EXECUTIVE SUMMARY

Introduction

The Roundup Power Project (Project) is a proposed coal-fired electric Generation Plant located on private property about 35 miles north of Billings and 13 miles south-southeast of Roundup, Montana. A map of the proposed Project Area is shown in Figure ES-1. The Bull Mountain Development Company (proponent) submitted an application for an air quality permit to the Montana Department of Environmental Quality (DEQ) on January 14, 2002. The application, which had to meet the requirements of the Montana Clean Air Act (75-2-201 et seq., MCA and ARM 17.8.701 et seq.), was found to be adequate on July 22, 2002. This started a mandatory 180-day time frame for the environmental review under the Montana Environmental Policy Act (MEPA). The DEQ is the lead agency and is responsible for completing the Environmental Impact Statement (EIS) before issuing the Final Air Quality Permit (75-1-201, MCA).

The Project is designed to be a mine-mouth generating facility using coal from the existing Bull Mountains Mine (Mine) located adjacent to the Project. To meet its coal supply needs, the Project proponent has entered into contractual agreements with the Mine to purchase approximately 2.7 million tons of coal per year. Coal would be delivered from the Mine to the Generation Plant by a 4,000-foot-conveyeor system.

A new 161 kilovolt (kV) transmission system, approximately 28.2 miles long, would be built from the Generation Plant to NorthWestern Energy's Broadview Substation, interconnecting with the northwest transmission network. Power generated by this facility would be sold to all classes of electricity consumers (residential, municipal, cooperative, commercial, and industrial customers). The route for the transmission lines would be within or immediately adjacent to the Mine's rail corridor.

Two electric generating units, each with a pulverized coal-fired boiler and a steam turbine generator, are proposed. Each unit would be designed to generate a nominal 390 megawatts (MW) gross (350MW net) electrical capacity year-round on a 24-hour-per-day basis, except during planned maintenance periods and occasional repair outages when one unit would normally remain operating. Four to six groundwater wells, approximately 8,500 feet deep, are proposed as the Project's water supply.

Air pollution emissions, wastewater discharges, solid waste disposal, and other significant aspects of the Project would comply with applicable permits and environmental requirements.

Purpose and Need for the Action

The primary needs for the Project are to serve population growth, load growth, and the need for new base load electrical generation. That population and electrical demand growth, together with the retirement of older, less efficient electrical generating units, requires the continued development of new and cleaner generation sources. The Project would fill a portion of this need.

The Project would be built specifically to burn coal. The mine-mouth fuel source of the Project would provide stable pricing and reliability for base load power that is needed by the utilities to reliably serve industrial, commercial, and residential customers.

The Project would also increase the opportunity for competition in the regional energy market by increasing the total amount of electricity that could be transmitted reliably within the grid. Competition in the power marketplace is viewed as the best means in a market economy to keep power pricing in line with customer demand and need and competitive pricing of industrial production and output. Some of the electricity could be consumed by industrial, commercial, and residential customers in Montana. NorthWestern Energy currently is evaluating the interconnection of the Project with their transmission system at the Broadview Substation.

Issues Identified During Scoping

Before preparation of this Draft EIS, DEQ invited the participation of affected federal, state, and local government agencies, Indian tribes, the Project sponsors, and interested persons and groups to discuss issues, concerns, and opportunities, and to help identify the scope of the EIS. During this scoping process DEQ also identified possible alternatives to the Proposed Action.

On April 4, 2002, a public scoping meeting was held by the DEQ in the City of Roundup to identify issues and concerns. Comments were also accepted by mail. In addition, the Project proponent has sought public participation by making three presentations to the Legislature's Transition Advisory Committee, by participating in the Governor's Conference on Economic Development on March 7, 2002, in Billings, and by making a presentation to the executive board of the Big Sky Economic Development Authority in Billings.

The issues of concern raised during the public and agency scoping process include:

- Socioeconomic Effects - impacts on schools, law enforcement, and other public services due to in-migration of Generation Plant workers, changes in social setting and attitudes due to in-migration of Generation Plant workers, impacts associated with increased traffic, and infrastructure impacts.
- Air Quality - impacts due to pollution emissions during Generation Plant operation, global climate impacts due to greenhouse gas emissions during Generation Plant operation, and cumulative visibility impacts.
- Water Resources - impacts on surface water or groundwater quality due to solid waste disposal and other Generation Plant activities, and impacts on groundwater levels and supplies due to withdrawals during Generation Plant operation.
- Noise - disturbance of nearby residents by noise from Generation Plant construction and operation.
- Infrastructure - adequacy of existing transmission system to carry the Generation Plant output.
- DEQ Regulatory Actions and Response - evaluation/regulation for combined impacts of the Generation Plant and other industrial developments in the region, monitoring of the

Generation Plant construction process, including depth of groundwater wells, and response to Generation Plant emissions exceedances of permitted levels, accidents during Generation Plant operations and issues involving the proposed landfill.

Alternatives Considered and Eliminated

The Project proponent identified numerous alternatives to the Project, including:

- Fuel Sources
- Water Supplies
- Cooling Systems
- Combustion Systems
- Solid Waste Systems
- Wastewater Discharge Systems
- Emission Control Systems
- Generation Sites

The alternatives described in this section were eliminated from further consideration because they did not meet the stated purpose and need for the Proposed Action or were found to be economically unreasonable. A summary comparison of the alternatives considered and eliminated is provided in Table ES-1.

Alternatives Analyzed in Detail

There are two alternatives to components of the Proposed Action:

- Waste disposal from the Generation Plant
- Transmission of electricity into the interconnected grid in the western United States

In addition, a No-Action Alternative was analyzed in detail.

Landfill Alternative

Over the life of the Project, construction and operation of additional landfill cells on the Generation Plant site is proposed as an alternative to moving most of the solid waste to the Mine for disposal. The landfill would be a state-of-the-art facility designed with two cells, providing 60 acres for solid waste storage. The disposal area would be lined for the protection of groundwater and provided with a leachate collection system not to exceed 10 acres to remove leachate and storm water that collects on top of the lining.

230kV Transmission System Alternative

Each generating unit would be designed to generate nominally 390MW gross (350MW net) electrical capacity year round on a 24-hour per day basis. As an alternative to the three circuits of 161kV transmission lines from the Generation Plant to the Broadview Substation, two single-circuit 230kV lines on wood pole H-frame structures in the same corridor as the Proposed Action

would be constructed. This would require a different transformer and associated equipment to support connection to a higher voltage transmission line. Equipment and construction would be similar to the 161kV Transmission System. Constructing the 230kV Transmission System Alternative would need a certificate under the Montana Major Facility Siting Act.

NorthWestern Energy's Broadview Substation is connected to the transmission grid in the northwest and coordinated by the Western Electricity Coordinating Council (WECC). Improvements are planned for the system to allow approximately 500MW to flow west towards Bonneville Power Administration's (BPA) Garrison Substation and approximately 200MW to flow south to PacifiCorp's Yellowtail Substation. Studies performed by these transmission providers have identified upgrades that are proposed and underway to support this flow.

No-Action Alternative

Under the No-Action alternative, the Generation Plant and the 161kV Transmission System to the Broadview Substation would not be constructed. The State of Montana would not issue the Final Air Permit for the Project. The purpose and need for the Project would not be met under the no-action alternative.

Preferred Alternative

The DEQ Preferred Alternative is the Proposed Action, with the addition of the Landfill Alternative for long-term solid waste disposal instead of long-term disposal in the mine. In this alternative, solid waste would be stored in landfill cells adjacent to the Generation Plant site for the life of the Project.

The alternative of disposing waste in the off-site landfill is preferred over the Proposed Action of long-term disposal of waste in the adjacent Mine, because it would result in the least impacts to environmental resources. The uncertainties associated with in-mine storage of waste make the Proposed Action a higher risk for causing impacts and possible contamination to soils, water bearing geological zones, and groundwater resources. In comparison, the use of lined and monitored landfill cells would minimize the risk of these impacts in the future. More information is needed to fully understand impacts from in-mine storage. Therefore, the Landfill Alternative is preferred.

With the construction and operation of the Proposed Action or the two alternatives (i.e., Landfill and 230kV Transmission), all resource areas, with the exception of fisheries, would experience some adverse environmental impacts (refer to Table E-2). Impacts that would result to vegetation and wildlife would include the loss of approximately 208 acres of grass/shrubland habitat for the Proposed Action or the action alternatives. However, this habitat is common and widespread in this portion of Montana, so impacts would be low. No federally listed or state sensitive species are known to exist in the Project study areas.

Air quality impacts was not a factor in selecting the Preferred Alternative, as impacts would not be measurably different under the Proposed Action or with selection of either of the action alternatives. Air resources were identified as having the highest Project-related impacts with most impacts ranging from low to moderate. A high impact to three Class 1 Areas (i.e., Yellowstone National Park, North Absaroka Wilderness, and Northern Cheyenne Reservation)

was identified from Project operations impairing visibility in these areas during specific periods of time each year.

Finally, the socioeconomic benefits of preferring the Proposed Action and the Landfill Alternative (i.e., the Preferred Alternative), as well as the benefits of adding the base load generation at this location and using the proposed fuel source, would outweigh the potential environmental consequences of constructing and operating the Project as the Preferred Alternative.

DEQ's preference for this alternative could change in response to public comments on the Draft EIS, new information, or analysis completed as part of the Final EIS.

Affected Environment

The Project would be located approximately 35 miles north of Billings and 13 miles south-southeast of the City of Roundup. The affected environment considered for the Generation Plant Study Area encompassed all of the land in Section 15, Township 6 North, Range 26 East in Musselshell County, Montana. Approximately 208 acres would be devoted to the Generation Plant. The Landfill Alternative would occupy an additional 70 acres of land adjacent to the Generation Plant. The proposed Transmission System and 230kV Alternative would be 28.2 miles in length, crossing Musselshell and Yellowstone Counties from the Generation Plant to Broadview Substation to the west.

The air quality in the Project study area is well within the applicable ambient air quality standards for all criteria pollutants. The Generation Plant would be located along the crest of the drainage divide between the Musselshell and Yellowstone rivers. There are no surface water bodies within the Generation Plant Study Area. There are two main aquifers: the shallow sandstone aquifers and the Madison aquifer, which is the proposed water source for the Project.

From on-site soils and vegetation surveys, it has been determined that there are no identified wetland resources within the Generation Plant Study Area. No federal or state-listed plant or wildlife species of concern are known to occur within the vicinity of the Project. The Bull Mountains surrounding the Project support a good diversity of wildlife. Many of these species, particularly non-game species, could occur at least seasonally on or adjacent to the proposed Project site.

A total of 65 cultural resources have been identified within the area of potential effect for the Project. Overall, the Project site contains visual resources such as Signal Mountain and The Bull Mountains. Foothills, ephemeral drainages, riparian vegetation, annual grasslands, and large expanses of ponderosa pine influence the natural visual setting. Human built features include: U.S. Highway 87, dispersed rural residential housing and agricultural fields along with grazing areas. No BLM or U.S. Forest Service (FS) lands occur within or near the Project site.

Environmental Consequences

Where potential impacts to a resource were identified, an evaluation was conducted to determine if one or more actions would be effective in avoiding or reducing (e.g. intensity and/or duration) the potential impact.

Proposed Action

The Project was assessed for compliance with MAAQS, NAAQS, and PSD increment levels as part of the air resources analysis. The area of impact included surrounding Class I areas (Yellowstone National Park, UL Bend Wilderness Area, North Absaroka Wilderness, and Northern Cheyenne Indian Reservation). The Project, by itself, was above the PSD modeling significance levels.

The proposed Generation Plant would directly impact approximately 208 acres of mostly grass/shrubland habitat with some ponderosa pine. Due to the widespread, common nature of this habitat, and because no federally-listed threatened and endangered species are known to occur in these areas, the loss to wildlife habitat, cattle grazing and agricultural practices would result in a low impact to these resources.

Impacts to ground water from in-mine storage of waste is unknown. More studies would be required to assess impacts. Zero discharge would cause low impacts on ground water resources from wastewater ponds and a solid waste landfill.

Soil erosion impacts would be low due to control of runoff from the Generation Plant.

Archaeological sites within three miles of the Generation Plant site would be impacted, of which eight are considered visually sensitive. The Generation Plant chimneys would visually impact residents and travelers.

Full economic benefits realized from implementation of the Proposed Action include tax benefits to Musselshell County and the State of Montana. Jobs would also be a benefit during construction and during the life of the Project.

Portions of a 28.2-mile long and 300-foot wide right-of-way would result in ground disturbance caused by transmission structures and access roads associated with the Project. The transmission right-of-way would remain available for wildlife habitat, cattle grazing and agricultural practices. Due to the widespread, common nature of this habitat, and because no federally-listed threatened and endangered species are known to occur in these areas, the loss to wildlife habitat, cattle grazing and agricultural practices would result in a low impact to these resources.

If cultural or paleontological resource are discovered during Project construction and cannot be avoided, recovery of these resources would ensure no irreversible and irretrievable loss to cultural resources. Visual impacts would occur at road crossings and from scattered residences along the transmission line corridor.

The Project operations would result in the consumption of approximately 8,000 tons of coal per day from the adjacent Mine, which would be irreversibly replaced by the generation of electricity. The loss of these coal reserves would be offset by the benefit of electricity generation by the Project.

Landfill Alternative

Approximately 70 additional acres would be disturbed to develop the waste disposal landfill and associated ditches and access road. Impacts would be similar to Proposed Action with minor soil erosion caused by the transport of waste from the Generating Plant to the expanded landfill site.

The Landfill Alternative would have no impacts on T&E species. The expansion of the landfill would be more noticeable than the Proposed Action, but would result in only low visual resource impacts. As with the Proposed Action, socioeconomic benefits would result from construction jobs, taxes for government agencies and social services, and long-term jobs from operation and maintenance of the facility.

230kV Transmission System Alternative

The 230kV alternative would require fewer circuits and larger conductors, taller poles but wider spans between poles, and different hardware than a lower voltage system to transport the Project's 750MW. During construction, existing roads would be used where feasible but some new roads and upgrades to existing roads would likely be needed. Ground disturbance on the right-of-way would result in permanent loss of acreage for the pole footings and any new access roads. Temporary disturbance at work areas could be returned to pre-project use following construction. No impacts would result to T&E species.

As with the Proposed Action, socioeconomic benefits would result from construction jobs, taxes for government agencies and social services, and improved transmission infrastructure.

Visual impacts would occur at road crossings and from scattered residences along the transmission line corridor.

Recommended Mitigation

Mitigation measures cannot be required by DEQ without a request from the Project proponent that they be placed in a permit (75-1-201(5)(b), MCA). The Project proponent may request that any or all of the mitigation measures that pertain to expected impacts from their proposed activities be placed in the permits. In those instances when the proponent chooses not to include a mitigation measure in a state permit, the Project proponent may decide to perform the proposed mitigation voluntarily.

Mitigation measures designed to avoid, reduce, or eliminate potential impacts were developed. They would generally consist of reducing ground disturbance effects, minimizing road crossing impacts to surface waters, measures to reduce the risk of groundwater impacts from waste disposal, minimize habitat loss, reclaim disturbed lands, reduce the impacts of soil erosion, span or avoid sensitive features, reduce visual contrast, minimize health and safety risks, minimize noise impacts, and reduce land use impacts.

Cumulative Impacts

Cumulative impacts result from the incremental impact of the Proposed Action when added to other past and present actions and future actions under state review.

Residential and Commercial Development

Currently residential and commercial developments are few in the Project study area and surrounding county. Eight rural residences are located within a mile of the Project. The City of Roundup, located approximately 13 miles to the north, is the closest urban development.

According to county records, no new residential developments are planned for the Project study area. However, given the amount of recent residential development, and the amount of land in the Project study area that is subdivided, it is reasonable to assume that a small level of development would occur in the future.

The nearest commercial establishment is the Brandin' Iron Saloon, which is located along U.S. Route 87, approximately two miles north-northwest of the Project study area. A convenience store and a log furniture store are proposed along U.S Route 87, approximately two miles northwest of the Project study area. Other plans for the area include a recreational vehicle park and golf course.

Industrial Development

The PM Mine, an underground coal mining operation, was located partially in Section 14, east of the Project study area. The PM Mine ceased operation in the 1990s, but the Bull Mountains Mine No. 1 plans to resume mining of the same area. No new coal mines or other industrial developments are known to be proposed for the Project study area.

Infrastructure Development

Roads

Portions of U.S. Route 87 between Roundup and Billings were upgraded during the 1990s. The only known proposed future upgrades are the construction of acceleration-deceleration lanes where Old Divide Road (the proposed access road to the Project study area) intersects Route 87.

Transmission

The major backbone of the Montana transmission system is the two 500kV lines that run east to west across the state and through the Broadview Substation (the Project connection point). The 500kV lines connect to the Bonneville Power Administration (BPA) system at Garrison Substation, west of Broadview Substation. Additionally, 230kV transmission connects Broadview Substation to the PacifiCorp system at Yellowtail Substation southwest of the Project study area.

According to BPA, major transmission improvements to the BPA system are planned. These improvements would include substation upgrades and transmission line additions between Montana and the Pacific Northwest.

The transmission lines from the Project would be inside the existing railroad right-of-way for the Mine railroad to Broadview Substation, where the lines would connect to the NorthWestern Energy system. No additional land would be disturbed.

Consultation and Coordination

In addition to the public and agency scoping process, federal, state, and local agencies with an interest in the Project or the Project study area were contacted and asked to provide comments about the Project, identify issues that would need to be addressed, and supply data, information, and/or mapping. On April 4, 2002, a public scoping meeting was held by the DEQ in the City of Roundup. Public comments were also accepted by mail during the scoping period from March 20

to April 19, 2002. On October 18, 2002, a letter was sent to the Project mailing list stating that an EIS was being prepared. The letter also asked that EIS reviewers contact DEQ to request a copy of either a compact disk (CD) or hardcopy of the EIS, or just this Executive Summary.