Notice of Intent to Apply for a Site Certificate for the Boardman to Hemingway Transmission Line

July 2010

Boardman to Hemingway

Transmission Line Project

Submitted to: Oregon Department of Energy

Prepared By:

Idaho Power Company
1221 West Idaho Street
Boise, ID 83702

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To Apply For a Site Certificate
For The

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ACRONYMS AND ABBREVIATIONS

AC	alternating current
ACEC	Area of Critical Environmental Concern
ASC	Application for Site Certificate
ATC	Available Transmission Capacity
B2H Project	Boardman to Hemingway 500 kV Project
BLM	Bureau of Land Management
BMP	best management practice
BPA	Bonneville Power Administration
CAP	Community Advisory Process
CFR	Code of Federal Regulations
Council	Energy Facility Siting Council
DoD	Department of Defense
DSL	Oregon Department of State Lands
EFSC	Energy Facility Siting Council
EFU	Exclusive Farm Use
EHS	extra high strength
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
GIS	geographic information system
I-84	Interstate 84
Idaho Power	Idaho Power Company
IDEQ	Idaho Department of Environmental Quality
IDWR	Idaho Department of Water Resources
IPUC	Idaho Public Utilities Commission
IRP	Integrated Resource Plan
kV	kilovolt
MP	milepost
MW	megawatt
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NF	National Forest
NFD	National Forest Development
NFS	National Forest System
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NTTG	Northern Tier Transmission Group
OAR	Oregon Administrative Rules
OATT	Open Access Transmission Tariff
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
OPGW	optical ground wire
OPUC	Oregon Public Utilities Commission
ORS	Oregon Revised Statute
PAT	Project Advisory Team

ACRONYMS AND ABBREVIATIONS (CONTINUED)

PGE	Portland General Electric
Project	Boardman to Hemingway 500 kV Project
ROW	right-of-way
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
VRM	Visual Resource Management
WECC	Western Electricity Coordinating Council
WRD	Oregon Water Resources Department

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EXHIBIT A APPLICANT INFORMATION

OAR 345-020-0011(1)(a)(A) – Applicant Contact Information
The name and address of the applicant including all co-owners of the proposed facility, the name, mailing address and telephone number of the contact person for the NOI, and if there is a contact person other than the applicant, the name, title, mailing address and telephone number of that person.

Name: Idaho Power Company
Mailing Address: P.O. Box 70
Boise, ID 83707

Primary Contact for the NOI:

Mr. Keith Georgeson, Project Manager
Idaho Power Company
1221W. Idaho Street
Boise, ID 83702
(208) 388-5093
kgeorgeson@idahopower.com

Ms. Stacey Baczkowski, Senior Biologist
Idaho Power Company
1221 W. Idaho Street
Boise, ID 83702
(208) 388-5093
sbaczkowski@idahopower.com

OAR 345-020-0011(1)(a)(B) – Other Participating Persons Contact Information
The contact name, address and telephone number of all participating persons, other than individuals, including but not limited to any parent corporation of the applicant, persons upon whom the applicant will rely for third-party permits or approvals related to the facility, and persons upon whom the applicant will rely in meeting any facility standard adopted by the Council.

Not applicable. The Applicant will not rely on any third party to obtain approvals related to the facility.

OAR 345-020-0011(1)(a)(C) – Corporate Information
If the applicant is a corporation, it shall give: (i) the full name, official designation, mailing address and telephone number of the officer responsible for submitting the NOI;
(ii) The date and place of its incorporation; (iii) A copy of its articles of incorporation and its authorization for submitting the NOI; and, (iv) In the case of a corporation not incorporated in Oregon, the name and address of the resident attorney-in-fact in this state and proof of registration to do business in Oregon.

(i) Officer:

Mr. Vern Porter
Vice President, Engineering and Operations
Idaho Power Company
1221 W. Idaho Street
Boise, ID 83702
(208) 388-2850

(ii) Date and Location of Incorporation: June 30, 1989 (Idaho).
Previously incorporated May 6, 1915, in Maine.

(iii) Copy of articles of Incorporation:	Copy of Restated Articles of Incorporation for Idaho Power Company is included as Appendix A-1 and a Letter of Authorization for submitting the Notice of Intent (NOI) is provided as Appendix A-2.
(iv) Non-Oregon Corporations: Idaho Power's registered agent in Oregon is:	CT Corporation System 388 State Street, Suite 420 Salem, OR 97301-3581

Idaho Power's resident attorney-in-fact in the State of Oregon for the purposes of this application:

Lisa F. Rackner
McDowell Rackner & Gibson PC
520 SW 6th Avenue, Suite 830
Portland, Oregon, 97204
Phone No: (503) 595-3925

Idaho Power's proof of registration to do business in Oregon is included in Appendix A-3 and the attorney's proof of registration to do business in Oregon is included in Appendix A-4.

OAR 345-020-0011(1)(a)(D) – Owner Information if Subsidiary
If the applicant is a wholly owned subsidiary of a company, corporation, or other business entity, in addition to the information required by paragraph (C), it shall give the full name and business address of each of the applicant's full or partial owners.

Idaho Power Company (Idaho Power) is a wholly owned subsidiary of IDACORP, Inc. IDACORP was formed in 1998 as a public utility holding company of Idaho Power. IDACORP also owns two smaller Idaho companies – Ida-West Energy Co., owner of several small hydropower projects, and IDACORP Financial Services, Inc., an affordable housing investor.

IDACORP
1221 W. Idaho St.
Boise, ID 83702-5627
(208) 388-2200

OAR 345-020-0011(1)(a)(E) – Association/Joint Venture Information
If the person submitting the NOI is an association of citizens, a joint venture or a partnership, it shall give: (i) The full name, official designation, mailing address and telephone number of the person responsible for submitting the NOI; (ii) The name, business address and telephone number of each person participating in the association, joint venture or partnership and the percentage interest held by each; (iii) Proof of registration to do business in Oregon; (iv) A copy of its articles of association, joint venture agreement or partnership agreement and a list of its members and their cities of residence; and (v) If there are no articles of association, joint venture agreement or partnership agreement, the applicant shall state that fact over the signature of each member.

Not applicable.

OAR 345-020-0011(1)(a)(F) – Public/Government Entity Information
If the applicant is a public or governmental entity, it shall give: (i) the full name, official designation, mailing address and telephone number of the person responsible for submitting the NOI; and (ii) Written authorization from the entity's governing body to submit an NOI.

Not applicable.

OAR 345-020-0011(1)(a)(G)
If the applicant is an individual, the individual shall give his or her mailing address and telephone number.

Not applicable.

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EXHIBIT B PROJECT DESCRIPTION

OAR 345-020-011(1)(b) – Information about the Proposed Facility
(A) A description of the proposed energy facility, including as applicable:

B1. Introduction

Idaho Power Company (Idaho Power) is proposing to construct and operate a new, approximately 300-mile-long, single-circuit 500-kilovolt (kV) electric transmission line between northeast Oregon and southwest Idaho (hereinafter the B2H Project or Project). The overhead, 500,000-volt (500-kV) transmission line will carry energy bi-directionally between a Portland General Electric (PGE) planned substation (Grassland Substation) adjacent to the Boardman Generating Plant, near Boardman in Morrow County, Oregon, and Idaho Power's existing Hemingway Substation, located in Owyhee County, Idaho. The proposed transmission line will connect with other transmission lines at the Grassland and Hemingway substations to transmit electricity on a regional scale and serve Idaho Power's native loads. B2H will traverse federal, state, and private lands in six counties in Oregon and Idaho. An overview map of the entire Project is provided in Figure C-1 and maps of the proposed facilities in each county are shown in Figures G-1-1 through G-1-8.

The following discussion provides general descriptions of the following aspects of the B2H Project: the purpose and need for the Project. the process through which Idaho Power identified the corridor that it is proposing for the B2H transmission line, and the major components and structures of the B2H Project, including information regarding both the construction and operations phases of the Project.

B2. Purpose and Need for the Boardman to Hemingway Project

Idaho Power's B2H Project is planned in order to serve as a crucial high-capacity connection between two key points in the existing bulk electric system. The bulk electric system can be thought of as a network of "hubs" and "spokes" in which substations serve as central "hubs" that send and receive electricity along distribution lines or "spokes." For this system to work reliably there must be a network of high-capacity transmission lines connecting major "hubs." These high-capacity transmission lines are often the only way to transport electricity from where it is generated to where it is needed to serve load. As discussed in detail in Exhibit H, the B2H Project would serve as a high-capacity "backbone" connecting the load served by Idaho Power's Hemingway Substation to electricity available in the Boardman, Oregon, vicinity, and vice versa, depending on the time of year.[1]

The B2H Project is proposed for the following reasons:

1. Meet the load requirements, as required under Oregon and Idaho law, of Idaho Power's retail customers located in the states of Idaho and Oregon;
2. Comply with the requirements of the Federal Energy Regulatory Commission that the company construct adequate transmission infrastructure to provide service to wholesale customers in accordance with the company's Open Access Transmission Tariff.

[1] For all of these reasons, B2H is not being built to support a particular new generation project, nor is it justified by a specific existing generation project.

3. Develop access to a cost effective, least cost resource as analyzed in the 2009 Integrated Resource Plan2 prepared by Idaho Power and submitted in December 2009 for acknowledgement to Oregon Public Utility Commission.
4. Maintain reliable electric service pursuant to the standards set forth by the North American Electric Reliability Corporation and implemented by the Western Electricity Coordinating Council.
5. Relieve congestion of the existing transmission system and enhance the reliable, efficient and cost-effective energy transfer capability between the Pacific Northwest and Intermountain regions during peak demands.

In short, the B2H Project will relieve existing congestion, alleviate reliability constraints, and provide additional capacity for the delivery of up to 250 megawatts (MW) of needed energy to Idaho Power's Boise service area by mid-2015 and an additional 175 MW by 2017.

B3. Description of Project Facilities

The Project consists of construction and operation of a single 500-kV high-voltage alternating current (AC) transmission line that will carry electrical power to and from the Grassland and Hemingway Substations. The transmission line will connect to the Grassland Substation and cross five counties in Oregon and one county in Idaho before terminating at the Hemingway Substation. The location of the Project facilities is described in detail in Exhibit C.

Transmission Line Corridor

In August 2008, Idaho Power submitted a Notice of Intent to apply for a site certificate to the Oregon Department of Energy – Energy Facility Siting Council (EFSC) to site the B2H transmission line on a then-proposed corridor. Following public scoping meetings conducted by the BLM, USFS, and EFSC in October 2008, Idaho Power initiated a Community Advisory Process (CAP) to re-evaluate the 2008 proposed corridor and engage residents, property owners, business leaders, and local officials in siting the transmission line. Through the CAP, Idaho Power partnered with communities from northeast Oregon to southwest Idaho to identify alternative potential routes for the B2H Project. Based on input received in the CAP, Idaho Power has now selected a new proposed corridor for the B2H Project (hereinafter "the Proposed Corridor"). Idaho Power withdrew the NOI it filed in 2008. By filing this new NOI, Idaho Power hereby indicates its intent to apply for a site certificate for the single corridor identified herein. Exhibit C describes the location of Idaho Power's new Proposed Corridor for the B2H Project in detail, and Exhibit D describes the CAP and the alternative routes that Idaho Power evaluated based on comments received during the CAP.

The Grassland Substation

PGE has proposed development of a new transmission substation in Morrow County on property adjacent to PGE's Boardman Power Plant. For PGE, development of the Grassland Substation would serve a number of purposes. First, PGE has proposed a "highly efficient and environmentally responsible natural gas combined-cycle power plant" known as the "Carty Generating Station" for this same location, and this project would require substation upgrades (PGE 2009 IRP at pages 195-196). Second, the Grassland Substation would also serve as the eastern terminus for PGE's proposed Cascade Crossing Project, a 200-mile 500-kV transmission line that would connect PGE's Boardman and Coyote Spring's plants to the

[2] Idaho Power. 2009. Integrated Resource Plan for 2009.
http://www.idahopower.com/pdfs/AboutUs/PlanningForFuture/irp/2009/2009IntegratedResourcePlan.pdf

southern portion of PGE's service territory near Salem, Oregon. It would also connect the B2H Project to the existing Northwest regional transmission line system.

However, if PGE's proposed Carty Generating Plant and Cascade Crossing Transmission Line Projects do not proceed as planned, Idaho Power will build the Grassland Substation as part of the B2H Project since it is needed in any event to support B2H. For this reason, Idaho Power has included construction of the Grassland Substation as part of the B2H Project in this NOI. If constructed only for the B2H Project, the size of the Grassland Substation will be reduced.

The Hemingway Substation

The existing non-jurisdictional Hemingway Substation is located approximately 30 miles southwest of Boise, Idaho, just off of Highway 78 near Wilson Creek Cemetery. Currently, the Hemingway Substation serves as a hub for Idaho Power's Treasure Valley load. The Hemingway Substation has been designed to accommodate the B2H Project, PacifiCorp/Idaho Power Gateway West transmission project, the PacifiCorp Hemingway-Captain Jack transmission project, and other additional Treasure Valley area transmission. The B2H bay will contain high-voltage circuit breakers and switches, bus supports, and control equipment similar to that described for the Grassland Substation.

OAR 345-020-011(1)(b)(A)(i)
The nominal electric generating capacity and the average electrical generating capacity, as defined in ORS 469.300;

Not applicable. This Project would enhance the region's electrical transmission capabilities. It does not generate electricity.

OAR 345-020-011(1)(b)(A)(ii)
Major components, structures and systems, including a description of the size, type and configuration of equipment used to generate electricity and useful thermal energy.

There is no equipment used to generate electricity and useful thermal energy.

OAR 345-020-011(1)(b)(A)(iii)
Methods for waste management and waste disposal, including, to the extent known, the amount of wastewater the applicant anticipates, the applicant's plans for disposal of wastewater and storm water, and the location of disposal.

Idaho Power anticipates that no waste water will be produced during operation of the facility. The following discussion relates to waste management during the construction phase of the B2H Project. Construction at the proposed Grassland and Hemingway Substations, as well as construction of the new transmission line, will generate a limited amount of solid wastes including concrete, hardware, and wood debris. Materials will be trucked to the Project during construction and operation. Excess soil, wood chips, concrete, and similar materials generated during construction will be spread on site or will be hauled off site to be disposed of in accordance with applicable state or federal laws and regulations. Once construction is complete, there will be no waste discharge from any of the facilities.

The substations will be constructed to control any possible spills from the transformers, and a stormwater control plan will be prepared for construction of the transmission line and ancillary facilities. Stormwater

within the ROW, off-site access roads, and other construction areas will be controlled to prevent erosion and sedimentation using standard best management practices (BMPs).

OAR 345-020-011(1)(b)(A)(iv)
For thermal power plants and electric generating facilities producing energy from wind, solar or geothermal energy

I. A discussion of the source, quantity, availability, and energy content of all fuels proposed to be used in the facility to generate electricity or useful thermal energy.

II. Methods for disposal of waste heat.

Not applicable.

OAR 345-020-011(1)(b)(A)(v)
For transmission lines, approximate transmission line voltage, load carrying capacity and type of current.

Approximate voltage – 500-kV

Load carrying capacity – The B2H Project single circuit 500-kV AC transmission line will be designed with a continuous rating of 3,300 MW or greater. However, due to reliability standards and the WECC's rating process, the initial implementation of the Project is likely to result in directional ratings of 1,400 MW east to west and 1,300 MW west to east. These ratings will result in an increase of the Idaho to Northwest (the Idaho to Northwest rated transfer path and the B2H Project line) transfer capability of 250 MW from east to west (exports into the Pacific Northwest), and 850 MW from west to east (imports into Idaho Power's service territory). The Idaho to Northwest east to west transfer capability increases by 1,400 MW when other proposed projects under development to the east (e.g. the high voltage transmission line east of the Hemingway Substation) are constructed. . The ratings are subject to technical peer review and will be revisited as other regional projects continue to develop.

Type of Current – Alternating current (AC).

OAR 345-020-011(b)(A)(v)
For pipelines, approximate operating pressure and delivery capacity in thousand cubic feet per day.

Not applicable.

OAR 345-020-011(b)(A)(vi)
For surface facilities related to underground gas storage, estimated daily injection and withdrawal rates, horsepower compression required to operate at design injection or withdrawal rates, operating pressure range and fuel type of compressors.

Not applicable.

OAR 345-020-011(b)(A)(vii)
For facilities to store liquefied natural gas, the approximate volume, maximum pressure, liquefaction and gasification capacity in thousand cubic feet per hour.

Not applicable.

OAR 345-020-011(b)(B)and(C)
B. A description of major components, structures and systems of each related or supporting facility.
C. The approximate dimensions of major facility structures and visible features.

B4. Major Transmission Line Components

ROW

The transmission line will be located within a ROW of sufficient width to ensure electrical performance and maintenance, approximately 250 feet.

Support Structures

The proposed transmission line circuits will typically be carried by self-supporting single-circuit steel lattice structures. Lattice steel structures will be fabricated with galvanized steel members treated to produce a dulled galvanized finish. Another structure that may be used in specialized situations is a steel pole H-frame with a weathered steel appearance. Figure B-1 illustrates the typical ROW and tangent structure configurations proposed for the Project. The average distance between towers will be 1,100 to 1,200 feet. The tower heights will vary depending on terrain and the requirement to maintain minimum conductor clearances from ground. Typically, the single-circuit towers will vary in height from 135 to 180 for the steel lattice structure and 100 to 165 feet for the steel pole H-frame structure.

Conductor

The new 500-kV three-phase circuit will consist of nine conductors, with three individual conductors for each of three phases. The individual conductors will be assembled in a triangular shape spaced 18 inches between each conductor. The triple-bundled configuration is proposed to provide adequate current carrying capacity and at the same time the bundle spacing provides for a reduction in audible noise and radio interference when compared to a single large-diameter conductor. Each 500 kV conductor will have an aluminum/steel and a non-specular finish.

Overhead Shield Wires

Each structure will have two lightning protection shield wires installed on the peaks of each of the structures. One of the shield wires will be composed of extra high strength (EHS) steel wire. The second shield wire will be an optical ground wire (OPGW) constructed of aluminum and steel, which carries glass fibers within its core. The glass fibers inside the OPGW shield wire will facilitate data transfer between Idaho Power facilities. The data transferred are required for system control and monitoring.

Substation Equipment

Typical equipment for the substation will include transmission structures for termination of the transmission line that are approximately 135 feet tall to the top of the lightning mast, support structures for the support of an interconnecting bus system, switches, breakers, and instrumentation for the control and protection of the equipment.

B5. Construction Phase

Although OAR 345-020-011(1)(b) does not specifically require Exhibit B to summarize the construction phase of the proposed facility, the following discussion describes how Idaho Power will construct the B2H Project.

Project construction will take place primarily at the new and expanded substations, and within a 250-foot right-of-way (ROW) along the path of the transmission line route. All towers and most access roads will be located within the ROW footprint. In addition to the ROW, staging areas for handling materials and equipment will be located at or near each substation and intermittently along each segment. While most conductor pulling sites will be located within the ROW, some will extend outside the permanent ROW at angle structures. Finally, a fiber optic communication system attached to the transmission towers will require signal regeneration facilities, which will be located at each substation and at approximately 50-mile intervals between the Grassland and Hemingway Substations.

Transmission Line Construction

Staging Areas and Fly Yards – Construction of the B2H Project will begin with the establishment of staging areas. The staging areas will serve as field offices; reporting locations for workers; parking space for vehicles and equipment; and sites for material storage, fabrication assembly, concrete batch plants, and stations for equipment maintenance. Staging areas, about 20 acres each, will be located near each end of each segment of the transmission line ROW and approximately every 25 miles along the route.

Additionally, fly yards for helicopter operations will be located approximately every 5 miles along the route where helicopter construction is planned and will occupy approximately 10 to 15 acres. Staging areas and helicopter fly yards will be fenced and their gates locked. Security guards will be stationed where needed. Staging area locations will be finalized following discussion with the land-managing agency or negotiations with landowners. In some areas, the staging area may need to be scraped by a bulldozer and a temporary layer of rock laid to provide an all-weather surface. Unless otherwise directed by the landowner, the rock will be removed from the staging area upon completion of construction and the area will be restored to pre-construction conditions.

Access Road Development – Construction of the new 500-kV transmission line will require vehicle, truck, and crane access to each new structure site for construction crews, materials, and equipment. Similarly, construction of other Project components such as staging areas and substation sites will require vehicle access.

Transmission line ROW access will consist of a combination of new access roads, improvements to existing roads, and use of existing roads as is. Wherever possible, existing roads will be used. Where no roads now exist, new access roads will be constructed within the proposed transmission line ROW whenever possible. In other cases access roads will be required between the proposed transmission line and existing roads.

After Project construction, existing and new permanent access roads will be used by maintenance crews and vehicles for inspection and maintenance activities. Temporary construction roads not required for future maintenance access will be restored after completion of Project construction.

Clearing and Grading – The proposed ROW will be cleared of vegetation where necessary to protect the operational integrity of the transmission lines. Low-growing vegetation such as grass or sagebrush will be removed only at construction sites. In forested areas, trees within the ROW that could interfere with construction will be removed. Hazard trees outside of the ROW will also be removed. Access roads, structure work areas (approximately 250 by 250 feet), and staging areas will be graded only where necessary.

Foundation Installation – Typically, lattice structures will have four drilled concrete pier foundations, one for each leg. In rock conditions, rock anchoring or mini-pile systems will be employed. For the majority of structures, concrete will be delivered by truck. Other foundation systems such as steel grillage, steel plate, precast concrete, and micropiles will also be considered.

Erecting Structures and Stringing Conductors – Once foundations are in place, construction crews will erect the proposed structures along the ROW. Steel members of the lattice structures will be delivered to each site, assembled using a crane, and then lifted in sections onto the foundations. If there are places where road access for the large cranes is not practical, towers may be partially assembled in an off-ROW fly yard and transported to the foundations by helicopter. Next, insulators will be installed and stringing sheaves (rollers) attached to the insulators.

The conductors will be strung by pulling a small-diameter cable (sock line) through the stringing sheaves, typically using a small helicopter. The sock line will be then attached to a truck-mounted winch and to either a larger cable or the conductor bundle, and the conductors will be pulled through the stringing sheaves to their final location. The truck-mounted winches will then pull the conductor to its operating tension and the conductors are clipped permanently to the insulators and spliced to the next section of conductors. Conductor pulling sites located approximately every 3 miles along the ROW (depending on the length of cable provided per spool) will provide space for tractors, trailers with spools, and tensioning equipment. Each tower will be grounded to protect from lightning damage. In accordance with Idaho Power's Avian Protection Plan, avian-safe design will be implemented as practical and feasible to reduce risk of bird collision and electrocution in high avian risk areas.

Restoration – After construction, the ROW will be restored to the extent feasible and as appropriate. All practical means will be employed to restore the land to its original contour and to restore natural drainage patterns along the ROW. In all areas, the B2H Project will strive to minimize surface disturbance.

Substation Construction

The Project will require construction activities at two substations.. The proposed Grassland Substation will be needed to electrically connect the new transmission line with the existing regional transmission line system. In addition, equipment will be added within the fence line of the existing non-jurisdictional Hemingway Substation. The appearance of the new and expanded substations will be similar to the appearance of the existing substations.

Access Roads – Permanent all-weather access roads are required at substation site locations to provide access for personnel, material deliveries, vehicles, trucks, heavy equipment, low-boy tractor trailer rigs (used for moving large transformers), and ongoing maintenance activities at the site. The Grassland, Substation site will require construction of a new permanent access road.

Soil Boring – Typically, soil borings will be made at three to four locations in the substation, particularly at the approximate location of large structures and equipment such as transmission line dead ends and transformers, to determine the engineering properties of the soil.

Clearing and Grading – The entire substation area will be cleared of all vegetation, including a distance of about 10 feet outside the fence. This is required for personnel safety due to grounding concerns.

Grounding – A grounding system is required in the substation for detection of faults and for personnel safety.

Fencing – Security fencing is installed around the entire perimeter of the substation to protect sensitive equipment and prevent accidental contact with energized conductors by third parties.

Foundation Installation – Foundations for supporting structures are generally slabs, spread footings, and drilled piers.

Oil Containment – Some types of electrical equipment are filled with an insulating mineral oil. Containment structures are required to prevent oil from this equipment from getting into the ground or water bodies in the event of a rupture or leak.

Control Building Erection – One or more control buildings are required at the substation to house protective relays, control devices, battery banks for primary control power, and remote monitoring equipment.

Storage and Staging Yards – A construction material storage yard may be located outside the fenced substation.. This storage yard may be located on part of the substation property or on nearby property leased by the contractor. After construction is completed, all debris and unused materials will be removed and the staging/storage yard returned to preconstruction conditions by the construction contractor.

B6. Operations Phase

Operation and maintenance activities will include patrol of the lines, climbing inspections, tower and wire maintenance, and repairs of access roads. Idaho Power will keep necessary work areas around all structures clear of vegetation and will limit the height of vegetation along the ROW. Access roads to each structure site will be repaired as necessary and kept clear of obstructions.

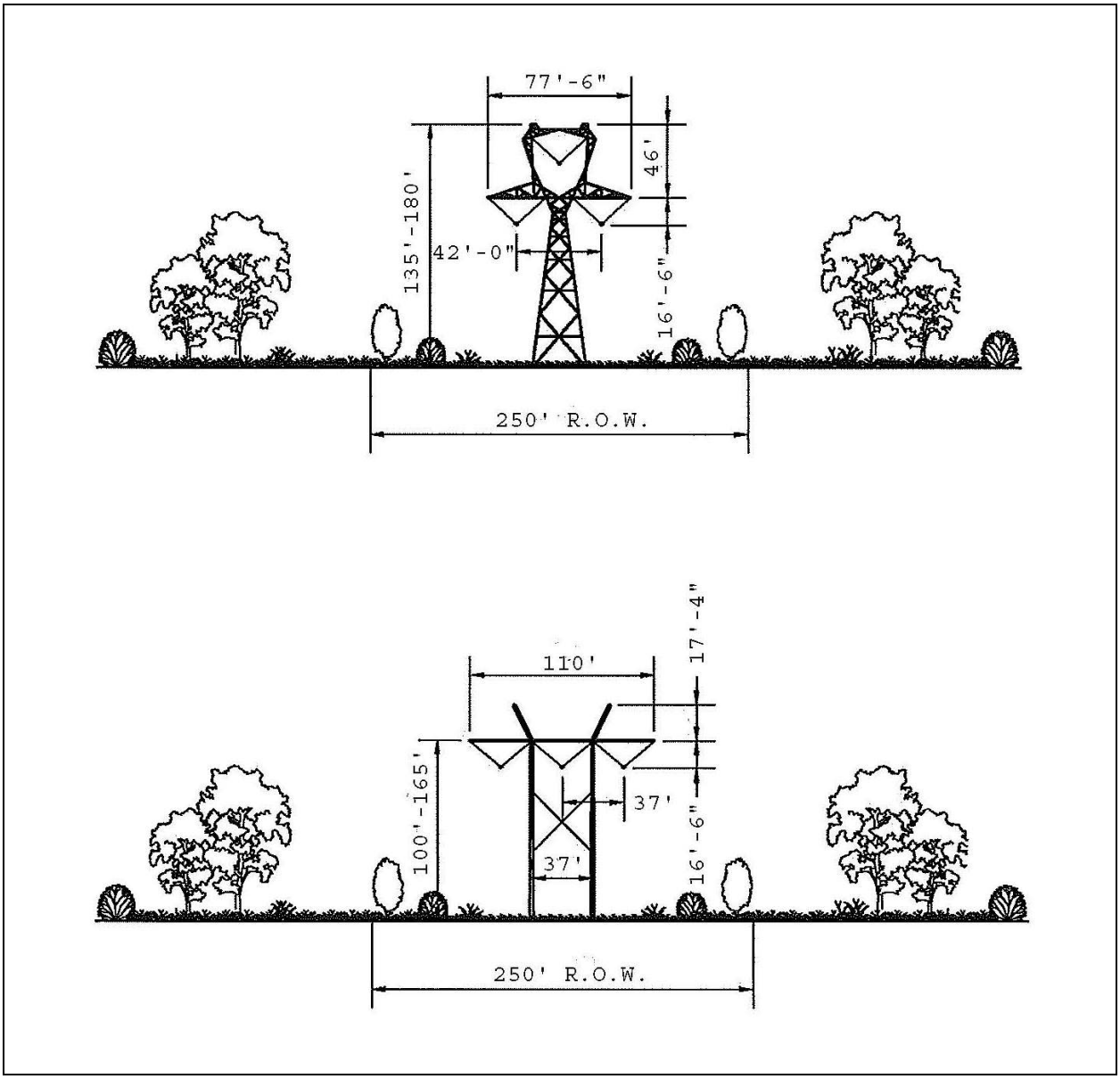

Figure B-1. Proposed and Alternate ROW Designs for Single-Circuit Structures

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EXHIBIT C PROJECT LOCATION

OAR 345-020-011(1)(c)

A description of the location of the proposed energy facility site and the proposed site of each related or supporting facility and all areas that might be temporarily disturbed during construction of the facility, including the approximate land area of each.

C1. The Proposed Energy Facility Site

Under the energy facility siting regulations adopted by the Oregon Department of Energy, an "energy facility site" means "all land upon which an energy facility is located or proposed to be located." OAR 345-001-0010(52). A "site boundary," in turn, is defined as "the perimeter of the site of a proposed energy facility, its related supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant. OAR 345-001-0010(53). The regulations also define a "corridor" as "a continuous area of land not more than one-half mile in width and running the entire length of a proposed transmission line or pipeline," and a "micrositing corridor" as "a continuous area of land within which construction of facility components may occur, subject to site certificate conditions.

For purposes of this NOI, Idaho Power defines its site boundary to include the proposed Grassland substation, the existing Hemingway substation, and all access roads, staging areas, and fly yards. It also includes a one-half mile wide corridor along the entire length of the proposed transmission line within which Idaho Power intends to request permission to locate its facilities. The Project corridor proposed by Idaho Power is necessarily wider than the actual "right of way" for which Idaho Power will acquire an easement from the land owner and then actually build the transmission line following EFSC's granting of a site certificate for that corridor. Idaho Power is proposing a 250 foot ROW for the Project, and understands that the ROW must be no wider than necessary for construction and operation.

As discussed in greater detail in Exhibit D, Idaho Power is proposing a single corridor for the B2H Project, because it believes that there is no alternate corridor that is likely to better meet Idaho Power's needs and satisfy the Council's standards. However, Idaho Power has concluded that further study is warranted in order to determine the optimal location of the line for six short alternative locations. Accordingly, Idaho Power has included alternative corridors for those locations of the Proposed Corridor. Idaho Power expects to refine its Proposed Corridor based on feedback relating to the alternative segments included in this NOI, and it will submit a single refined micrositing corridor in its Application for Site Certificate (ASC).

C2. Location

The location of the Proposed Corridor (including six short alternative corridors) is shown on Figure C-1. Of the total 300-mile corridor length, 276 miles will be in Oregon and 24 miles will be in Idaho. The Proposed Corridor, substation locations, and six alternative corridors, are also shown by county on detailed maps in Figures G-1-1 through G-1-8. The Proposed Corridor crosses Morrow, Umatilla, Union, Baker, and Malheur counties in Oregon and Owyhee County in Idaho. The Boardman to Hemingway Proposed Corridor is composed of six geographic segments, one for each county, as described below. The northern segment will connect into the electric grid via the Grassland Substation located at the existing Boardman Generating Plant yard located near Boardman, Oregon. The Proposed Corridor will then continue to the south and east, as shown on Figure C-1 until reaching the existing planned

Hemingway Substation located approximately 28 miles southwest of Boise, Idaho. Additional facilities will be added within the fence line of the non-jurisdictional Hemingway Substation. In addition, the Project will include ancillary facilities such as cathodic protection and communication systems. The transmission line will be located across a combination of federal, state, and private lands. Approximately 66 percent of the corridor length is privately owned, 27 percent is administered by the BLM, 3 percent is Department of Defense (DoD) land, 2 percent is National Forest (NF) land administered by the U.S. Forest Service (USFS), 2 percent is state and other lands, and less than 1 percent is administered by the Bureau of Reclamation. Table C-1 describes land ownership by county and major land-managing agency and owner.

Table C-1. Route Mileage Summary by Land Manager/Owner

Segment	County	Miles	National Forest System		Bureau of Reclamation		BLM Public Lands		Department of Defense		State and Municipal		Private	
			Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%
1	Morrow	36.2	-		-		-		8.1	22.4	-		28.1	77.6
2	Umatilla	60.9	-		-		-		-		-		60.9	100.0
3	Union	40.3	6.3	15.6	-		0.7	1.9	-		0.1	0.2	33.1	82.2
4	Baker	68.2	-		-		16.0	23.5	-		3.0	4.3	49.2	72.2
5	Malheur	70.7	-		0.5	0.7	46.8	66.2	-		-		23.4	33.1
6	Owyhee	23.5	-		-		17.3	73.7	-		3.5	14.8	2.7	11.4
	Totals	**299.8**	**6.3**	2.1	**0.5**	0.7	**80.8**	27.0	**8.1**	2.7	**6.6**	2.2	**197.4**	65.8

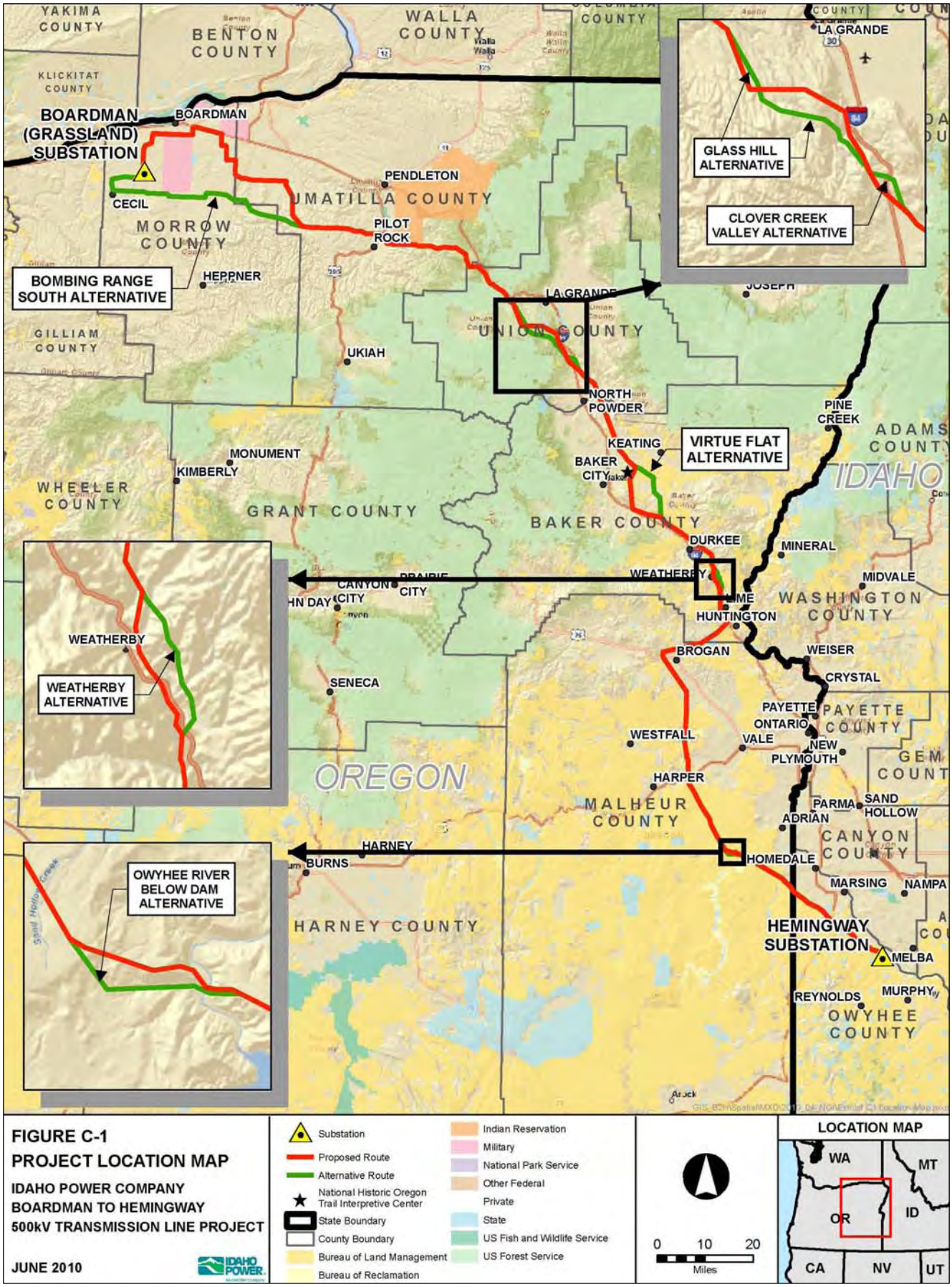
C3. Segment Descriptions

Segment 1 – Morrow County

The majority of this northernmost segment crosses irrigated agricultural land and poplar tree farms owned by private individuals, except for the 8.1-mile segment that crosses the Boardman Bombing Range owned by the DoD. The line passes to the south and east of the city of Boardman and follows the Interstate 84 (I-84) corridor for about 6 miles.

Segment 1 begins at the proposed Grassland Substation, which is the northern terminus of the B2H Project (see Figure G-1-1). The proposed substation site is located west of the Boardman Power Plant and south of the city of Boardman in northern Morrow County. The Proposed Corridor exits the Grassland Substation site to the northwest, crossing and then paralleling the west side of an unpaved and unnamed road and the Bonneville Power Administration (BPA) Boardman-Dalreed PACW 230-kV line for about 1.6 miles. In the segment between mileposts (MPs) 1.7 and 2.7, the proposed 500-kV line parallels an existing 230-kV line and the west side of Tower Road and crosses the approach zone to the Boardman Bombing Range. At MP 3.7 the existing 230-kV line angles to the west and the Proposed Corridor will cross over this wood-pole H-frame line.

At about MPs 4.8 and 5.4 the Proposed Corridor crosses an unpaved and unnamed road in a location where the road curves northeast to avoid several irrigation pivots. The route then parallels the northwest side of this road for approximately 1.2 miles before crossing Tower Road and paralleling its east side for about 2 miles. At MP 8.6 it turns north and then northeast, crossing into the Boardman Bombing Range at MP 9.0 and paralleling the south side of its northern boundary for 8.1 miles to its eastern boundary.


YAKIMA COUNTY
BENTON COUNTY
WALLA COUNTY
KLICKITAT COUNTY
BOARDMAN (GRASSLAND) SUBSTATION
BOARDMAN
CECIL
PENDLETON
UMATILLA COUNTY
MORROW COUNTY
PILOT ROCK
HEPPNER
BOMBING RANGE SOUTH ALTERNATIVE
GILLIAM COUNTY
UKIAH
LA GRANDE
UNION COUNTY
NORTH POWDER
PINE CREEK
ADAMS COUNTY
IDAHO
KEATING
VIRTUE FLAT ALTERNATIVE
BAKER CITY
MONUMENT
KIMBERLY
WHEELER COUNTY
GRANT COUNTY
BAKER COUNTY
DURKEE
MINERAL
WEATHERBY
MIDVALE
CANYON CITY
JOHN DAY
PRAIRIE CITY
HUNTINGTON
WASHINGTON COUNTY
BROGAN
WEISER
CRYSTAL
SENECA
PAYETTE
PAYETTE COUNTY
ONTARIO
WESTFALL
VALE
NEW PLYMOUTH
GEM COUNTY
OREGON
HARPER
MALHEUR COUNTY
PARMA
SAND HOLLOW
ADRIAN
CANYON COUNTY
HARNEY
BURNS
HOMEDALE
MARSING
NAMPA
HARNEY COUNTY
HEMINGWAY SUBSTATION
MELBA
REYNOLDS
MURPHY
OWYHEE COUNTY
GLASS HILL ALTERNATIVE
CLOVER CREEK VALLEY ALTERNATIVE
WEATHERBY ALTERNATIVE
OWYHEE RIVER BELOW DAM ALTERNATIVE
FIGURE C-1
PROJECT LOCATION MAP
IDAHO POWER COMPANY
BOARDMAN TO HEMINGWAY
500kV TRANSMISSION LINE PROJECT
JUNE 2010
Substation
Proposed Route
Alternative Route
National Historic Oregon Trail Interpretive Center
State Boundary
County Boundary
Bureau of Land Management
Bureau of Reclamation
Indian Reservation
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife Service
US Forest Service
0 10 20
Miles
LOCATION MAP
WA
MT
OR
ID
CA
NV
UT

After crossing the Boardman Bombing Range , the Proposed Corridor turns almost due north and parallels the west side of Bombing Range Road and a BPA 115-kV line for about 1.5 miles. At MP 18.6 on the south side of Wilson Road the route angles northwest crossing Bombing Range Road, the BPA 115-kV line and the Umatilla Electric Cooperative Association 69-kV line to join the south side of I-84 at MP 19.3. The route parallels I-84 for 5.6 miles to MP 24.9 where it turns south following the border of a poplar tree farm. At MP 36.2 the Proposed Corridor turns southwest into Umatilla County, passing south of a wind farm and north of Echo Wind Farm.

As described in greater detail in Exhibit D, Idaho Power has included an alternative for this first segment of the Proposed Corridor called the "Bombing Range South Alternative."

Segment 2 – Umatilla County

Segment 2 of the Proposed Corridor is approximately 60 miles long and crosses only privately owned land. The Proposed Corridor (see Figures G-1-2 and G-1-3) crosses into Umatilla County about 5.0 miles north of Butter Creek Junction and almost immediately crosses the Oregon National Historic Trail. It then continues generally southeast for about 1.6 miles before angling east and descending into and crossing Butter Creek and State Route 207 (MP 39.1). On the east side of State Route 207 this route continues eastward for 8.0 miles and passes along the north side of Service Buttes. At MP 47.1 the route turns due south to MP 47.8 where it angles southeast, crossing Alkali Canyon twice. It then turns due south on the south side of the canyon at MP 50.7 and angles southeast at MP 54.5 to continue across Spikes Gulch and Slusher Canyon.

From MP 57.6, the Proposed Corridor proceeds nearly due east, crossing Slusher Canyon and Alkali Canyon once more. The route continues in this general direction for about 16.7 miles where it turns slightly southeast and crosses Birch Creek (MP 74.3) and U.S. Route 395 (MP 74.5) about 2.9 miles northeast of Pilot Rock. The route continues southeast and at MP 77.0 it turns east paralleling about 0.5 mile to the south of the Umatilla Indian Reservation boundary for approximately 6.7 miles. The route crosses Little McKay Creek at MP 77.0 and then McKay Creek at about MP 84.7, about 0.7 mile south of McKay, and continues east.

At MP 91.3 the Proposed Corridor turns southeast after crossing Red Spring Canyon. The route continues about 5.3 miles to MP 96.5 where it turns due east passing along the southern boundary of a Umatilla National Forest Service land parcel and entering Union County at approximately MP 97.2.

As described in greater detail in Exhibit D, Idaho Power's "Bombing Range South Alternative" provides an alternative route for the beginning of Segment 2 in Umatilla County.

Segment 3 – Union County

Figure G-1-4 shows the location of the Proposed Corridor in Union County. The Proposed Corridor crosses Union County for 40.6 miles, with 5.4 miles in the Wallowa-Whitman NF, 0.6 mile across the Vale District of the BLM and the rest on privately owned lands. After entering Union County the Proposed Corridor continues east for 1.3 miles crossing an existing railroad, Old U.S. Highway 30, and Summit Road twice before turning southeast at MP 98.4. At this location the Proposed Corridor begins running parallel, (offset approximately 1,200 feet) to the south and west sides of an existing BPA 230-kV line. About 2.0 miles farther, the Proposed Corridor leaves the existing transmission line and continues southeast along the east side of Railroad Canyon, which it crosses at MP 103.3. Proceeding southeast, the route crosses National Forest Development (NFD) 21 Road (MP 104.4) and the existing BPA 230-kV line (MP 104.6) mentioned earlier. In the 8.8-mile section from MP 98.4 to 107.2, the Proposed Corridor is 0.25 mile to 0.75 mile southwest of I-84 with 5.4 miles in the existing Wallowa-Whitman NF utility corridor. Idaho Power's application to the USFS for a Special Use Permit includes this 5.4-mile segment.

At MP 106.9 the Proposed Corridor angles southeast and crosses the existing 230-kV line a second time at MP 107.4. About 0.5 mile farther it turns southeasterly to cross the Grande Ronde River and State Route 244 approximately one mile south of I-84. At about 0.9 mile southeast of State Route 244 the route angles to parallel a ridge on the east side of Whiskey Creek and crosses Whiskey Creek Road at about MP 111.4. The route continues parallel to the ridges to MP 114.4 where it angles due east for 4.3 miles crossing Little Graves Creek, Graves Creek, Little Rock Creek, and Rock Creek. On the north side of Glass Hill (MP 118.7) the Proposed Corridor angles southeast, crossing Glass Hill Road and Sheep Creek. The route continues for 3.5 miles to MP 122.2 where it again angles almost due south to cross Ladd Creek and Ladd Canyon Road (about MP 123.6).

On the south side of Ladd Creek and Ladd Canyon Road, the route continues for about 6.1 miles on the west side of I-84 until it crosses this highway and Ladd Canyon-North Powder Road at approximately MP 129.7. On the east side of I-84 the route crosses Heber Road and the Oregon National Historic Trail and then continues southeast on the northeast side of Clover Creek Valley, generally parallel to an existing Idaho Power 230-kV line and offset from that line to the southwest by more than 2,500 feet. At MP 133.4 the Proposed Corridor crosses Jimmy Creek Road and at approximately MP 134.6 it crosses the northern end of Jimmy Creek Reservoir.

The route continues southeast, maintaining at least a 1,500-foot offset from the existing 230-kV line, and crosses State Route 237 at MP 136.0. About 1.4 miles farther southeast it crosses the Powder River and the Union County/Baker County line into Baker County at MP 137.4.

As described in greater detail in Exhibit D, Idaho Power has included two alternatives for short segments of the Proposed Corridor through Union County: the Glass Hill Alternative and the Clover Creek Valley Alternative.

Segment 4 – Baker County

The Proposed Corridor crosses Baker County for 68.2 miles as shown on Figures G-1-5 and G-1-6. Approximately 15.0 miles of Segment 4 cross BLM-managed lands in the Vale District and about 3.0 miles cross state and local government property. Once across the Powder River, the Proposed Corridor continues southeast and is generally offset 1,500 feet west of the existing Idaho Power 230-kV line for about 13.2 miles to MP 150.6. In this segment the terrain is hilly and the Proposed Corridor passes across the west side of Riverdale Hill and the east side of Magpie Peak.

From MP 150.6 the Proposed Corridor angles more southeasterly crossing over the existing 230-kV line at MP 151.3 and State Route 203 at about MP 152.0. At MP 155.2 the proposed 500-kV line turns southwest and crosses State Route 86, Ruckles Creek Road, and the Oregon National Historic Trail before proceeding to the first ridgeline. At its closest, this segment of the Proposed Corridor is 1.1 mile east of the National Historic Oregon Trail Interpretive Center (Center) and 0.4 mile from the Flagstaff Area of Critical Environmental Concern (ACEC) boundary which includes the Center. It continues southwest across to MP 158.1 where it turns south and proceeds approximately 6.1 miles to MP 164.2. It then crosses an existing 69/138-kV transmission corridor just northeast east of I-84 and about 7.5 miles southeast of Baker City.

The Proposed Corridor remains generally in the same corridor with the existing 138-kV and 69-kV facilities on the northeast side of I-84 for about 2.5 miles and then crosses the 69-kV line (MP 167.1) and 138-kV line (MP 169.1) while passing to the north and east of Pleasant Valley. After crossing the Oregon National Historic Trail at MP 170.0, the Proposed Corridor continues southeast, passing northeast of the community of Durkee. The proposed 500-kV line will cross Hindman Road and Lawrence (Pritchard) Creek at about MP 176.6, Iron Mountain Road at MP 177.9, Durkee Creek at MP 178.8, Vandecar Road at MP 178.9, and Manning Basin Road at MP 181.7.

The route continues southeast across Manning Creek and North Fork Swayze Creek until MP 183.7, where the route angles south and crosses the Oregon National Historic Trail at MP 184.3. The route continues south, passing east of Gold Hill and crossing the Oregon National Historic Trail a second and third time at MP 188.2 and MP 188.5 before joining with the existing 69-kV and 138-kV corridor at MP 188.6, near the community of Weatherby. At MP 189.6 the route crosses the existing 138-kV and 69-kV facilities before crossing I-84 and Burnt River at MP 189.7 and 189.8. The route then proceeds south passing along the east side of the Weatherby Mountains while parallel to the west side of the existing 138-kV line.

At the southern end of the Weatherby Mountains, the Proposed Corridor crosses Dixie Creek and Dixie Creek Road at about MP 192.8 and passes east of Table Rock while continuing to follow the west side of the existing 138-kV line. At MP 198.7, after crossing Cavanaugh Creek, the Proposed Corridor leaves the 138-kV line and proceeds southwest approximately 0.3 mile west of I-84.

In proceeding southwest the Proposed Corridor passes northwest of Lost Tom Mountain and crosses Malheur Reservoir Road and Durbin Creek at about MP 200.7. The route passes southeast of Limestone Butte, north of Little Valley, and continues southwest across Birch Creek before entering Malheur County at MP 205.6.

As described in greater detail in Exhibit D, Idaho Power has included two alternatives for short segments of the Proposed Corridor through Baker County: the Virtue Flat Alternative and the Weatherby Alternative.

Segment 5 – Malheur County

The Proposed Corridor crosses 72.3 miles of northeast Malheur County as shown on Figures G-1-7 and G-1-8. In addition to 23.4 miles across privately owned land, 46.8 miles of Segment 5 cross BLM-managed land and 0.5 mile of the route is across Bureau of Reclamation land. Entering Malheur County at MP 205.6, the route angles southwest, crossing to the north of Matthew Gulch. Continuing southwest, the route crosses Phipps Creek at MP 207.2, an unnamed road at MP 207.4, followed by the West Fork Phipps Creek at MP 208.1, before proceeding across another unnamed road to Becker Creek at about MP 212.1. Traversing a steep canyon between MPs 212.8 and 213.3, the Proposed Corridor crosses Willow Creek Road and Willow Creek before angling due south at about MP 214.2. Heading south, the route crosses US Route 26 just after MP 215.0 and Canyon Creek at MP 215.1. On the south side of U.S. Route 26, the transmission line route angles southeast (MP 215.5) and continues in this direction for 8.5 miles passing west of Pole Creek Reservoir and approximately 1.8 miles west of the community of Brogan.

At MP 224.0, the route angles south, passing east of Morrison Reservoir and between Hope Butte and Sugarloaf Butte. Passing west of the Bully Creek Reservoir, the route crosses Cottonwood Creek at MP 232.7, approximately 1.0 mile northwest of its confluence with Bully Creek. At MP 233.8 the Proposed Corridor turns southeast crossing Bully Creek at MP 234.3, the Vale Oregon Canal at MP 237.2, the Malheur River and Malheur Canyon at MP 237.7 and the Union Pacific Railroad at MP 237.9. Approximately 4.5 miles farther south at MP 242.4, the Proposed Corridor crosses U.S. Route 20 before angling southeast at MP 243.5.

For the next 15.7 miles the route continues southeasterly across Malheur County, crossing Sand Hollow and passing southwest of Sagebrush Gulch. At MP 259.2, the line crosses the existing Summer Lake to Midpoint 500-kV line and Grassy Mountain. At about MP 261.3 the route begins its descent down to the Owyhee River, which it crosses at about MP 262.3, approximately 1.5 miles north and west of the Owyhee Dam.

After crossing the Owyhee River the Proposed Corridor proceeds easterly before turning southeast at MP 262.7 where it parallels the existing Summer Lake to Midpoint 500-kV line at a minimum offset distance of about 1,500 feet. The route continues southeast parallel to the existing 500-kV line crossing Long Draw, North Alkali Creek, and Succor Creek. At MP 276.3 the Proposed Corridor leaves Malheur County, Oregon, and enters Owyhee County, Idaho.

As described in greater detail in Exhibit D, Idaho Power has included one alternative for a short segment of the Proposed Corridor through Malheur County: the Owyhee River Below Dam Alternative.

Segment 6 – Owyhee County

The Proposed Corridor enters Owyhee County south of Graveyard Point and southwest of Rattlesnake Butte, and continues southeast generally parallel and offset to the southwest of the Summer Lake to Midpoint 500-kV line in the hills and desert bordering the Snake River Valley. Figure G-1-8 shows the location of the Proposed Corridor in Owyhee County, 17.3 miles of which is located on BLM-managed land. The route passes northeast of Flat Top Butte before crossing Poison Creek at MP 281.9 and continuing to the northeast side of the South Canal. It then crosses Jump Creek Road at MP 283.3 and U.S. Route 95 at MP 287.0. Continuing southeast, the Proposed Corridor passes to the south of Elephant Butte and across Squaw Creek before crossing Coyote Grade Road at MP 291.1. At MP 297.2, the route angles east crossing the 500-kV line at MP 297.6 where it turns south, crossing Wilson Creek Road at MP 299.1. The route then crosses Reynolds Creek at MP 299.4, turns southwest, and enters the Hemingway Substation at MP 299.8.

C3. Land Occupancy and Construction Disturbance

Land disturbance is the estimate of the amount of land that would be disturbed during construction or required to be converted to operational uses. Estimates were made of disturbance resulting from structure placement, access roads, contractor and material staging areas, and new and expanded substations.

Where feasible, disturbance will be limited to the immediate area of the towers (estimated to be 250 feet by 250 feet each during construction, or 1.4 acres per tower installation site) and to the width needed for safe transportation of people, materials, and equipment to and from the construction site on the roads (estimated to be 16 feet wide on average with a 12-foot travel width). Temporary disturbance during construction also includes staging areas (20 acres each), fly yards (10 to 15 acres each), and temporary workspaces needed for tensioning and splicing the conductors between towers, estimated at one per 3 miles of ROW length and estimated to occupy about 3.44 acres each. Overall construction-related ground disturbance is preliminarily estimated at 5,351 acres.

During operation, Idaho Power will reduce its travel on roads to 8 feet and will not maintain roads at a wider width unless site-specific conditions require it. Operational tower pads will occupy an area of 50 feet by 250 feet or 0.29 acre per tower pad to allow for periodic maintenance by personnel hoist if needed. Operational land occupancy includes the substations and the regeneration stations. Overall land occupancy by the Project during the life of the Project is estimated preliminarily at 2,093 acres. Table C-2 summarizes both the estimated number of acres of construction disturbance and acres converted to operational use by county and for the total project. Idaho Power will provide revised totals in the Application for Site Certificate (ASC) after further facility design is completed.

Table C-2. Summary of Land Disturbed During Construction and Used During Permanent Operation

County	Land Affected During Construction (acres)	Land Affected During Operation (acres)
Morrow	612.4	254.7
Umatilla	1,057.4	359.2
Union	684.3	276.9
Baker	1,239.4	496.0
Malheur	1,363.4	553.9
Owyhee	393.8	152.4
Total	**5,350.8**	**2,093.0**