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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LIST OF ATTACHMENTS

Attachment A – NOI Distribution List

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 L and 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
NFPA	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: Mailing Address:	Idaho Power Company P.O. Box 70 Poice JD 82707
	Boise, ID 85707
Primary Contact for the NOI:	Mr. Keith Georgeson, Project Manager
	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
	<u>sbaczkowski@idahopower.com</u>

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, 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 300mile-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 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.

nent	nty	S	Nati Forest	onal System	Burea Reclan	au of nation	BLM La	Public 1ds	Depar of De	tment fense	State Muni	and cipal	Priv	vate
Segr	Cou	Mile	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

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

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.



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		

EXHIBIT D CORRIDOR SELECTION

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

If the proposed energy facility is a pipeline or a transmission line or has, as a related or supporting facility, a transmission line or pipeline that, by itself, is an energy facility under the definition in ORS 469.300, identification of at least two proposed corridors, as defined in OAR 345-001-0010, or identification of a single proposed corridor with an explanation of why alternate corridors are unlikely to better meet the applicant's needs and satisfy the Council's standards.

OAR 345-001-0010 requires the identification of at least two proposed corridors or identification of a single corridor along with an explanation of why alternative corridors are unlikely to better meet the applicant's needs and satisfy the Council's standards. Idaho Power is proposing a single corridor and will therefore provide an explanation as to why its Proposed Corridor will best meet the Company's needs and satisfy the Council's standards.

In order to meet the need for additional capacity connecting the Pacific Northwest Region and the Intermountain Region of Southwestern Idaho, Idaho Power has selected the B2H Project as a critical component of an overall resource portfolio that best balances cost, risk and environmental concerns.

As described in greater detail below, Idaho Power has engaged in a thorough and thoughtful analysis of potential routes for the B2H Project in order to determine the best single corridor to propose in this NOI. As a result of the CAP and subsequent detailed route analysis described below, Idaho Power determined that including a second alternative corridor in this NOI was neither warranted nor beneficial, in light of the fact that Idaho Power has already undertaken a detailed analysis of three distinct potential routes for B2H: Western, Central and Eastern³. Based on this detailed route analysis, Idaho Power selected the Eastern Route as the Proposed Corridor because, compared to the Central and Western Routes, it:

- Requires over 35 fewer miles of new corridor,
- Parallels existing utility corridors for over 50 miles more,
- Requires over 1,000 fewer acres of clearing,
- Will be significantly less difficult to construct, and
- Will not create a new 30- to 45-mile utility corridor through one or more National Forest.

In addition, compared to the Central Route, the Proposed Corridor crosses 33.1 fewer miles designated as high construction difficulty and 21.1 fewer miles designated high permitting difficulty and would not require plan amendment to designate a utility corridor in the Wallowa-Whitman National Forest. The Western Route would have a similar degree of permitting difficulty as the Proposed Corridor, but would require plan amendments for utility corridors crossing the Malheur and Umatilla NFs and it traverses 55.1 more miles designated high construction difficulty.

Idaho Power transmission line engineers have reviewed the Proposed Corridor for constructability, making slight changes to minimize construction difficulty. In addition, the route was modified in the Burnt River Region after spring 2010 aerial surveys discovered new active sage-grouse leks.

³ The term "route" means a specific path that approximates the 250-foot width required for the proposed transmission line right-of-way. The siting study alternatives were identified and evaluated on a specific route location. Once a preferred route is selected, it is expanded to include ¼ mile on either side to allow for route refinement or micrositing as more detailed information becomes available. The specific definition of "corridor" is described in Exhibit C.

The following discussion describes the following in greater detail:

- D1. Community Advisory Process;
- D2. Constraints and Opportunities in the Study Area
- D3. PAT Recommended Routes
- D4. Detailed Analysis of Three Alternative Routes
- D5. Proposed Corridor
- D6. Feasible Alternative Corridor Segments for Detailed Evaluation

D1. Community Advisory Process

Idaho Power's Proposed B2H Route is the result of a comprehensive CAP that took place in 2009 and early 2010.

In 2008, Idaho Power proposed a transmission line corridor that was presented to the public during scoping meetings conducted by the BLM and EFSC in October 2008. Because of the level of public interest and opposition to the originally proposed route, Idaho Power initiated a process to engage residents, property owners, business leaders, and local officials in siting the Project. Through the Community Advisory Process described below, Idaho Power partnered with communities from northeast Oregon to southwest Idaho to identify proposed and alternative routes for the B2H Project. Project Advisory Teams (PATs) representing five geographic areas, convened for the purpose of identifying, developing, and recommending proposed and alternative routes for the Project. Idaho Power, together with the PATs engaged in the following five steps that resulted in the route selection:

- 1. **PATs identified issues and concerns.** PATs developed community criteria for evaluating possible routes and integrated these with regulatory requirements and Idaho Power criteria relating to cost and feasibility.
- 2. **PATs developed a range of possible routes or route segments that addressed community issues and concerns.** The PATs developed approximately 49 routes and route segments. Routes not meeting the community, regulatory, or Idaho Power cost/feasibility criteria were removed from further consideration.
- 3. **PAT-recommended, proposed, and alternative routes are evaluated.** Idaho Power analyzed all 49 routes and route segments proposed by the PATs using the processes described in Sections 7.2.3, and identified three routes as most constructible, least difficult to permit, and most likely to incur the lowest overall cost.
- 4. **Idaho Power evaluated the three possible routes based on input received from PATs and selected a proposed route.** Idaho Power presented three routes to the PATs for their comments. The resulting comments showed no clear preference for any one of the three routes. Idaho Power selected the Eastern Route as the Proposed Route. Idaho Power may make minor modifications to the Proposed Route as it continues to work with the community and collect more detailed information.
- 5. Follow through with communities during state and federal reviews. Idaho Power will continue communicating with the PATs and public throughout the National Environmental Policy Act (NEPA) and EFSC processes. Toward this end, Idaho Power will keep the public and PATs updated on route revisions and the rationale for them as well as the status of the regulatory actions, and will continue to receive and address public input.

In addition to PAT meetings, Idaho Power held public meetings throughout the Project area to allow the public to review and comment on the PATs' work and further comment on the Project itself.

D2. Constraints and Opportunities in the Study Area

Study Area

Initially, Idaho Power defined a study area for the proposed Project that extended from the proposed Grassland Substation in Morrow County, Oregon, to the Hemingway Substation in Owyhee County, Idaho. This area includes much of eastern Oregon (7 counties) and southwest Idaho (4 counties) as shown in Figure D-2. In total, the study area comprises all or portions of 11 counties as listed in Table D-1 covering approximately 31,422 square miles of which 44.3 percent is privately owned and 57.7 percent is government-owned.

Oregon Counties	Idaho Counties		
Morrow County	Washington County		
Umatilla County	Canyon County		
Union County	Payette County		
Baker County	Owyhee County		
Malheur County (portion)			
Grant County			
Harney County (portion)			

Table D-1.Counties in the Study Area

Proceeding south and east, the study area transitions from a large agricultural area south of the Columbia River to the mountains in the middle of the study area and to a large area of irrigated farmland on both sides of the Snake River in the south. Development is greatest in the Snake River valley, especially on the Idaho side of the river, and along I-84 around Baker City, LaGrande, Pendleton, Hermiston, and Boardman. There are four national forests covering large portions of the central mountainous area and these are managed for a large number of biological, scenic, recreation, and other resources. The BLM manages a variety of resources and a large portion of the high desert areas in the southern half of the study area.



Constraints and Opportunities

Constraints are defined as resources or conditions that potentially limit transmission line routing because of relative sensitivity to facility construction or operation and/or regulatory restrictions. Opportunities are defined as resources or conditions that can accommodate transmission line construction and operation because of their physical characteristics or regulatory designations. A list of selected key siting constraints is provided in Table D-2.

Constraints

Geographically, the study area comprises three general landscapes: agricultural areas, mountains, and high desert. Each has a unique set of constraints (see Figure D-3) to be considered in identifying and evaluating feasible routes for the development of a new transmission line.

Agricultural Areas – There are large agricultural areas in the north, in the south, and in Baker and Union Counties. Northern Morrow and Umatilla Counties include many farms with pivot irrigation as well as vast areas of dry agriculture, urban areas like Boardman and Pendleton, and smaller communities like Pilot Rock. In the south, conditions are similar except that there appears to be less dry agriculture and more development especially in the Idaho portion of the study area. Baker and Union Counties both have substantial agricultural areas with development focused in and around Baker City and LaGrande.

High Desert – Areas of high desert extend across much of the southern half of the study area up into Baker and Grant Counties. Much of the land is managed by the BLM and is designated ACECs, wilderness study areas, and other special resource management areas; there are also large areas of sage-grouse leks and buffers and sage-grouse habitat. There are a number of small cities and towns but overall development occupies a small percentage of the high desert.

Mountainous Area – The mountainous areas such as the Blue Mountains present very challenging topography with many areas of steep slopes in excess of 35 percent and other areas of unstable slopes presenting design and construction challenges. National forests including the Wallowa-Whitman, Malheur, Umatilla, and Ochoco occupy much of the forested mountainous area. Some examples of the most challenging constraints in this area include wilderness areas, wilderness study areas, wild and scenic rivers, special status streams, inventoried roadless areas, and USFS visual retention and preservation land.

Many other more site-specific constraints were considered such as the growing number of proposed wind farms, government-owned lands such as the Boardman Bombing Range, historic resources such as the Oregon National Historic Trail, and habitat for protected species such as the Oregon-listed Washington ground squirrel.
Selected Key Constraints Table D-2.

Constraints	Permitting Importance
Ownership	-
Bureau of Land Management	Avoidance: Low
National Park Service	Avoidance: Low
Private	Avoidance: Low
State Land	Avoidance: Low
U.S. Forest Service	Avoidance: Low
Military Lands	Avoidance: Low
Other Federal Land	Avoidance: Low
Cultural Resources	-
Idaho Historic Trail/Oregon trail	Avoidance: Mod
Intact Oregon Trail Segment (Vale BLM)	Avoidance: Mod
Oregon National Historic Trail - Trailrut	Avoidance: High
Oregon National Historic Trail Interpretive Center	Exclusion
National Register Historic Place Site	Exclusion
National Register Historic Place 0.5 mi Buffer	Avoidance: High
Vale District Cultural Site (Polygon)	Exclusion
Within 500 feet of Cemetery	Avoidance: Mod
Within 1,200 feet of Historic Trail	Avoidance: Mod
Fish and Wildlife	-
Big Game Crucial Winter Range (Idaho)	Avoidance: Mod
Big Game Deer Winter Range (Oregon)	Avoidance: Mod
Big Game Elk Winter Range (Oregon)	Avoidance: Mod
Bighorn Sheep Habitat (Idaho)	Avoidance: Mod
IDCDC At-Risk Plants: General Location	Avoidance: Low
IDCDC At-Risk Plants: Higher Precision Location	Avoidance: Mod
IDCDC Special Status Fish Area	Avoidance: Mod
IDCDC Wolfpack Area	Avoidance: Mod
John Day basin Fish Restoration Area	Avoidance: Mod
John Day Basin Seasonal Closure - Wildlife Habitat	Avoidance: Mod
Pronghorn Habitat (Idaho)	Avoidance: Mod
Within 2-mile Sage-grouse Lek Buffer - Oregon	Exclusion
Within 2-mile Sage-grouse Lek Buffer (Active) - Idaho	Exclusion
Within 2-mile Sage-grouse Lek Buffer (Inactive) - Idaho	Avoidance: Low
Within 2-mile Sage-grouse Lek Buffer (Unknown) - Idaho	Exclusion
Sage-grouse Core Area: Non-Habitat/Other Vegetation (Oregon)	Avoidance: Low
Sage-grouse Core Area: Potential Habitat (Oregon)	Avoidance: Mod
Sage-grouse Core Area: Sagebrush Habitat (Oregon)	Avoidance: Mod
Sage-grouse Key Habitat Area (Idaho)	Avoidance: Mod
Sage-grouse Occupied Habitat (Oregon)	Avoidance: High
Sage-grouse Restoration Habitat Type 1: Perennial Grasslands (Idaho)	Avoidance: High
Sage-grouse Restoration Habitat Type 2: Annual Grass Understories (Idaho)	Avoidance: Low
Sage-grouse Restoration Habitat Type 3: (Idaho)	Avoidance: Low

Note: IDCDC – Idaho Conservation Data Center



Opportunities

In the study area the most extensive opportunities are existing transportation corridors (I-84), pipelines, electric transmission lines, and agency-designated energy corridors. The Proposed Corridor parallels existing transmission lines where possible but the microsited route would be required to maintain a 1,500-foot separation for reliability. In evaluating alternatives, consideration was also given to paralleling the Summer Lake to Midpoint 500-kV line, location of the West-wide Energy Corridor and BLM- and USFS-designated utility corridors.

In undertaking its detailed routing study within the study area, Idaho Power has attempted to identify the corridors that best comport with the key factors identified by EFSC regulations:

(i) Least disturbance to streams, rivers and wetlands during construction;

(ii) Least percentage of the total length of the pipeline or transmission line that would be located within areas of Habitat Category 1, as described by the Oregon Department of Fish and Wildlife;

(iii) Greatest percentage of the total length of the pipeline or transmission line that would be located within or adjacent to public roads, as defined in ORS 368.001, and existing pipeline or transmission line rights-of-way;

(iv) Least percentage of the total length of the pipeline or transmission line that would be located within lands that require zone changes, variances or exceptions;

(v) Least percentage of the total length of the pipeline or transmission line that would be located in a protected area as described in OAR 345-022-0040;

(vi) Least disturbance to areas where historical, cultural or archaeological resources are likely to exist; and

(vii) Greatest percentage of the total length of the pipeline or transmission line that would be located to avoid seismic, geological and soils hazards;

(viii) Least percentage of the total length of the pipeline or transmission line that would be located within lands zoned for exclusive farm use.

OAR 345-021-0010(1)(b)(D).

It became apparent fairly early in the process that certain of these factors would be significant considerations in selection of a corridor for the B2H Project. In particular, the study area: (1) includes lands designated as Habitat Category 1 by ODFW; (2) does not include an existing right-of-way or transportation corridor offering a direct path between Boardman and Hemingway; (3) includes a significant percentage of Exclusive Farm Use-zoned lands making complete avoidance of EFU-zoned lands impossible; and (4) includes protected areas and areas where historical, cultural and archeological resources are likely to exist. In preparing its ASC for the Proposed Corridor, Idaho Power will prepare a detailed analysis of each of these factors. However, in order to facilitate review of this NOI, an additional discussion of EFU-zoned land is included in Section D5.

D3. CAP Route Identification

The identification and analysis of alternative routes was accomplished in the four steps described below. This was done through the CAP including input from many local citizens residing throughout the 11-county, 2-state study area.

Initial Route Selection

A comprehensive geographic information system (GIS) database of constraints and opportunities was compiled for the study area. Constraints were then categorized by PATs as exclusion, high avoidance, moderate avoidance, or low avoidance; incorporating input from the PATs, route development began with a series of routing meetings and workshops at Baker City, Boardman, and Ontario, Oregon, each of which comprised one evening session followed by a full day of routing. At the evening sessions, Idaho Power educated the participants on the siting process and confirmed community criteria. The next day, individuals and groups of local citizens returned to identify route segments or entire routes between Boardman and Hemingway. Other than providing technical expertise, Idaho Power staff and their contractors did not participate in development of the PAT-derived routes.

Members of the CAP and other local residents and organizations brought their knowledge of local resources, conditions, and priorities and worked with Idaho Power GIS analysts and routing experts to identify potential routes. The GIS analysts, using topographic maps, available aerial photography, and the many GIS layers of constraints and opportunities, worked with each participant to identify routes that avoided exclusion areas and as much as possible minimized crossings of high avoidance constraints and, where practical, moderate and low avoidance areas. In all instances the routing teams were looking for opportunities such as existing transmission lines and the West-wide Energy corridors to parallel or use.

After PATs identified routes for study in Grant and Harney Counties, Idaho Power initiated a formal CAP and routing sessions were soon held in Mt. Vernon and Hines. Every route developed in the five mapping sessions was documented in GIS format and with a form explaining the basis for each route or segment. Approximately 49 routes and route segments totaling over 3,000 miles (as shown on Figure D-4) were developed through the CAP.

Route Refinement

Following the routing sessions, the Idaho Power Team reviewed each of the routes to identify potential issues that could significantly impact the ability to permit a segment or route. Each alignment was reviewed using aerial photography, topographic maps, and constraint data. Using the aerial photography, houses, barns, and other structures (i.e., wind turbines); irrigation pivots; and other land use constraints could be avoided where practical. Using topographic maps the routes were adjusted to avoid or minimize distance across very steep slopes and other physical features less desirable for transmission line construction and operation. Finally, the routes were checked against constraint maps to avoid exclusion areas and areas of high permitting difficulty like Oregon Department of Fish and Wildlife (ODFW) Category 1 habitat. In the large majority of instances, changes were made while maintaining the intent of the route or route segment.

Idaho Power Company



A number of routes were dropped from further consideration because they did not meet the Project purpose and need and/or resulted in significantly more environmental impacts and cost. As a result, the miles of routes for further consideration were reduced to about 2,000 miles. Figure D-5 shows those routes carried forward as a result of the refinement process.

Regional Analysis

Next, the remaining routes, where appropriate, were grouped into 14 regions as shown on Figure D-6. Regions were established where two or more routes extended from one common point to a second common point. For example, in the southwest region, as shown on Figure D-7, four routes were identified between points GR3 and MA6. Each route in this region was then analyzed for permitting difficulty, construction difficulty, and mitigation costs as shown on Figure D-8.

In evaluating permitting difficulty, constraints previously identified were categorized as low, moderate, or high permitting difficulty areas or as exclusion areas or opportunities. Next, the miles of each category were measured and totaled and used to compare pairs of routes within a region. Also, each route was analyzed for specific constraints it crossed and these were documented in attribute tables. The tables were reviewed to identify more significant differences between routes. These two analyses were used to determine the most reasonable route in each region.

In those cases where the permitting analysis was not conclusive, the construction difficulty analysis was used; however, in application constructability was reviewed for every alternative route. Accessibility, topography, road construction, equipment movement, and many other factors were used to determine low, moderate, and high construction difficulty. Again, these ratings were measured by mile and totaled and used to compare the routes in a region.

After the permitting and construction difficulty analyses were completed, potential biological mitigation costs were estimated (high, moderate, or low), measured in miles, and totaled for each alternative route. Using these three analyses, a more reasonable route was selected for each region and, combining the selected routes with those unique segments between two points, three corridors were determined for further analysis.









Figure D-8. Permitting, Construction, and Mitigation Analysis

D4. Detailed Analysis of Three Alternative Routes

As shown on Figure D-9, three alternative routes—Eastern, Central, and Western—were identified for analysis. Table D-3 compares each for key factors.

Factors	Western Route	Central Route	Eastern Route
Land Use Characteristics			
Length/Counties Traversed	275/5	282/6	299/6
Private Land	138 Miles (50%)	172 Miles (61%)	206 Miles (69%)
Public Land	137 Miles (50%)	110 Miles (39%)	93 Miles (31%)
Follows Existing Corridors	46 Miles	58 Miles	111 Miles
New ROW	229 Miles	224 Miles	188 Miles
Resources			
Irrigated Cropland	10 miles	9 miles	22 miles
Forest Clearing	1,754 acres	1,763 acres	681 acres
Rugged Terrain	59 Miles	56 Miles	35 Miles
(> 25% slopes)			
Special Status Streams	46 Crossings	13 Crossings	8 Crossings
Restrictive USFS/BLM Visual Classes	9.1 Miles	25.5 Miles	8.6 Miles
Community Concerns			
Significant Issues	Community concerns and visual impacts in the John Day Valley and Journey Through Time Scenic Byway	Developing areas on the west side of the Baker Valley	Proximity to the National Historic Oregon Trail Interpretive Center
National Forests	Malheur and Umatilla (45 miles) New Corridor	Wallowa-Whitman (30 miles) New Corridor	Wallowa-Whitman but in a designated utility corridor (5 miles)
High Construction Difficulty	117.1 miles	99.3 miles	65.3 miles

 Table D-3.
 Summary Route Comparisons

Western Route

The Western Route exits the proposed Grassland Substation to the south, heads west for about 6 miles, and then turns south crossing the western part of Morrow County, continuing southwest across Grant, Harney, Malheur, and Owyhee Counties to the Hemingway Substation. As shown on Table 7.2-3, of the three remaining routes the Western Route is the shortest by about 17 to 24 miles and crosses the least private and most public land: however, it parallels the least amount of existing utility and transportation corridors (46 miles) and will require the most new ROWs (229 miles).

Although the shortest alternative, the Western Route crosses about 117.1 miles of what has been determined to be high difficulty construction conditions, about 51.8 miles and 17.8 miles more than the Eastern and Central Alternative Routes. In terms of permitting difficulty compared to the Central and Eastern Routes, this route requires the most new corridor, parallels the least existing utility corridor, crosses more than 30 special status streams, requires over 1,750 acres of clearing and crosses about 45 miles of the Malheur and Umatilla NFs.



Central Route

The Central Route also exits the proposed Grassland Substation to the west and then south. However, as this route passes to the south of the Grasslands Conservation area, it angles to the east crossing Morrow and Umatilla Counties, passing through the designated utility corridor in the Wallowa-Whitman NF. This route then turns southeast through Union County and along the west side of the Baker Valley in Baker County. It continues southeast through Malheur and Owyhee Counties into the new Hemingway Substation.

The Central Route is about 7 miles longer than the Western Route and approximately 17 miles shorter than the Eastern Route. It parallels more existing utility corridor than the Western Route but 53 miles less than the Eastern Route and it requires 5 miles less new corridor than the Western Route and 36 more miles than the Eastern Route.

The Central Route crosses 56 miles of slopes greater than 25 percent and will require clearing of approximately 1,763 acres which is slightly more than the Western Route and significantly more than the Eastern Route. The evaluation of construction difficulty shows that the Central Route traverses 17.8 fewer miles of high construction difficulty than the Western Route and 34 more miles than the Eastern Route. Much of this difficulty will happen along the west side of the Baker Valley.

Significant permitting concerns include 65 miles of high permitting difficulty (more than the Eastern or Western Routes), the 30 miles through the Wallowa-Whitman NF, potential visibility of the line on the west side of Baker Valley, 224 miles of new corridor, and about 1,760 acres of clearing.

Eastern Route

The Eastern Route is similar to the Central Route except that it exits the proposed Grassland Substation to the north and east around the Boardman Bombing Range and then proceeds southward. It joins the Central Route just east of the Morrow County/Umatilla County line, and the two routes continue together to the southeast end of the Wallowa-Whitman utility corridor in Union County. At this point, the Eastern Route proceeds to the southeast across Union County and then into Baker County following the east side of Baker Valley. The Eastern Route rejoins the Central Route in northern Malheur County and then continues generally southeast across this county and Owyhee County to Hemingway Substation.

Although this route is about 17 miles longer than the Central Route and about 24 miles longer than the Western Route, it requires significantly less new corridor and parallels significantly more existing utility corridor. This route also crosses more than 20 fewer miles of slopes over 25 percent, requires over 1,000 fewer acres of clearing, and has 33 to 55 fewer miles designated as high construction difficulty.

The Eastern Route has the least miles designated high permitting difficulty and avoids creating a new utility corridor through one or more National Forest. An important potential permitting issue for this route is related to crossing the Oregon National Historic Trail and the proximity to the National Historic Oregon Trail Interpretive Center.

D5. Proposed Corridor

As a result of the analysis described above, Idaho Power selected the Eastern Route as the Proposed Corridor because compared to the Central and Western Routes it:

- Requires over 35 fewer miles of new corridor,
- Parallels existing utility corridors for over 50 miles more,
- Requires over 1,000 fewer acres of clearing,

- Will be significantly less difficult to construct, and
- Will not create a new 30- to 45-mile utility corridor through one or more National Forest.

In addition, compared to the Central Route, the Proposed Corridor crosses 33.1 fewer miles designated as high construction difficulty and 21.1 fewer miles designated high permitting difficulty and will not require a plan amendment to designate a utility corridor in the Wallowa-Whitman National Forest. The Western Route will have a similar degree of permitting difficulty as the Proposed Corridor, but will require plan amendments for utility corridors crossing the Malheur and Wallowa-Whitman NFs and it traverses 55.1 more miles designated high construction difficulty.

Idaho Power transmission line engineers reviewed the Proposed Corridor for constructability, making slight changes to minimize construction difficulty. In addition, the route was modified in the Burnt River Region after spring 2010 aerial surveys discovered new active sage-grouse leks. As additional data are collected, more detailed engineering is developed, and additional public input is received, Idaho Power expects the proposed route to change.

Essential Farm Use Zoned Land Siting Considerations

The following discussion is not intended to be a complete analysis of compliance with applicable land use criteria, but is meant to summarize how Idaho Power has studied and proposed a route mindful of applicable Exclusive Farm Use (EFU) zoning requirements. Idaho Power recognizes the importance of the preservation of agricultural lands as is clearly stated in Oregon Revised Statute (ORS) 215.243. ORS 215.213 and ORS 215.283 clearly define the provisions for which the uses of EFU-zoned lands are authorized. A key component of the analysis leading to the selection of the proposed and alternative routes has been to minimize use of EFU-zoned lands where possible. However, use of EFU-zoned land is unavoidable. The Proposed Corridor would cross 138 miles of EFU-zoned land excluding federally managed lands. As a utility facility necessary for public services (see Exhibit H), the B2H Project is an allowed use within EFU-zoned lands, subject to the requirements of ORS 215.275. Explanations of EFU zoned areas crossed will be presented in the ASC to show that reasonable alternatives have been considered and that the facility must be sited in an exclusive farm use zone due to one or more of the following factors specified in ORS 215.275:

To demonstrate that a utility facility is necessary, an applicant for approval under ORS 215.213 (1)(c) or 215.283 (1)(c) must show that reasonable alternatives have been considered and that the facility must be sited in an exclusive farm use zone due to one or more of the following factors:

- (a) Technical and engineering feasibility;
- (b) The proposed facility is locationally dependent. A utility facility is locationally dependent if it must cross land in one or more areas zoned for exclusive farm use in order to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;
- (c) Lack of available urban and nonresource lands;
- (d) Availability of existing rights of way;
- (e) Public health and safety; and
- (f) Other requirements of state or federal agencies.

The following discussion addresses each of the above factors, as it relates to the B2H Project, in turn:

(a) **Technical and Engineering Feasibility:** As described in Section D2, Idaho Power considered a wide range of technical- and engineering-related factors that could contribute to or detract from route feasibility including mitigation cost and construction difficulty. Potential routes were identified by community participants and refined by Idaho Power such that they were feasible

from a technical and engineering perspective. However, some routes presented challenges in these areas and would cause more environmental impact without any other benefit (e.g., reducing impacts to resources identified as important by the community) and selection would not be reasonable.

- (b) Locationally Dependent: In planning the route for the Project, there were only two fixed locations that could not be altered--: the planned Grassland and existing Hemingway Substations specified in Exhibit B. There are no intermediate electrical interconnection points that dictate location and therefore Idaho Power chose to identify a study area allowing for consideration of reasonable range of alternatives and community concerns. The areas selected encompassed seven counties in Oregon and four counties in Idaho. In concept, the most direct route would be a straight line approximately 263 miles in length crossing approximately 69 miles of EFU-zoned land excluding federally managed lands. This route was determined to be infeasible due to significant impacts to other resources. Location factors influencing decisions to cross or not cross EFU-zoned lands included availability of other reasonable alternatives, use of existing and designated utility corridors, and avoidance of resource exclusion areas including protected areas as designated under ORS 345-022-0040. EFU-zoned lands were an important factor, but not the only factor, considered in the overall siting process. The Proposed Corridor would be about 300 miles in length crossing approximately 138 miles of EFU-zoned land excluding federally managed lands.
- (c) Lack of Available Urban and Non-Resource Lands: The vast majority of land in the study area is either designated for EFU or resource protection with most urban development located along I-84. EFU lands surround the proposed Grassland Substation and occupy most of Morrow County, a large portion of Umatilla, Baker, and Grant counties and a smaller part of Union and Malheur counties. Resource lands are found throughout the study area especially in the Wallowa-Whitman, Malheur, Umatilla and Ochoco NFs and in the high desert in areas managed by the BLM. The most significant urban areas occur along the I-84 corridor, which includes a major highway, transmission lines, pipelines and residential, commercial, and industrial land use. Resource-related constraints for potential non-EFU land crossings include sensitive wildlife habitat, state parks, scenic byways, ACECs, wilderness areas, wild and scenic river corridors, state scenic waterways, areas of cultural or historical heritage, and the presence of commercial or residential structures. Fewer of these constraints exist within the EFU-zoned lands. There is a lack of available urban and nonresource lands in reasonable proximity to the intended route of the proposed facility.
- (d) Availability of Existing ROW: Within EFU zoned lands in the study area there is no room in existing ROWs for a new single-circuit 500-kV transmission line. Overall, the Proposed Corridor makes maximum use of following existing corridors rather than creating new corridors both in and outside of EFU-zoned lands. It meets the goal of ORS 215.275(d) to minimize the creation of new corridors through EFU-zoned lands. In locations where practical, Idaho Power avoids EFU-zoned lands or is proposing to locate its ROW parallel and/or adjacent to but not inside existing ROWs. Locating the Proposed Corridor parallel to existing utility ROWs provides for the fewest impacts to resources of concern including EFU-zoned lands. In addition, following existing ROWs will allow for utilization of existing access roads, reducing new road construction, minimizing costs, and minimizing resource impacts. Approximately 101.2 miles of the 300 mile Proposed Corridor would be parallel and/or adjacent to existing transmission ROWs. Of the 138 miles of EFU-zoned land excluding federally managed lands crossed by the Proposed Corridor, 40.1 miles follow existing transmission line ROWs. None of the EFU-zoned land crossed by the Central or Western Routes would be within an existing corridor.
- (e) **Public Health and Safety:** The design of the transmission line, ROW width, and restrictions of land uses within that ROW ensure that no health or safety concerns would arise from operation of the transmission line, whether in EFU-zoned lands or in other zoning areas.

(f) Other Requirements of State and Federal Agencies: Alternative routes in the central and western portions of the study area encounter numerous and important resources. While individual areas may not be prohibited cumulatively, they could be considered significant compared to other alternatives. For instance, the two alternative routes would require clearing of over 1,763 acres of private and public forest land as compared to 684 acres on the Proposed Corridor. Also these alternative routes would require crossing 30 to 40 miles of National Forests. Such action would require an evaluation by the USFS and, if deemed appropriate, preparation of an amendment to each of the respective management plans for the forest land; all within a designated utility corridor. The USFS would have to determine whether creating a new 30-40 mile corridor is warranted given the availability of a feasible existing utility corridor. Similar issues could include the many special status streams crossed and extreme slope conditions, remoteness and other construction conditions resulting in more potential impacts along the Central and Western Routes.

Agricultural Mitigation Plan

Idaho Power will confer with state agencies and with landowners to develop an Agricultural Mitigation Plan. The Agricultural Mitigation Plan will include measures intended to mitigate or provide compensation for agricultural impacts that may occur due to construction of the Project. The measures would be intended to be implemented on partially or wholly owned private agricultural land unless directed otherwise by the landowner. Agricultural land will be defined to include that which is annually cultivated or rotated cropland; land in perennial field crops, orchards, or vineyards; land used for small fruit, nursery crops, greenhouses, or Christmas trees; improved pasture; hayfields; and land in the Conservation Reserve Program.

D6. Feasible Alternative Segments for Detailed Evaluation

Seven alternatives for portions of the Proposed Corridor were developed by Idaho Power for further study and consideration. Idaho Power determined that these particular segments warranted further consideration as part of the ASC, and are discussed briefly below. The locations of these alternatives are shown on Figure C-1 and by county on Figures G-1-1 through G-1-8.

Bombing Range South Alternative

The Bombing Range South Alternative (shown on Figures G-1-1 and G-1-2) has been proposed to be a feasible alternative because it avoids several potentially problematic areas, such as the Boardman Bombing Range property, irrigated agriculture, and/or ODFW Category 1 Habitat for Washington ground squirrels. The U.S. Navy, which manages the range, is currently evaluating the use of the north edge of the property for the proposed 500-kV transmission line. The Bombing Range South Alternative avoids the Bombing Range property but also has a difficult approach from the south and west to the Grassland Substation (the northern terminus of the B2H Project) and could add several miles to the Project.

The Bombing Range South Alternative exits the Grassland Substation to the south and angles southwest across an unnamed road (MP 1.1). The route then heads west offset approximately 1,500 feet and parallel to the northern boundary of the Boardman Conservation Area for about 3.8 miles to MP 5.3, crossing three unnamed roads. The alternative route then turns slightly south and continues west before again angling south at MP 7.7 near the Boardman Conservation Area boundary.

The route continues along the western edge of the Willow Creek Valley, following the now abandoned Union Pacific Railroad from MP 8.4 to MP 10.0, before crossing State Highway 74 about 0.9 mile north of Cecil. At MP 10.4 the alternative proceeds due east crossing Schoolhouse Canyon at about MP 11.0, Immigrant Road at about MP 13.2, Squaw Butte at MP 14.5, and both the Oregon National Historic Trail

and Fourmile Canyon at MP 15.0. At MP 16.5 the alternative proceeds southeast crossing Ella Road and Sixmile Canyon and passing approximately 0.4 mile south of the community of Ella, Oregon. The route continues east from MP 17.3 parallel to the southern boundary of the Boardman Conservation Area and the Boardman Bombing Range from MPs 20.3 to about MP 26.6.

The route passes to the south of Butter Creek Junction before leaving Morrow County and entering Umatilla County at MP 36.9. At MP 40.0, the alternative leaves Umatilla County and heads south back into Morrow County.

Continuing southeasterly in Morrow County, the route crosses NFD Road 827 at MP 43.5 and then heads back across the county line into Umatilla County at approximately MP 47.3. The alternative then angles south to cross Slusher Canyon and an unnamed road at MP 49.4, before continuing 3.3 miles to join with the Proposed Corridor at its MP 57.3.

The Bombing Range South Alternative is 52.7 miles long as compared the corresponding segment of the Proposed Corridor which is 57.6 miles long.

Glass Hill Alternative

The Glass Hill Alternative (Figure G-1-4), stretching 16.8 miles, is located southeast of the city of LaGrande, Oregon, in Union County. The Glass Hill Alternative was added because it avoids an Eastern Oregon University Rebarrow Research Forest at the northern end of Glass Hill. In addition, the Glass Hill Alternative was reviewed by an engineering team to minimize route construction difficulty through the very severe topography throughout this area.

The Glass Hill Alternative departs from the Proposed Corridor at MP 109.5 approximately 1.0 mile south of State Highway 244 in Union County, Oregon. Following ridgelines to the east of the Proposed Corridor, the alternative proceeds southeast across Mill Canyon Road at MP 1.5 and across Little Graves Creek at approximately MP 2.0 before turning south toward Elk Mountain and crossing the Proposed Corridor at the alternative's MP 5.3 (Proposed Corridor MP 115.1). From MP 6.0 the alternative proceeds east across the foothills of Elk Mountain, crossing Graves Creek at MP 6.8, Little Rock Creek at MP 7.3, and Rock Creek at MP 9.2. Traversing a canyon at MP 9.5, the alternative proceeds up the western slope of Glass Hill, crossing Glass Hill Road at MP 9.9 before reaching the top of Glass Hill at about MP 10.4. The alternative begins its descent down the eastern slope of Glass Hill, crossing Ladd Canyon Road and Ladd Creek at MP 13.2, the alternative continues southeasterly for approximately the next 3.6 miles, across the foothills of Baldy Mountain, until joining with the Proposed Corridor at its MP 127.4.

The Glass Hill Alternative is 16.8 miles long as compared the corresponding segment of the Proposed Corridor which is 17.9 miles long.

Clover Creek Valley Alternative

The Clover Creek Valley Alternative, shown in Figure G-1-4, was carried forward to avoid crossing the northern end of the Clover Creek Valley, which is actively farmed and zoned Exclusive Farm Use. The Clover Creek Valley Alternative, while avoiding the farmland by crossing to the north of the valley, does require two crossings of an existing 230-kV line within a stretch of 2.7 miles.

The Clover Creek Valley Alternative angles east away from the Proposed Corridor at MP 127.4, crossing over the existing Idaho Power 230-kV transmission line at MP 0.5 before turning southeast to cross to the east side of I-84 at MP 1.4, where it is offset north and east approximately 1,400 feet from the existing 230-kV line. Proceeding south, the alternative crosses the existing 230-kV line a second time at MP 3.2 and continues for approximately 1.4 miles before joining with the Proposed Corridor at its MP 131.7.

The Clover Creek Alternative is 4.7 miles long as compared the corresponding segment of the Proposed Corridor which is 4.2 miles long.

Virtue Flat Alternative

The Virtue Flat Alternative, shown in Figure G-1-5, is located in central Baker County, east of Baker City and the National Historic Oregon Trail Interpretive Center. Idaho Power recognizes this alterative crosses a 2-mile active sage-grouse lek buffer zone considered ODFW Category 1 Habitat; however, local citizen interest in locating the route farther from the National Historic Oregon Trail Interpretive Center has been constant. Idaho Power believes evaluation of the Virtue Flat Alternative in conjunction with the Proposed Corridor would allow for an analysis and balancing of recognized resource issues. As a result, this alternative is being carried forward for further detailed study.

The Virtue Flat Alternative angles east away from the Proposed Corridor at MP 155.2, approximately 1.8 miles northeast of the National Historic Oregon Trail Interpretive Center. Proceeding southeast, the alternative angles through steep terrain before crossing Keating Cutoff Road at about MP 2.1 and State Highway 86 at MP 2.4. At approximately MP 4.5, this alternative turns south, crossing Ruckles Creek and Ruckles Creek Road between MP 5.0 and MP 5.1, an unnamed road at about MP 5.7 and First Creek Road at MP 6.7. The alternative angles southeast at MP 7.5 for approximately 1.7 miles before turning due south and continuing for 4 miles through significant topography until joining with the Proposed Corridor at MP 170.4, approximately 2.0 miles northeast of Pleasant Valley.

The Virtue Flat Alternative is 13.2 miles long as compared the corresponding segment of the Proposed Corridor which is 15.2 miles long.

Weatherby Alternative

The Weatherby Alternative, shown in Figure G-1-6, is located east of I-84 and the Burnt River in Baker County, Oregon. The Weatherby Alternative is being carried forward in the event that the corresponding section of the Proposed Corridor proves infeasible due to potential construction or other issues along I-84. However, the alternative crosses severe terrain and may face significant construction difficulties as well.

The Weatherby Alternative departs from the Proposed Corridor at MP 186.7 and immediately crosses the Oregon National Historic Trail, Sisley Creek Road, and Sisley Creek at approximately MP 0.4. Traversing Gold Cliff Gulch at MP 0.8, the alternative turns south and travels along severe slopes for about 2.5 miles. After angling southeasterly at MP 1.7 the alternative crosses Quartz Gulch at MP 2.3 and follows it south for approximately the next 0.5 mile. The alternative crosses Jordan Creek and an unnamed road at MP 3.3 before crossing Lookout Mountain Road and proceeding south across the Oregon National Historic Trail at MP 4.4. Just east of Dixie, the alternative angles to the southwest, across an existing 69-kV transmission line at MP 4.8 followed by the Burnt River, I-84, and an existing 138-kV transmission line between MP 4.8 and MP 5.0 before joining with the Proposed Corridor at its MP 191.6.

The Weatherby Alternative is 5.1 miles long as compared the corresponding segment of the Proposed Corridor which is 4.9 miles long.

Owyhee River Below Dam Alternative

The Owyhee River Below Dam Alternative, located in Malheur County, Oregon, is shown in Figure G-1-8. This alternative, from an engineering viewpoint, provides advantages in constructibility. However, while both the Proposed Corridor and the alternative cross a designated environmentally sensitive landscape called the Owyhee Below Dam ACEC, the alternative crosses and bisects a larger intact portion of the area than the Proposed Corridor does. Leaving from the Proposed Corridor at MP 259.2, just south of the existing Summer Lake to Midpoint 500-kV transmission line, the Owyhee River Below Dam Alternative heads southeast for approximately 1.2 miles where it angles due east. At MP 3.0 the alternative angles southeast across Haystack Rock Road, the Owyhee River, and Owyhee Lake Road between MP 3.0 and MP 3.2, approximately 1.4 miles north of the Owyhee Dam. East of the river, the alternative crosses an unnamed road at MP 3.5 before joining with the Proposed Corridor at its MP 262.9.

The Owyhee River Below Dam Alternative is 3.9 miles long as compared the corresponding segment of the Proposed Corridor which is 3.7 miles long.

The applicant shall include an explanation of the basis for selecting the proposed corridor(s) and, for each proposed corridor, the information described in subsections (e), (g), (i), (j), (k), (n), and (p) that is available from existing maps, aerial photographs, and a search of readily available literature.

The information for the Proposed Corridor required by subsections (e), (g), (i), (j), (k), (n), and (p) is addressed in the respective sections above.

EXHIBIT E APPLICABLE PERMITS

OAR 345-020-0011(1)(e)

Identification of all federal, state and local government permits needed before construction and operation of the proposed facility, legal citation of the statute, rule, or ordinance governing each permit, and the name, address and telephone number of the agency or office responsible for each permit.

This exhibit identifies all known permits, standards, and criteria required for certification, construction, and operation of the Project. Agency contact information and description of the relevant permit are also provided.

E1. Federal Permits

Responsible Agency: BLM

Permit: 1) Right-of-Way Grant (PL 95-487)

2) Cultural Resources Use Permit, Field Authorization

Legal Citations:

Federal Land Policy and Management Act (FLPMA)

Title 5 (43 United States Code [U.S.C.] 1761-1771)

43 Code of Federal Regulations (CFR) 2800, specifically 2804.14 (Processing Fee)

National Historic Preservation Act

Contact Information:

Mr. John Styduhar, National Projects Manager BLM State Office 333 SW 1st Ave. Portland, OR 97204 (503) 808-6454

(503) 808-6454

Description: A ROW grant is an authorization to use a specific piece of public land for a certain project, such as a transmission line. A ROW grant authorizes rights and privileges for a specific use of the land for a specific period of time. Generally, a BLM ROW is granted for a term appropriate for the life of the project.

A cultural resources field authorization will be necessary prior to conducting cultural surveys in the proposed disturbance areas.

 Responsible Agency: USFS

 Permit: 1) Special Use Permit

 2) Permit for Archaeological Investigations

 Legal Citations:

 36 CFR Parts 251, 261, and 295 (Special Use Permit)

 36 CFR Part 251, RIN 0596-AB36 (Cost Recovery)

 National Historic Preservation Act

Contact Information:

Ms. Arlene Blumton, Natural Resource Staff Wallowa-Whitman National Forest 3502 Highway 30 La Grande, OR 97850 (541) 962-8522

Description: A special-use authorization is a legal document that allows occupancy, use, rights, or privileges of National Forest System (NFS) land. The authorization is granted for a specific use of the land for a specific period of time. If a project is required to occupy, use, or build on NFS land for temporary or long-term use, a Special Use Authorization Permit is required. The request must be consistent or made consistent with the standards and guidelines in the applicable Land and Resource Management Plan.

Under the National Historic Preservation Act, the Forest Service also requires permits prior to conducting cultural/archaeological investigations.

Responsible Agency: U.S. Army Corps of Engineers (USACE)
Permit: 1) Clean Water Act, Section 404 Permit
2) Section 10 Permit
Legal Citations:
33 U.S.C. 1344; 33 CFR Parts 320, 323, 325-328, and 330
Permit: Rivers and Harbors Act of 1899, Section 10, crossing of navigable rivers, 33 U.S.C. 403
Contact Information:
Ms. Mary Hoffman, Permit Evaluator
U.S. Army Corp of Engineers
Portland District
333 SW First Avenue
Portland, OR 97204
(541) 962-0401
Description: Under the Clean Water Act, a Section 404 Permit will be required if dredge or fill occurs in
waters of the United States. Transmission lines that cross waters mapped as navigable by the USACE
require a Section 10 permit.

Responsible Agency: National Oceanic and Atmospheric Administration (NOAA) Fisheries **Legal Citations:**

16 U.S.C. 1536, 1539; 50 CFR 402

Permit: Consultation planned to determine potential for incidental take under the Endangered Species Act (ESA) for adverse affects on anadromous fish in the project area.

Contact Information:

Mr. Randy Tweten National Oceanic and Atmospheric Administration National Marine Fisheries Service 3502 Highway 30 La Grande, OR 97850 (541) 975-1835 x229

Description: Consultation to determine potential for incidental take under ESA or adverse modification to critical habitat may be required if adverse affects are determined.

Responsible Agency: U.S. Fish and Wildlife Service Permit: Consultation. Legal Citations: 16 U.S.C. 1536, 1539; 50 CFR 402 Contact Information:

Ms. Suzanne Anderson U.S. Fish and Wildlife Service La Grande Field Office 3502 Highway 30 La Grande, OR 97850 (541) 962-8583

Description and Analysis: Consultation planned to determine potential for incidental take under ESA for terrestrial species and non-anadromous aquatic species.

Responsible Agency: Federal Aviation Administration

Permit: Notice of Proposed Construction

Legal Citation: 14 CFR 77.13, 77.15, 77.17

Contact Information:

Mr. Don Larsen Northwest Mountain Regional Office Air Traffic Division, ANM-520 1601 Lind Avenue, SW Renton, WA 98055-4056 (425) 227-2520

Description: Required for construction of any object over 200 feet above ground level at the location of the proposed action (not anticipated), and for construction of structures within specified distances of runways or helipads.

E2. State Permits

Responsible Agency: Oregon Department of Energy (ODOE); EFSCPermit: Energy Facility Site CertificateLegal Citations:
Oregon Revised Statute (ORS) 469.300 et seq.; OAR Chapter 345, Divisions 1, 21-24Contact Information:
Ms. Susan Oliver
Oregon Department of Energy
395 E. Highland Avenue
Hermiston, OR 97838
(541) 567-3840Description: This certificate is an agreement between the State of Oregon and the applicant, authorizing
the applicant to construct and operate a facility on an approved site, incorporating all conditions imposed

by the council on the applicant.

Responsible Agency: Oregon Department of Environmental Quality (ODEQ)

Permit: Construction Stormwater Permit 1200-C

Legal Citations:

ORS 468 and 468B; Oregon Administrative Rules (OAR) Chapter 340, Divisions 14, 41, 45, 52, and 55

Contact Information: Ms. Jackie Ray 700 SE Emigrant, #330 Pendleton, OR 97801 (541) 278 4605

(541) 278-4605

Description: In 1999, EPA adopted the Phase II regulations that require National Pollution Discharge Elimination System (NPDES) permits for construction activities that disturb one or more acres of land, including smaller sites that are less than one acre that are part of a larger common plan of development. The ODEQ developed NPDES Stormwater Discharge General Permit No. 1200-C to cover these activities. OAR 340-045-0015 and 0033(5) require all owners or operators responsible for these activities to register under this permit or obtain an individual permit.

Responsible Agency: ODEQ

Permit: Clean Water Act Section 401 Water Quality Certificate **Legal Citations:**

ORS 468 and 468B; OAR Chapter 340, Division 48 33 USCA 1341, Section 401; OAR Chapter 340, Division 48

Contact Information:

Ms. Jackie Ray 700 SE Emigrant, #330 Pendleton, OR 97801 (541) 278-4605

Description: A 401 Water Quality Certification is necessary if activities would remove material from, or place fill into waters of the U.S. This is a Joint Permit Application submitted to both the USACE and the Oregon Department of State Lands (DSL).

Responsible Agency: ODEQ
Permit: No permit required
Legal Citations:
ORS 467; OAR Chapter 340, Division 35
Contact Information:
Ms. Jackie Ray
700 SE Emigrant, #330
Pendleton, OR 97801
(541) 278-4605
Description: No permit required, but activities are subject to state noise standards.

Responsible Agency: Oregon DSL	
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Permit: Removal-Fill

Legal Citations:

ORS 196; OAR Chapter 141, Division 85

Contact Information:

Mr. Jess Jordan, Northeast Oregon Resource Coordinator Oregon Department of State Lands 1645 NE Forbes Road., Suite 112 Bend, OR 97701

(541) 388-6345

Description: Removal-Fill permit required if removal or filling occurs in waters of the State.

Responsible Agency: Oregon DSL

Permit: Easement for constructing transmission line on state land

Legal Citations:

ORS 273; OAR Chapter 141, Division 122

Contact Information:

Ms. Nancy Pustis, Permit Coordinator

Oregon Department of State Lands, Eastern Region

1645 NE Forbes Road., Suite 112 Bend, OR 97701

(541) 388-6355

Description: Applicable to development on state-owned land. Written authorization in the form of an easement from the DSL is required prior to development. An easement is required for any use or development that encroaches on state-owned land.

Responsible Agency: Oregon Department of Fish and Wildlife (ODFW), Habitat Conservation DivisionPermit: None requiredLegal Citations: ORS 496, 506, and 509; OAR Chapter 635, Divisions 100, 415, and 425Contact Information:Mr. Jon Germond, Habitat Special Projects CoordinatorOregon Department of Fish and WildlifeWildlife Division3406 Cherry Avenue, NESalem, OR 97303(503) 947-6088Description: Oregon state habitat mitigation standards must be met.

Responsible Agency: Oregon Department of Geology and Mineral IndustriesPermit: None requiredLegal Citations: OAR 345-021-0010(1)(h)Contact Information:
Dr. Vicki McConnellOregon Department of Geology and Mineral Industries800 NE Oregon St., Suite 965
Portland, OR 97232
(503) 731-4100Description: No permit required, but consultation planned per EFSC Rules.

Responsible Agency: Oregon Department of Land Conservation and Development
Permit: None required
Legal Citations: ORS 197, 215 and 283; OAR Chapter 660
Contact Information:
Mr. Richard Whitman
Oregon Department of Land Conservation and Development
635 Capitol St. NE, Suite 150
Salem, OR 97301-2540
(503) 373-0050
Description: Agency provides technical review and recommendations on compliance with EFSC rule
OAR 345-022-0030.

Responsible Agency: Oregon Parks and Recreation Department – Historic Preservation SectionPermit: Archaeological Excavation PermitLegal Citations:ORS 97, 358, and 390; OAR Chapter 736, Division 51Contact Information:Dr. Dennis Griffin, State ArcheologistOregon Department of Parks and Recreation, State Historic Preservation Office725 Summer St., NE, Suite CSalem, OR 97301(503) 986-0674Description: Permit for ground-disturbing activity that may affect a known or unknown archaeologicalresource on public or private lands requires a permit issued by the Historic Preservation Section of

Oregon Parks and Recreation Department.

Responsible Agency: Oregon Department of Agriculture (ODA) – Plant Conservation Biology Program **Permit:** None required

Legal Citations: ORS 564; OAR Chapter 603, Division 73

Contact Information:

Mr. Bob Meinke, Program Leader

Oregon Department of Agriculture - Plant Division

635 Capitol St., NE

Salem, OR 97301

(541) 737-2317

Description: Consultation planned with the ODA pursuant to OAR 345-022-0070 as it relates to plant species.

Responsible Agency: Oregon Water Resources Department (WRD) – Water Rights DivisionPermit: None required; however consultation is plannedLegal Citations: ORS 537 and 540; OAR Chapter690Contact Information:
Mr. Jerry SauterOregon Water Resources Department – Water Rights Division725 Summer St., NE Suite A
Salem, OR 97301-1271
(503) 986-0900Description: No new water rights required for this Project.

E3. Local Permits

Idaho Power intends to satisfy the Council's land use standard by seeking a Council determination of compliance with the Council's land use standard under ORS 469.504(1)(b) for either the proposed or alternate certified corridors.

E4. Alternative Segments

Each alternative segment retained for full analysis shown on Figure C-1 will require the same federal, state, and local permits as the corresponding Proposed Corridor segment.

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EXHIBIT F PROPERTY OWNERSHIP INFORMATION

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

A list of the names and mailing addresses of all owners of record, as shown on the most recent property tax assessment roll, of property located within or adjacent to the site boundary as defined in OAR 345-001-0010. In addition to incorporating the list in the NOI, the applicant shall submit the list to the Department of Energy in electronic format acceptable to the Department for the production of mailing labels. Property adjacent to the site boundary means property that is:

- (A) Within 100 feet of the site boundary where the site, corridor or micrositing corridor is within an urban growth boundary;
- (B) Within 250 feet of the site boundary where the site, corridor or micrositing corridor is outside an urban growth boundary and not within a farm or forest zone; and
- (C) Within 500 feet of the site boundary where the site, corridor or micrositing corridor is within a farm or forest zone;

Idaho Power has identified a "notification corridor" one-half mile wide plus 500 feet to either side of the Proposed Corridor center line because much of the corridor crosses farm and forest zones. The notification corridor has been further expanded by an additional 250 feet to either side to ensure county notification requirements are met. The Proposed Corridor is located outside of the urban growth boundary of any cities or towns.

In summary, the notification corridor for which owners of record have been identified is 4,140 feet in width. Appendix F-1 includes the names and mailing addresses of all owners of record within the notification corridor. An electronic listing of owners and mailing labels will be transmitted under separate cover.

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EXHIBIT G PROJECT MAPS

OAR 345-020-011

A map or maps showing:

(A) The proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features;

(B) The proposed locations of the corridors the applicant has identified under subsection (d) in relation to major roads, water bodies, cities and towns, important landmarks and topographic features;

(C) The study area(s) for the proposed facility as defined in OAR 345-001-0010;

(D) The topography of the study area(s) including streams, rivers, lakes, major roads and contour lines;

(E) All protected areas in the study area as defined in OAR 345-001-0010 for impacts to protected areas; and

(F) The location of any potential waters of the state or waters of the United States that are on or adjacent to the site.

The proposed locations of Project facilities, the Proposed Corridor and reasonable alternative corridors are shown overall in Figure C-1. Figures G-1-1 through G-1-8 show details of the Proposed Corridor and reasonable alternative corridors and site locations in relation to major roads, cities, and towns; important landmarks; topographic features; streams, rivers, and lakes; and protected areas.

Study areas are shown on Figure G-2. Study areas were defined according to OAR 345-001-0010 (57). These include: "(b) For impacts to scenic resources and to public services, 10 miles, (c) for land use impacts and impacts to fish and wildlife habitat, one-half mile, and (e), for impacts to protected areas described in OAR 345-022-0040, 20 miles." Note that the regulations go on to say that the distances stated in subsections (a) (5-mile study area for threatened and endangered plant and animal species) and (d) (impacts to recreational opportunities, 5 miles) do not apply to transmission lines.

Protected areas are shown in Figure G-3. More detailed maps will be presented in the ASC showing site-specific corridor features.




















	COUNTY			95 95 GIS B2H/Spatial/MXD/2010 B: NOI/Exhibit G2
FIGURE G-2 STUDY AREAS	0.5-mile Study Area	National Park Service Other Federal		LOCATION MAP
IDAHO POWER COMPANY BOARDMAN TO HEMINGWAY 500kV TRANSMISSION LINE PROJECT	20-mile Study Area Bureau of Land Management	Private State		OR
JUNE 2010	Indian Reservation	US Fish and Wildlife Service	0 15 Miles	CA NV



City Watershed - National Forest

National Forest Research Natural Area
 National Forest Special Fish Management Area
 National Forest Special Interest/Use Area
 The Nature Conservancy Preserve

Bureau of Land Management Wilderness Study Area

US Forest Service

US Forest Service Wilderness Area

LAKE COUNTY

FIGURE G-3 PROTECTED AREAS

IDAHO POWER COMPANY BOARDMAN TO HEMINGWAY 500kV TRANSMISSION LINE PROJECT

JUNE 2010











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Exhibit H NON-GENERATING FACILITY

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

If the proposed facility is a non-generating energy facility for which the applicant must demonstrate need under OAR 345-023-005, identification of the rule in Division 23 of this chapter under which the applicant intends to demonstrate need and a summary statement of the need and justification for the proposed facility.

Idaho Power proposes to build the B2H 500 kV Project in order to provide additional capacity connecting the Pacific Northwest and Intermountain regions, and to thereby alleviate existing and anticipated transmission constraints. B2H is necessary in order to allow Idaho Power to:

- 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.
- 3. Develop access to a cost effective, least cost resource as analyzed in the 2009 Integrated Resource Plan4 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.

Idaho Power intends to demonstrate need for the proposed non-generating facility principally under both the Least-Cost Plan Rule, OAR 345-023-0020, and the System Reliability Rule for Electric Transmission Lines, OAR 345-023-0030.

H1. Least-Cost Plan Rule

OAR 345-023-0020 provides that the Council must find that an applicant has demonstrated need for the facility " if the capacity of the proposed facility or a facility substantially similar to the proposed facility . . . is identified for acquisition in the short-term plan of action of an energy resource plan or combination of plans adopted, approved or acknowledged by ...a governmental body that makes or implements energy policy" and that plan(s) contains the analyses required by the Council—which are detailed in the table below. As discussed below., Idaho Power's 2009 IRP, submitted in final form for the acknowledgement of the OPUC on December 30, 2009, meets the requirements of such a plan. Therefore, an acknowledgment of that Plan, which Idaho Power hopes to receive by August 24, 2010, will satisfy the Council's requirement that the Applicant demonstrate need.

Idaho Power has discussed possible transmission upgrades linking the Company's service area to the regional energy market in the Pacific Northwest in every IRP since the 2000. Idaho Power discussed the Pacific Northwest transmission upgrades in general terms in both the 2000 and 2002 IRPs and identified the 225 MW B2H project, originally identified as the McNary to Boise transmission path, in the preferred

⁴ Idaho Power. 2009. Integrated Resource Plan for 2009.

http://www.idahopower.com/pdfs/AboutUs/PlanningForFuture/irp/2009/2009IntegratedResourcePlan.pdf

portfolio of the 2006 IRP. Idaho Power filed its 2009 IRP on December 30, 2009 and the preferred portfolio in the new plan includes 425 MW of imports from the Pacific Northwest utilizing the B2H transmission line. In this IRP filing, Idaho Power has included B2H in Chapter 7, Proposed Transmission Projects to meet the requirements of the IRP.

Chapter 7 of the 2009 IRP states: "The results of the 2009 IRP analysis indicate the Boardman to Hemingway transmission line will be a well used resource that benefits customers and generators in the Pacific Northwest and the Intermountain Region. The capital cost of Boardman to Hemingway, as measured on a dollar per kW of capacity basis, is estimated to be well below the capital cost of any supply-side resource alternative." Moreover, as shown in Table H-1, below, the 2009 IRP contains all analysis required by the Council's rules.

Requirement (OAR 345-023-0020)	Idaho Power IRP Section	Description
(1) (a) Includes a range of firm energy and capacity demands and committed firm energy and capacity resources.	Chapters 5 and 3	Idaho Power's load forecast is summarized in Chapter 5 of the IRP and fully discussed in Appendix A – Sales and Load Forecast. Chapter 3 includes discussion on Idaho Power's existing and committed resources which were included in the IRP analysis.
(1) (b) Considers and evaluates a reasonable range of practicable demand and supply resource alternatives.	Chapter 8	Chapter 8 of Idaho Power's IRP discusses the selection of portfolios which were analyzed in the IRP.
(1) (c) Uses Financial Assumptions that are consistent and comparable between resources.	Chapter 6	Page 72 in Chapter 6 of Idaho Power's 2009 IRP discusses the financial assumptions and emissions adders used to evaluate resources. Page 85 in Appendix C – Technical Appendix contains a complete list of the financial assumptions used in the IRP.
(1) (d) Considers alternatives that include:		
(A) Implementation of cost effective conservation, peak load management, and voluntary customer interruption	Chapter 4	Chapter 4 of Idaho Power's 2009 IRP discusses Demand-Side Management programs. As part of the IRP, Idaho Power implements all cost-effective DSM.
(B) Construction and operation of electric generating facilities	Chapter 6	Chapter 6 of Idaho Power's 2009 IRP contains details on the supply-side resources that were considered in the IRP.
(C) Direct use of natural gas, solar or geothermal resources	Chapter 6	Chapter 6 of Idaho Power's 2009 IRP contains details on the supply-side resources that were considered in the IRP.TBD
(D) Adding standard sized smaller or larger transmission line capacity	Chapters 5 and 3	Idaho Power's load forecast is summarized in Chapter 5 of the IRP and fully discussed in Appendix A – Sales and Load Forecast. Chapter 3 includes discussion on Idaho Power's existing and committed resources which were included in the IRP analysis.

Table H-1. Least-Cost Plan Rule Requirements and Idaho Power's IRP Compliance

H.2 System Reliability Rule for Electric Transmission Lines

OAR 345-023-0005 provides an alternative method of establishing need termed the "System Reliability Rule." Pursuant to the System Reliability Rule, the Council must find that the applicant has established need if:

- 1. The facility is needed to enable the transmission system of which it is to be a part to meet firm capacity demands for electricity or firm annual electricity sales that are reasonably expected to occur within five years of the facility's proposed in-service date based on weather conditions that have at least a 5 percent chance of occurrence in any year in the area to be served by the facility;
- 2. The facility is consistent with the minimum operating reliability criteria contained in the Western System Coordinating Council Bulk Power Supply Program; and
- 3. Construction and operation of the facility is an economically reasonable method of meeting the requirements of sections (1) and (2) compared to the alternatives evaluated in the application for site certificate.

Idaho Power will establish that the B2H Project meets these requirements, as summarized below.

B2H is Needed to Meet Firm Capacity Demands

The 2009 IRP describes Idaho Power's need to expand its transmission system in order to meet the needs of its native load customers. As described in this plan, the B2H transmission line is needed to enable Idaho Power's presently constrained Idaho to Northwest transmission system to meet the capacity demand levels forecasted to occur in 2015 and beyond. The load forecast projects peak-hour load will grow at an average annual rate of 53 MW (1.5 percent). Idaho Power uses the 95th percentile forecast as the basis for peak-hour forecasting, using the 95th percentile average peak day temperatures to forecast monthly peak-hour load. In July of 2015, the capacity demand that B2H will fulfill is forecasted to be 215 MW. Five years from the in-service date, July 2020, the project is scheduled to provide 425 MW of a 500 MW capacity deficit.

In addition to its native load customers, Idaho Power also needs to consider its obligations to its transmission customers. Idaho Power is a public utility under the jurisdiction of the Federal Energy Regulatory Commission (FERC). Pursuant to its Open Access Transmission Tariff (OATT), Idaho Power is required to plan for and expand its transmission system in a non-discriminatory manner based on the needs of its native load customers, network customers, and all eligible customers that request and agree to expand the transmission systems.

Idaho Power's network customers have forecasted demand increasing greater than one percent from 2009 to 2020. This demand is served primarily from generation resources in the Pacific Northwest through the Idaho to Northwest transmission path. Additionally, a network customer has requested 85 MW of additional transmission service across the constrained Idaho to Northwest path. Idaho Power needs the B2H line in order to meet its network customer obligations.

B2H is Consistent with Minimum Operability Requirements

The minimum operating reliability criteria require Idaho Power to (a) regulate load; (b) maintain contingency reserves; (c) operate the system within facility limits (d) maintain voltage through reactive power control; and (e) operate the system such that the most severe single contingency does not result in loss of load or instability. B2H will play a critical role in allowing Idaho Power to meet each of these requirements as follows:

- (a) As Idaho Power's service area load continues to grow, Idaho Power must acquire more resources to serve the load and dedicate a larger portion of existing generation to load regulation. B2H allows Idaho Power to access the mid- Columbia market for new resources to meet the new load and offset the generation that will be required for load regulation.
- (b) Idaho Power maintains its contingency reserves, along with other northwest utilities, through the Northwest Power Pool reserve sharing program. This reserve sharing method is efficient and beneficial to northwest area customers. However, Idaho Power's access to the reserves is held on the constrained Idaho to Northwest path. In recent years, during peak loading conditions, Idaho Power has served a portion of the native load within the block of transmission capacity held for the reserves. Thus, a portion of the load was served on non-firm transmission and would have been subject to curtailment during a contingency event. B2H will add additional capacity to the Pacific Northwest and allow additional firm transmission to serve load while maintaining access to reserves held within the Northwest Power Pool.
- (c) Idaho Power has procedures in place to ensure that B2H and its system will be operated withing facility limits, and actively manages its system to ensure compliance.
- (d) In designing the B2H project, Idaho Power has considered the reactive power control requirements. Idaho Power plans to install both series and shunt capacitor devices along with switchable shunt reactors. The transmission line will be 50 to 70% series compensated which will automatically satisfy most of the line reactive requirements. Additional switchable shunt capacitors and reactors will provide Idaho Power's Grid Operations personnel with additional voltage regulation capabilities.
- (e) Finally, in addition to the above, B2H provides additional transmission capacity to the Pacific Northwest which allows Idaho Power to maintain stability for the most severe single contingency.

B2H is an Economically Reasonable Alternative

The 2009 IRP includes an analysis of several alternative resource portfolios to meet the needs of Idaho Power's customers—including alternatives to B2H. Idaho Power selected the preferred portfolio, which includes B2H, primarily because it presents the lowest expected cost.

EXHIBIT I LAND USE STANDARD

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

A statement indicating whether the applicant intends to satisfy the Council's land use standard, OAE 345-022-0030, by obtaining local land use approval under ORS 469.504(1)(a) or by seeking a Council determination under ORS 469.504 (1)(b).

Idaho Power intends to satisfy the Council's land use standard by seeking a Council determination of compliance with the Council's land use standard under ORS 469.504(1) (b) for either the proposed or alternate certified corridors.

EXHIBIT J ENVIRONMENTAL IMPACT SUMMARY

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

Identification of significant potential environmental impacts of construction and operation of the proposed facility on the study areas, including those impacts affecting air quality, surface and ground water quality and availability, wildlife and wildlife habitat, threatened and endangered plant and animal species, historic, cultural and archaeological resources, scenic and aesthetic areas, recreation and land use.

J1. Impact Summary by Resource

The following discussions apply to the Proposed Corridor and reasonable alternative corridors.

Air Quality

During construction, operation of gasoline and diesel fuel engines in land-clearing/grading equipment, cranes, bulldozers, and various types of trucks and cars could result in minor air quality impacts in the vicinity of project. Dust can be created directly from the activities involved in construction, such as vegetation removal, grading, and vehicles and equipment moving on unsurfaced roads. Impacts from vehicle operation and fugitive dust will be controlled by applying the appropriate control measures (e.g., watering unpaved roads, covering piles, etc). The Project will emit no pollutants during operation and does not require permits from the ODEQ or Idaho Department of Environmental Quality (IDEQ). Maintenance activities will be infrequent, particularly in the early years of operation. Where maintenance is required, there would be operation of gasoline and diesel fuel engines in cranes, personnel hoists, or various types of trucks and cars. There could be a very minor amount of dust generated. As is the case for operations, the level of emissions during maintenance would be well below any need for permits

Surface and Groundwater Quality: Construction storm water will be managed as required by NPDES 1200-C permit issued by ODEQ and by EPA in Idaho. Transmission lines and associated substations will not discharge pollutants to surface water or groundwater during maintenance and operation. Potential affects to surface water quality from construction and use of road crossings will be addressed in the Storm Water Pollution Prevention Plan and through project-specific best management practices.

Surface and Groundwater Availability

Major water uses are for preparation and installation of concrete transmission line structure and substation equipment foundations, and dust control during ROW, staging, fly yard, access road, and substation grading and site work. As the preliminary design is refined, the total amount of water needed will be identified. The required water will be procured from municipal sources and/or from landowners. No new water rights will be required but if needed, limited licenses will be procured from the Oregon Water Resources Department (WRD) and Idaho Department of Water Resources (IDWR). During maintenance and operation, the Project will not require any new use of surface or groundwater.

Wildlife and Wildlife Habitat

The Proposed Corridor will cross 71.9 miles of elk winter range, 121.9 miles of deer winter range, and and 3.5 miles of Big Horn Sheep habitat. Wildlife could be affected primarily during the construction phases but may also be affected during maintenance activities. Idaho Power utilizes construction techniques and BMPs that avoid, minimize, and mitigate potential wildlife impacts.

Terrestrial Habitat – Wildlife and habitat impacts potentially resulting from constructing the proposed project and associated facilities (e.g., access roads and substations) are related to habitat disturbance, introduction of invasive species, injury or mortality, erosion, dust, noise, contaminant exposure, and

interference with behavior. Potential impacts resulting from operation and maintenance include electrocution and exposure to electromagnetic fields, noise, collisions, maintenance activities (including herbicide use), contaminants (including oil spills), disturbance (including habitat disturbance and interference with animal behavior), and fire effects (e.g., an indirect effect of the project could be an increase in the potential for fires). Specific mitigation measures will be developed to avoid or minimize potential impacts to wildlife species from the Project.

Riparian and Aquatic Habitat – Potential impacts could include changes in water surface flow patterns, deposition of sediment in surface water bodies, changes in water quality or temperature regimes, loss of riparian vegetation, introduction of toxic materials, and changes in human access to water bodies. During maintenance of the ROW, aquatic systems could be adversely affected by maintenance activities, including vegetation management.

Threatened and Endangered Plant and Animal Species

There are 16 federal wildlife, fish, and plant threatened, endangered, or candidate species and a variety of special status species that may occur in the vicinity of the Proposed Corridor. These species are listed in Tables J-1 and J-2. Siting of the proposed ROW avoids, to the extent practicable, known critical habitat. Potential habitat and the location of threatened, endangered, and special status species will be identified through site-specific field surveys. Micrositing and adoption of BMPs will avoid or reduce the potential for significant impacts.

Historic, Cultural, and Archaeological Resources

Human use of the project area extends over 12,000 years. Of special interest in the project area are the National Historic Trails, including the Oregon National Historic Trail. The Proposed Corridor would be within a 1,200-foot buffer of historic trails for 6.4 miles and cross 0.5 mile of intact trail buffer. For trails, both the physical integrity and the integrity of the setting are important. A survey of historic, cultural, and archaeological resources will be conducted in accordance with a Programmati c Agreement agreed to among the responsible agencies, Applicant, and others prior to construction. Based on the results of these surveys the Project could be realigned or mitigation proposed to reduce impact.

Scenic and Aesthetic Areas

The Project would cross some mountainous areas and extensive rangeland with panoramic views. The Project would also cross areas managed for scenic qualities including 3.6 miles of BLM Visual Resource Management (VRM) Class II, 1.6 miles of USFS Retention, and 4.6 miles of Partial Retention. The transmission line has the potential to impact visual resources. The ongoing siting and routing for this Project have included efforts to minimize impact on scenic and aesthetic resources.

Recreation

The transmission line routes will avoid protected areas including recreational resources. Potential visual effects on recreational resources have been considered in the identification of routes and will be described in the ASC.

Land Use

Approximately 200 miles of the 300-mile route is proposed to be on private land with the balance mostly on BLM managed lands. The Project would follow 32.8 miles of designated utility corridor which partially overlaps 101 miles of existing transmission line that is paralleled. The predominant land covers crossed by the Proposed Corridor are agriculture and forest. Of these, 18 miles is cropland/irrigated farmland. The Proposed Corridor crosses 162.3 miles of Exclusive Farm Use Zone/Multiple Use Range

Zone which could not be avoided. Micrositing during the design phase will further minimize impacts to these land uses.

J2. Phased Study Approach

Idaho Power proposes to collect necessary data to support the analysis of resource impacts in phases. This data collection approach will provide an appropriate level of detail for decision making while allowing the EFSC Site Certificate, NEPA, BLM ROW Grant, and USFS Special Use Permit processes to proceed concurrently. The specific phasing of data described below takes into account the unique nature of a long high voltage transmission line, multiple regulatory processes, public interest and input in line routes, and the inherent ability of transmission line components to be microsited in many cases to minimize or avoid impact. When the three phases are taken together, the data collected and analyzed will meet NEPA requirements, typical BLM and USFS survey requirements, and the substantive requirements of EFSC regulations.

The phases of the study plan are as follows:

- **Phase 1**, largely based on collection and utilization of existing data, would provide the basis for ODOE to deem the ASC complete and issue the Draft Proposed Order, and for the BLM to issue a Draft Environmental Impact Statement (EIS).
- **Phase 2** would provide protocol level information about Idaho Power's Proposed Corridor as described in the ASC and allow the BLM to issue a Final EIS; and
- **Phase 3** would provide site-specific data for resources along the approved route that could be affected at the time of construction as well as information on conditions that have changed due to route or project description changes.

Appendix J-1 describes how data collection would be accomplished during each phase.

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		BLM	BLM	24		Potential Habitat	Potential Field Survey			
Species	USFWS ^{1/}	Boise District ^{2/}	Oregon District ^{2/}	USFS R6 ^{3/}	ODFW ^{4/}	within Route	Requirement			
MAMMALS										
Gray Wolf (<i>Canis lupus</i>)	E Delisted 4/2/2009 in Idaho and Eastern Oregon	FRFO	VALE (E in OR)	UMA(E); WAW(E)	LE	Y	Ν			
Canada Lynx (<i>Lynx canadensis</i>)	Т	FRFO;	VALE; PRIN	UMA; WAW (MIS)		N	Ν			
Washington ground squirrel (Spermophilus washingtoni)	С		VALE; PRIN		LE	Y	Y			
Pygmy Rabbit (Brachylagus idahoensis)		FRFO	VALE; PRIN		SV	Y	Y			
White-tailed Jack Rabbit (Lepus townsendii)					SU	Y	Ν			
Wolverine (Gulo gulo)		FRFO (North American sub- species)	PRIN	UMA; WAW (MIS) (California subsp)	LT	Y	Ν			
Fisher (Martes pennanti)		FRFO	PRIN	WAW	SC	Y	Ν			
American Marten (Martes martes)				UMA (MIS); WAW (MIS)	SV	Y	Ν			
Kit Fox (Vulpes velox)			VALE			N	Ν			
Rocky Mountain Elk (Cervus canadensis)				WAW (MIS)		Y	Ν			
Fringed Myotis (<i>Myotis thysanodes</i>)		FRFO	VALE; PRIN		SV	Y	Ν			
Spotted Bat (Euderma aculatum)		FRFO	VALE; PRIN		SC	Y	N			
Townsend's Big-eared Bat (Corynorhinus townsendii)		FRFO	VALE; PRIN	UMA	SC	Y	Ν			

Table J-1. Special Status Fish and Wildlife Species with the Potential to Occur in the Vicinity of the Project (continued)							
Species	USFWS ^{1/}	BLM Boise District ^{2/}	BLM Oregon District ^{2/}	USFS R6 ^{3/}	ODFW ^{4/}	Potential Habitat within Route	Potential Field Survey Requirement
Pallid Bat (Antrozous pallidus)			PRIN		SV	Y	N
AVIAN					•		
Bald Eagle (Haliaeetus leucocephalus)	Delisted 8/8/2007	FRFO	VALE; PRIN	UMA; WAW (MIS)	LT	Y	N
Yellow-billed Cuckoo (Coccyzus americanus)	C	FRFO	VALE; PRIN		SC	N	N
Flammulated Owl (<i>Otus flammeoulus</i>)		FRFO			SC	Y	N
Great Gray Owl (Strix nebulosa)					SV	Y	N
Burrowing Owl (Athene cunicularia)					SC	Y	Y
Greater Sage-grouse (Centrocercus urophasianus)		FRFO	VALE; PRIN	WAW	SV	Y	Y
Columbian Sharp-tailed Grouse (Tympanuchus phasianellus columbianus)		FRFO	VALE	WAW		Y	Y
Mountain Quail (Oreotyx pictus)		FRFO				Y	N
Peregrine Falcon (Falco peregrinus anatum)		FRFO	VALE; PRIN	UMA; WAW (MIS)	LE	Y	N
Prairie Falcon (Falco mexicanus)		FRFO				Y	N
Northern Goshawk (Accipiter gentilis)		FRFO		WAW (MIS)	SC	Y	Y
Ferruginous Hawk (Buteo regalis)		FRFO			SC	Y	Y
Swainson's hawk (Buteo swainsoni)					SV	Y	Y
Common nighthawk (Chordeiles minor)					SC	Y	N

Table J-1. Special Status Fish and Wildlife Species with the Potential to Occur in the Vicinity of the Project (continued)							
Species	USFWS ^{1/}	BLM Boise District ^{2/}	BLM Oregon District ^{2/}	USFS R6 ^{3/}	ODFW ^{4/}	Potential Habitat within Route	Potential Field Survey Requirement
Three-toed Woodpecker (Picoides tridactylus)				UMA; WAW (MIS)	SC	Y	Y
Lewis' Woodpecker (Melanerpes lewis)		FRFO	VALE; PRIN	UMA (MIS); WAW (MIS)	SV	Y	Ν
White-headed Woodpecker (Picoides albolarvatus)		FRFO	VALE; PRIN	UMA (MIS); WAW (MIS)	SC	Y	Ν
Williamson's Sapsucker (Sphyrapicus throideus)		FRFO		UMA (MIS); WAW (MIS)		Y	Ν
Pileated Woodpecker (Dryocopus pileatus)				UMA (MIS); WAW (MIS)		Y	Ν
Yellow-bellied Sapsucker (Sphyrapicus varius)				UMA (MIS); WAW (MIS)		Y	Ν
Black-backed Woodpecker (Picoides arcticus)				UMA (MIS); WAW (MIS)	SC	Y	Ν
Hairy Woodpecker (Picoides villosus)				UMA (MIS); WAW (MIS)		Y	Ν
Northern Flicker (<i>Colaptes auratus</i>)				UMA (MIS); WAW (MIS)		Y	Ν
Downy Woodpecker (Picoides pubescens)				UMA (MIS); WAW (MIS)		Y	Ν
Mountain Chickadee (<i>Poecile gambeli</i>)				UMA (MIS); WAW (MIS)		Y	Ν
Black-capped Chickadee (Poecile atricapilla)				UMA (MIS); WAW (MIS)		Y	Ν
White-breasted Nuthatch (Sitta carolinensis)				UMA (MIS); WAW (MIS)		Y	Ν
Red-breasted Nuthatch (Sitta canadensis)				UMA (MIS); WAW (MIS)		Y	Ν
Pygmy Nuthatch (Sitta pygmaea)				UMA (MIS); WAW (MIS)		Y	N
American White Pelican (Pelecanus erythrorhynchos)		FRFO	VALE; PRIN			N	N

Species	USEW/S ^{1/}	BLM Boice District ^{2/}	BLM ict ^{2/} Oregon District ^{2/} USFS R6 ^{3/}		ODFW ^{4/}	Potential Habitat within Route	Potential Field Survey Requirement
Trumpeter Swan (Cygnus buccinator)	051 45	Doise District	VALE; PRIN			N	N
Horned Grebe (Podiceps auritus)			VALE			N	N
Calliope Hummingbird (Stellula calliope)		FRFO				Y	N
Willow Flycatcher (Empidonax trailii)		FRFO				Y	Ν
Hammond's Flycatcher (Empidonax hammondii)		FRFO				Y	Ν
Olive-sided Flycatcher (Contopus borealis)		FRFO			SV	Y	Ν
Black Swift (Cypseloides niger)			PRIN			N	Ν
Loggerhead Shrike (Lanius ludovicianus)		FRFO			SV	Y	Ν
Sage Sparrow (Amphispiza belli)		FRFO			SC	Y	Ν
Black-throated Sparrow (Amphispiza bilineata)		FRFO			SP	Y	Ν
Grasshopper Sparrow (Ammodramus savannarum)			VALE; PRIN		SV/SP	Y	Ν
Yellow Breasted Chat (Icteria virens)						N	Ν
Bobolink (Dolichonyx oryzivorus)			VALE; PRIN		SV	N	Ν
Tricolored blackbird (<i>Agelaius tricolor</i>)			PRIN		SP	Y	Ν
Western Bluebird (Sialia Mexicana)					SV	Y	N
Frankllin's Gull (Larus pipixcan)			VALE			N	N

Table J-1. Special Status Fish and Wildlife Species with the Potential to Occur in the Vicinity of the Project (continued)

	Potential	Potential Field					
		BLM	BLM			Habitat within	Survey
Species	USFWS ^{1/}	Boise District ^{2/}	Oregon District ^{2/}	USFS R6 ^{3/}	ODFW ^{4/}	Route	Requirement
Upland Sandpiper (Bartramia longicaula)		FRFO	PRIN	UMA; WAW	SC	Y	N
Long-billed Curlew (Numenius americanus)					SV	Y	N
Bufflehead (Bucephala albeola)			PRIN	WAW		N	Ν
REPTILES AND AMPHIBIANS				•		•	
Columbia Spotted Frog (Rana luteiventris)	C		VALE; PRIN	UMA; WAW		Y	Ν
Oregon Spotted Frog (Rana pretiosa)			PRIN		SC	N	Ν
Northern Leopard Frog (Rana pipiens)		FRFO	VALE	UMA		Y	Ν
Western Toad (<i>Bufo boreas</i>) Northern Rocky Mountain Population		FRFO			SV	Y	N
Woodhouse Toad (Bufo woodhousii)		FRFO	VALE		SP	Y	Ν
Inland Tailed Frog (Ascaphus montanus)			VALE	UMA; WAW	SV	Y	Ν
Mojave Black-collared Lizard (Crotaphytus bicinctores)		FRFO				N	N
Longnose Snake (Rhinocheilus lecontei)		FRFO				Y	Ν
Western Ground Snake (Sonora semiannulata)		FRFO				Y	Ν
Common Garter Snake (Thamnophis sirtalis)		FRFO				Y	Ν
Sagebrush Lizard (Sceloporus graciosus)					SV	Y	N
Painted Turtle (Chrtsemys picta)			VALE	UMA	SC	N	N

Table J-1. Special Status Fish and Wildlife Species with the Potential to Occur in the Vicinity of the Project (continued)									
		BLM	BLM			Potential Habitat within	Potential Field Survey		
Species	USFWS ^{1/}	Boise District ^{2/}	Oregon District ^{2/}	USFS R6 ^{3/}	ODFW ^{4/}	Route	Requirement		
FISH									
Bull Trout (Salvelinus confluentus)	T, CH	FRFO	VALE; PRIN	UMA; WAW	SC	Y	Ν		
Inland Redband Trout (Oncorhynchus mykiss gibbsi)		FRFO	VALE; PRIN	UMA; WAW	SV	Y	Ν		
Oregon Great Basin Redband Trout (Oncorhynchus myskiss)					SV	Y	Ν		
Middle Columbia River Steelhead (Oncorhynchus mykiss ssp.)	Т		PRIN; CEN	UMA; WAW	SV	N (downstream influence)	Ν		
Snake River Basin steelhead (Oncorhynchus mykiss ssp.)	Т			UMA; WAW	SV	Y	Ν		
Snake River Chinook (Spring/Summer/Fall Runs) (<i>Oncorhynchus tshwatscha</i> ssp.)	Т		VALE; PRIN	UMA; WAW	LT	Y	Ν		
Snake River Sockeye Salmon (Oncorhynchus nerka)	E		VALE	WAW		Y	Ν		
Westslope Cutthroat Trout (Oncorhynchus mykiss ssp.)			PRIN	UMA; WAW	SV	Y	Ν		
Malheur Mottled Sculpin (Cottus bendirei)					SC	Ν	Ν		
Margined Sculpin (Cottus marginatus)					SV	Ν	Ν		
Pacific Lamprey (Lampetra tridentata)					SV	Y	N		
INVERTEBRATES									
None									

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1/ Federally Listed Species: E = Endangered; T = Threatened; C = Candidate; XN = Experimental Non-essential Population; CH = Critical Habitat.

2/ BLM Sensitive Species: FOU = Four Rivers Field Office; PRIN = Prineville District; VALE = Vale Oregon.

3/ Region 6 USFS Sensitive Species: UMA = Umatilla National Forest; WAW =Wallowa-Whitman National Forest; MIS = Management Indicator Species.

4/ Oregon Department of Fish and Wildlife: LE = Listed Endangered; LT = Listed Threatened; SC = Critical Sensitive Species; SV = Vulnerable Sensitive Species; SP = Peripheral Species

Table J-2. Special Status Plant Species with the Potential to Occur in the Vicinity of the Project

Species	USFWS ^{1/}	BLM Idaho FO ² /	BLM Oregon FO ^{2/}	USFS R6 ^{3/}	Potential Habitat within Route	Potential Field Survey Requirement
VASCULAR PLANTS						
Howell's Spectacular Thelypody (Thelypodium howellii ssp. spectabilis)	Т		VALE		Y	Y
Spalding's Catchfly (Silene spaldingii)	Т		VALE	UMA; WAW	N	Ν
Slickspot Peppergrass (Lepidium papilliferum)	_	FOU	VALE		Y	Y
Macfarlane's Four O'Clock (Mirabilis macfarlanei)	Т		VALE	WAW	N	Ν

1/ Federally Listed Species: T = Threatened

2/ BLM Sensitive Species: FOU = Four Rivers Field Office; VALE = Vale Oregon.
 3/ Region 6 USFS Sensitive Species: UMA = Umatilla National Forest; WAW =Wallowa-Whitman National Forest.

EXHIBIT K PUBLIC SERVICES

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

Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of communities in the study area to provide the services listed in OAR 345-022-0110.

The following statements apply to both Proposed Corridors and reasonable alternative corridors.

Sewers and Sewage Treatment

Underground utilities will be located prior to excavation to minimize the potential for damage to buried sewer, water, electric, gas, or communication lines. The Project will not cause any impacts to sewer systems.

Water

Water for dust control or construction processes such as concrete batching will be purchased from existing sources. Neither use will require significant amounts of water.

Storm Water Drainage

Storm water BMPs will be implemented during construction. Construction will proceed under an approved construction storm water general permit, as required by the ODEQ.

Solid Waste Management

Substation and ROW construction will generate a variety of solid wastes, including concrete, hardware, and wood debris. Components will be trucked to the project during construction and operation. Excess materials generated during construction will be spread on site (mostly excess material from foundation excavations) or be hauled off-site to be disposed of in accordance with applicable state or federal laws and regulations.

Housing

The proposed Project is not anticipated to have an adverse impact or create a major demand for housing. Many of the workers will come from outside of the Project area and will require temporary housing over a 2-year construction period. Construction workers hired from outside the area will require motels or other rental units. The proposed and alternate corridors generally follow or are near the I-84 corridor, which contains sufficient temporary housing. In addition, construction of the transmission line will proceed in a linear manner with construction dispersed over many miles. The transient workers may benefit the local communities by renting housing for the construction duration.

Traffic Safety

The construction of the transmission line will result in a temporary increase in local traffic, including large trucks and construction equipment. A traffic management plan will be developed to minimize impacts.

Police and Fire Protection

Project plans developed as part of preparing the ASC will provide a framework for construction phase management of personnel, rules of behavior, identification of local police and fire protection resources, and emergency response procedures to be used or followed.

Health Care

The proposed and alternate routes follow the I-84 corridor, which contains sufficient health care facilities to support the Project. The size of the construction workforce is not expected to make significant demands on heath care resources. The construction phase of the Project will be covered by a comprehensive health and safety plan.

Schools

The vast majority of construction phase workers typically do not relocate family to the job location. The number of operations phase personnel will be minimal. Impacts to school systems will be minimal for either phase.

EXHIBIT L WATER USE

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

Information about water requirements the applicant anticipates for construction and operation of the proposed facility, including:

(A) A description of each source of water and the applicant's estimate of the amount of water the facility will need from each source;

(B) If a new water right is required, the approximate location of the points of diversion and estimated quantity of water to be taken at each point;

(C) For operation, the source of cooling water and the estimated consumptive use of cooling water, based on annual average conditions.

Construction of the transmission lines and substations will require water. Major water uses are for preparation and installation of concrete transmission line structure and substation foundations, and dust control during ROW, staging, fly yard, access road, and substation grading and site work. As the preliminary design advances, the total amount of water needed will be identified. The required water will be procured from municipal sources and/or from landowners. No new water rights will be required but if needed, limited licenses will be procured from the Oregon WRD.

In the construction of foundations, water is transported to the batch plant site where it is used to mix wet concrete. From the batch plant the wet concrete is transported to the structure site in concrete trucks for use in foundation installation. Construction of the transmission lines and related facilities will generate a temporary increase in fugitive dust. If the level of fugitive dust is too high in specific Project areas, as determined in cooperation with the landowner or agency, water will be applied to disturbed areas to minimize dust.

Water usage for substation construction is primarily for dust control during site preparation work. During this period, construction equipment will be cutting, moving, and compacting the subgrade surface. As a result, water trucks patrolling the site to control dust will make up to one pass over the station site per hour. Once site preparation work is complete, concrete for the placement of foundations becomes the largest user of water and dust control becomes minimal.

Once site grading is complete, the balance of the substation construction work will be performed on bare subgrade soil or subgrade with a thin layer of rock. Fire risk will be minimal due to the bare ground or rock surface and will be contained within the confines of the fenced area.

EXHIBIT M CARBON DIOXIDE EMISSIONS

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

If the proposed facility would emit carbon dioxide, an estimate of the gross rate of carbon dioxide emissions, a table listing all the factors that form the basis for calculating the estimate, and a statement of the means by which the applicant intends to comply with the applicable carbon dioxide emissions standard under OAR 345-024-560, OAR 345-024-600, or OAR 345-024-630.

The Project will not emit carbon dioxide.

EXHIBIT N LEGAL CITATIONS

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

Identification, by legal citation, of all state statutes and administrative rules and local government ordinances containing standards or criteria that the proposed facility must meet for the Council to issue a site certificate, other than statutes, rules and ordinances identified in Exhibit E, and identification of the agencies administering those statutes, administrative rules and ordinances. The applicant shall analyze and describe any problems the applicant foresees in satisfying the requirements of any such statute, rule or ordinance.

All state statutes, administrative rules, and local government ordinances containing standards or criteria that the proposed facility within the proposed or alternate corridors must meet are identified in Exhibit E. The agencies administering these statutes, administrative rules, and ordinances are also identified in Exhibit E.

EXHIBIT O SITE CERTIFICATION SCHEDULE

OAR 345-020-011(1)(0)

A schedule stating when the applicant expects to submit an application for a site certificate;

The Applicant expects to submit an ASC in the first quarter of 2011.

EXHIBIT P STATE COMMISSION ON INDIAN SERVICES

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

Evidence of consultation with the State Commission on Indian Services to identify each appropriate tribe to consult with regarding the proposed facility's possible effects on Indian historic and cultural resources.

Idaho Power contacted the State Commission on Indian Services on May 27, 2010, to identify each appropriate tribe to consult with regarding the proposed facility's possible effects on Indian historic and cultural resources within the Proposed Corridor. Tribes identified as being expected to have an interest in the Project's Proposed Corridor include:

Burns-Paiute Tribe

Ms. Theresa Peck, Culture and Heritage Coordinator 100 Pasigo Street Burns, OR 97720

Shoshone-Paiute Tribes of Duck Valley Indian Reservation

Mr. Ted Howard P.O. Box 219 Owyhee, NV 89832

Confederated Tribes of the Umatilla Indian Reservation

Ms. Teara Farrow, Cultural Resources Program Protection Manager 46411 Timine Way Pendleton, OR 97801

Confederated Tribes of Warm Springs Reservation of Oregon

Ms. Sally Bird, Cultural Resources Coordinator P.O. Box 460 Warm Springs, OR 97761

Nez Perce Tribe

Ms. Vera Sonneck, Cultural Resources Coordinator P.O. Box 365 Lapwai, ID 83540

Confederate Tribes of the Colville Reservation

Ms. Camille Pleasants, History and Archeology Department Chair P.O. Box 150 Nespelem, WA 99155

Fort McDermitt Shoshone-Paiute Tribes

Tribal Chair, Billy Bell P.O. Box 457 McDermitt, NV 89421

Shoshone-Bannock Tribes of Fort Hall Indian Reservation

Carolyn Smith, Cultural Resources Coordinator P.O. Box 306 Fort Hall, ID 83203

Klamath Tribes

Perry Chocktoot, Cultural and Heritage Director P.O. Box 436 501 Chiloqiun Blvd Chiloquin, Oregon 97624

In addition to Oregon EFSC approval, the Project requires a BLM ROW Grant. Part of BLM's responsibility includes government-to-government consultation with affected Indian tribes.