Montana and its staff assists in all aspects of potential projects. EPDD works directly with other agencies and private developers to facilitate permitting, siting, workforce, and financial assistance. The mission of the Energy Promotion and Development Division (EPDD) is to create jobs and energy security by working directly with private industry and state, federal, and tribal governments to facilitate, promote and develop clean, green energy projects throughout Montana.

The office is working with dozens of energy development projects. Below is a brief fiscal impact analysis of 4 main projects on which the office is working followed by a more detailed narrative description of the energy projects on going in the state and the involvement of the EPDD in those projects:

Montana Alberta Tie Line (MATL)

MATL is a 230 kV transmission line with a capacity of 600 MW. The line's capacity is contracted to wind farms and Naturener's construction of its Rim Wind Farm will occur simultaneously with the construction of the transmission line. The project has all permits in hand, financing is in place and the formal ground breaking takes place on November 30, 2009. It will be the first "merchant" transmission line developed in the Western Interconnection. **MATL is one of EPDD's greatest successes. MATL officials agree that this project came together under EPDD leadership.**

The following table provides estimates of the immense positive economic impact from construction of the MATL line:

MATL	Total Investment	Construction Jobs	Permanent Jobs	Annual Property taxes
230 kV	\$110 million	55	10	\$730,000

Potential wind farm development resulting from construction of MATL will provide the following economic benefits:

MATL Associated Wind Farms	Total Investment	Construction Jobs	Permanent Jobs	Annual Property taxes
300 – 800 MW	\$675 million - \$1.8 billion	530 -1400	25-80	\$2.3 - \$8.0 million

Glacier Wind Farm

NaturEner USA began construction in 2008 on a 210 MW of wind farm near Shelby . Located in the hills between Cut Bank and Shelby, the first phase was completed in 2008 and generates 106.5 MW. Another 103.5 MW in phase two were built in 2009.

EPDD facilitated a critical aspect of the project’s power purchase agreement (PPA) through the California Public Utilities Commission. This PPA was essential to the Glacier Wind Farm being built.

Glacier Wind Farm	Total Investment	Construction Jobs	Permanent Jobs	Annual Property taxes
210 MW	\$400 million	300	16-20	\$1.6 - \$2.0 million

MOUNTAIN STATES TRANSMISSION INTERTIE (MSTI)

NorthWestern Energy (NWE) proposes to construct, operate and maintain the Mountain States Transmission Intertie (MSTI) 500 kilovolt (kV) transmission line to address the requests for transmission service from customers and to relieve constraints on the high-voltage transmission system in the region. The transmission line would begin at the new Townsend Substation, which would be constructed in southwestern Montana about five miles south of the town of Townsend. EPDD has worked promoting MSTI to West Coast Utilities, on siting issues, participated in public meetings and is developing the Montana Transmission Scenario of which the MSTI project is an important component.

MSTI Transmission Line	Total Investment	Construction Jobs	Permanent Jobs	Annual Property taxes
500 kV	\$600 million	336	42	\$12 - \$37 million

Keystone XL Pipeline

This 36" oil pipeline will cross 281 miles of Montana and is in permitting and could be under construction by 2010. **EPDD has worked closely with TransCanada on this major project particularly during the permitting scoping process.**

Keystone XL Pipeline	Total Investment	Construction Jobs	Permanent Jobs	Annual Property taxes
36" Pipeline	\$1 billion	790	10	\$60 million

Below is a partial list of other accomplishments of the EPDD:

- Developed the Montana – Saskatchewan Carbon Capture and Storage pilot project, a proposed \$250 million bi-national project that EPDD has been a leader in developing. The division assisted with the preparation of a \$100 million ARRA funding request and has been instrumental in the Big Sky Carbon Sequestration Partnership's preparation of a \$67 million grant application to the US DOE. The Province of Saskatchewan has submitted a \$150 million request to the Canadian federal government.
- Working closely on the Many Stars CTL project, \$7 billion investment, 4,000 construction jobs, and 1000 permanent jobs.
- Formed and facilitating an active Transmission Work Group that is leading transmission/generation development efforts in the state.
- **Wrote and have been awarded a \$50,000 grant** in 2008 from the National Governor's Association to support renewable energy development.
- **Wrote and have been awarded a grant for \$100,000 to the US DOE** in 2009 to carry out wind energy development activities.
- Funded a study of preliminary CO2 pipeline routes
- Funding a study of leading geothermal sites in the state

In the short period the EPDD has been in operation we have established the office as a key player in Montana energy development.