

Energy Infrastructure Promotion and Development Division
Montana Department of Commerce
Administrative Report to the ETIC, July 16, 2008
By Tom Kaiserski

Introduction

I apologize for being unable to attend the ETIC meeting and instead I have prepared a brief summary report of the Energy Infrastructure Promotion and Development Division's (EIPD) recent activities.

Infrastructure

The EIPD is facilitating an Infrastructure Small Working Group to identify ways to overcome barriers to new transmission development. The small transmission working group's first meeting is July 15 and represents the first of what we anticipate will be at least six meetings to be held over the next year. This transmission working group was one of the outcomes of a transmission meeting that our office hosted back in April. The EIPD worked with the Governor's Office to write an application to the National Governor's Association's Clean Energy grant program to support the Infrastructure Small Working Group activities. We are happy to report that our application was one of 10 awarded funds and we now have \$50,000 dollars available to support these transmission efforts.

Several projects continue to be advanced that will provide capacity to export Montana generated power. The Montana Alberta Ties Line will provide 600 MW of capacity connecting Lethbridge to Great Falls. The final EIS is expected to be released this month with a Record of Decision (permit) to follow soon after. The Mountain States Transmission Intertie line, a project of NorthWestern Energy, is proposed to provide 1500 MW of capacity between Anaconda and central Idaho. The company submitted its Montana Major Facilities permit application for this line to the MDEQ around July 1. NorthWestern is also currently in the early development stages a 500 – 700 MW upgrade to the 500 kV line from Colstrip to the west coast. The Northern Lights project of TransCanada, a proposed 3000 MW High Voltage Direct Current (HVDC) that would connect Montana to Las Vegas and points beyond, continues to progress in the early stages of development. A new transmission / generation project, based on large scale firm wind energy development (a minimum of 3,000 MW of generating capacity that would be designed to provide 1,000 MW of firm capacity) is being developed by Grasslands Renewable Energy LLC. The initial design of this project would utilize geospatially separated wind farms in Montana and North Dakota as well as wind farms located in the provinces of Alberta and Saskatchewan, along with pump storage firming power (or other clean firming power) to achieve the high capacity factors needed to provide a clean firm wind energy product.

The EIPD will be providing state representation on the Western Renewable Energy Zones project being sponsored by the Western Governor's Association in conjunction with the US DOE. This 2 year project will identify areas containing high quality renewable energy resources throughout the West and will seek to identify transmission routes to bring that energy to load centers.

The EIPD participated in the Joint State Infrastructure Authority Strategic Retreat in Jackson Wyoming on July 2 and found that a very beneficial meeting as we made good progress on efforts to gain tax exempt status for state bonds that potentially could be used to finance transmission line projects as well as discussing the potential of extending into Eastern Montana the proposed High Plains Express transmission line that currently is planned to run from Wyoming down through Colorado, New Mexico and Arizona. Extending the line into Montana would access more energy, brings in more entities to support the project and its costs and previous transmission studies contemplated this type of transmission extension into Montana. The High Plains transmission project presently involves 10 IOU's, 3 Infrastructure Authorities and WAPA.

Wind

Our biggest wind news is EIPD along with the Governor will be participating in the Naturener ribbon cutting of the first 107 MW of its Glacier Wind Farm on July 17 located in the Cut Bank / Shelby area. Furthermore, with the completion of the MATL line and the extension of the federal PTC, Naturener plans to construct in this area another 400 MW of wind power by the end of 2009. Over 50 different wind energy projects are in various levels of discussion and development totaling over 4,000 MW of generating capacity. Current Montana wind generation capacity is 146 MW and over 500 MW are expected to be added within the next year. According to the US DOE Montana has the greatest wind resource in the US when considering class 3 wind resources and greater and possesses the potential to produce 116,000 MW of average power potential. Transmission constraints will limit how quickly more wind power can be brought on line.

Oil and Gas

The USGS released a report on April 11, 2008 estimating the Bakken Formation of Montana and North Dakota could contain from 3.5 to 4.3 billion barrels of technically recoverable oil. In addition TransCanada has announced two major pipeline projects, the Keystone XL oil pipeline project that will cross 281 miles through Montana on its way from Canada to the US Gulf Coast as well as the Pathfinder/Bison natural gas pipeline project that will cross the southeastern corner of the state to connect in North Dakota with the Northern Border gas pipeline. These events mean that development in oil and gas will remain strong in Eastern Montana. The Keystone XL pipeline (EIPD participated in the community Open House meetings that TransCanada held in June) is estimated to bring about \$50 million in tax revenue into the state once completed. The Governor's Office of Economic Development has also discussed the potential for refinery development in Eastern Montana.

Coal

The Air Force announced in early June that its Request for Qualifications on the potential to develop a Coal to Liquid facility at Malmstrom AFB closed on June 30. The Air Force will now be reviewing the Fry's and will later announce whether or not they will select an offer. The US Air Force is seeking a partnership in which a potential commercial interest could build a 20,000 to 30,000 barrel a day coal-to-liquid-fuel plant at Malmstrom Air Force Base as early as 2011. The plant, which would be financed and operated privately, is still in the early planning stages. EIPD traveled to Regina, Saskatchewan, Canada in June on a trade mission that included the Lt. Governor where discussions addressed the potential for a cross border large scale CO2 capture and sequestration pilot project. In its early stages, this project has the potential to replicate the highly successful Weyburn CO2 enhanced oil recovery (EOR) sequestration project that has been ongoing since 2000 and involves cross border cooperation and multiple partnerships involving federal and state government and private industry. Other potential clean coal projects are in development around the state.

Geothermal

Recall that in October 2007 an Icelandic delegation met with Montana geothermal prospects. The nation of Iceland generates approximately 25% of its electricity and heats 90% of its buildings using geothermal energy. Montana possesses its own geothermal resources and is looking to develop them. A Montana delegation returned from a trip to Iceland where members were able to see first hand what has been accomplished and to learn how experts from that nation could assist with geothermal development in Montana. A year old study completed by the Massachusetts Institute of Technology states that "a cumulative capacity of more than 100,000 MW from Engineered Geothermal Systems (EGS) can be achieved in the United States within 50 years with a modest, multiyear federal investment for RD&D (\$800 million to \$1 billion in the next 15 years)". Montana goals established for the immediate future are to seek federal funding to study and characterize geothermal reservoirs in the state and to develop initial projects.

Wind Variability Study

The study is under going internal review by GENIVAR, the consultant preparing the study, and should be completed soon.

