

1.0 PURPOSE AND NEED

1.1 INTRODUCTION

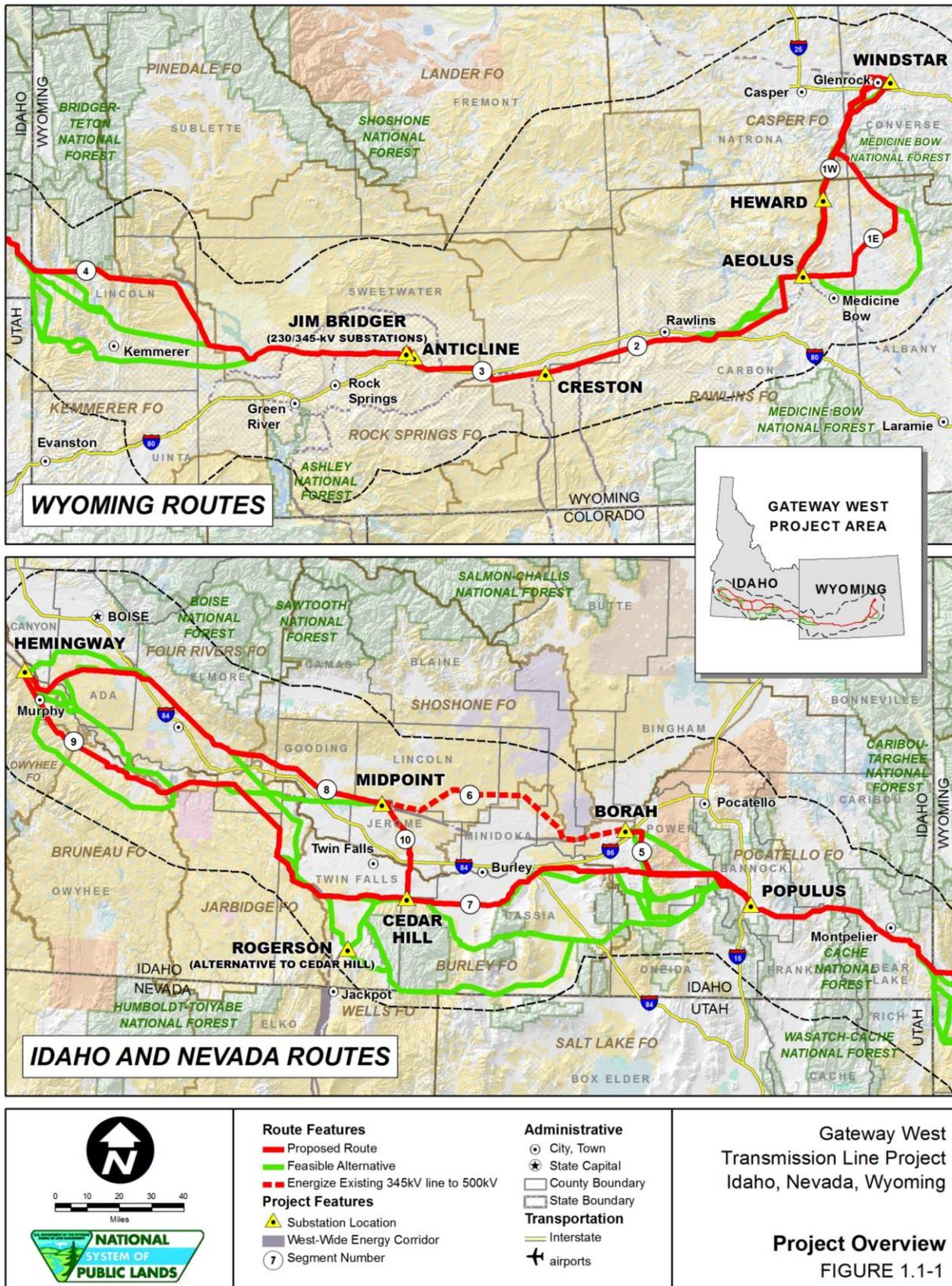
Idaho Power Company and PacifiCorp (doing business as Rocky Mountain Power), collectively known as the Proponents, applied to the Bureau of Land Management (BLM) for a right-of-way (ROW) grant to use the National System of Public Lands for portions of the Gateway West Transmission Line Project (Gateway West or Project) on May 7, 2007. The original application was revised in October 2007, August 2008, May 2009, and January 2010 to reflect changes and refinements in their proposed Project and in response to feedback from the public regarding routing alternatives. This application was assigned the case file numbers of IDI-35849 for Idaho, WYW-174598 for Wyoming, and NVN-089270 for Nevada.

The Proponents are proposing to construct and operate approximately 1,103 miles of new 230-kilovolt (kV) and 500-kV alternating current (AC) electric transmission system consisting of 10 segments between the Windstar Substation at Glenrock, Wyoming, and the Hemingway Substation approximately 30 miles southwest of Boise, Idaho. Figure 1.1-1 illustrates the initial siting study area (see Section 1.7.1 for a definition of the study area): the route proposed by the Proponents is shown in red, and the alternatives that are being analyzed in detail in this environmental impact statement (EIS) are shown in green. Greater detail is shown for each segment in maps found in Appendix A.

The proposed transmission line is needed to supplement existing transmission lines in order to relieve operating limitations, increase capacity, and improve reliability in the existing electric transmission grid, allowing for the delivery of up to 3,000 megawatts (MW) of additional energy for the Proponents' larger service areas and to other interconnected systems. The Project is principally necessary to serve future needs in Utah and Idaho, though other markets may also be served, including Wyoming's oil and gas field electricity needs. While the earliest phase of the Project needs to be in service by 2016, each segment has its own construction schedule. A more detailed description of the route, design, and an extended construction schedule alternative is presented in Chapter 2.

Under Federal Energy Regulatory Commission (FERC) tariff requirements, utilities must plan, design, construct, operate, and maintain an adequate electric transmission system that meets not only the customers' energy demands (measured in megawatt-hours) but also meet the customer's peak load demands (measured in megawatts). Both are important in determining the need for the project.

BLM is the lead federal agency under the National Environmental Policy Act (NEPA) and will coordinate the preparation of the environmental analysis. The cooperating agencies include the U.S. Department of Agriculture (USDA) Forest Service (Forest Service) (the Caribou-Targhee, Medicine Bow-Routt, and Sawtooth National Forests [NFs]); the National Park Service (NPS; including the National Trails Office, Minidoka National Historic Site, Hagerman Fossil Beds National Monument, Fossil Butte National Monument, Craters of the Moon National Monument and Preserve, and the City of Rocks National Reserve); the U.S. Fish and Wildlife Service (USFWS; Ecological Services Division, Seedskaadee and Cokeville Meadows National Wildlife Refuges



[NWRs]); the U.S. Army Corps of Engineers (USACE); the Bureau of Indian Affairs (BIA); the States of Idaho and Wyoming; Idaho Army National Guard (IDANG); Cassia, Power, and Twin Falls Counties, Idaho; Elko County, Nevada; Lincoln, Sweetwater, and Carbon Counties, Wyoming; the Medicine Bow and Saratoga Encampment-Rawlins Conservation Districts in Wyoming; and the City of Kuna in Idaho.¹

The role of cooperating agencies is derived from the NEPA requirement of federal, state, and local governments to cooperate with the goal of achieving “productive harmony” between humans and their environment. The Council on Environmental Quality’s (CEQ’s) regulations implementing NEPA allow the lead agency to invite any other federal, state, tribal, or local agency that has jurisdiction by law or special expertise with respect to any environmental issue which will be addressed by the NEPA analysis, to serve as cooperating agencies in the preparation of EISs (40 Code of Federal Regulations [CFR] Part 1501.6).

1.2 FEDERAL AGENCIES’ PURPOSE AND NEED

The purpose of the federal action on federally managed lands is to determine if providing for the use of those lands for portions of the Gateway West Transmission line is in the public interest. The need for the action is established by the federal agencies’ responsibility under the Federal Land Policy and Management Act (FLPMA²) to respond to an application for a ROW. In addition, the USACE must respond under the Clean Water Act (CWA³) to an application for a permit to dredge or fill waters of the United States, including wetlands. The purpose and need for major federal authorizing actions requested for the proposed Project to proceed are further described below.

1.2.1 BLM Purpose and Need

The BLM has received ROW applications from the Proponents and must determine whether to allow the use of the National System of Public Lands for portions of the Gateway West Transmission Line. Specific to the proposed action, 43 CFR Part 2801.9 requires a BLM ROW grant for use of public lands for “systems or facilities over, under, on, or through public lands,” including transmission lines. BLM must also determine the environmental impact of granting a ROW across the National System of Public Lands. The Proponents have identified a public need (described in Section 1.5). The BLM will consider this application in accordance with 43 CFR Part 2800 and decide whether to issue a ROW grant to meet the public need. Subpart 2804 describes the process for filing applications for a ROW grant, which was followed by the Proponents in submitting the applications described in Section 1.1.

BLM must consider the existing Resource Management Plans (RMPs) and Management Framework Plans (MFPs) in the decision to issue a ROW grant in accordance with 43 CFR Part 1610.0-5(b). RMPs and MFPs allocate public land resource use and establish management objectives. Applicable RMPs and MFPs are listed in Table 1.5-1. Portions of the proposed transmission line are not in conformance

¹ BLM and the cooperating agencies may be referred to collectively hereafter as “the Agencies.”

² Federal Land Policy and Management Act of 1976, as amended, 43 U.S.C. § 1701

³ Clean Water Act of 1972, as amended, 33 U.S.C. § 1251

with several BLM land management plans and therefore amendments to these plans are analyzed as part of the Proposed Route and Route Alternatives.

The decision whether to authorize the Proposed Action or an Action Alternative will be documented in the BLM's Record of Decision (ROD). The BLM decisions to be made are to:

- Decide if a ROW grant should be issued for the transmission line;
- Decide if one or more BLM land use plans should be amended to allow the proposed transmission line;
- Determine the most appropriate location for the transmission line on the National System of Public Lands, considering multiple-use objectives; and
- Determine the terms and conditions (stipulations) that should be applied to the construction, operation, and maintenance of the transmission line on the National System of Public Lands.

The BLM has prepared this EIS to meet the disclosure requirements under NEPA, to facilitate public participation, to assist the BLM decision-makers in determining whether to issue a ROW grant, and to determine under what terms and conditions the ROW grant would be issued. The BLM Wyoming state director is the agency official who will be making the decision(s) in the ROD.

1.2.2 Forest Service Purpose and Need

The Project as proposed would cross the Medicine Bow-Routt and the Caribou-Targhee NFs. Alternative routes cross portions of the Sawtooth NF. Therefore, the Proponents have applied for a Special Use Permit from the Forest Service, which will determine whether to issue the Special Use Permit. The Forest Service, as a cooperating federal agency, will participate in all aspects of the environmental analysis. The Forest Service will use this EIS as a basis for its decision regarding a preferred alternative and the issuance of a Special Use Permit and to determine under what terms and conditions a permit should be issued. The agency official who will be making the decision(s) is the Forest Supervisor of each of the respective NFs.

Title 36 CFR Part 251, Subpart B provides authority for reviewing and granting Special Use Permits for transmission lines. Further direction is provided in Forest Service Manuals 2701 and 2710.1. For a transmission line with a capacity of 66 kV or higher, the Forest Service is required to notify the U.S. Department of Energy (DOE) when an application is received (Forest Service Handbook 2709.11). The Proponents submitted an SF-299, Application for Transportation and Utility Systems and Facilities on Federal Lands, to both the BLM and the Forest Service (Section 1.1).

Land and Resource Management Plans (these will be hereafter referred to as "Forest Plans")⁴ establish similar management allocations and guidelines as BLM RMPs and

⁴ The Caribou-Targhee NF includes two "proclaimed" National Forests, the Caribou and Targhee and portions of the "proclaimed" Cache NF that it administers. The Caribou and Targhee NFs each have their own management plan, and the Caribou Forest Plan also covers the portion of the Cache NF crossed by Segment 4 of the Proposed Route that it administers. Therefore, when referring to the Forest Plan, the term "Caribou Forest Plan" will be used. When referring to the administrative unit, the term "Caribou-Targhee NF" will be used.

MFPs (see Section 1.5). The Caribou portion of the Caribou-Targhee NF is managed according to the Revised Forest Plan for the Caribou NF (Forest Service 2003a). The Medicine Bow portion of the Medicine Bow-Routt NFs is managed according to the Medicine Bow NF Revised Land and Resource Management Plan (Forest Service 2003b). The Sawtooth NF is managed according to the Sawtooth NF Revised Forest Plan (Forest Service 2003c). Portions of the proposed Project are not consistent with aspects of these Forest Plans; therefore, the Forest Service has determined that amendments to these plans would be needed to implement some of the proposed action or alternatives (see Section 1.5, Table 1.5-1).

The decision whether to authorize the Proposed Action or an Action Alternative will be documented in a joint ROD prepared by BLM and the Forest Service, which would include the decisions made by the Forest Service, or as a separate ROD prepared by the Forest Service. The Forest Service decisions to be made are to:

- Decide if a Special Use Permit should be issued for the transmission line;
- Decide if one or more Forest Plans should be amended to allow the proposed or alternative routes of the proposed transmission line;
- Determine the most appropriate location for the transmission line on National Forest System (NFS) lands, considering multiple-use objectives; and
- Determine the terms and conditions (stipulations) that should be applied to the construction, operation, and maintenance of the transmission line on NFS lands.

1.2.3 U.S. Army Corps of Engineers Decision

Authorization from the USACE is required for Project features that cross over, through, or under navigable waters as defined under Section 10 of the Rivers and Harbors Act of 1899 (33 United States Code [U.S.C.] § 401 et seq.). Navigable waters must be designated as such by the USACE Division Commander following procedures defined at 33 CFR Part 329. The Snake River is navigable up to river mile 445.5 near Noble Island. The Proposed Route would cross the Snake River upstream of the navigable reach. Alternative 8B would cross farther downstream near Brooks Island within the navigable reach.

Authorization from USACE is also required for any activity that results in discharges of dredged or fill material into waters of the United States as defined under Section 404 of the CWA (33 U.S.C. § 1344). The term "waters of the United States" has been broadly defined by statute, regulation, and judicial interpretation to include all waters that were, are, or could be used in interstate commerce such as rivers, streams (including ephemeral streams), canals, reservoirs, lakes, and adjacent wetlands. The USACE Wetlands Delineation Manual dated January 1987 (USACE 1987) and its current supplements must be used to determine if an area has sufficient wetland characteristics to be a water of the United States.

The Medicine Bow-Routt NFs include two "proclaimed" National Forests, the Medicine Bow and Routt. The Medicine Bow and Routt NFs each have their own management plan. Therefore, when referring to the Forest Plan, the term "Medicine Bow Forest Plan" will be used. When referring to the administrative unit, the term "Medicine Bow-Routt NFs" will be used.

On June 5, 2007, the U.S. Environmental Protection Agency (USEPA) and USACE Headquarters in Washington D.C. implemented temporary guidance that requires an extensive evaluation and coordination procedure before exerting jurisdiction over many streams and wetlands. The guidance was based primarily on a ruling by the U.S. Supreme Court on June 19, 2006, in the case of *Rapanos et ux., et al. v. United States* (Nos. 04-1034 and 04-1384). The guidance was revised by Regulatory Guidance Letter 08-02 issued by USACE on June 26, 2008, clarifying appropriate uses of approved and preliminary jurisdictional determinations. The guidance was also revised by agency memoranda on January 28, 2008; October 16, 2008; and December 2, 2008. Additional revisions are likely in the future.

Many activities with “minimal” impacts on waters of the United States can be authorized by general permits and the most common are nationwide permits. On March 12, 2007, USACE published nationwide permits in Part II of the Federal Register (Vol. 72, No. 47). Nationwide permits provide authorization in accordance with Section 404(e) of the CWA. The permits are available for a period of 5 years, currently until March 18, 2012. Standard (Individual) permits are required for activities with more than minimal impacts on waters of the United States.

Individual permits authorize activities in accordance with Section 404(a) of the CWA. The permit evaluation must be conducted in accordance with Section 404(b)(1) of the CWA as specified in guidelines promulgated by the USEPA (40 CFR Part 230). No discharge shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purpose. In addition, where a discharge is proposed for a special aquatic site (wetland), all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

Reasonable alternatives as defined under the NEPA and practicable alternatives as defined above are not necessarily synonymous because some reasonable alternatives may not be available to the Proponents. The BLM is the agency that must select the preferred alternative on federally managed lands. Executive Order 11990, promulgated in 1977 for the protection of wetlands, requires “each agency, to the extent permitted by law, [to] avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors (Section (2)(b).” Further, “When Federally-owned wetlands or portions of wetlands are proposed for lease, easement, right-of-way or disposal to non-Federal public or private parties, the Federal agency shall (a) reference in the conveyance those uses that are restricted under identified Federal, State or local wetlands regulations; and (b) attach other appropriate restrictions to the uses of properties by the grantee or purchaser and any successor, except where prohibited by law; or (c) withhold such properties from disposal (Section 4).”

When the preferred alternative is selected and approved in the ROD, it will reflect the agencies' full consideration of impacts to wetlands and all other resources. The ROD will then define the only alternative available to the Proponents for which a ROW could be granted on federally managed lands. The Proponents would be required to obtain ROW on non-federal lands through negotiated easements or under eminent domain laws. Therefore, ROW granted by the BLM, supplemented by acquisition of congruent ROW that can be obtained by the Proponents, will define the only practicable alternative for the transmission line. However, it may be necessary for the USACE to evaluate alternatives for specific activities within the ROW such as tower locations and road alignments during the authorization process.

The USACE will determine whether authorization of proposed activities by nationwide permits is appropriate or whether certain activities require an individual permit evaluation. Evaluation of practicable alternatives is not applicable to nationwide permit authorizations as specified in 40 CFR Part 230.7(b)(1). However, mitigation measures in the form of avoidance, minimization, and compensation would be considered in all permit decisions. Verification by the USACE that activities are already authorized by nationwide permits is not a new federal action. The USACE would prepare a separate ROD for individual permit authorizations because issuance of a permit would be a new federal action.

1.3 PROPONENTS' PURPOSE AND NEED FOR THE PROJECT

This section provides basic information about why the Proponents are proposing this Project and a description of the electrical transmission system needs that would be met by the Project.

1.3.1 Proponents of the Project

1.3.1.1 Idaho Power

Idaho Power is a wholly owned subsidiary of IDA-CORP, a holding company. Idaho Power is responsible for providing electrical service to its service area, which includes most of southern Idaho and a portion of eastern Oregon. The number of customers in Idaho Power's service area is expected to increase from around 490,000 in 2009 to over 680,000 by 2029. Firm peak-hour load (the peak hourly electricity that the system must supply when demand is at its highest) has increased from 2,052 MW in 1990 to over 3,000 MW in 2006, 2007, 2008, and 2009. In June 2008, the peak-hour load reached 3,214 MW, which was a new system peak-hour record. Average firm load (the average annual demand from customers) has increased from 10,500,000 megawatt hours (MWh) in 1990 to 15,800 MWh in 2008 (excluding Astaris/FMC) (IPC 2009). While the economic downturn is expected to depress customer demand for electricity in the near term, Idaho Power forecasts that on average their load will continue to grow at about 0.7 percent per year to approximately 17,500,000 MWh in 2019. During the same period, the peak-hour load is expected to increase at a rate of 57 MW per year, adding an additional 570 MW of peak-hour demand by 2019 (IPC 2009).

Idaho Power is a regulated public utility under the laws of the State of Idaho whose mission is to provide reliable, responsible, fair-priced energy. Idaho Power operates under the oversight and regulatory controls of the Idaho Public Utility Commission

(IPUC). Under Title 61 of the IPUC regulations, Idaho Power “shall furnish, provide and maintain such service, instrumentalities, equipment and facilities as shall promote the safety, health, comfort and convenience of its patrons, employees and the public, and shall be in all respects adequate, efficient, just and reasonable.”

Idaho Power is also a public utility under the jurisdiction of the FERC. Idaho Power is obligated to expand its transmission system to provide requested firm transmission service, and to construct and place in service sufficient capacity to reliably deliver resources to network and native load customers as provided in their Open Access Transmission Tariff (OATT) under Sections 15.4 and 28.3 (FERC 2008). Idaho Power’s Attachment K of the OATT requires planning for the expansion of the system to ensure that its transmission system meets industry, regulatory, and reliability standards.

1.3.1.2 PacifiCorp (Rocky Mountain Power)

Rocky Mountain Power is the trade name under which PacifiCorp delivers electricity to more than 955,000 customers in the Rocky Mountain Power service area, which includes portions of Utah, Wyoming, and Idaho. PacifiCorp’s primary goal is to provide safe, reliable electricity to its customers at a reasonable cost. It transmits electricity via a grid of transmission lines throughout a six-state region. PacifiCorp serves 1.7 million retail customers through its distribution system. The company sells electricity primarily in the retail market, with sales to residential, commercial, industrial, and other customers. It also sells electricity in the wholesale market to benefit the region during off-peak periods when additional electricity is required elsewhere or when required for other system balancing activities.

PacifiCorp’s system peak-hour load is forecast to increase from 9,883 MW in 2010 to 12,112 MW in 2019, a 2.3 percent growth rate. These forecasts include a marginal decrease in customer demand for electricity in the near term that has been accounted for in this forecast. PacifiCorp’s system customer megawatt-hour energy load is forecasted to grow at a 2.3 percent rate from 2010 to 2019, from 59,400,000 MWh to 72,900,000 MWh. This average forecasted growth rate is moderately higher than the average growth rate experienced from 1995 to 2005 when the average increase per year was 1.6 percent. PacifiCorp’s three highest state loads in Oregon, Utah, and Wyoming (included in the MWh loads above) are forecasted to grow at a rate of 1.1 percent, 2.7 percent, and 3.6 percent respectively, through the same 2010–2019 period (PacifiCorp 2009). PacifiCorp’s customer base in Wyoming is anticipated to increase by approximately 420 MW in the same time frame. This growth rate is only reflective of their large industrial customer segment and does not include any other customers such as residential, lighting, irrigation, or small commercial customers.

Rocky Mountain Power operates under oversight and regulatory controls of the public utility commissions of Wyoming, Utah, and Idaho. The Wyoming Public Service Commission (PSC) regulates rates, integrated resource plans, construction of large electric facilities, and transactions between utilities. The Wyoming PSC’s primary regulatory responsibility is rates. The Wyoming PSC does not regulate environmental impacts from facilities or siting (other than how siting influences rates). The IPUC regulates investor-owner or privately-owned utilities that provide gas, water, electricity, or telephone service for profit. The primary responsibility of the Utah PSC is to ensure safe, reliable, adequate, and responsibly priced utility service.

PacifiCorp is a public utility under the jurisdiction of the FERC. PacifiCorp is obligated to expand its transmission system to provide requested firm transmission service and to construct and place in service sufficient capacity to reliably deliver resources to customers requesting service and existing customers as provided in their OATT under Sections 15.4, 28.2, and 28.3 (FERC 2008). PacifiCorp's Attachment K of the OATT also requires planning for the expansion of the system to ensure that its transmission system meets industry, regulatory, and reliability standards.

1.3.2 Demand Side Management

As regulated utilities, both Idaho Power and Rocky Mountain Power are required to produce and periodically update an Integrated Resource Plan (IRP). The Public Utilities Commissions of the states where these utilities operate review and acknowledge these IRPs and their updates. Part of the planning process includes addressing conservation and other means of reducing or controlling the growth of the demand for electricity among the utilities' customers. When the Public Utilities Commission for a given state acknowledges the IRP, it is agreeing that the balance of demand-side measures and development of additional generation resources, including associated transmission, is appropriate to meet the needs of the customers of its state while complying with the various laws and regulations on renewable energy requirements, carbon emissions, and other energy-related issues. The Proponents have detailed their demand-side management in their respective IRPs, which have been acknowledged by the Public Utilities Commissions for which they were written, and have shown to the satisfaction of the Public Utilities Commissions that additional transmission capacity is needed to meet their customers' needs (RMP 2009; IPC 2009).

1.3.3 Existing Transmission System Constraints

1.3.3.1 General Studies

Since 2001, several regional initiatives have evaluated the cost and benefits of the transmission additions from Wyoming to load centers farther west. Two specific studies are the Rocky Mountain Area Transmission Study of 2004 and Western Electricity Coordinating Council (WECC) Seams Steering Group-Western Interconnection of 2005. The results of the 2005 WECC study were included in the 2006 DOE National Electric Transmission Congestion Study (DOE 2006). All of these studies show that the existing generation resources are using all of the transmission capacity from Wyoming and that the addition of generation resources will require more transmission capacity.

The 2006 DOE study states:

Concerns about energy security and the need for greater diversification in electricity supplies are leading to increased emphasis on development of domestic energy resources.

This study also identifies the region from Wyoming to the west as a conditional constrained area, meaning that any generation developed in Wyoming will require additional transmission. The 2006 DOE study states:

This area is rich in coal and wind resources that, if developed, could provide important sources of low-cost energy and fuel diversity while improving domestic

energy self-sufficiency and enhancing the economic development in the resource areas. This resource development scenario has been thoroughly explored in analyses sponsored by the Western Governors Association.

Additional planning studies were performed in 2007 through the Northern Tier Transmission Group (NTTG) Fast Track Project Process. The NTTG is a group of energy suppliers, transmission providers, customers, and regulators actively involved in the planning, usage, sale, and purchase of transmission capacity that delivers electricity in the Pacific Northwest and Rocky Mountain states. This coordinated subregional planning effort indicates a strong need for a series of independent transmission segments, each of which addresses an independent purpose, though all are part of the larger grid. This subregional planning effort is subsequently input into the WECC Regional Planning process, which has further supported the need for the Project. Gateway West is proposed as one necessary component of the needed grid expansion in the WECC region.

1.3.3.2 Capacity

Capacity refers to the amount of power (megawatts) a transmission facility (a line, groups of lines, transformers, etc.) can reliably deliver. Capacity is measured in megawatts and is determined by the current (in amperes) that the facility can carry or the minimum voltage levels present at a substation (under either steady-state or contingency conditions). Voltages below minimum levels may damage or cause improper operation of customer equipment and generally reduced performance of the electric grid. Voltage limits used by the Proponents for system planning studies follow industry design standards for transmission systems requiring that the rated voltage must be maintained within performance standards established by the WECC and North American Electricity Reliability Corporation (NERC).

Transmission paths consist of single lines or combinations of lines operated together as a single transmission unit to maximize capacity of the system and to maintain reliability. Path capacities are usually limited by the line in the path with the least capacity. The capacity ratings of the paths are based on maintaining established reliability criteria (see Section 1.3.2.3 below for further information). The existing path capacity “bottlenecks” and how the path rating will increase with the Gateway West segments in place are shown in Table 1.3-1.

1.3.3.3 Reliability

Transmission systems in the United States must be planned, operated, and maintained under NERC⁵ reliability performance standards. Additionally, the Proponents are

⁵ NERC’s mission is to improve the reliability and security of the bulk power system in North America. To achieve that, NERC develops and enforces reliability standards; monitors the bulk power system; assesses future adequacy; audits owners, operators, and users for preparedness; and educates and trains industry personnel. NERC is a self-regulatory organization that relies on the diverse and collective expertise of industry participants. As the Electric Reliability Organization, NERC is subject to audit by the FERC and governmental authorities in Canada (NERC 2010).

Table 1.3-1. Rating and Capacity of Paths with and without the Gateway West Project

Path Name	Path Rating Limit (Present Operational Maxima) (MW)	Existing Available Transmission Capacity (MW)	Proposed Gateway West Parallel Segments ^{1/}	Planned Rating/Capacity Increase from Gateway West (MW)	Proposed Path Rating/Capacity with Gateway West (MW)
TOT 4A (WY East to WY Southwest)	820	0	Segments 1E and 1W Windstar-Aeolus	840	1,660
<not previously established>	NA	0	Segments 2 and 3 (Aeolus West, carrying TOT 4A plus new resources)	3,000	3,000
Bridger West	2,400 ^{2/}	0	Segment 4 Jim Bridger-Populus	3,000	5,400
Borah West	2,757	0	Segments 4, 5, 6, 7 and 10 Populus-Borah, Borah-Midpoint, and Populus-Cedar Hill	3,000	5,757
Midpoint West	2,287	0	Segments 8 and 10 Midpoint-Hemingway and Cedar Hill-Hemingway	3,000	5,287

1/ Refer to Figure 1.1-1 for segments and substations.

2/ According to the Proponents, “Idaho Power and PacifiCorp will be increasing the rating of the Bridger West and Borah West transmission paths by 200 MW (from 2,200 MW to 2,400 MW for Bridger West and from 2,557 MW to 2,757 MW for Borah West). This increase in transfer capability on the two paths will utilize existing and/or future equipment that will be in-service prior to the addition of the Gateway West project.” Also, according to the Proponents, “With the addition of Segment 2 and 3 facilities (Aeolus – Creston – Bridger) plus anticipated resources at Windstar and Aeolus, the West of Bridger transfers would increase by about 3,000 MW. It is anticipated that transfers west of Aeolus (including 500 kV and 230 kV facilities) would be as high as 2,200 MW. Each of the paths listed in Table 1.3-1 are part of the Gateway West Project and are dependent on each other to move power from east to west (Wyoming to Idaho).”

governed by the WECC⁶ policy procedures, criteria, and standards that may be more stringent than those required by NERC. In compliance with the above standards, transmission systems must be planned, built, and continually operated with sufficient levels of redundancy to enable the transmission system to reliably operate in the event of the loss of any single element (i.e., generation unit, transmission line segment or substation equipment) or of multiple elements, thereby providing continuous service to consumers. Adding new transmission facilities to a network allows facilities (new and old) to back each other up during outage conditions when elements of the system are out of service.

In siting new transmission facilities, the Proponents state that they are obliged to be prudent and site and install facilities to avoid a potential “common mode failure” (lines

⁶ WECC and the nine other regional reliability councils were formed due to national concern regarding the reliability of the interconnected bulk power systems, the ability to operate these systems without widespread failures in electric service, and the need to foster the preservation of reliability through a formal organization. The Western Interconnection encompasses a vast area of nearly 1.8 million square miles. It is the largest and most diverse of the eight regional councils of the NERC. WECC’s territory extends from Canada to Mexico. It includes the provinces of Alberta and British Columbia, the northern portion of Baja California, Mexico, and all or portions of the 14 western states in between (WECC 2010).

adjacent to each other on a common transmission tower or two parallel transmission lines in close proximity to each other). Common mode failures include, but are not limited to, a snagged shield wire from one line being dragged into the adjacent line, an aircraft flying into more than one line, smoke from a fire across the ROW shorting out more than one line, lightning strikes affecting more than one line, high winds, dust storms, ice storms, blizzards, landslides, earthquakes, vandalism, and equipment failure. As a minimum requirement, NERC/WECC reliability performance standards require that a multiple contingency analysis (an analysis of the simultaneous failure of two lines) must be performed to evaluate the impact resulting from the loss of multiple transmission lines to the remaining transmission system. The power flowing on the two transmission lines removed from service must now flow across the remaining transmission system and subsequently overloads portions of the remaining system. In this event, the useable system capacity limit is reduced in order to protect the remaining system from this overload condition. When transmission lines are separated from each other, common mode failures do not pose a risk and prudent planning only requires evaluation of one line out of service at a time.

Due to the high megawattage load requirements necessary for the Gateway West Project, multiple high-capacity lines on separate corridors are required in key segments of the Project.

Due to questions that have surfaced recently concerning common mode failure of transmission lines constructed adjacent to other transmission lines, the WECC Board of Directors approved a regional transmission planning criterion (TPL [001-004]-WECC-1-CR), on April 18, 2008. This planning criterion specifies that utilities must plan for two lines to be out of service at the same time if they are located adjacent to each other unless those lines are separated by at least “the longest span length of the two transmission circuits at the point of separation or 500 feet, whichever is greater, between the transmission circuits” (WECC 2008)⁷.

For the purposes of the initial Gateway West siting study, the longest span was assumed to be 1,500 feet, thereby dictating the minimum distance between existing and proposed transmission lines serving the same load. In the final design, the separation distance could increase where existing line spans are determined to be greater than 1,500 feet thereby requiring Gateway West to be located the maximum span distance away when adjacent to longer spans. This assumption is also incorporated into the proposed Project description (Chapter 2). This criterion in itself does not guarantee transmission system reliability or future system performance. Utilities are expected to use their history of experience and prudent judgment in planning, siting, and design of transmission systems to ensure the reliability of the interconnected grid. Utilities can and do elect to provide wider separation or select an alternate transmission line route to reduce the risk of multiple line outages along common routes used by high capacity lines.

The Proponents report several instances where outages on their systems and others have led to serious consequences. In 2007, a fire burned through the Jim Bridger

⁷ A transmission “circuit” is a set of wires energized at transmission voltages extending beyond a substation which has its own protection zone and set of breakers for isolation, and the “span length” is the distance between two transmission line support structures. See also Glossary.

transmission line ROW resulting in an outage of all three 345-kV lines and three of the four Jim Bridger generating units (Gerrard 2010). Also in 2007, a fire caused the Mona – Huntington and Mona – Bonanza 345-kV lines in Central Utah to de-energize (Gerrard 2010). In California, two adjacent 500-kV line towers failed in 2005, leaving an estimated 5.2 million customers in California, Nevada, Oregon, and Texas without power (California ISO Corporation 2005).

To further ensure reliability requirements are met, the Proponents have proposed that a permanent service road to each transmission structure be retained (see Appendix B, Section 1.5, for further detail) to control vegetation in the ROW for safe operation and for periodic inspections and maintenance (IPC and RMP 2010).

1.3.4 Purpose of the Gateway West Proposed Action

This Project is designed to provide for the delivery of up to 3,000 MW to the service areas of the Proponents and possibly other markets. Idaho Power forecasts a peak-hour load growth of 57 MW per year over the next 10 years. PacifiCorp forecasts the megawatt-hour growth between 2010 and 2019 for Utah, Wyoming, and Oregon will be 6.8 million, 3.7 million, and 1.1 million megawatt-hours, respectively. These forecasts are based on the IRPs prepared by each company as required to fulfill the regulatory requirements and guidelines established by the public utilities commissions of the states served by the Proponents (PacifiCorp 2011; Idaho Power 2009). Each IRP addresses the obligations of each company pursuant to its OATT to plan for and expand its respective transmission systems in a non-discriminatory manner based on the needs of its native load customers, network customers, and all eligible customers that agree to expand their transmission systems. This includes entities that generate or plan to generate electricity, including coal-fired, natural-gas-fired, and renewable energy sources (biogas, wind, and geothermal). As of June 2011, all of the generators requesting transportation on Gateway West were wind energy (PacifiCorp 2011).

Gateway West is independent of, and would be built regardless of, any particular new generation project. The transmission grid of which it would become a part can be thought of in terms of hub and spokes, with a backbone connecting to the hubs. Each substation is a hub and receives or sends electricity along the spokes. For this system to work, a backbone of high-capacity transmission lines is needed to connect the hubs and transport the electricity from where it is or can be generated (in this case, mostly Wyoming but also Idaho), to where it is needed (in this case, mostly Idaho and Utah, though other markets may also be served).

1.3.4.1 Gateway West Substation Purposes

This Project proposes to connect 12 substations, which are essential control points for the route. These are illustrated in Appendix A, Figure A-1, and in subsequent maps by segment. The purposes of the individual substations to support the need for the overall location of the Gateway West Project are displayed in Table 1.3-2. Eight of the substations are in service now, one is being planned independent of this Project, and three are proposed as part of this Project.

Table 1.3-2. Substations to be Connected by Gateway West

Substation	Description	Purpose
Windstar	Existing: interconnection and generation-driven	The purpose of this substation is to integrate future wind and thermal resources with the existing transmission system by looping two existing 230-kV transmission lines into the substation. The Gateway West Project would start at this substation because of the recent large development of nearby energy sources needing transmission to points west, including Glen Rock 1 & III – 138.5 MW, Rolling Hills – 99 MW, Three Buttes – 99 MW, and Casper Wind – 17 MW. The Proponents anticipate that by December 2010, an additional 200 MW will be integrated at the Windstar 230-kV Substation.
Heward	Existing: interconnection and generation-driven	This substation will be expanded because the existing 230-kV bus and other equipment within the Heward Substation is under-rated for accommodating the additional electrical capacity that would be added by rebuilding and reconductoring Segment 1W(c).
Aeolus	Planned: independent of Gateway West, generation-driven	This substation is intended to serve high wind areas identified in portions of Wyoming and will be the location for interconnecting new wind-driven sourced energy. The Proponents state that the Aeolus 230-kV substation will be integrated into the RMP transmission system by looping the Dave Johnston – Heward – Shirley Basin – Miners 230-kV line into Aeolus. Aeolus will be used to interconnect future wind generation projects.
Creston	Proposed: part of Gateway West, load- driven	This substation would be used to serve load (oil and gas) south of Wamsutter, Wyoming, and utilize the proposed Aeolus – Creston – Bridger lines constructed as part of Gateway West and initially operated at 230 kV.
Anticline	Proposed: part of Gateway West, generation-driven	The new transmission lines would interconnect to the existing transmission system in the vicinity of the Jim Bridger Power Plant by constructing a new substation nearby. The purpose of the proposed substation is to support the existing thermal generation hub as well as an expanded hub for new wind resources expected to be sited in the area.
Jim Bridger Power Plant 345-kV	Existing: interconnection and generation-driven	This substation would be expanded to connect the Jim Bridger Power Plant with a new transmission line. No new generation would be added at the Jim Bridger Power Plant as a result or as part of this Project.
Jim Bridger Power Plant 230-kV	Existing: interconnection and generation driven	This substation would be expanded within to connect the Jim Bridger Power Plant with a new transmission line. No new generation would be added at the Jim Bridger Power Plant as a result or as part of this Project.
Populus	Existing: interconnection and generation-driven	This substation would interconnect with the proposed Gateway West 500-kV transmission lines, the existing Jim Bridger West 345-kV system, and the 345-kV transmission lines running north-south. The north-south 345-kV transmission lines (not part of Gateway West) begins at the Populus Substation (near Downey, Idaho), runs south to the Wasatch Front ^{1/} , and transports new resources south to the Wasatch Front demand centers.
Borah	Existing: interconnection and load-driven	The substation expansion would allow the interconnection of new 500-kV transmission lines between Populus and Midpoint, as well as a new termination of a 345-kV line to Kinport.
Midpoint	Existing: interconnection and load-driven	The substation expansion would allow interconnection of new transmission lines from Cedar Hill and Hemingway and allow for the existing 345-kV transmission line between Borah and Midpoint Substations to be energized at 500 kV, thereby creating a continuous 500-kV system expansion and reliability tie with the Cedar Hill Substation.

Table 1.3-2. Substations to be Connected by Gateway West (continued)

Substation	Description	Purpose
Cedar Hill ^{2/}	Proposed: part of Gateway West, load-driven	The station would serve two purposes: 1) a reliability tie between the proposed Gateway West north and south transmission lines, and 2) a 500-kV to 230-kV transformation station for serving the Magic Valley load. This would complement the existing service from Midpoint to the north of the Magic Valley. The Magic Valley Electrical Plan is under development, with this station being considered as a future source to the valley.
Hemingway	Existing; interconnection and load-driven	The station would serve two purposes: 1) an interconnection point for the Gateway West, Summer Lake, Boardman, and Captain Jack transmission lines; and 2) a facility to serve the Treasure Valley load. The station would be the southwestern 500-kV to 230-kV transformation point in the Treasure Valley 500-kV loop, as defined in the Treasure Valley Electrical Plan. The Hemingway Substation is the western terminus of the Gateway West Project because it is the major load point for the generation resources brought in from the east, primarily Wyoming.

1/ About 75 to 80 percent of all of the electricity use in the state of Utah is in the area known as the Wasatch Front. This area includes the entire electrical load served out of the Spanish Fork Substation in the south up to the electrical load served out of the Ben Lomond Substation in the north. This includes parts of Juab and Sanpete Counties, and all of Utah, Salt Lake, Summit, Tooele, Wasatch, Davis, Morgan, and Weber Counties.

2/ The Southern Idaho Task Force proposes a substation be built near Rogerson, Idaho, rather than at the Cedar Hill location.

1.3.4.2 Gateway West Transmission Line Segment Purposes

Table 1.3-3 summarizes the purpose for each of the segments of Gateway West. Each segment's Project description is presented in detail in Chapter 2.

Table 1.3-3. Gateway West Transmission Line Segments

Transmission Line Segment	Purpose
Segment 1E—Windstar to Aeolus, single-circuit 230-kV line	Transport existing and new resources to load centers farther west. This line also represents the Proponent's portion of a future 230-kV network of lines that would be required to integrate other project's wind resources.
Segment 1W—Windstar to Aeolus, single-circuit 230-kV, rebuilt 230-kV line	Transport existing and new resources to load centers farther west. This line also represents the Proponent's portion of a future 230-kV network of lines that would be required to integrate other project's wind resources.
Segment 2—Aeolus to Creston, double-circuit 500-kV line ^{1/}	Transport new resources to load centers farther west. Additionally would serve future oil and gas field load demand centers south of Wamsutter, Wyoming. One circuit would initially be operated at 230 kV.
Segment 3—Creston to Anticline, double-circuit 500-kV line ^{1/}	Transport new resources to load demand centers farther west. One circuit would initially be operated at 230 kV.
Segment 4—Anticline to Populus, double-circuit 500-kV line ^{1/}	Transport new resources to load demand centers farther west and interconnect with existing systems.
Segment 5—Populus to Borah, single-circuit 500-kV line	Transport Wyoming energy resources from Populus to loads in southern Idaho and the Pacific Northwest. Additionally, this line would transport Pacific Northwest sourced energy to Populus to serve load in the Salt Lake City metropolitan area. Provide physical separation to meet reliability criteria between a northern route (Populus – Borah – Midpoint – Hemingway) and a southern route (Populus – Cedar Hill – Hemingway). Physical separation is needed due to existing transmission line congestion (multiple lines in the same area) and wildland fires resulting in outages.

Table 1.3-3. Gateway West Transmission Line Segments (continued)

Transmission Line Segment	Purpose
Segment 6—Borah to Midpoint, energize existing 345-kV line to 500 kV	Increase the capacity of the existing line to transport existing and new energy resources in the service areas of the two Proponents. Replace or reconfigure up to five spans at each end to accommodate new connections in substations to new 500-kV bays. No new transmission line construction.
Segment 7—Populus to Cedar Hill, single-circuit 500-kV line	Transport existing and new energy resources to load demand centers to the west. Additionally, this line would transport existing and new Pacific Northwest energy resources to serve load demand centers to the east. Provide physical separation to meet reliability criteria between a northern route (Populus – Borah – Midpoint – Hemingway) and a southern route (Populus – Cedar Hill – Hemingway). Physical separation is needed due to existing transmission line congestion (multiple lines in the same area) and wildland fires resulting in outages.
Segment 8—Midpoint to Hemingway, single-circuit 500-kV line	Transport existing and new energy resources to load demand centers throughout the system. Provide physical separation to meet reliability criteria between a northern route (Populus – Borah – Midpoint – Hemingway) and a southern route (Populus – Cedar Hill – Hemingway). Physical separation is needed due to existing transmission line congestion (multiple lines in the same area) and wildland fires resulting in outages.
Segment 9—Cedar Hill to Hemingway, single-circuit 500-kV line	Transport energy resources to serve load demand centers throughout the system. Provide physical separation to meet reliability criteria between a northern route (Populus – Borah – Midpoint – Hemingway) and a southern route (Populus – Cedar Hill – Hemingway). Physical separation is needed due to existing transmission line congestion (multiple lines in the same area) and wildland fires resulting in outages.
Segment 10—Midpoint to Cedar Hill, single-circuit 500-kV line	Provide a midway tie between the northern and southern routes, which is required for system reliability to move flows of the north system or the south system when transporting greater than 2,500 MW of power.

1/ The Proponents are considering an optional ROW configuration that would replace the double-circuit structure with two single-circuit structures.

1.4 AUTHORIZING LAWS AND REGULATIONS

1.4.1 Overview

Table 1.4-1 lists the major federal, state, and local permits, approvals, and consultations identified for the construction and operations of Gateway West. The Proponents would be responsible for obtaining all permits and approvals required to implement the proposed Project regardless of whether they appear in this table.

Table 1.4-1. Major Permits, Approvals, and Consultations for the Gateway West Transmission Line Project

Regulatory Agency	Required Permit, Approval, or Consultation	Agency Action
Federal		
Advisory Council on Historic Preservation	Section 106 Consultation, National Historic Preservation Act (NHPA)	Has the opportunity to comment if the Project may affect cultural resources that are either listed on or eligible for listing on the National Register of Historic Places (NRHP).
U.S. Department of Agriculture, Forest Service	Temporary Use Permit	Consider issuance of a Temporary Use Permit for temporary activities in a construction right-of-way (ROW) on National Forest System (NFS) lands.
	Special Use Permit	Consider issuance of a Special Use Permit for use of NFS lands for construction and operation of electric transmission lines and associated facilities.

Table 1.4-1. Major Permits, Approvals, and Consultations for the Gateway West Transmission Line Project (continued)

Regulatory Agency	Required Permit, Approval, or Consultation	Agency Action
U.S. Department of Agriculture, Forest Service (cont.)	Operation and Maintenance Plan	Consider approval of detailed Operations and Maintenance Plan.
	Notice to Proceed	Following issuance of the Special Use Permit and approval of the Construction, Operations, and Maintenance Plan on NFS lands, consider issuance of a Notice to Proceed with Project development and mitigation activities.
U.S. Department of Defense, Army Corps of Engineers (USACE), Omaha District, Walla Walla District, Los Angeles District	Section 10, Rivers and Harbors Act Permit	Consider issuance of a Section 10 permit for construction across the Snake River.
	Section 404, Clean Water Act Permit	Consider issuance of a Section 404 permit for the placement of dredge or fill material into all waters of the United States, including jurisdictional wetlands.
U.S. Department of the Interior, Bureau of Land Management	Antiquities and Cultural Resource Use Permit	Consider issuance of antiquities and cultural resources use permit to conduct surveys and to excavate or remove cultural resources on federal lands.
	Various Resource Management Plans	Consider amending the plans.
	ROW Grant	Consider issuing long-term ROW grant for operations and maintenance of those portions of the Project that would encroach on the National System of Public Lands, including easements across federally owned waterways.
	Short-Term ROW Grant	Consider issuance of a short-term ROW grant for temporary activities in the construction ROW, on lands leading into the ROW, and associated areas such as staging areas that are within the National System of Public Lands.
	Plan of Development	Consider approval of detailed Plan of Development.
	Notice to Proceed	Following issuance of a ROW grant and approval of a Plan of Development, consider issuance of a Notice to Proceed with Project development and mitigation activities.
U.S. Department of the Interior, Bureau of Indian Affairs Fort Hall Indian Reservation	ROW Grant	Consider issuing a ROW grant if Alternative 5C is chosen across the Fort Hall Indian Reservation.
U.S. Department of the Interior, Bureau of Reclamation	License Agreement	Consider issuing a license agreement (valid for 25 years) for lands withdrawn for the purposes of the Seedskadee Project.
U.S. Department of Transportation, Federal Highway Administration	Encroachment Permit	Consider issuance of permit for transmission line crossing of federally funded highways (typically delegated to the state department of transportation).

Table 1.4-1. Major Permits, Approvals, and Consultations for the Gateway West Transmission Line Project (continued)

Regulatory Agency	Required Permit, Approval, or Consultation	Agency Action
U.S. Environmental Protection Agency, Regions 8, 9, and 10	Section 401, Clean Water Act (CWA) Water Quality Certification	In conjunction with states, consider issuance of water use and crossing permits.
	Section 402, CWA, National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activity for Idaho	Review and issue NPDES permit for discharge of Stormwater in Idaho. In Nevada and Wyoming, NPDES permitting is delegated to the Wyoming Department of Environmental Quality (see below).
	Section 404, CWA	Review CWA, Section 404 applications for dredge-and-fill applications for the USACE with 404(c) veto power for permits issued by the USACE.
U.S. Fish and Wildlife Service (USFWS), Regions 1, 6, and 8	Section 7 Consultation, Biological Opinion (Endangered Species Act)	Consider lead agency finding of impact on federally listed or proposed species. Provide Biological Opinion if the Project is likely to adversely affect federally listed or candidate species or their habitats.
	Fish and Wildlife Coordination Act	Provide comments to prevent loss of and damage to wildlife resources.
	Migratory Bird Treaty Act	Provide comments for the protection of migratory birds.
	Bald and Golden Eagle Protection Act	Provide comments for the protection of eagles.
U.S. Fish and Wildlife Service (Refuge Division)	Compatibility Determination	Provide concurrence for BLM to issue a ROW grant covering USFWS fee lands within National Wildlife Refuges (no fee lands presently crossed by proposed or alternative routes as of July 2011).
Wyoming		
All state agencies	Compliance with Executive Order (EO) 2011-5	Requires that all agencies demonstrate that activity proposed for permitting be compliant with the requirements of the EO in sage-grouse core areas.
Wyoming Department of Environmental Quality (WDEQ) and the Wyoming Industrial Siting Council	Industrial Siting Permit Wyoming Industrial Information and Siting Act under Chapters 1 and 2, Rules and Regulations of the Industrial Siting Council	Considers approval of construction and siting of projects with construction cost of \$176 million or more or 160 kV or greater.
WDEQ Air Quality Division	Construction Permit	Consider measures to control fugitive dust emissions during construction.
WDEQ Water Quality Division	Section 401, CWA, Water Quality Certification	Consider certification of a 404 permit issued by the USACE as consistent with state law and Section 401.
	Section 402, CWA, NPDES General Permit for Stormwater Discharges Associated with Construction Activity for Wyoming	Review and issue NPDES permit for discharge of stormwater.
Wyoming Game and Fish Department	Potential Project Impacts to Fish and Wildlife Species and Their Habitat	Coordinate with BLM, Forest Service, and USFWS on wildlife issues/impacts associated with the Project.

Table 1.4-1. Major Permits, Approvals, and Consultations for the Gateway West Transmission Line Project (continued)

Regulatory Agency	Required Permit, Approval, or Consultation	Agency Action
Wyoming State Historic Preservation Office	Section 106 Consultation, NHPA	Consult with the BLM, the Proponents, other land management agencies, and others regarding activities potentially affecting cultural resources.
Wyoming Office of State Lands and Investments	Easement Across State Lands	Consider issuance of a right-of-way across state lands.
Wyoming Public Service Commission,	Certificate of Public Convenience and Necessity	Consider issuance of a certificate to allow construction of a public utility, including transmission lines
Wyoming Department of Transportation	Encroachment Permit	Consider issuance of permit to cross or bore under state highways or be within a state highway ROW.
Various (may also require federal and county approvals)	Explosives Permit	Consider issuance of a license to store and use explosives.
Idaho		
Idaho Department of Environmental Quality	Fugitive Dust Control Plan	Consider measures to control fugitive dust emissions at each construction site.
	Section 401, CWA, Water Quality Certification	Consider certification of a 404 permit issued by the USACE as consistent with state law and Section 401.
Idaho Department of Transportation	Encroachment Permit	Consider issuance of permit to cross or bore under state highways or be within a state highway ROW.
Idaho Public Utility Commission,	Certificate of Public Convenience and Necessity	Consider issuance of a certificate to allow construction of a public utility, including transmission lines
Idaho State Historic Preservation Office	Section 106 Consultation, NHPA	Consult with the BLM, the Proponents, other land management agencies, and others regarding activities potentially affecting cultural resources.
Idaho Department of Lands	Easement Across State Lands or Rivers (IC Title 58 Chapter 6)	Consider issuance of ROWs across state lands.
Idaho Department of Fish and Game	Potential Project Impacts to Fish and Wildlife Species and Their Habitat	Coordinate with BLM, Forest Service, and USFWS on wildlife issues/impacts associated with the Project.
Idaho Department of Water Resources	Stream Channel Alteration Permit and Wetland Removal Fill Permit (IC Title 42 Chapter 38)	Consider alteration of any stream channel or wetland.
Various (may also require federal and local approvals)	Explosives Permit	Consider issuance of a license to store and use explosives.
Nevada		
Nevada Division of Environmental Protection	Stormwater general NPDES permit for construction	Consider issuance of permit when more than 1 acre will be disturbed.
	Section 401, CWA, Water Quality Certification	Consider certification of a 404 permit issued by the USACE as consistent with state law and Section 401.

Table 1.4-1. Major Permits, Approvals, and Consultations for the Gateway West Transmission Line Project (continued)

Regulatory Agency	Required Permit, Approval, or Consultation	Agency Action
Nevada Division of Environmental Protection-Bureau of Air Quality	Surface area disturbance permit for disturbance over 5 acres	Issue permit when more than 5 acres will be disturbed.
Nevada Department of Wildlife	Potential Project Impacts to Fish and Wildlife Species and Their Habitat	Coordinate with BLM, Forest Service, and USFWS on wildlife issues/impacts associated with the Project.
Nevada Public Utility Commission	Utility Environmental Protection Act Permit For Electric Transmission Line Project	Determine whether the proposed utility facility will serve the public interest as detailed in Nevada Administrative Code 703.4255.
Nevada State Historic Preservation Office	Section 106 Consultation, NHPA	Consult with the BLM, the Proponents, other land management agencies, and others regarding activities potentially affecting cultural resources.
Local and County (Idaho, Wyoming, and Nevada)		
County Commissioners	Conditional Use Permits	Consider issuance of conditional use permits for construction of transmission line and substations (varies by county).
Planning Department	Temporary Use Permit	Consider issuance of Temporary Use Permit for material and contractor yards.
Public Works Department	Encroachment Permit	Consider issuance of an encroachment permit for new access roads where they intersect with existing county roads.
	Road Crossing Permit	Consider issuance of road crossing permit for overhead transmission lines.
City of Kuna, Idaho	Variance and special use permits	Consider issuance of a variety of exceptions to existing land use plans, zones, etc.

1.4.2 Major Federal Consultations

Before the BLM can decide to grant the ROW, consultation with several Indian Tribes and federal and state agencies is required, including concurrence from the USFWS in the form of a concurrence letter or Biological Opinion (BO), concurrence from the Wyoming and Idaho State Historic Preservation Offices (SHPOs) concerning the treatment of historic properties, and concurrence from the Forest Service as part of the above consultations where NFS lands are involved.

1.4.2.1 Government-to-Government Consultation

The BLM is responsible for compliance with a host of laws, Executive Orders (EOs) and Memorandums, treaties, departmental policies, and other mandates regarding their legal relationships with and responsibilities to Native Americans. The government-to-government relationship that the United States has with federally recognized Indian Tribes started with the Commerce Clause of the U.S. Constitution where Tribes were recognized as sovereign nations, and has continued in federal laws and policies including but not limited to National Historic Preservation Act (NHPA)⁸, NEPA,

⁸ 16 U.S.C. § 470, as amended by Public Law (P.L.) 91-243, P.L.93-54, P.L.94-422, P.L.94-458, P.L.96-199, P.L.96-244, P.L.96-515, P.L.98-483, P.L.99-514, P.L.100-127, and P.L.102-575.

Archaeological Resources Protection Act (ARPA), American Indian Religious Freedom Act (AIRFA), Native American Graves Protection and Repatriation Act (NAGPRA), and EOs 12875, 12898, 13007, 13084, and 13175. Compliance with this body of law requires consultation with Tribes on the effects of proposed actions. Specific guidance includes, but is not limited to, formal government-to-government consultation, treatment of discoveries of burials and Native American objects, and treatment of traditional cultural properties [TCPs] and sacred sites and landscapes.

A list of Tribes that have been contacted to date and invited to government-to-government consultation is found in Chapter 5. Tribes have also been invited to participate as concurring parties in a Programmatic Agreement (PA) under development for this Project under Section 106 of the NHPA.

1.4.2.2 U.S. Fish and Wildlife Service

Consultation with the USFWS may be required to comply with the Endangered Species Act (ESA) under Section 7 of the ESA, as amended 16 U.S.C. § 1536(a)(2)(1988), for species listed as threatened or endangered or a candidate for listing. The BLM must analyze the effects of the proposed Project on the species and on their designated critical habitat if present. A Biological Assessment (BA) will identify the nature and extent of impacts and recommend mitigation measures to reduce potential impacts. If the BLM concludes that there could be an adverse impact to a listed species or candidate for listing, it would submit the BA to the USFWS with a request for concurrence with the impact assessment in either informal or formal consultation.

If the USFWS concludes that there could be an adverse effect on one or more listed or candidate species, but that the action would not jeopardize the existence or recovery of the species, then the USFWS would provide a BO regarding the action, accompanied by required terms and conditions to minimize the adverse impact, and by an Incidental Take Permit. Mitigation measures identified in the BO would be incorporated into the terms and conditions of a ROW grant.

1.4.2.3 Advisory Council on Historic Preservation

Federal agencies are required by Section 106 of the NHPA to consider the effects on historic properties (listed or eligible for listing on the National Register of Historic Places [NRHP]⁹). The BLM, as the lead federal agency, must provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on adverse effects on properties listed on or eligible for the NRHP.

1.4.2.4 State Historic Preservation Officers

The BLM would consult with each state's SHPO regarding adverse effects from the Project and to determine site eligibility. If historic properties would be subjected to adverse effects that cannot be avoided, the BLM would consult with each state's SHPO and the ACHP to determine eligibility and effect. The treatment of adverse effects would be addressed in a PA.

⁹ Authorized by the NHPA of 1966 (P.L. 102-575).

1.5 RELATIONSHIP TO POLICIES, PLANS, AND PROGRAMS

Land use plans, in various forms, are written by agencies to guide the management of resources and uses within their jurisdiction. The BLM has RMPs or MFPs in place for all lands affected by this Project. The Forest Service has Forest Plans in place for the NFs that may be affected. Table 1.5-1 lists the various federal land use plans that provide direction and management standards for activities within their jurisdiction, their year of publication, and the status of their revision. Some of the plans are currently under revision, but because no decision has been made, the current plan (and not the proposed or draft plan) is the applicable land use plan to determine whether the Project complies with the land use plan. The BLM will make no decision that would preclude the authorized officer from selecting any of the RMP alternatives under consideration in a plan revision before final plan decisions are made. The BLM will reconsider its determination of conformance with a plan if new plans are approved prior to the publication of the Final EIS.

Table 1.5-1. BLM and Forest Service Land Use Plan Status along Gateway West Proposed Route

Segment/Alternative	Administrative Unit	Applicable Plan Name	Plan Year
Wyoming			
1E, 1E-A, 1W(a), 1W(c)	Casper BLM Field Office	Casper RMP	2007
1E, 1W(a), 1W(c)	Medicine Bow-Routt National Forests	Medicine Bow National Forest Revised Forest Plan	2003
1E, 1E-B, 1W(a), 1W(c), 2, 2A, 2B, 3	Rawlins BLM Field Office	Rawlins RMP	2009
3, 4, 4A, 4B, 4C, 4D, 4E, 4F	Rock Springs BLM Field Office	Green River RMP	1997
4, 4A, 4B, 4C, 4D, 4E, 4F	Kemmerer BLM Field Office	Kemmerer RMP	2010
Idaho			
4, 4A, 4B, 4C, 4D, 4E, 4F, 5, 5A, 5B, 5C, 7, 7A, 7B, 7H, 7I, 7J	Pocatello Field Office	Pocatello RMP	1988
5, 5A, 5B, 5C, 5D, 7, 7A, 7B, 7H, 7I, 7J	Pocatello Field Office	Malad MFP	1981
4	Caribou-Targhee National Forest	Revised Forest Plan for the Caribou National Forest	2003
6, 8, 8A,10	Shoshone Field Office	Monument RMP	1986
8	Shoshone Field Office	Bennett Hills/Timmerman Hills MFP	1980
7H, 7I, 7J	Sawtooth National Forest	Sawtooth National Forest Revised Forest Plan	2003
5	Burley Field Office	Monument RMP	1985
5, 6, 7, 9, 10	Burley Field Office	Cassia RMP	1985
7I, 7J, 9, 9A, 9B, 9C, 10	Burley Field Office	Twin Falls MFP	1982
8A, 9, 9B	Jarbidge Field Office	Jarbidge RMP	1987
8	Four Rivers Field Office	Jarbidge RMP	1987
8, 8B, 8C	Four Rivers Field Office	Kuna MFP	1983
8, 8B, 8D, 9, 9D, 9E	Four Rivers Field Office	Morley Nelson Snake River Birds of Prey National Conservation Area RMP	2008
9, 9E	Bruneau Field Office	Bruneau MFP	1983
8, 8B, 9, 9D, 9E	Owyhee Field Office	Owyhee RMP	1999
Nevada			
7I, 7J	Wells Field Office	Wells RMP	1985

1.5.1 Plan Amendments

In some cases, the Proposed Route or Route Alternatives do not conform with the management objectives provided in the applicable plan. In these cases, the BLM and the Forest Service can deny the Project, require modifications to the Proposed Route or Route Alternatives so that they are in conformance, or amend the applicable plan. Where possible, the proposed Project has already been modified to conform with the plans. Portions of the Proposed Route and the Route Alternatives still do not conform with one or more of the plans. As part of the ROD, the BLM and the Forest Service will decide whether to implement an amendment for a corresponding route or alternative if the decision is to grant a ROW. Section 2.2.1 identifies whether an amendment would be needed for each Proposed Route and Route Alternative and what sections of Chapter 3 would be affected if a plan amendment were required. Chapter 3 resource sections discuss plan amendment consequences. Appendix F contains the specific plan amendment language and Appendix G contains the rationale and analyses for consideration of amending Visual Resource Management (VRM) classifications. Documentation on the need to amend plans is located in the administrative record.

1.5.2 West-Wide Energy Corridors

In addition to the BLM land use plans, and in response to Section 368 of the Energy Policy Act of 2005, the BLM has participated in a programmatic EIS (PEIS) for the designation of energy corridors on federal land in the 11 western states (DOE/EIS-0386 [DOE and BLM 2008]), commonly known as West-wide Energy corridors or WWE corridors, in which the DOE and the BLM were the lead federal agencies, and the Forest Service and other agencies were cooperators.

A Final PEIS was published on November 28, 2008 (DOE and BLM 2008). A ROD on the PEIS signed January 14, 2009, designates energy corridors and provides guidance, best management practices, and mitigation measures to be used where linear facilities are proposed crossing federally managed lands. Where the PEIS identifies corridors that are new corridors for the managing agencies, the ROD also amends 92 relevant land management plans to include the new corridor. Designation of corridors does not require their use nor does such designation exempt the federal agencies from conducting an environmental review on each project. While the PEIS amended the relevant land management plans to add a corridor, it did not necessarily amend underlying land allocations, including visual resource management designations, to allow for overhead transmission lines.

The Final ROD is available online at <http://corridoreis.anl.gov/eis/guide/index.cfm>. The Gateway West EIS takes into consideration the corridors and tiers to the Final PEIS. Further discussion regarding the use of the WWE corridors for the Project is found in Section 2.4.13. The Final ROD contains Interagency Operating Procedures (IOPs), which were developed under the Section 368 Corridor program. These IOPs establish minimum requirements that would be incorporated as appropriate into projects such as Gateway West. Appendix H describes the consideration given to Final ROD IOPs for the Gateway West Project.

1.6 RIGHT-OF-WAY EASEMENT ACQUISITION PROCESS FOR NON-FEDERAL OWNERS

The Proponents would negotiate details regarding needed land acquisition across privately owned lands, either in fee or as an easement, for the transmission line and associated facilities (substations, etc.) with each landowner. In exchange for the right to operate the transmission line and facilities, the Proponents would compensate the landowner for the use of the land. The negotiations between the Proponents and the individual landowner could include compensation for loss of use during construction, loss of nonrenewable or other resources, and the restoration of unavoidable damage to property during construction. BLM does not have the legal authority to impose stipulations on private lands. Private landowners may negotiate stipulations as part of their agreements.

If a fee ownership or an easement cannot be negotiated with the landowner, the Proponents may acquire the rights needed under eminent domain laws prevailing in the affected states. State statutes have been enacted that define the acquisition process on private and non-federal public lands for utilities.

1.7 SCOPE OF THE ANALYSIS

1.7.1 Geographic Scope

The geographic scope of this analysis varies by resource. In Chapter 3, each resource section begins by defining the geographic area of analysis relevant to that resource. In addition to larger geographic areas specifically defined for individual resource analyses, two areas are defined here and used consistently throughout this EIS.

Siting Study Area – This is the area shown on Figure 1.1-1. The study area was used during initial siting to allow the selection of the Proposed Route and Route Alternatives, and was initially defined as being 10 miles on either side of the centerlines of the Proposed Route and Route Alternatives considered in the initial siting process. The siting study area is also large enough to include all facilities, including roads, substations, structures, and any areas needed for construction. As mapped, the siting study area includes 29.4 million acres, distributed by ownership as shown in Table 1.7-1. As the Project study proceeded, the Proposed Route and Route Alternatives were refined and Analysis Areas more narrowly defined. See Chapter 3 for details.

Table 1.7-1. Land Ownership Distribution in the Gateway West Siting Study Area

Landowner/Land Manager	Percent of Study Area
BLM	41.9
Bureau of Reclamation	1.1
State of Idaho	1.8
Indian Reservation	1.4
Department of Defense	0.4
National Park	0.6
National Wildlife Refuge	0.3
Private	42.6
National Forest	6.0
State of Utah	0.2
State of Wyoming	3.7

Right-of-Way – The ROW refers to the area, generally centered on the proposed transmission line centerline, requested by the Proponents of BLM and of other landowners and managers for the construction, operations, and maintenance of the transmission line. The width depends on the number of circuits and voltage; a 300-foot ROW is requested for the double-circuit 500-kV sections, a 250-foot ROW for the 500-kV single-circuit sections of the Project, and a 125-foot ROW for the 230-kV single-circuit sections of the Project¹⁰. Agreed ROW width on non-federal lands may vary based on local agency permits or landowner negotiations. Additional lands would be required for associated facilities such as substations and access roads. Access roads may be within the ROW, but also may occur outside of the ROW. Estimated acres of land required for construction and operations including ROW and associated facilities by landowner are summarized in Table 1.7-2 and detailed in Chapter 2 and Appendix B.

Table 1.7-2. Land Ownership Distribution in the Gateway West Proposed Action ROW

Landowner/ Land Manager	Construction		Operations	
	Acres ^{1/, 2/}	Percent ^{2/}	Acres ^{2/}	Percent ^{2/}
BLM	16,252	44.4	14,680	45.1
Bureau of Reclamation	170	0.5	167	0.5
Military Reservations/ Corps of Engineers	<1	<0.1	<1	<0.1
National Forest	489	1.3	460	1.4
Other State Lands	8	<0.1	8	<0.1
Private	17,119	46.8	15,039	46.2
State	2,532	6.9	2,194	6.7
State Fish and Game	2	<0.1	2	<0.1
Water	17	<0.1	17	<0.1
Total	36,590	100.0	32,568	100.0

1/ Construction ROW acres are greater than operations ROW acres due to additional areas needed for staging areas, fly yards, and wiring pulling/splicing sites; however, not all of the ROW would actually be disturbed.

2/ Numbers are rounded to the nearest acre/percent; therefore, columns may not sum exactly.

Right-of-Way for Geotechnical Assessment – The Proponents conducted geotechnical surveys on federal lands under a short-term ROW granted by the BLM. These surveys were needed to collect geotechnical soil property information for the design of tower foundations and support structures. An Environmental Assessment (EA) was completed in June 2010 to analyze the application for the ROW. The EA is incorporated by reference into this EIS (BLM 2010a).

1.7.2 Temporal Scope

The analysis will address the effects of the Proposed Action, No Action Alternative, or Route Alternatives, including construction (short-term), operations and maintenance (long-term), and decommissioning and abandonment (long-term). Construction would occur between 2013 and 2018. Therefore, short-term effects occur within that 5-year time frame. Typically, transmission lines of this size are designed for a working life of 50 years although, in practice, the useful life is often much longer. Therefore, 50 years is considered long term.

¹⁰ The Proponents have proposed a Design Variation for detailed analysis that would replace the double-circuit 500-kV structures on Segments 2 through 4 with two single-circuit 500-kV structures using a 350-foot wide ROW (see Chapter 2, Section 2.1.2).

1.7.3 Actions Not Connected

Connected actions (those that are closely related and therefore should be discussed in the same impact statement) are defined by CEQ (40 CFR Part 1508.25) as actions that are automatically triggered that may require an EIS, cannot or will not proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for their justification. For this Project, interdependent actions considered as part of the overall Project include construction and operations for all 10 segments, the associated substation expansions or constructions, the fiber optic communication system and its regeneration stations, access roads, and all temporary staging areas and fly yards used during construction. Potentially related energy considerations and development actions discussed below were reviewed to determine if they were connected to the Proposed Action. There are no actions currently proposed that are connected actions.

1.7.3.1 Generation

Given the CEQ's definition, electrical generating sources that might use the Gateway West Project to transmit their power are not connected actions. Therefore, electrical generating sources are not analyzed in the direct and indirect effects analysis, but are included in the consideration of cumulative impacts. The requests for generation interconnection, whether they be fossil or renewable, to which the Proponents must respond under FERC regulations, are made to multiple carriers, including other utilities. If they are unable to respond to an interconnection request due to a denial of a ROW grant from BLM, other carriers may respond. Therefore, the new generation requests do not qualify as connected actions under the "automatically trigger" criterion.

The Gateway West Project can proceed without any one generation project. Multiple generators have made interconnection requests. The overall demand, rather than any one project, provides part of the impetus for the Project. Therefore, no particular generation project is necessarily tied to Gateway West.

Independent producers are building new wind farms and have proposed many more. Some of these projects would be constructed, sending power into the grid before the Gateway Project is permitted. Therefore, their wind farms are not driving the Project and are not "connected actions" under the "part of a larger action" criterion.

There are other proposals to carry new generation to various markets, including markets farther south in Nevada, California, and Arizona. If Gateway West is not built, the generation would likely still be built and other projects could reasonably be expected to carry the additional electricity to market. Therefore, the generation projects do not induce or automatically trigger the Project.

1.7.3.2 Load Growth (Demand)

Load growth, whether industrial, commercial, or residential, puts a strain on the existing grid to supply additional electricity. While the existing grid can, and does, supply the demand, as the load on each of the transmission lines grows, the opportunity for spreading that load on remaining transmission lines, should one fail, drops until the loss of a single transmission line can cause a cascading blackout scenario reminiscent of the Northeast disaster of August 14, 2003. While Gateway West would alleviate the

strain on the grid, it is not “automatically triggered” by load growth. There are other transmission lines that use other routes from other generation sources that could also help to supply and support the load, such that the Project is not required simply because of load growth.

Another connected action question is whether Gateway West “automatically triggers” load growth. Because the public utilities commissions of Idaho and Wyoming must allow the utilities to pass on the capital costs of system improvements, including but not limited to Gateway West, those commissions prohibit “speculative” construction and only permit capital improvements that show a clear demand ahead of construction. While this does include predictive models that estimate future growth, they are subject to review and approval by the commissions. Therefore, a project like Gateway West is in response to, rather than in anticipation of, load growth.

There is some concern that the mere presence of a competent grid that can manage current and future loads would incur further or greater growth than would occur without the grid in place. A large industrial facility, for example, if sited in the service area of either utility, could bring its own load growth and also bring direct and indirect employment that might increase local populations and therefore further increase load growth. In the absence of reassurances from the utilities that electrical supplies in the volumes needed by the industry would be available, the industry would locate elsewhere. While that is true for the grid as a whole, no individual project is responsible for the presence or absence of growth, because there are multiple paths along which such load demand could be satisfied. Gateway West, in and of itself, is not required to meet such growth nor would it, by itself, trigger such growth.

Load growth is a cumulative term assigned to a variety of smaller events, including population increases and new commercial and industrial projects that provide jobs to that population. None of those events is directly linked to Gateway West, and Gateway West would proceed independent of any one of those events. They do not qualify as a “larger action” because they are not, individually or collectively, part of any federal action, and are not an organized “action” in any permitting venue.

1.7.3.3 Other Electric Transmission Lines in the Region

Rocky Mountain Power’s Web page¹¹ includes the Project as part of its larger system planning for an “Energy Gateway” for its service area. Idaho Power’s Web page¹² includes the Project as part of its larger vision for improved grid efficiency, which includes other transmission lines. The WECC¹³ and the NTTG¹⁴ Web sites all show the Gateway West Project as one of several new projects needed to complete an efficient Northwest electrical service grid.

The other lines are either planned to be in service before Gateway West, planned well after the in-service dates of Gateway West, or serve different components of the service area. The construction of one of these components of the grid does not automatically trigger another because each can and will be built and operated

11 <http://www.rockymountainpower.net/ed/tp/eg.html>

12 <http://www.idahopower.com/AboutUs/PlanningForFuture/ProjectNews/GatewayWest/default.cfm>

13 <http://www.wecc.biz/Planning/TransmissionExpansion/Transmission/Pages/default.aspx>

14 <http://www.nttg.biz/site/>

independently. Each responds to a set of generation requests and demand growth projections for different parts of the overall service area. Some parts of the projected new grid have not yet been formally proposed and therefore would not be considered “connected” actions in any case.

While other proposed new transmission lines must be considered as part of the cumulative impacts analysis for Gateway West, they are not “connected” actions as they fail all three tests for connectivity:

1. No new transmission line would “automatically trigger” the construction of the Gateway West and the Project would not “automatically trigger” the construction of other transmission lines. Each of these lines serves a particular purpose in strengthening the overall grid. Though the grid will be more robust when several additional transmission lines are built, each is designed to function as a single addition to the grid, and must calculate how the grid would carry its increased load if for some reason the new transmission line fails. The grid only allows the construction of a new line if the old grid can still carry its additional load. Therefore, new transmission lines do not “automatically trigger” one another.
2. Gateway West has sufficient justification to be built in the absence of the other proposed transmission lines. It does not require the construction of another transmission line to be put into service. Therefore, it can and would proceed without other actions taken previously or simultaneously, failing the second test for connected action.
3. The electrical grid that supplies energy to North America, including Canada, is a complex and interconnected system. Any new transmission line proposed will be part of the interconnected whole. Therefore, Gateway West, along with any other new or existing transmission line, is part of an electric system. However, the mere existence of an interconnected electric grid is not an “action” in and of itself. Instead, it is an existing system with requirements for new participants, which Gateway West must meet to interconnect. Further, the justification for the Project is expressed in terms of a required response to new generation and an equally required response to increased load demand, rather than in terms of meeting the needs of “the grid.” Therefore, it fails the third test because it is not part of a larger action or dependent on the larger action for its justification.

1.8 SCOPING AND PUBLIC INVOLVEMENT

The agencies initiated public scoping with publication of a Notice of Intent to prepare an EIS in the Federal Register on May 16, 2008 (73 Federal Register 28425). The Notice of Intent was followed by a series of nine public meetings in 2008:

- Tuesday, June 3, 2008, in Twin Falls, Idaho;
- Tuesday, June 3, 2008, in Murphy, Idaho;
- Wednesday, June 4, 2008, in Pocatello, Idaho;
- Wednesday, June 4, 2008, in Boise, Idaho;
- Thursday, June 5, 2008, in Montpelier, Idaho;
- Monday, June 9, 2008, in Casper, Wyoming;

- Tuesday, June 10, 2008, in Rawlins, Wyoming;
- Wednesday, June 11, 2008, in Rock Springs, Wyoming; and
- Thursday, June 12, 2008, in Kemmerer, Wyoming.

Information about the Project was provided at the public meetings and via a BLM-hosted Internet Web site. Public comments were taken at the public meetings (oral and written), through the Web site, via e-mail, and regular postal service.

The public scoping period closed after 45 days on July 3, 2008. Due to the Independence Day holiday on July 4, any comments received by July 11, 2008, were included in the scoping comment analysis. Once all the comments were collected, they were read and substantive comments were sorted by subject. Comments were grouped and issues were identified that could be used to develop alternatives (including suggestions for alternate routes, mitigation measures or design criteria) and identify resource effects and sources of information.

After the formal public scoping period and during an internal review by the BLM and cooperating agencies, non-federal cooperating agencies requested an extended period of time to develop additional alternatives. The BLM responded by incorporating all comments received by September 4, 2009, into a revised scoping report. More information on details of the scoping comment analysis process and outcome can be found in the Gateway West Transmission Line Project Scoping Summary Report (Tetra Tech 2009a).

In addition, the Proponents have conducted multiple meetings to which landowners within a 2-mile-wide corridor were invited in 2008 and 2009. The comments received from these meetings or provided in writing thereafter were documented and submitted to BLM and were incorporated, if received by September 4, 2009, in the revised scoping report. The Scoping Report is posted on the BLM project Web site (http://www.wy.blm.gov/nepa/cfodocs/gateway_west).

Chapter 5 of this EIS, Consultation and Coordination, describes the outreach and scoping conducted. Although the formal scoping period has closed, additional scoping comments from agencies and the public at large regarding the Project will continue to be accepted through the release of the Draft EIS. The next formal opportunity to comment is during the 90-day comment period after the publication of this Draft EIS.

1.9 ISSUES TO BE ANALYZED

Development of this EIS, including the alternatives considered and the analysis, is driven by issues. Issues were determined through internal and public scoping, direction in agency handbooks, and requirements of federal and state laws and regulations. The following describes the issues that were determined from public scoping and where in the EIS these issues are addressed depending on how they were categorized.

1.9.1 Purpose and Need for the Project

Concerns about the purpose and need for the Project were related to why it is needed, who would benefit, and questions about the use of other, renewable energy sources.

These issues are addressed in this chapter, except where otherwise noted.

- Why is this line needed?
- Who would benefit from this transmission line?
- Could the need for this transmission line be avoided with conservation, improved efficiency, using renewable resources, or other management actions?
- Could the transmission line be designed so that sources of renewable energy may be incorporated?
- How fiscally sound are the Project and the Proponents?
- Is it physically feasible to construct and operate the Project on some of the rugged areas proposed?
- Why is redundancy needed in some parts of the line and not others?
- Would the transmission line benefit local utility customers?

1.9.2 Alternative Development Issues

Many suggestions have been made and considered regarding the location of the Proposed Route, or methods and timing of construction. These issues are addressed in Chapter 2 as part of the alternative development process and description of the alternatives (including design features and environmental protection measures).

Requests were made to analyze or dictate the type of electricity generation that would or should be carried on the transmission line. Section 1.7.3 provides an explanation of why generation is not considered a connected action and therefore is not included in the direct and indirect effects analysis. Some known, proposed generation sources that occur within the cumulative effects analysis area were considered in the cumulative effects analysis where applicable.

Route Alternatives were identified that could reduce the impacts suggested for each issue. The feasibility of each Route Alternative was then considered, such as physical ability to construct the Project in that location and other resource impacts. If it was determined that an Alternative was not feasible, it is described as an *Alternative Considered but Eliminated from Detailed Analysis* in Chapter 2. Alternative development issues and the alternatives that were considered in detail in the EIS are described in Table 1.9-1.

Table 1.9-1. Alternative Development Issues and Alternatives Considered in Detail

Alternative Development Issue	Alternatives Considered in Detail
Can the transmission line follow the West-Wide Energy (WWE) corridor as much as possible?	1E-A, 1W-A, 2A, 8A, and 9B
Can the transmission line follow existing transmission lines more closely?	2A, 4A, 5C, and 9B
Can the visual impacts on historical trails be reduced by moving the line away from the historic trails?	4B, 4C, 4D, 4E, and 7C
Can the transmission line be routed to avoid Cokeville Meadows NWR?	4C
Can the transmission line be routed to avoid impacts on active coal mines?	4D and 4E
Can the transmission line be routed to avoid visual impacts on Fossil Butte National Monument?	4C, 4D, and 4E

Table 1.9-1. Alternative Development Issues and Alternatives Considered in Detail (continued)

Alternative Development Issue	Alternatives Considered in Detail
Can the impacts on BLM VRM I and II and Forest Service VQOs/Scenic Integrity Objectives (SIO) Preservation, Retention, Partial Retention, and Modification Class lands be reduced or avoided?	5A, 5B, 7A, and 7A, 7B, 7H, 7I, & 7J
Is there a more direct (shorter) route?	4A, 5C,
Can the amount of high-quality forested habitat affected on BLM lands be reduced?	5A, 5B, 7A, and 7B
Can more sage grouse leks, lek buffers, or core/key sage grouse habitat be avoided?	4A, 4F 7C, and 7F
Can an alternative be developed that avoids areas where ROWs are not excluded by the Cassia RMP?	7D
Can the hang gliding launch area be avoided?	7E and 7F
Can the BLM motorized vehicle closure (winter range, mule deer, sage-grouse) be avoided to reduce the need for exceptions in order to access the line?	7G
Can the transmission line be moved away from active farms, residential developments, and planned infrastructure projects?	5C, 5E, 7H, 7I, 7J, 8B, 8C, 9A, 9B, 9C, 9D, 9E
Can routes be located more on public lands than private lands?	1E-C, 5C, 7E, 7F, 7H, 7I, 7J, 9D, 9E

1.9.3 Effects and Analysis Content Issues

Some of the issues raised in scoping dealt with the effects of the Project and what should be included in the analysis. These issues, summarized below, are detailed in Chapter 3 sections on affected environment, direct and indirect effects, in Chapter 4 on cumulative effects analysis for each resource, and in Chapter 5 on consultation.

Visual Resources

- Would an inventory of all potentially affected viewsheds be carried out?
- Could the transmission line be located where it is not visible from residences?
- Do the visual effects conform to Visual Resource Management or Visual/Scenic Quality Objectives established in land use plans?
- How would visual effects conform to goals in RMPs and Forest Plans?
- Would increased public access degrade visually sensitive areas?
- How would sensitive viewing areas be affected?
- Would the effects on visuals interfere with the public’s enjoyment of the site?
- Would public views be obstructed?
- What would visual impacts of construction be on natural formations such as mountains?
- How would impacts on visual resources affect income from tourism?
- What would be the effects on light pollution at night?
- What would be the impact on designated areas of scenic importance, such as Scenic Byways?

- How would visual effects be mitigated?

Cultural Resources

- What values do the area's Native American communities ascribe to places of historic and traditional significance?
- Would all impacted Native American tribes be consulted?
- What would be the impact on Native American Tribes and would their treaty rights and privileges be addressed?
- Would a complete inventory of potentially impacted cultural sites be carried out?
- Would the design of structures such as towers and substations minimize their visual impact to the setting of historic properties?
- What are the impacts on eligible prehistoric resources?
- What are the impacts on eligible historic resources?
- What would be the visual and recreational impacts on historic trails?
- Would TCPs be affected?
- Where the setting is an important aspect of the integrity of a property, would the setting be affected?

Socioeconomics

- Is there sufficient housing available for temporary and permanent workers?
- Would the temporary workforce have detrimental effects on existing services in local municipalities?
- What would be the effects on population numbers?
- What would be the effects on economic conditions?
- Would education or schools be affected?
- Would public services such as police or fire protection be impacted?
- How would the Project affect tax income to local governments?
- How would development of the Project impact municipal infrastructure and other planned development?
- How would the presence of the transmission line affect the quality of life of and enjoyment of the land by local residents?
- What would be the economic impacts to individuals?
- How would this Project affect tourism and recreation?
- Would construction or operations of the Project disrupt delivery of any public utilities such as electricity or sewer?
- What municipalities and other population concentrations would be impacted?
- Under what circumstances would private land be condemned, and what would the effects of this be?

Environmental Justice

- What would be the effects on minority populations or communities?
- What would be the effects on low income populations or communities?
- What would be the effects on Tribes?

Vegetation Communities

- How much vegetation would be cleared, and how much would be kept clear or otherwise maintained during operations?
- How quickly would the various vegetation communities that are cleared for construction but allowed to regrow during operations recover from disturbance?
- How much disturbance would occur in sagebrush communities and what would be the effects?
- How much disturbance would occur in native grasslands and what would be the effects?
- Would old-growth forest stands be affected, and what measures would be taken to protect this vegetation type?
- What would be the effects of construction, operations, and maintenance on fire occurrence, frequency, and severity; especially as they relate to important shrub-steppe and forest habitats?

Special Status Plants

- What would be the effects to endangered and threatened species, both individuals and populations?
- What would be the effects from changes in habitat for threatened, endangered, or sensitive (TES) plants?
- What effect would the potential spread of noxious weeds have on special status plants?
- Would hydrology be altered in occupied habitat for TES species associated with wetlands and what effect would the alteration have on those species?

Invasive Plant Species

- Would noxious weeds be introduced or spread into the ROW and adjacent areas?
- How would the presence of the Project impact efforts to control existing noxious weeds?
- Would a noxious weed prevention and abatement plan be developed in conjunction with the appropriate agencies?

Wetlands

- What would be the effects on permanent and seasonal wetlands?
- Would riparian areas be affected?

- Can equipment staging and/or refueling areas be kept away from wetlands and riparian areas?

General Wildlife and Fish

- What would the effects of Project construction and operations be on general, non-special-status wildlife, including birds, reptiles and amphibians, and large and small mammals?
- When routing the Project, would key wildlife habitats be avoided?
- What would the effects be on migratory bird species?
- Would there be a loss or fragmentation of wildlife habitat, especially for sagebrush-obligate and forest-dependent species?
- What wildlife mortality would occur during construction?
- Would there be a potential for disruption of breeding and reproductive activities of raptors?
- What would be the effects on big game migration?
- What would be the effects on big game and crucial big game winter range—habitat removal and disturbance during seasonal occupancy?
- What would be the effects on big game parturition areas from habitat removal and disturbance during seasonal occupancy?
- What would be the potential for avian collision during operations and what measures would be taken to minimize this risk?
- Would noise created during transmission line operations affect wildlife?
- What best management practices would be used during construction and operations to protect fish resources?
- How would disturbed instream habitats be protected and restored?
- What would be the potential for electrocution of large birds during operations?
- What would be the impacts on wildlife or wildlife habitat within an NWR, State Park, State Wildlife Management Area, or Special Management Area on federal lands specifically managed for one or more species of wildlife?

Special Status Wildlife and Fish Species

- What would be the effects of Project activities on species federally listed as threatened, endangered, candidate, or proposed?
- How would Project construction and operations affect predation on sage-grouse and sharp-tailed grouse, and how would these risks be minimized?
- How would the Project affect sage-grouse and sharp-tailed grouse habitat?
- Would the Project comply with sage-grouse and sharp-tailed grouse Conservation Plans?
- What agencies and conservation groups would be consulted?
- What would be the impacts on nesting and wintering eagles and their habitat?

- What would be the effects on species listed as sensitive by the BLM? Specifically, what would be the impacts to greater sage-grouse breeding and brood rearing areas and where would these impacts occur?
- What would be the effects on species listed as sensitive by the Forest Service?

Minerals

- What effects would the Project have on coal, trona, and phosphate mining areas and leases?
- What effects would the Project have on oil and natural gas wells and leases?

Paleontological Resources

- Would a full inventory of potentially affected paleontological resources be carried out?
- Would fossils be damaged during construction?
- Would fossils be removed or destroyed by increased access to protected areas?

Geologic Hazards

- Would a full inventory of potentially affected geological resources be carried out?
- What would be the potential for earthquakes to damage the transmission line and associated structures?
- What effect would subsidence from underground mining have on the transmission line, and what would be the hazard to workers or infrastructure?
- What effect would landslides have on the transmission line?
- What effect would construction blasting in shallow bedrock have on unstable landforms (landslide-prone areas) or on adjacent man-made structures not related to the transmission line?

Soils

- What would be the effect on soil erosion, and the potential for increased soil erosion from Project construction, operations, and decommissioning?
- What would be the effect on Project soils from compaction by vehicle and equipment traffic?
- What effect would topsoil disturbance have on soil productivity after construction and reclamation?

Water Resources

- What would be the impacts to water quality from roads and other causes of erosion?
- Would state water quality standards be met?
- Which pollutants could enter waterbodies and what would be the impacts from them?
- What would be the impacts on drinking water, wells, and springs?
- Would municipal water service to individual properties be affected?

- What would be the handling procedures for hazardous materials near waterbodies and wells?
- Would water be drawn from surface waterbodies, and what would the effects of that be?
- What storm water permits would be required, and would their stipulations be met?
- Would there be any impacts on water rights?
- What would be the impacts from sedimentation and temperature increases in sediment and temperature-impaired water bodies?
- Would there be a risk of floods?
- Would groundwater be affected?

Land Use and Recreation

- How would the project affect concentrated animal feeding operations (CAFO)?
- How would the project affect current agricultural systems, including pivot irrigation and advanced positioning systems used in farm equipment?
- What residential areas, planned development, and specially designated uses would be affected?
- How would the Project affect specially designated areas including NWRs, National Parks, National Monuments, Special Management Areas, and recreation sites, and roadless areas?
- How would the transmission line affect timber and fire management activities?
- What would be the effect on Indian Reservations?
- To what extent would the Project be co-located with existing developments?
- Would hunting or fishing be affected?
- Would there be any losses of recreational opportunities?
- Would the Project adhere to local land use plans and policies?
- Would the Project impact any military activities?
- How would construction of this transmission line influence the installation of more developments and projects in the same area in the future?
- Would construction buffers around buildings be maintained?
- What permits and plan amendments would be required for this project?
- What would be the plan for re-entries and maintenance activities on private land which would continue for decades into the future?

Agriculture

- How much agricultural land would be impacted, and what would the effects be?
- What would be the effects on livestock grazing of construction and operations of the transmission line?
- Would there be a loss of prime farmland?

- What would be the impacts to agricultural production including equipment operation and aerial spraying?
- Would there be a disruption to dairy operations and other types of CAFOs?
- How would the transmission line interfere with crop dusting?
- Would the transmission line cause electronic interference with agricultural equipment?

Transportation

- Would a full map and inventory of all new temporary and permanent access roads for the Project be developed?
- How would vehicles taking materials and personnel to and from the Project site affect traffic patterns?
- How would roads, highways, railroads, and airports be affected?
- How would pipelines be affected?
- Would there be an increase in off-highway vehicle use, and what would be the environmental impacts of this?
- Would construction and operations of the Project cut off access to any previously-accessible areas?
- How would roads affect livestock and grazing operations?
- What would be the environmental effects of new temporary and permanent roads constructed for this Project?

Air Quality

- Would the proposed Project be inconsistent with the applicable air quality plans?
- What would be the effects on human health of any increase in airborne pollutants caused by the Project?
- Would the proposed Project generate emissions of air pollutants that would exceed established thresholds, or cause adverse impacts on air quality?
- Would the proposed Project cause or contribute to any violation of any state or federal ambient air quality standards?
- Would the proposed Project expose sensitive receptors to substantial pollutant concentrations?
- What would be the methods used to control dust?
- What would be the steps taken to minimize air quality impacts?
- How much greenhouse gas emissions would be associated with this project, and what would be the effect of the Project on climate change?

Electrical Environment

- Would voltage on the conductors of the transmission lines build up, for example in large vehicles or pivot irrigation systems, and produce nuisance shocks, or lead to fuel ignition?

- Would electric and magnetic fields (EMF) associated with transmission lines cause health effects?
- Would the audible noise during operations be loud enough to be annoying or interfere with normal communication?
- Would stray voltage be a concern in the context of animal care where unwanted voltage on feeders, watering stations, or equipment such as milking machines, can lead to reduced food or water intake.
- Would services such as Global Positioning System (GPS) receivers, satellite dish receivers, cell phones, AM/FM (amplitude modulation/frequency modulation) radio, two-way radio communication, television, and internet be disrupted?

Public Safety

- Would the Project cause environmental contamination or expose workers or the public to contamination?
- What would be the effects of electric and magnetic fields?
- Would the transmission line withstand wind and ice storms?
- Would the transmission line cause fires or create a fire hazard?
- Would workers or the public be safe from electrocution?
- What would be the effects of the transmission line on human health?
- What would the Proponents do to prevent the dangers of downed lines and tower failure?
- How would the Proponents protect against potential vandalism or acts of terrorism to Project structures?
- Would electrical safety procedures be followed?

Noise

- Would people be exposed to noise levels in excess of standards established by existing regulations, ordinances, and standards?
- Would there be a substantial temporary or permanent increase in ambient noise levels in the Project vicinity above levels existing prior to Project construction and operation?
- Would people be exposed to ground-borne vibration or ground-borne noise levels?

1.9.4 Mitigation Measures and Monitoring

Mitigation measures were suggested that would minimize impacts to natural resources and to other areas of concern, such as public utilities. Monitoring and mitigation are addressed in each resource section in Chapter 3 and measures are summarized in Chapter 2 (Table 2.2-2).

- What would be the mitigation measures for air quality?
- Could the line be buried in order to reduce environmental impacts?
- What would be the measures taken to avoid interfering with existing utilities?

- What would be the mitigation measures for conflicts with existing uses for public lands?
- What would be the mitigation measures for impacts to private lands?
- Would alternatives be assessed using the CEQ's mitigation hierarchy?
- What would be the mitigation measures for cumulative impacts on biodiversity?
- What would be the mitigation measures for impacts to critical habitat?
- What would be the mitigation measures for impacts to soil?
- What would be the mitigation measures for impacts to visual resources?
- What would be the mitigation measures for impacts to historic and cultural resource sites?
- What would be the mitigation measures for impacts to conflicting uses of public lands?
- What would be the mitigation measures for impacts to grazing land?
- What would be the mitigation measures for impacts to water quality?
- What would be the mitigation measures for the loss of native plants and the spread of noxious weeds?
- Would accepted best management practices to protect water quality be implemented?
- What would the mitigation measures be to protect soil and water from fuel spills and other hazardous materials?
- What would be the mitigation measures for impacts to riparian areas and wetlands?
- What would be the mitigation measures for impacts to drinking water supplies?
- What would be mitigation measures and alternatives associated with the discharge of dredged or fill material into waters of the U.S.?
- What would be the mitigation measures that would prevent the spread of noxious weeds due to Project activities?
- What would be the mitigation measures related to impacts to vegetation communities such as mature sagebrush?
- What would be the mitigation measures for impacts to threatened, endangered, and special status wildlife species?
- What would be the mitigation measures for impacts to big game winter and parturition areas?
- What would be the mitigation measures for impacts to nesting raptors?
- What would be the mitigation measures for impacts to fish resources?
- What would be the mitigation measures for impacts from surface disturbance?
- What would be the mitigation measures for impacts to vegetation from clearing?
- Would there be a vegetation management plan that addresses noxious weeds?

1.10 CHANGES IN THE PROPOSED AND ALTERNATIVE ACTIONS

Since the Proponents first filed ROW grant applications in May 2007 with the BLM to request a ROW through Wyoming and Idaho for the Gateway West Transmission Line Project, the process of siting and routing has been a collaborative one. The Proponents have worked with the BLM; the Forest Service; other federal, state, and local agencies; local taskforces; and private landowners to find a route that minimizes impacts as much as possible consistent with the Proponents' purpose and need. Where BLM and others have recommended alternatives to be considered in detail, the Proponents have worked with the agencies to make each alternative as feasible from a cost and engineering standpoint as possible. This process has resulted in many small, and some rather large changes, and will continue to do so as more agency staff and members of the public are informed about the Project and weigh in with constructive suggestions for route improvement.

The environmental analysis for over 1,100 miles of transmission line with thousands of miles of already-identified alternatives required an agreed-upon set of proposed and alternative routes in order to prepare the Geographic Information System (GIS) and other analytical tools and to complete the writing of the Draft EIS. Therefore, for the purpose of this Draft EIS, the Proposed Route and the majority of the Route Alternatives, including their locations and descriptions, as of December 2010 were analyzed. Additional analysis was conducted in April 2011 for five Route Alternatives, including a new substation, added in early 2011.

1.11 ORGANIZATION OF THIS EIS

This document is organized into several chapters. Chapter 2 presents the Proposed Action and a range of reasonable alternatives to that action, including Route Alternatives and Schedule, Design, and Structure Variations. Chapter 3 presents the affected environment and environmental consequences, by resource and by segment, of the Proposed Route and Route Alternatives. Chapter 4 describes cumulative effects of the Project in combination with past, present, and other reasonably foreseeable projects overlapping in geography and time. Chapter 5 provides a record of consultation and coordination conducted during the NEPA process, including a summary of the public scoping process, and a list of preparers. Chapter 6 contains a glossary and index for this document. Chapter 7 contains the references for other chapters of the EIS. Appendices A, B, and C of this EIS contain maps of the Proposed Route and Route Alternatives; a detailed description of construction, operations, and maintenance actions common to all alternatives; and the environmental protection measures proposed by the Proponents, respectively. Appendix D contains oversized or lengthy tables referenced in the EIS sections, and Appendix E contains oversized figures referenced in the EIS sections. Appendix F provides proposed amendments to BLM RMPs, MFPs, and NFS Forest Plans for the Project. Appendix G provides the visual resource analysis that supports the proposed amendments in Appendix F. Appendix H describes consistency of the Gateway West Project with IOPs found in the Final RODs on the *Programmatic Environmental Impact Statement, Designation of Energy Corridors on Federal Land in the 11 Western States* (BLM 2009a; Forest Service 2009a). Appendix I contains a table listing wildlife season stipulations on federal and state lands, and Appendix J provides the framework for the analysis of sage-grouse impacts due to interstate transmission lines.