

<b>Energy Transmission and Production Projects</b>		<b>Agency/Program #:</b> 6501-55-G1
		<b>Division:</b> Energy Promotion and Develo
		<b>Program:</b>
<b>Agency Name:</b>	Department of Commerce	
<b>Agency Contact:</b>		
<b>LFC Contact:</b>	Sesso / Taylor	
<b>LFD Liaison:</b>	Matt Stayner	5830
<b>OBPP Liaison:</b>	Mark Bruno	

**Program or Project Description:**

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

Appropriation, Expenditure and Source					
Fund Name:	2010		2011		Approp & Expenditure numbers are as of August 30, 2010
	Approp.	Expended	Approp.	Expended	
General Fund	455,000	410,841	455,000	46,001	
State Special					
Federal Funds					
<b>Total:</b>	<b>\$455,000</b>	<b>\$410,841</b>	<b>\$455,000</b>	<b>\$46,001</b>	

**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		

**Performance Report:**

Please see attached documents

**LFD Narrative:**

LFD Assessment: On Track

**Data Relevance:** The agency submitted information for the current reporting period included a general overview of the projects, publications, studies, grants, and highlights of the division's activities. Also provided were detailed descriptions of significant in-process projects and annual tables detailing the amount of capital investments in energy projects, projected construction jobs, permanent jobs, and estimated power generation capacity increases attributable to the division's activities in accordance to the stated performance measures.

**Appropriation Status:** The agency has reported both appropriation and expenditure amounts under House Bills 2 and 645. An additional appropriation was established via budget amendment (BA015) in the amount of \$100,000 for a federally funded Wind Powering America (WPA) program through the U.S. Department of Energy. Although not included in the appropriation and expenditure information above, the agency provided information regarding the activities supported with the grant funding in the supporting documentation submitted. To date (9-24-2010) expenditures from the WPA grant are \$42,260.



Version	Date	Author
	9/24/2010	Stayner

Change Description

**Energy Promotion and Development Division  
Supplemental Performance Measures Report  
September 2010**

Below is a brief fiscal impact analysis of 3 other major projects on which the EPDD is working:

**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 construction of the Marias Substation the formal ground breaking / first transmission pole placement is taking place on September 15, 2010. 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

**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 as well as facilitating meetings to explore the possibility of providing a Montana**

**interconnection to the pipeline. TransCanada announced on September 13, 2010 the commencement of an “open season” to obtain binding commitments for interconnection capacity from area oil producers.**

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

Energy Promotion and Development Division  
Performance Indicators

**Active Projects – 75**

Sampling of projects that EPDD is facilitating:

**Transmission - 6 projects** – Chinook, Colstrip upgrades and modification of Montana intertie transmission tariff, MATL, NorthWestern Energy – MSTI and collector system, Wind Spirit - Formed and facilitating an active Transmission Work Group, that meets quarterly, that is leading transmission/generation development efforts in the state. EPDD is also coordinating the efforts of Montana's transmission developers resulting in the publication of the Montana Transmission for America piece and we are now putting together a coordinated proposal to seek federal funding.

**Wind Farm Developers - 28 developing over 50 separate wind projects with an aggregate generating capacity of 5,000 – 10,000 MW** – Enerfin, Chafin, Columbia Energy Partners, Crow Tribe, Elements Markets, Exergy Development, Fort Peck Tribes, Gaelectric Development Ltd., Green Hunter, Horizon Wind Energy, Invenergy, Judith Highlands Energy, Mainstreet Renewables, Martinsdale Windfarm LLC, MDU Utilities, National Wind, NaturEner, NEXtera, Northern Cheyenne tribe, Oversight Resources, Pinnacle Engineering Inc., Pintler Power, RSE Wind, Sagebrush Energy, Sansur Energy, Sequoia Energy, Thielen Enterprises, Wind Hunter. The EPDD has exhibited at the AWEA trade show in each of the last two years; the nation's largest wind energy trade show attended by more than 23,000 each year.

**Keystone XL pipeline - As a direct result of EPDD efforts, TransCanada has obtained sufficient expressions of interest from Montana / North Dakota oil producers to ship oil on Keystone XL that the company announced an open season on September 13 the commencement of a binding open season that could result in the construction of an interconnection near Baker, Montana.** - Recently oil producers in Montana have been subject to being paid as much as \$25 / bbl less than market price due to pipeline capacity deficiencies. To counter this EPDD is promoting development of the Keystone XL pipeline, including coordination of oil producers and project developer TransCanada to install an interconnection in Montana (likely location near Baker). Keystone XL will generate \$62 million in Montana property taxes annually; construction is anticipated to commence in 2012.

**Biomass – two feasibility studies completed for EPDD are nearly complete demonstrating sufficient readily available biomass supply exists to support more than 100 MW of generation.** Standing dead and other biomass on federal land, if made available, could fund multiple power plants on a sustainable basis.

## **Publications**

Montana Wind Report and Analysis – NGA grant funded  
Montana Transmission for America prospectus – NGA grant funded in part  
Preliminary Economic Impact Estimates for Transmission Line Projects  
Transmission siting lessons learned report on MATL – NGA grant funded  
MBMG Geothermal study – EPDD funded  
CO2 Pipeline Route Study – EPDD funded  
Montana Wind Power Variability Study  
Biomass Feasibility Studies  
EPDD monthly newsletter  
AWEA trade show exhibitor, 2009 and 2010

## **CO2 Studies/Projects**

Montana / Saskatchewan – seeking \$100 million in federal funding  
MBMG Geothermal study – EPDD \$10,000  
CO2 Pipeline Route Study – EPDD funded \$10,000

## **Grants**

DOE wind grant  
NGA  
DOE loan guarantee FIPP certification

**Wrote, awarded and implemented a \$50,000 grant** in 2008 from the National Governor's Association to support renewable energy development. Here are excerpts of our final report to the NGA:

- The Energy Promotion and Development Division conducted 8 meetings of the Montana Transmission / Wind Working Group over the term of this grant. NGA funding was used to pay for meeting expenses. In conjunction with our February 2009 Montana Transmission Working Group meeting we hosted a wind energy speaking engagement presented by T. Boone Pickens that was attended by more than 300 people.
- Preparation of a "Montana Wind Report and Analysis" completed by the consulting firm Energy Strategies. The report evaluates the quality of Montana's wind energy resource and identifies transmission projects and the markets to which they will deliver power.
- Expenses to bring a representative GENIVAR Engineering, the firm that completed the Montana Wind Variability Study completed in September of 2008, to Helena, Montana on two occasions to make presentations to Montana Transmission Working Group members of the results of that study.
- Preparation of a "Lessons Learned" report for the recently permitted Montana Alberta Tie Line project. MATL was the first large transmission line permitted in Montana in the last fifteen years and we felt that a review of the permitting process in detail could help future transmission projects. The report provides key

information on what worked well with the permitting process and what could be improved. The report is being used to provide useful information to transmission developers currently getting ready to submit a permit application to the State.

- The purchase of monitoring tools that enables Montana staff to visualize wind patterns.
- Graphic design and printing costs associated with the Genivar Wind Power Variability Study, the Montana Wind Report and Analysis and the Montana Transmission Scenario documents.

**Wrote and have been awarded a grant for \$100,000 to the US DOE** in 2009 to carry out wind energy development activities, as follows:

- The project will ensure electric utilities are utilizing government and private industry resources that assist with integration of wind energy into the resource planning process.
- It will establish state and regional wind project development collaborations.
- The State of Montana will conduct market research concerning utility resource planning activities and develop innovative business strategies to advance wind energy regionally.
- Montana will provide technical assistance to states on model legislation, where appropriate, new policy options including implementation actions to advance wind development in complex siting scenarios.
- Montana will identify, analyze and promote new best practices and strategies to accelerate the dissemination of innovative and strategic state and regional activities in promoting the acceptance of wind.
- Montana will promote outreach to electric utilities in the form of targeted wind information, education and resources regarding the benefits and opportunities for large-scale wind development.
- Our WPA funded outreach efforts will largely be targeted to facilitate the development of developing transmission projects and we believe that our expanded outreach will empower Montana to attain 6000 MW of increased transmission capacity in 5 years – 7 years.

**Highlights from EPDD's most recent activities include:**

- Facilitation of final permitting issues related to the MATL transmission line.
- Working with Naturener on financing and regulatory issues related to the proposed \$800 million Rim Rock wind farm.
- Preparations for promoting wind energy at the September 18 Montana State University – Bozeman football game, dubbed the “wind game”.
- Coordination of meetings related to a potential interconnection to the proposed TransCanada Keystone XL oil pipeline.
- Participation in regional transmission planning meetings with the Western Electricity Coordinating Council, the Western Governors Association and the US Department of Energy.

- Continued coordination of meetings with several Montana wind developers and travel to Portland to attend a BPA rate case workshop related to a proposal to modify the Montana Intertie transmission tariff so as to reduce transmission wheeling costs for Montana wind energy.

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.

### **Additional Performance Indicators**

The EPDD will commence to maintain phone call logs that document all of the division's phone calls and will provide that data to LFD upon request or will forward those records on to LFD at specified intervals.

The EPDD will compile a list of "active clients" and will continually maintain that list and will provide that data to LFD upon request or will forward those records on to LFD and others at appropriate intervals.

**Energy Promotion and Development Division**  
**Performance Measures Report**  
**September 2010**

The Energy Promotion and Development Division (EPDD) was created in 2007 as a result of the state's commitment to 'clean and green' energy development in Montana. EPDD staff conducts the analysis of complex energy issues, balancing the interests of both private developers with those of the public sector, and prepares and delivers written and oral communications that seek to resolve conflicts and achieve resolutions to problems that can delay or prevent energy development projects. The goal of this work is to create jobs and increase tax base, statewide by facilitating the development of clean and responsible energy projects in Montana.

Increases in power generating capacity and construction / permanent jobs that have been created are deemed to provide some measure of performance of the EPDD. Tables 1 and 2 provide information on projects completed in FY 2009 / 2010 including power generation capacity increase, capital investment and construction and permanent jobs actually created.

The EPDD is performing an important economic development function for the state of Montana that is focused on energy. By its nature, economic development entails activities that may not bear fruit until well into the future, especially related to large scale energy development costing billions of dollars.

This report will also provide information on energy assistance to developers provided by the Division as well as estimates of power increases, capital investment and construction / permanent jobs to be created as a result of developing projects. We believe legislators will be well served to obtain information on the potential for energy related economic development that exists as a result of the work of EPDD.

Developing projects are shown in Table 3 which provides projected power generation increases for projects that have a good likelihood of being completed /constructed in FY 2011 along with estimates for power increases, capital investment and construction and permanent jobs to be created. These projects include 5 wind farms and the Mill Creek Station gas fired power plant. The wind farms listed in Table 3 are all in advanced stages of development that now have or are likely to have transmission capacity in FY 2011. The Mill Creek Station is currently under construction and due to be completed in FY 2011. The Basin Electric peaking plant is complete and was dedicated in August 2010.

Table 1 - FY 2009

Project	Capital Investments in Energy Project	Construction Jobs	Permanent Jobs	Power Generation Capacity Increase
Diamond Willow Wind Farm, Baker	\$40 million	50	3	19.5 MW
Glacier I Wind Farm, Shelby	\$275 million	175	10	106.5 MW
Total	\$315 million	225	13	126

Table 2 - FY 2010

Project	Capital Investments in Energy Projects	Construction Jobs	Permanent Jobs	Power Generation Capacity Increase
Glacier II Wind Farm, Shelby	\$275 million	175	10	103.5 MW
Diamond Willow Wind Farm expansion, Baker	\$25 million	20	0	10.5
Basin Electric Natural Gas Peaking Plant, Culbertson	\$100 million	100	2	91 MW
Basin Electric Waste Heat Recovery Plant, Culbertson	\$10 million	10	1	5.5 MW
Total	\$410 million	305	13	210.5MW

Table 3 - FY 2011

Project	Estimated Capital Investments in Energy Projects	Potential Construction Jobs	Permanent Jobs	Power Generation Capacity Increase
Rim Rock Wind Farm, Shelby	\$800 million	530	25	309 MW
NorthWestern Energy Regulating Plant, Anaconda	\$206 million	75	11	150 MW
Beaver Creek Wind Farm, Reed Point	\$225 million	200	10	100 MW
Coyote Wind Farm, Springdale	\$158 million	175	4	79 MW
Martinsdale Wind Farm, Martinsdale	\$114 million	150	6	57 MW
Judith Gap Wind Farm Expansion	\$104 million	150	6	52 MW
Total	\$1.464 billion	1280	62	747 MW

The level of EPDD involvement in the aforementioned projects varies. For example, EPDD participated directly in early meetings related to the siting of the Mill Creek Station, while EPDD's involvement in the Basin Electric projects listed in Table 2 was limited. EPDD has played a crucial role in the development of the Montana Alberta Tie Line, work that indirectly benefits the Rim Rock Wind Farm because it will provide the wind farm needed transmission capacity. We have also worked directly on the Rim Rock Wind Farm; attempting to obtain a US Department of Energy loan guarantee for it. EPDD has also actively been conducting transmission meetings (with good participation by most Montana wind developers) for the past two years which is very important to all future Montana wind farm development. EPDD has worked with individual wind farm developers to obtain power purchase agreements, such as making contact with utilities that would buy power and establishing a listing on the EPDD website for all western utility RFP's for power acquisition.