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ENVIRONMENTAL QUALITY
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November 28, 2005

Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585
Fax: (202) 586-1472

RE: Energy Corridor Designation Scoping Comments

The State of Montana offers the following comments on the scope analysis to be conducted for the Programmatic Environmental Impact Statement (PEIS) to evaluate issues associated with designation of energy corridors on federal lands in eleven Western states. In order for linear transmission facilities to be constructed in Montana, we strongly recommend that the following areas of concern be considered early and throughout the PEIS process. Addressing these concerns and facilitating Montana State Agency cooperation will be critical to avoid conflicts later in the PEIS process.

Recognize the Western Governors Association Siting and Permitting Protocol
In 2002, the governors of eleven western states, along with the U.S. Departments of Energy, Interior, and Agriculture and the Council on Environmental Quality signed a Protocol Governing the Siting and Permitting of Interstate Electric Transmission Lines in the Western United States. The Protocol clearly describes steps to be taken to cooperate in the siting and permitting of new transmission lines. Recognize the intent of the protocol and work closely with state agencies while designating corridors and when siting and permitting new transmission lines. The protocol can be viewed at http://www.westgov.org/wieb/electric/Transmission%20Protocol/9-5wtp.pdf.

Work With Affected Montana Communities
Work with local communities when designating corridors on federal lands. The geographical location where corridors begin and end on public lands will affect where future private and state land right of ways will be sought and therefore will result in impacts there as well. Members of local communities have first-hand knowledge gained from working and recreating on public lands that will prove useful in finding energy corridors that satisfy national needs while at the

same time considering local interests and concerns. By working with communities rather than dictating policies to them you can gain local support for federal initiatives rather than opposition.

Work with Montana Agencies

One of the best opportunities to ensure a successful PEIS process will be to use existing data from the Montana Department of Environmental Quality (MDEQ), Montana Fish Wildlife and Parks (MFWP) and other agencies as needed together with professional input during the early process of developing corridor alternatives. In order for this to occur, the State of Montana proposes to share relevant data and professional opinion with the coordinators of the West-wide Energy Corridor PEIS. We also propose that reciprocate information be provided in useful format to Montana Agencies as requested especially during the development of draft corridor alternatives. Montana's agencies can better serve the public interest by conducting a thorough analysis of potential environmental, fish and wildlife, habitat and recreational resource impacts early on in the PEIS process. These analyses should help development of alternatives that might encounter fewer problems later in the PEIS process or when siting lines.

Concerns over Corridors through Western Montana

The MDEQ's Facility Siting Program has examined some constraints to siting new transmission lines to west coast markets. A copy of a presentation discussing selected constraints is attached. Note that some of these constraints may also apply to new pipelines as well as electric transmission lines. In general, lands managed as national, state and local parks, Wild and Scenic Rivers, Wilderness Areas, Tribal Wilderness and Primitive areas, and National Recreation areas severely limit where corridors can be designated. Superimposed on these land management constraints are other siting constraints for both public and private lands including habitat for federally listed threatened and endangered species, requirements for protection of remaining stands of old growth timber, terrain and geology, private land uses, public concerns over the visibility of lines and cleared rights of way, and health concerns. These factors will make it extremely difficult to construct new transmission corridors traveling west through Montana.

Considerations for Upgrading Existing Lines or Consolidating Lines

Before any new transmission lines are constructed, every possible effort should be made to upgrade existing lines where appropriate in order to meet demand. However, consolidation of lines and use of existing rights of way should be considered using careful review of each existing right of way and line.

In the past, many planners felt that discouraging the proliferation of separate rights-of-way reduced the cumulative impact of linear facilities. In theory, consolidation or upgrades on existing rights-of-way would lessen adverse impacts and conserve resources by confining impacts to specific areas or existing areas where the impacts could be more efficiently mitigated and managed. In many areas these assumptions are fair. However, just because a line already exists in an area doesn't necessarily mean that the area is suitable, much less the best location,

for another transmission line or pipeline or an upgraded line. Land uses may have changed, science may have advanced and increased our understanding of impacts, management goals may have changed, and there may be new public expectations for the area. Some existing lines are relatively small and may fit a landscape better than a much larger new line with a more massive structure type.

For example, the MDEQ is working on current transmission projects that demonstrate that use of existing rights-of-way may not always be the best solution. One project involves a much-needed rebuild of a 115 kV line and possible upgrade of the line to 230 kV standards. The other involves upgrading a 161 kV line to 230 kV. Since construction of the first line, many homes have been built in a subdivision that now surrounds the line. Homes have been constructed at the edge of the right-of-way and there is insufficient right-of-way width to accommodate a 230 kV line. In this case it might make more sense to reroute a short segment of line to adjacent federal land than to disrupt a neighborhood with a 230 kV line and require removal of several buildings. The second line was built in the 1930's and now has a pole located in the middle of a high school track. It might make sense to relocate the rebuilt line in a new location that avoids school grounds.

Fish, Wildlife and Recreational Resources

Montana is fortunate to retain many world class fish, wildlife and recreational resources within its borders. These resources are the direct result of protecting and enhancing habitat for these species and managing these resources for long term sustainability. There are substantial economic benefits for Montana associated with these resources.

In general, construction within the proposed energy transmission corridors will result in changes to the structure and function of fish and wildlife habitat along the length of the corridors and may result in direct impacts to certain species. The consequences of these changes could result in significant impacts to fish and wildlife and their habitats as well as related recreational opportunities. Impacts may range from initial effects such as displacement of animals during construction to long-term habitat loss due to changes in habitat successional stage and fragmentation. Other impacts might include increased off road vehicle access, spread of noxious weeds and changes in hunting, fishing and other outdoor recreational patterns.

As the PEIS process progresses, heightened concern will exist for impacts to specific fish and wildlife species that are 1) Federally listed as threatened or endangered, and 2) species that are low or declining and are considered in greatest need of conservation to prevent their future listing as threatened or endangered. Likewise, heightened concern will exist for specific habitats and geographic areas that are essential to these species.

MFWP has data that identifies species and habitats throughout Montana that are in greatest need of conservation including where important fish and wildlife movement corridors occur. This

information should be considered when developing the initial corridor alternatives and as alternatives are reviewed.

Aquatic resources
Avoid establishing corridors in environmentally sensitive watersheds where construction of a transmission line or pipeline would adversely affect already impacted areas. These sensitive watersheds include watersheds that are not attaining their designated beneficial uses because of sediment problems or that provide habitat for species of special concern. In Montana, a list of watersheds not attaining beneficial uses can be found in MDEQ's 303(d) list (http://www.deq.state.mt.us/wqinfo/303_d/303d_information.asp). MFWP maintains databases that can identify the streams where species in greatest need of conservation occur.

When developing energy corridor alternatives, specific consideration should also be given to perennial streams that are located within the proposed corridor. Construction of linear transmission lines that affect the bed and banks of these streams may require adherence to Montana's Natural Streambed and Land Preservation Act, also known as the 310 Act. Impacts can be avoided by implementing mitigating measures identified during the process of obtaining a 310 Permit from the local conservation district, through Major Facility Siting Act review, through 401 certification under the Clean Water Act and discharge permits under Montana's Water Quality Act.

Considerations for Reliability
Caution should be exercised in designating corridors in a manner that would result in so many transmission lines being located in close proximity to each other (general guidance is that they be separated by at least 1,000 to 2,000 feet or more) that if a natural or manmade disaster occurs, major supplies would be disrupted. For example a forest fire might remove several lines from service in a single corridor over a relatively short period of time. These concerns could be highlighted if occurring during a period of high demand on the west coast. Federally designated corridors should include sufficient geographic diversity to help ensure a reliable transmission system. However, this does not infer that only one line should be allowed in each corridor. Federally designated corridors should seek a balance between transmission needs, resource impacts, costs, and reliability.

Also be aware of the long-standing concerns of transmission line owners over co-locating electric transmission lines and pipelines in close proximity to one another. A fire resulting from a pipeline spill or leak may pose reliability concerns to the transmission line.

Montana's Major Facility Siting Act (MFSA)
In administrative rules implementing Montana's Major Facility Siting Act (MFSA), the Montana Board of Environmental Review lists preferred location criteria that are to be considered when

selecting locations for new linear facilities. The following excerpt from Circular MFSA-2 identifies these preferred site criteria:

SECTION 3.1, PREFERRED LOCATION CRITERIA Preferred locations conform to the criteria listed in 75-20-301 (1)(c), MCA, and achieve the best balance among the following location criteria:

(1) for electric transmission lines:
(a) where there is the greatest potential for general local acceptance of the facility;
(b) where they utilize or parallel existing utility and/or transportation corridors;
(c) to allow for selection of a location in nonresidential areas;
(d) on rangeland rather than cropland and on non-irrigated or flood irrigated land rather than mechanically irrigated land;
(e) in logged areas rather than undisturbed forest, in timbered areas;
(f) in geologically stable areas with non-erosive soils in flat or gently rolling terrain;
(g) in roaded areas where existing roads can be used for access to the facility during construction and maintenance;
(h) so that structures need not be located on a floodplain;
(i) where the facility will create the least visual impact;
(j) a safe distance from residences and other areas of human concentration;
(k) in accordance with applicable local, state, or federal management plans when public lands are crossed; and
(2) for pipelines:
(a) conform to the criteria listed in (1)(a), (b), (e) through (g), (i) through (k); and
(b) cross lands which can be returned to their original condition through re-contouring, conservation of topsoil and reclamation. (http://www.deq.state.mt.us/MFS/LawRules/Circular2.pdf)

The above criteria along with recognition of guidance to applicants in Circular MFSA-2, and decision standards under MFSA in 75-20-301 and 303, Montana Code Annotated (MCA) should be considered when selecting corridors on federal land to help ensure that state siting decisions will mesh with use of federal corridors and that needed projects are constructed in a timely manner.

Corridor Width

Corridors should generally be as narrow as possible. Narrow corridors will aid in environmental analysis because they focus the analysis on resources that would likely be affected. Too broad a corridor may lead to an unfocused analysis that could turn out to be too generic to be useful to decision makers and may face unnecessary challenge either at the time of designation or when a specific project is proposed.

Federal/Non-Federal and Mixed Ownership Lands

Federal corridors should not be designated so narrowly that they for all intents and purposes create a corridor on adjacent private and state lands near the transition from private and state lands to federal lands. Flexibility may be needed by state siting agencies to locate lines on state and private lands as linear facilities approach federal corridors. In the past designating narrow corridors on federal land that would leave little or no doubt where a linear facility would have to be located on private land has been referred to as inverse condemnation. The adjacent private landowners would be expected to give up some property values now because of a corridor

designation adjacent to their property but they are not compensated for these losses until an easement is obtained.

Try to avoid designating corridors in areas with mixed state, federal, and private ownerships. In Montana the state siting process in cooperation with federal agencies will sort out large transmission line or pipeline locations in these areas with mixed ownership. Efforts to designate corridors should be concentrated on large contiguous blocks of federal land.

Before designating corridors, consider potential adverse impacts that may extend from federal lands onto adjacent and nearby private lands. For example, potentially significant visual impacts of a cleared right of way or access road situated on a hillside on federal land may extend to private land in a nearby valley.

Consultation with Tribal Governments
In Montana, certain corridors that have been studied in the past cross tribally owned land. Tribes should be consulted for their endorsement prior to designating a corridor on adjacent federal land because such a designation would otherwise dead-end at a reservation boundary and provide mixed signals to potential project sponsors and tribes. If project sponsors are able to reach agreement with tribes, then a federal corridor designation might be added at a later date.

Build on past corridor studies when looking to the future
Over the years many corridors for linear facilities, both transmission lines and pipelines, have been studied in Montana by state and federal agencies. Terrain, land-use constraints, potential environmental impacts and costs were some of the major factors that were considered in selecting corridors for study. Many of the same corridors or portions of the corridors have been studied several times for good reason; the lay of the land dictates where projects can logically be sited in western Montana. We recommend that the PEIS start with these previously studied corridors once the location of generation is reasonably known and after likely markets are identified. Carefully review why the corridors were either selected for a linear facility or why they were rejected. Next, as appropriate, update the information contained in these reports because land use and management objectives have changed. Then if markets or environmental constraints indicate that additional areas deserve study, examine additional areas.

Some of the corridors studied in the past can be found in the following documents, which may be viewed in the MDEQ office in Helena. These may also be available through interlibrary loan.

Montana State Department of Natural Resources and Conservation 1974. Draft Environmental Impact Statement on Colstrip Electric Generating Units 3&4, 500 Kilovolt Transmission Lines and Associated Facilities, Volume Four, Transmission Lines. Energy Planning Division. Helena, Montana.

Montana Department of Natural Resources and Conservation 1976. Draft Environmental Impact Statement on Anaconda-Hamilton 161 KV Transmission Line. Energy Planning Division. Helena, Montana.

Montana Department of Natural Resources and Conservation 1976. Draft Environmental Impact Statement on Clyde Park – Dillon 161 Kilovolt and 69 Kilovolt Transmission Lines. Energy Planning Division. Helena, Montana.

Montana Department of Natural Resources and Conservation 1979. Draft Environmental Impact Statement on the Proposed Northern Tier Pipeline System. Helena, Montana.

Montana Department of Natural Resources and Conservation 1981. Report on Alternative Northern Tier Pipeline Routes Between Weeksville and Helmville, A report to the Northern Tier Pipeline Company. Facility Siting Division. Helena, Montana.

U.S. Department of Energy 1982. Draft Environmental Impact Statement Garrison-Spokane 500 kV Transmission Project. Bonneville Power Administration. Portland, Oregon.

Montana Department of Natural Resources and Conservation 1983. Draft Report Preferred and Alternate Routes: BPA 500 – Kilovolt Line From Garrison –West. Energy Division. Helena, Montana.

U.S. Department of Energy 1983. Draft Environmental Impact Statement, Great Falls-Conrad Transmission Line Project, Montana, Appendix A. Western Area Power Administration. Billings, Montana.

U.S. Department of Energy 1983. Draft Environmental Impact Statement, Conrad - Shelby Transmission Line Project, Montana, Appendix A. Western Area Power Administration. Billings, Montana.

U.S. Department of the Interior and Montana Department of Environmental Quality 1995. Express Crude Oil Pipeline Draft Environmental Impact Statement. Helena, Montana.

U.S. Department of the Interior 1995. Yellowstone Pipe Line Easement Renewal Final Environmental Impact Statement. Bureau of Indian Affairs Flathead Agency. Pablo, Montana.

Federal Energy Regulatory Commission 2003. Draft Environmental Impact Statement Williston Basin Interstate Pipeline Company Grasslands Pipeline Project. Washington, DC.

USFS Lolo National Forest 1999 Yellowstone Pipeline, Missoula to Thompson Falls, Draft Environmental Impact Statement. Missoula, Montana.

USDI BLM 1985 Bairoil/Dakota Carbon Dioxide Projects Draft Environmental Impact Statement. Cheyenne, Wyoming

Also note that in the late 1970's through the early 1990' s there was a joint state-federal (USFS and BLM) corridor planning effort in Montana. The work of the Corridor Oversight and Review Committee is characterized in the following report:

State of Montana, USDA-Forest Service, and USDI-Bureau of Land Management 1981. Utility-Transportation Corridor Study for Montana, The Existing Situation and Options for Future Corridor Selection.

Thank you for the opportunity to comment on the scope of your planned analysis. Should you have any questions pertaining to these comments, please contact Tom Ring with our Department of Environmental Quality, Facility Siting Program at (406) 444-6785 and T.O. Smith with our Department of Fish, Wildlife and Parks at (406) 444-3889.

Sincerely,

Richard H. Opper
Director
Montana Department of Environmental Quality

Jeff Hagener
Director
Montana Fish Wildlife and Parks

Attachment

c: Steve Welch, Division Administrator, Permitting and Compliance Division
Tom Ring, Environmental Management Bureau, Permitting and Compliance Division

A Brief Overview of Selected Constraints to Siting New Electric Transmission Lines in Western Montana

The physical, regulatory, political, and biological geography of western Montana along with population distribution and growth patterns all pose constraints to siting new transmission lines. By contrast prairies of eastern Montana and a few intermountain valleys in southwest Montana pose far fewer constraints to siting new transmission, with their relatively gentle terrain, widely separated mountain ranges, fewer specially managed areas, and lower-density population.

Figure 1 is a shaded relief map showing terrain and our existing transmission system. In western Montana for the most part, existing transmission lines take advantage of lower elevation mountain passes and valleys. Locating transmission lines in mountainous areas can require construction of substantial new access road systems and because of snow accumulation, can limit access during winter months should a line fail. Forest fires can also remove lines from service.

Figure 1. Montana terrain

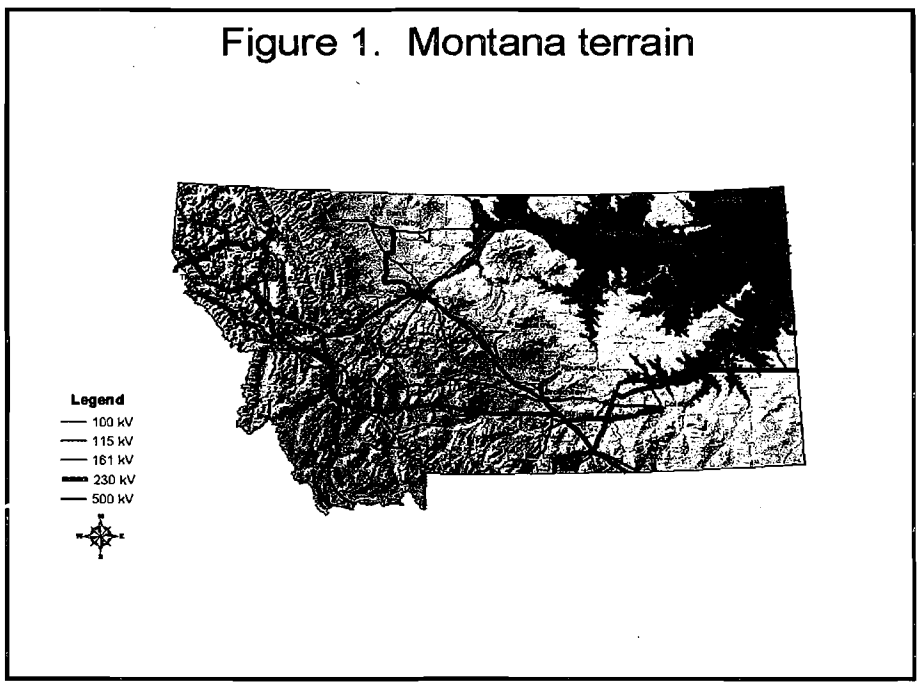
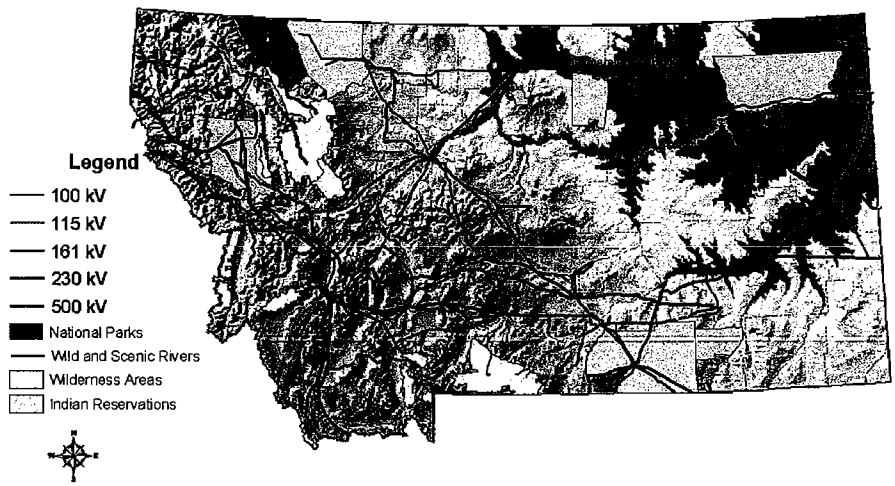


Figure 2 shows the distribution of national parks, wilderness areas, and wild and scenic rivers. Note that occasionally a wilderness area (Gates of the Mountains National Wilderness Area), a primitive area (South Fork Tribal Primitive Area), and a national recreation area (Rattlesnake National Recreation Area) have been designated long after a transmission line was built within their boundaries. Routing a new line through such areas may be considerably more difficult today than when existing lines were first constructed.

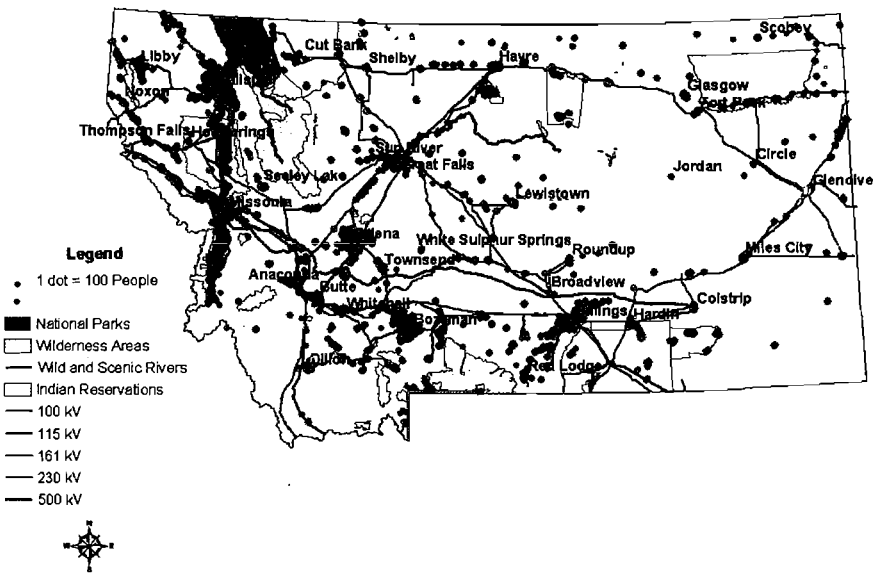
Figure 2. Selected Montana Specially Managed Areas



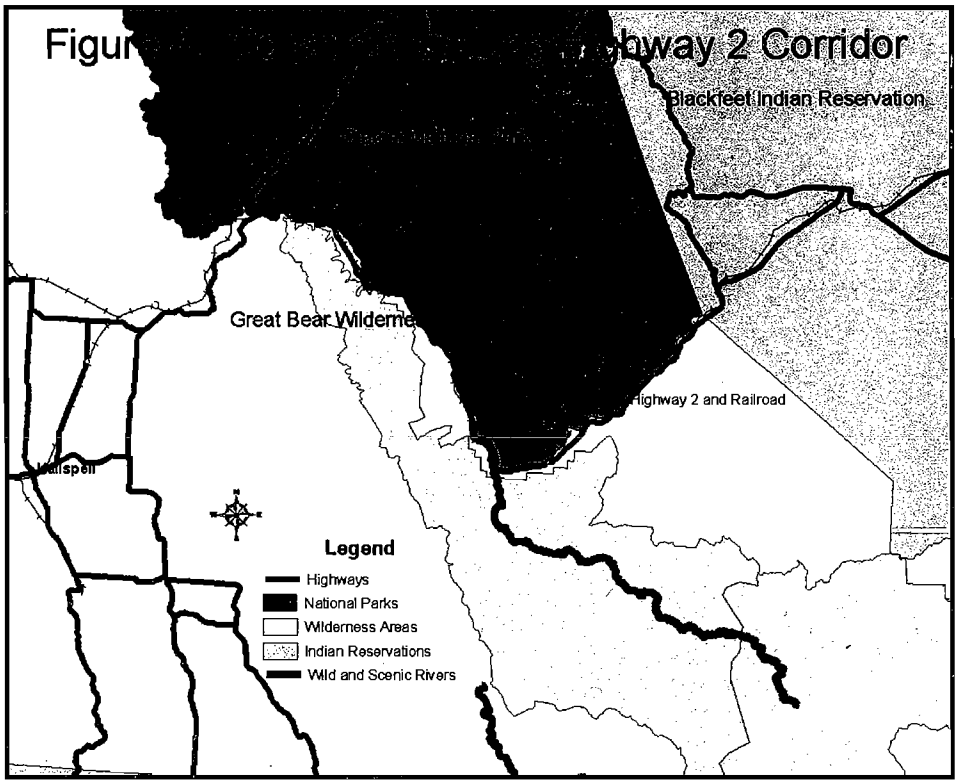
Since most of the existing lines were constructed, habitat for newly listed threatened or endangered species has become an issue and will play an important role in siting new transmission lines. For example, in western Montana recent listing of bull trout as a threatened species will call attention to new right-of-way clearing and road building that could affect its habitat. This fish was once fairly widely distributed in the western part of the state. Bull trout require clean, cold water for successful reproduction and rearing. Sediment from roads and possibly removal of overhead cover as a result of right-of-way clearing could be important siting considerations. Similar issues may arise for habitat of other listed species and protection of remaining stands of old growth timber.

Figure 3 shows population density and distribution in Montana. Given health concerns associated with electromagnetic fields from high voltage lines, real or perceived affects on adjacent property values, and increased right-of-way acquisition costs; siting usually avoids these areas where possible. Note that in western Montana population tends to be located along major river valleys. Several of the fastest growing areas are in the vicinity of the City of Missoula, the Bitterroot River valley and in the Flathead Valley near Kalispell and Whitefish. The areas near Plains and Thompson Falls are also seeing growing populations.

Figure 3. Population density in Montana



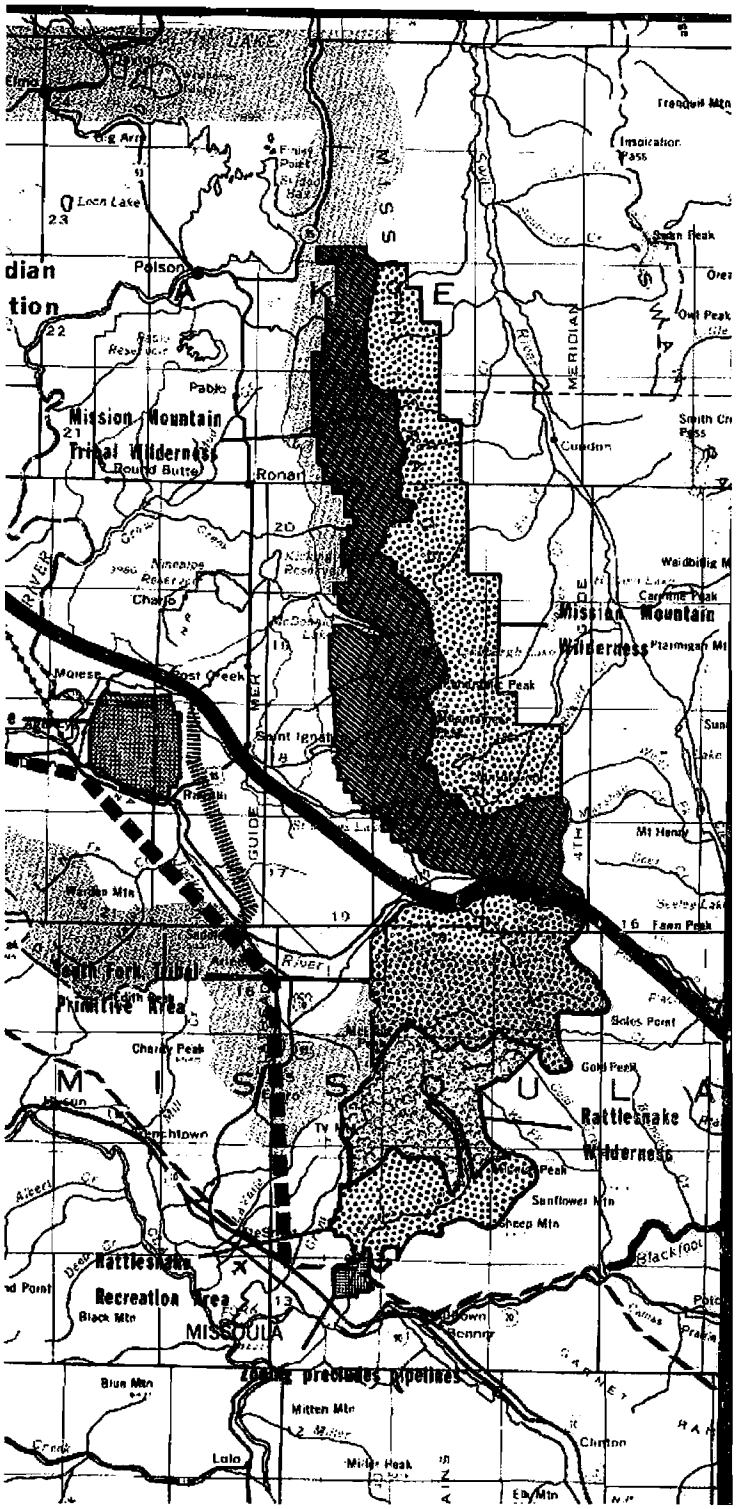
When all these constraints and concerns are composited, few if any unconstrained options exist those wishing to site a new line from the energy resources in eastern Montana to export markets on the west coast. Beginning at the US-Canadian border the fist constraint is Glacier National Park and its associated steep topography. Abutting Glacier National Park's southern boundary is a river in the national wild and scenic river system along US Highway 2 (see figure 4). The wild and scenic river corridor overlaps the Great Bear Wilderness that extends south and abuts the Scapegoat Wilderness. Note that portions of Highway 2 are located in an extremely narrow canyon along the Flathead River with a railroad. Two winters ago avalanches derailed a train here and closed the highway as well. This area has a long history of severe avalanches. The railroad has partially mitigated avalanche hazards by constructing snow sheds to protect it. However such structures would be difficult to construct to protect an electric transmission line. In this area one must recognize that physical constraints are just as important as political and regulatory constraints.



There is an existing 230 kV line that runs between Great Falls and Hot Springs that takes advantage of two relatively low elevation mountain passes, Rogers Pass used for may years by native Americans and on the return trip of the Lewis and Clark expedition; and Jocko Pass on the eastern border of the Flathead Indian Reservation. Since the 230 kV line was constructed congress designated the Mission Mountain Wilderness Area, the Salish and Kootenai tribes designated both the Mission Mountain Tribal Wilderness Area and the South Fork Primitive Area (see Figure 5). Note that the 500 kV transmission lines from the Colstrip generating units were proposed to be routed though Jocko Pass and the proposed route was approved by the State of Montana. The Salish and Kootenai tribes objected to the line being located in the tribal primitive area, and after considerable delay a new route was approved and constructed further south, near Missoula.

The Rocky Mountain Area Transmission study examined a 500 kV path from Broadview, Montana to the Ashe substation in Washington via Great Falls, Hot Springs, Noxon, and Bell. From a practical standpoint this path, in order to avoid wilderness areas and rugged mountainous topography, would have to be located either over Jocko Pass, which would require tribal approval, or through the area near Missoula, which has proven to be challenging in the past.

Figure 5. Selected specially managed areas north of Missoula. (Lines indicate previously studied pipeline routes).



When the Colstrip 500 kV lines were finally approved and constructed, the new route had to go as far south as Missoula because the tribal primitive area abuts the Rattlesnake Wilderness Area to the south. The Rattlesnake Wilderness Area in turn abuts the Rattlesnake National Recreation Area. Then one is on the outskirts of Missoula. The 500 kV lines from Colstrip were located in a less densely populated area just south of Missoula in the Miller Creek valley. Missoula has grown to the point where this area has been subdivided and many houses are being now being built there (Figure 6). Routing a new 500 kV transmission line here would more difficult than it was more than 20 years ago. Siting a new substation in the area to increase capacity on the existing 500 kV lines might be a challenge because of potential health concerns associated with increased magnetic field strengths and the proximity of homes to the lines and substation.

Figure 6. Subdivision in the Miller Creek valley south of Missoula with double circuit 500 kV lines in the background.

Further south one encounters the Bitterroot National Wilderness Area, higher population density in the Bitterroot River valley, and very rugged terrain in Idaho. Many have reluctant to site a line further south of Missoula because of these constraints.

Further west on the Hot Springs-Bell segment another physically constrained area exists that may limit siting opportunities. Between Plains and Thompson Falls, Montana; the Hot Springs – Dworshak 500 kV line closely parallels the Spokane-Hot Springs 230 kV line, two 100 kV lines, a railroad and highway. Here, the Clark Fork River valley narrows between steep mountains noted for frequent rock falls and lines cross the river on Eddy Island (Figures 7 and 8). In this constrained area space may not be available in the corridor for an additional right-of-way if a 1,000-foot offset is required between 500 kV lines for reliability.

Figure 7. Eddy Island crossings of the Clark Fork between Plains and Thompson Falls, Montana.

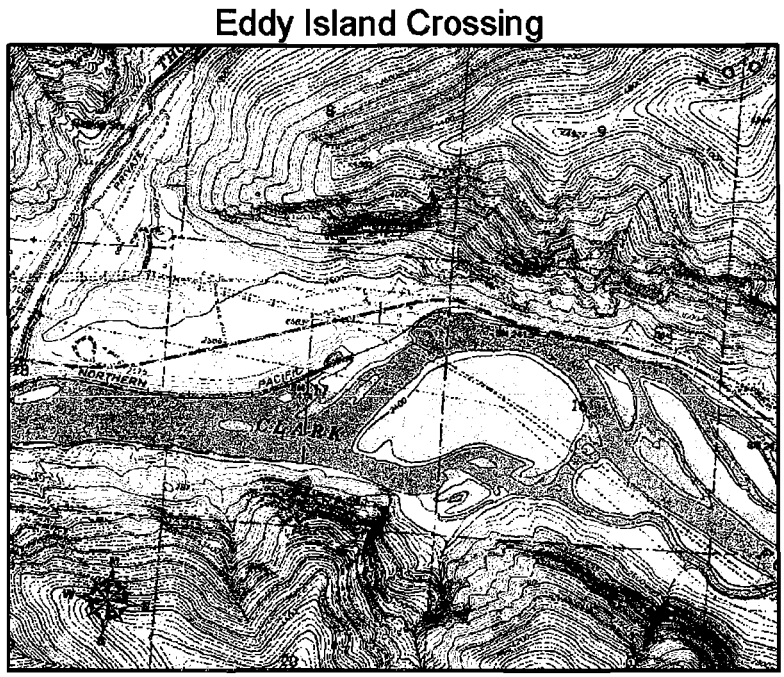
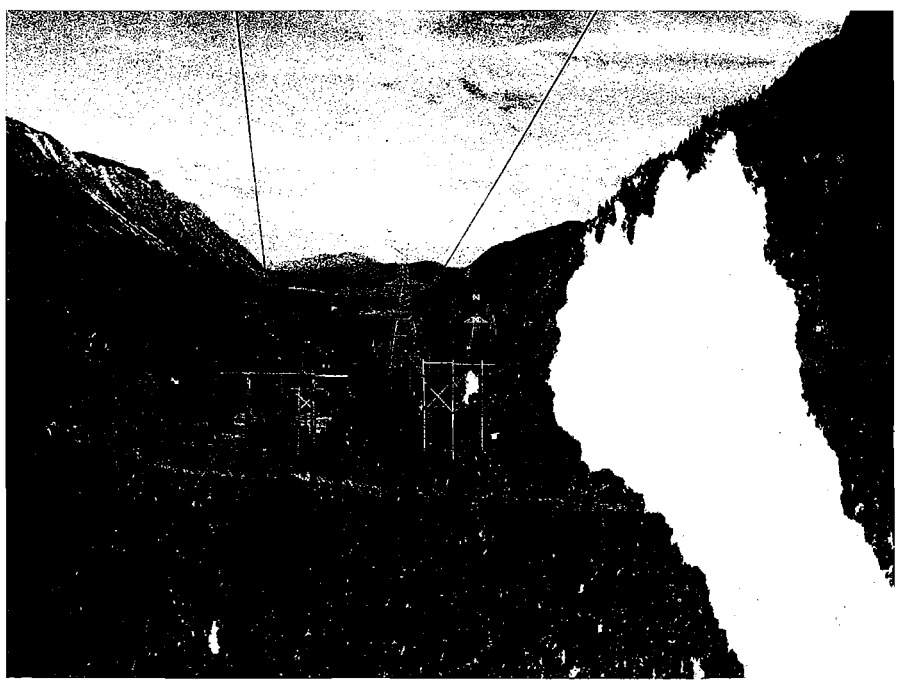


Figure 8. Looking east at the Eddy Island crossing of the Clark Fork River. Steep terrain and the river constrain both pipeline and transmission line location.



While a route over Jocko Pass to Hot Springs and Bell should not be ruled out until further discussion with the Salish and Kootenai tribes takes place, one possible route around the constraints in western Montana and north Idaho would be to tap the Colstrip 500 kV lines somewhere near Townsend, Garrison, or Ringling, Montana and follow relatively low elevation foothills and passes adjacent to wide valleys, exit Montana south of Dillon, and tie into exiting lines near Borah or Midpoint, Idaho. In the Dillon area at least two lower voltage transmission lines already exit Montana to the south. Portions of either of these lines could be roughly paralleled and existing access roads (trails) might be re-used for a new line that would exit southwest Montana. The major obvious constraints would be populated areas near towns, irrigated agriculture in the valleys, historic areas around Virginia City and Bannock, and habitat for sage grouse.