Exhibit D
Organizational Expertise

Boardman to Hemingway Transmission Line Project

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Preliminary Application for Site Certificate

February 2013

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ACRONYMS AND ABBREVIATIONS

Note: Not all acronyms and abbreviations listed will appear in this Exhibit.

°C	degrees Celsius
4WD	4-wheel-drive
A	ampere
A/ph	amperes/phase
AC	alternating current
ACDP	Air Contaminant Discharge Permit
ACEC	Area of Critical Environmental Concern
ACSR	aluminum conductor steel reinforced
AIMP	Agricultural Impact Mitigation Plan
AMS	Analysis of the Management Situation
aMW	average megawatt
ANSI	American National Standards Institute
APE	Area of Potential Effect
APLIC	Avian Power Line Interaction Committee
ARPA	Archaeological Resource Protection Act
ASC	Application for Site Certificate
ASCE	American Society of Civil Engineers
ASP	Archaeological Survey Plan
AST	aboveground storage tank
ASTM	American Society of Testing and Materials
ATC	available transmission capacity
ATV	all-terrain vehicle
AUM	animal unit month
B2H	Boardman to Hemingway Transmission Line Project
BCCP	Baker County Comprehensive Plan
BCZSO	Baker County Zoning and Subdivision Ordinance
BLM	Bureau of Land Management
BMP	best management practice
BPA	Bonneville Power Administration
BOR	Bureau of Reclamation
C and D	construction and demolition
CAA	Clean Air Act
CadnaA	Computer-Aided Noise Abatement
CAFE	Corona and Field Effects
CAP	Community Advisory Process
CBM	capacity benefit margin
CFR	Code of Federal Regulations
CH	critical habitat
CIP	critical infrastructure protection
CL	centerline
cm	centimeter
cmil	circular mil
COA	Conservation Opportunity Area
CO_2e	carbon dioxide equivalent

COM Plan	Construction, Operations, and Maintenance Plan
CPCN	Certificate of Public Convenience and Necessity
cps	cycle per second
CRP	Conservation Reserve Program
CRT	cathode-ray tube
CRUP	Cultural Resource Use Permit
CSZ	Cascadia Subduction Zone
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
CWA	*Clean Water Act of 1972*
CWR	Critical Winter Range
dB	decibel
dBA	A-weighted decibel
DC	direct current
DoD	Department of Defense
DOE	U.S. Department of Energy
DOGAMI	Oregon Department of Geology and Mineral Industries
DPS	Distinct Population Segment
DSL	Oregon Department of State Lands
EA	environmental assessment
EDRR	Early Detection and Rapid Response
EIS	Environmental Impact Statement (DEIS for Draft and FEIS for Final)
EFSC or Council	Energy Facility Siting Council
EFU	Exclusive Farm Use
EHS	extra high strength
EMF	electric and magnetic fields
EPA	Environmental Protection Agency
EPC	Engineer, Procure, Construct
EPM	environmental protection measure
EPRI	Electric Power Research Institute
ERO	Electric Reliability Organization
ERU	Exclusive Range Use
ESA	Endangered Species Act
ESCP	Erosion and Sediment Control Plan
ESU	Evolutionarily Significant Unit
EU	European Union
FAA	Federal Aviation Administration
FCC	Federal Communication Commission
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FFT	find, fix, track, and report
FLPMA	Federal Land Policy and Management Act
Forest Plan	Land and Resource Management Plan
FPA	Forest Practices Act
FSA	Farm Services Agency
FWS	U.S. Fish and Wildlife Service
G	gauss

GeoBOB	Geographic Biotic Observation
GF	Grazing Farm Zone
GHG	greenhouse gas
GHz	gigahertz
GIL	gas insulated transmission line
GIS	geographic information system
GPS	Global Positioning System
GRMW	Grande Ronde Model Watershed
GRP	Grassland Reserve Program
HAC	Historic Archaeological Cultural
HCNRA	Hells Canyon National Recreation Area
HPFF	high pressure fluid-filled
HPMP	Historic Properties Management Plan
HUC	Hydrologic Unit Code
Hz	hertz
I-84	Interstate 84
ICC	International Code Council
ICES	International Committee on Electromagnetic Safety
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDWR	Idaho Department of Water Resources
ILS	intensive-level survey
IM	Instructional Memorandum
INHP	Idaho Natural Heritage Program
INRMP	Integrated Natural Resources Management Plan
IPC	Idaho Power Company
IPUC	Idaho Public Utilities Commission
IRP	integrated resource plan
IRPAC	IRP Advisory Council
ISDA	Idaho State Department of Agriculture
JPA	Joint Permit Application
KCM	thousand circular mils
kHz	kilohertz
km	kilometer
KOP	Key Observation Point
kV	kilovolt
kV/m	kilovolt per meter
kWh	kilowatt-hour
L_{dn}	day-night sound level
L_{eq}	equivalent sound level
lb	pound
LCDC	Land Conservation and Development Commission
LDMA	Lost Dutchman’s Mining Association
LiDAR	light detection and ranging
LIT	Local Implementation Team

LMP	land management plan
LOLE	Loss of Load Expectation
LRMP	land and resource management plan
LUBA	Land Use Board of Appeals
LWD	large woody debris
m	meter
mA	milliampere
MA	Management Area
MAIFI	Momentary Average Interruption Frequency Index
MCC	Malheur County Code
MCCP	Morrow County Comprehensive Plan
MCE	Maximum Credible Earthquake
MCZO	Morrow County Zoning Ordinance
mG	milligauss
MHz	megahertz
mm	millimeter
MMI	Modified Mercalli Intensity
MP	milepost
MPE	maximum probable earthquake
MRI	magnetic resonance imaging
MVAR	megavolt ampere reactive
Mw	mean magnitude
MW	megawatt
µV/m	microvolt per meter
N_2O	nitrous oxide
NAIP	National Agriculture Imagery Program
NED	National Elevation Dataset
NEMS	National Energy Modeling System
NEPA	*National Environmental Policy Act of 1969*
NERC	North American Electric Reliability Corporation
NESC	National Electrical Safety Code
NF	National Forest
NFPA	National Fire Protection Association
NFS	National Forest System
NGDC	National Geophysical Data Center
NHD	National Hydrography Dataset
NHOTIC	National Historic Oregon Trail Interpretive Center
NHT	National Historic Trail
NIEHS	National Institute of Environmental Health Sciences
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration Fisheries Division
NOI	Notice of Intent to File an Application for Site Certificate
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service

NRHP	National Register of Historic Places
NSR	noise sensitive receptor
NTTG	Northern Tier Transmission Group
NWGAP	Northwest Regional Gap Analysis Landcover Data
NWI	National Wetlands Inventory
NWPP	Northwest Power Pool
NWR	National Wildlife Refuge
NWSRS	National Wild and Scenic Rivers System
NWSTF	Naval Weapons Systems Training Facility
O_3	ozone
O&M	operation and maintenance
OAIN	Oregon Agricultural Information Network
OAR	Oregon Administrative Rules
OATT	Open Access Transmission Tariff
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OHGW	overhead ground wire
OHV	off-highway vehicle
OPGW	optical ground wire
OPRD	Oregon Parks and Recreation Department
OPS	U.S. Department of Transportation, Office of Pipeline Safety
OPUC	Public Utility Commission of Oregon
OR	Oregon (State) Highway
ORBIC	Oregon Biodiversity Information Center
ORS	Oregon Revised Statutes
ORWAP	Oregon Rapid Wetland Assessment Protocol
OS	Open Space
OSDAM	Oregon Streamflow Duration Assessment Methodology
OSHA	Occupational Safety and Health Administration
OSSC	Oregon Structural Specialty Code
OSWB	Oregon State Weed Board
OWC	Oregon Wetland Cover
P	Preservation
PA	Programmatic Agreement
pASC	Preliminary Application for Site Certificate
PAT	Project Advisory Team
PCE	Primary Constituent Element
PEM	palustrine emergent
PFO	palustrine forested
PGA	peak ground acceleration
PGE	Portland General Electric
PGH	Preliminary General Habitats
Pike	Pike Energy Solutions

PNSN	Pacific Northwest Seismic Network
POD	Plan of Development
POMU	Permit to Operate, Maintain and Use a State Highway Approach
PPH	Preliminary Priority Habitats
Project	Boardman to Hemingway Transmission Line Project
PSD	Prevention of Significant Deterioration
PSS	palustrine scrub-shrub
R	Retention
R-F	removal-fill
RCM	Reliability Centered Maintenance
RCRA	Resource Conservation and Recovery Act
ReGAP	Regional Gap Analysis Project
RFP	request for proposal
RLS	reconnaissance-level survey
RMP	resource management plan
ROD	Record of Decision
ROE	right of entry
RNA	research natural area
ROW	right-of-way
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SC	Sensitive Critical
SEORMP	Southeastern Oregon Resource Management Plan
SF6	sulfur hexafluoride
Shaw	Shaw Environmental and Infrastructure, Inc.
SHPO	State Historic Preservation Office
SLIDO	Statewide Landslide Inventory Database for Oregon
SMS	Scenery Management System
SMU	Species Management Unit
SPCC	Spill Prevention, Containment, and Countermeasures
SRMA	Special Recreation Management Area
SRSAM	Salmon Resources and Sensitive Area Mapping
SSURGO	Soil Survey Geographic Database
STATSGO	State Soil Geographic Database
SUP	special-use permit
SV	Sensitive Vulnerable
SWPPP	Stormwater Pollution Prevention Plan
T/A/Y	tons/acre/year
TDG	Total Dissolved Gas
TES	threatened, endangered, and sensitive (species)
TG	Timber Grazing
TMIP	Transmission Maintenance and Inspection Plan
TNC	The Nature Conservancy
tpy	tons per year
TSD	treatment, storage, and disposal
TV	television
TVES	Terrestrial Visual Encounter Surveys

TVMP	Transmission Vegetation Management Program
UBAR	Umatilla Basin Aquifer Restoration
UBWC	Umatilla Basin Water Commission
UCDC	Umatilla County Development Code
UCZPSO	Union County Zoning, Partition and Subdivision Ordinance
UDP	Unanticipated Discovery Plan
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USDA	U.S. Department of Agriculture
USFS	U.S. Department of Agriculture, Forest Service
USGS	U.S. Geological Survey
UWIN	Utah Wildlife in Need
V/C	volume to capacity
V	volt
VAHP	Visual Assessment of Historic Properties
VMS	Visual Management System
VQO	Visual Quality Objective
VRM	Visual Resource Management
WAGS	Washington ground squirrel
WCU	Wilderness Characteristic Unit
WECC	Western Electricity Coordinating Council
WHO	World Health Organization
WMA	Wildlife Management Area
WOS	waters of the state
WOUS	waters of the United States
WPCF	Water Pollution Control Facility
WR	winter range
WRCC	Western Regional Climate Center
WRD	(Oregon) Water Resources Division
WRP	Wetland Reserve Program
WWE	West-wide Energy
XLPE	cross-linked polyethylene

Exhibit D
Organizational Expertise

1.0 INTRODUCTION

Exhibit D demonstrates that Idaho Power Company (IPC) meets the approval standard for organizational expertise in accordance with Oregon Administrative Rule (OAR) 345-022-0010, based on information provided pursuant to OAR 345-021-0010(1)(d), paragraphs (A) through (E).

This exhibit provides detailed information regarding IPC's organizational, managerial, and technical expertise to construct and operate a 500-kilovolt (kV) transmission line.

2.0 APPLICABLE RULES AND STATUTES

The Oregon Energy Facility Siting Council (EFSC or Council) standard for organizational expertise is set forth in OAR 345-022-0010:

> *(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.*
>
> *(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.*
>
> *(3) If the applicant does not itself obtain a state or local government permit or approval for which the Council would ordinarily determine compliance but instead relies on a permit or approval issued to a third party, the Council, to issue a site certificate, must find that the third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering into, a contractual or other arrangement with the third party for access to the resource or service secured by that permit or approval.*
>
> *(4) If the applicant relies on a permit or approval issued to a third party and the third party does not have the necessary permit or approval at the time the Council issues the site certificate, the Council may issue the site certificate subject to the condition that the certificate holder shall not commence construction or operation as appropriate until the third party has obtained the necessary permit or approval and the applicant has a contract or other arrangement for access to the resource or service secured by that permit or approval.*

2.1 Requirements of Exhibit D – OAR 345-021-0010(1)(d)

To demonstrate compliance with the organizational expertise standard, and in accordance with OAR 345-021-0010(1)(d), Exhibit D must include the following information:

> *(A) The applicant's previous experience, if any, in constructing and operating similar facilities.*
>
> *(B) The qualifications of the applicant's personnel who will be responsible for constructing and operating the facility, to the extent that the identities of such personnel are known when the application is submitted.*
>
> *(C) The qualifications of any architect, engineer, major component vendor, or prime contractor upon whom the applicant will rely in constructing and operating the facility, to the extent that the identities of such persons are known when the application is submitted.*
>
> *(D) The past performance of the applicant, including but not limited to the number and severity of any regulatory citations in constructing or operating a facility, type of equipment, or process similar to the proposed facility.*
>
> *(E) If the applicant has no previous experience in constructing or operating similar facilities and has not identified a prime contractor for construction or operation of the proposed facility, other evidence that the applicant can successfully construct and operate the proposed facility. The applicant may include, as evidence, a warranty that it will, through contracts, secure the necessary expertise.*
>
> *(F) If the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program, a description of the program.*
>
> *(G) If the applicant relies on mitigation to demonstrate compliance with any standards of Division 22 or 24 of this chapter, evidence that the applicant can successfully complete such proposed mitigation, including past experience with other projects and the qualifications and experience of personnel upon whom the applicant will rely, to the extent that the identities of such persons are known at the date of submittal.*

2.2 Project Order Requirements

The Project Order states that all paragraphs of OAR 345-021-0010(1)(d) apply. Additionally, the Project Order includes the following requirements:

> *Regarding the ability to successfully construct the project "in accordance with site certificate conditions," the Council's review is not limited to IPC's ability to construct a transmission line. The application must also demonstrate that IPC can honor all commitments and conditions regarding minimization and mitigation of impacts on the resources protected by Council standards and applicable regulations of other agencies.*
>
> *Exhibit D should include a safety and environmental regulatory compliance history for the last three years that is focused on similar facilities owned or operated by the applicant, such as transmission lines and substations. If possible, evidence of successful completion of mitigation projects should also be provided.*

As documented in Table D-5 (Submittal Requirements Matrix), IPC has drafted Exhibit D to respond to each paragraph of OAR 345-021-0010(1)(d) set forth above, as well as the additional requirements set forth in the Project Order.

3.0 ANALYSIS

3.1 Overview of IPC and Its Transmission System

IPC is an investor-owned electric utility that has operated its core business—the generation, transmission, distribution, sale and purchase of electric energy—for 97 years. IPC has an employee base of approximately 2,000 people. Its service territory covers approximately 24,000 square miles in southern Idaho and eastern Oregon, in which IPC serves nearly 500,000 customers. IPC is subject to regulatory oversight by the Federal Energy Regulatory Commission (FERC), the Idaho Public Utilities Commission (IPUC), and the Public Utility Commission of Oregon (OPUC).

IPC has extensive experience constructing, operating, and maintaining its transmission system. Indeed, IPC has been constructing transmission lines and operating and maintaining its transmission system since IPC was established in 1915. Currently, IPC's transmission system includes 275 substations, 22 step-up stations, and 4,817 miles of transmission line including 785 miles in Oregon. IPC also operates and maintains 26,697 miles of distribution line. IPC is responsible for the continued operation and maintenance of this system and must ensure that its work is performed in a manner that ensures safety and reliability through compliance with all applicable codes and standards.

3.2 IPC's Experience Constructing and Maintaining Transmission Lines and Substations

OAR 345-021-0010(1)(d)(A)

The applicant's previous experience, if any, in constructing and operating similar facilities;

3.2.1 IPC's Experience Constructing Transmission Lines

IPC has significant experience constructing electric transmission lines. Since 2000, IPC has constructed, or overseen the construction of, nearly 240 miles of high voltage transmission lines (see Table D-1).

The transmission lines identified in Table D-1 were all completed successfully. None of the projects resulted in material cost overruns and the final costs of all projects substantially conformed to IPC's project budgets. The Projects listed in Table D-1include transmission lines completed in Idaho, and subject to Idaho state and federal regulations. For a description of facilities recently constructed in Oregon by IPC, see Section 3.5.4.

Table D-1. Transmission Lines (230-kV) Constructed by IPC 2000 to Present

Line No.	Line Name	Multi-Circuit	kV	Mileage	Self-Build or Contractor	Year
707	Brownlee – Ontario	–	230	72.7	Mustang Construction	2000
710	Locust – Caldwell	–	230	18.6	Wilson Construction	2003
711	Nampa Tap	Double	230	3.2	Wasatch Electric	2006
714	Brownlee – Oxbow	–	230	11.14	Great Southwestern	2004
715	Langley Gulch	Double	230	2.8	IPC Crew (line), TBH & Assoc. (foundations)	2011
716	Bennett Mtn – Rattlesnake	–	230	4.48	Wasatch Electric	2008
722	Borah – Hunt	–	230	68.22	Anderson & Wood Construction	2007
723	Danskin – Hubbard	–	230	39.46	Probst Electric	2008
724	Bennett Mtn – Danskin	–	230	5.52	Probst Electric	2008
725	Hemingway – Bowmont	–	230	13.01	IPC Crews (line), TBH & Assoc. (foundations)	2010

Note: All transmission lines described in the table are located in Idaho.

As indicated in the table above, all of the transmission lines built by IPC since 2000 have been 230 kV. In 1981 IPC constructed a 500-kV transmission line—the Borah to Midpoint line, which is 84.4 miles in length. That line was designed to 500-kV standards, but initially energized and currently operated at 345 kV. This line will be energized at 500 kV as Segment 6 of the Gateway West transmission line project. Significantly for the purposes of this Exhibit, the process for constructing a 500-kV line is essentially the same as that for constructing a 230-kV line and therefore IPC's expertise in constructing 230-kV lines is a clear indicator of the expertise required for building a 500-kV line. In particular, a 500-kV line involves the same design process and similar considerations for selection of components, structures, and structure locations. In addition, the environmental compliance and mitigation requirements are the same.

Moreover, the procedures for operating and maintaining a 500-kV line are essentially the same as those required for operating and maintaining a 230-kV or 345-kV line. Thus, IPC's expertise in constructing and maintaining a 230-kV and 345-kV line is a clear indicator of the expertise required for the operation and maintenance of a 500-kV line.

There are, of course, some differences in the construction, operations, and maintenance of 230-kV, 345-kV, and 500-kV lines. The primary differences lies in the required ground clearances, ,conductor spacing, and operational clearances. The National Electric Safety Code (NESC) requirements for ground clearances and conductor spacing increase as the voltage of the lines increase. Thus, structures that are required for 500-kV lines are typically taller than those required for 230-kV lines with similar conductors and span lengths. Conductor spacing requirements for 500-kV lines are also greater than for 230-kV or 345-kV circuits. Additionally, 500-kV insulator strings are generally longer, although IPC sometimes insulates lower voltage lines at 500-kV levels (see, e.g., IPC's 85.18-mile-long Borah to Midpoint 345-kV line). IPC is aware of issues associated with the construction, operation, and maintenance of 500-kV transmission lines and is prepared to fully comply with all requirements.

3.2.2 IPC's Experience Maintaining Transmission Lines

In order to satisfy its obligation to provide safe and reliable electricity IPC has developed and implements a comprehensive maintenance program. This maintenance program is designed to ensure compliance with all applicable safety and reliability standards, including the standards set forth in the NESC and the FERC, North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) standards. IPC's maintenance program is also designed to achieve compliance with all applicable OPUC rules.[1]

The basis of IPC's maintenance program is its Transmission Maintenance and Inspection Plan (TMIP). The TMIP, which was developed by IPC, is reviewed and approved by IPC on an annual basis. In addition, WECC audits IPC's TMIP every 3 years; the most recent WECC audit, which was completed in 2011, did not raise any regulatory compliance issues.

The first and most important component of the TMIP is the line patrols. IPC conducts three general types of line patrols: unscheduled emergency line patrols, routine line patrols/inspections, and the aerial vegetation patrols.

The unscheduled emergency line patrols are performed in response to any unexplained system outage or interruption, or whenever requested by a dispatcher, to identify any major structural failures or issues. These are not typically a patrol or inspection of the entire line, but rather a of a particular portion of the line where there was some indication or report of a problem.

The routine line patrols are a detailed visual inspection of the entire line from end to end, at a minimum once per year on all lines included in any WECC Transfer Path in the Bulk Electric System. These inspections are conducted from either the ground or the air and are designed to ensure the integrity of the system. The air patrols/inspections are used to identify obvious line threatening defects and defects that cannot be seen from the ground. Ground patrol/inspections are made with the use of four-wheel drive vehicles, all-terrain vehicles, or on foot. These ground and air line patrols/inspections are done by four full-time transmission line patrolmen located in Payette, Boise, Twin Falls, and Pocatello.

The aerial vegetation patrol is conducted by the transmission utility Arborist as outlined in the Transmission Vegetation Management Program (TVMP). The Arborist normally accomplishes the aerial vegetation patrol while accompanying the line patrolman performing the routine line patrol.

In addition to the above mentioned inspections/patrols, IPC also completes a comprehensive 10-year maintenance, as described in the TMIP, on all of its transmission lines. The 10-year inspection includes the detailed visual inspection of all components of the transmission line. The data collected from these inspections are compiled, evaluated, and defects are prioritized for general maintenance projects on the lines.

IPC applies its transmission maintenance program to all all transmission lines they operate which include the 230-kV and 345-kV transmission lines identified in this Exhibit, including the Borah to Midpoint line (which, as described above, is a 500-kV transmission lines energized at 345 kV). Because the inspection and maintenance procedures required for a 500-kV transmission line are substantially the same as the inspection and maintenance procedures required for 230-kV and 345-kV transmission lines, IPC will apply its current transmission maintenance program to the Project.

3.2.3 IPC's Experience Constructing Substations

IPC's substations are also an integral part of its transmission system. IPC currently operates and maintains 275 substations and 22 step-up stations and has in place a comprehensive

[1] OAR 860-024-0011 contains inspection requirements for electric supply facilities.

inspection and maintenance program that is designed to ensure compliance with all applicable standards, statutes, and regulations.

Since 2000, IPC has constructed the four substations listed in Table D-2.

Table D-2. Substation Construction Projects

Substation	Voltage (kV)	Self-Build or Contractor	Year
Hemingway	500/230	Self-Build/IPC (auxilliary power/communications/control), Anderson & Wood Construction (structural)	2011
Hubbard	230	Paradise Construction	2011
Langley Gulch	230	Self-Build/IPC (auxilliary power/communications/control), Anderson & Wood Construction (structural)	2011
Bennett Mountain	230	Self-Build/IPC	2005

Note: All transmission lines described in the table are located in Idaho.

These substations are similar in design and contain similar components to the proposed Grassland Substation, Longhorn Alternate Substation, and Horn Butte Alternate Substation.[2] Importantly, the IPC-owned Hemingway substation is a 500/230-kV substation. Thus, IPC's successful construction of these substations demonstrates that IPC possesses the expertise required for the successful construction of substations proposed in its application. For a description of facilities recently constructed in Oregon by IPC, see Section 3.5.4.

3.2.4 IPC's Experience Maintaining Substations

Like its transmission lines, IPC's substations are subject to rigorous maintenance programs to ensure the continued safe and reliable operation of IPC's system.

The foundation of IPC's substation maintenance program is monthly inspections of each substation. These inspections focus on visual inspection of buildings, fencing, and electrical equipment, and detailed monitoring of all protective relays, gauges, counters, meters, and communications devices. In the event that the inspection identifies a problem, the problem is either corrected immediately or scheduled for future maintenance, as required by the nature of the problem. In addition, IPC performs annual infrared assessments of all current carriing busses and operating equipment to identify hot spots that would indicate a pending problem that may need to be corrected.

In addition to the routine maintenance program mentioned above IPC has implemented a reliability based Substation Maintenance Program. This program uses a process known as Reliability Centered Maintenance (RCM), which begins with a thorough analysis of the different types of substation equipment, their typical usage rates and determines from that when maintenance should be accomplished to avoid emergency repairs. This analysis results in the

[2] IPC's preferred terminus for the Proposed Corridor is the proposed Grassland Substation, a 34-acre substation that Portland General Electric (PGE) has proposed in connection with two energy facility projects. To accommodate the 500-kV series capacitor bank and shunt reactor bank needed for the Project, IPC proposes to develop a 3-acre expansion of the southeast corner of the proposed Grassland Substation (see Exhibit C, Attachment C-1, Figure C-1-1). IPC has also proposed an alternate northern terminus, the Longhorn Alternate Substation, which is proposed for development by Bonneville Power Administration (BPA); if this terminus is selected, IPC would develop a 3-acre expansion of BPA's proposed Longhorn Substation. The Horn Butte Alternate Substation is the third alternate endpoint for the Proposed Corridor. There is no existing or proposed substation in the location of the Horn Butte Alternate Substation, and if IPC elects to terminate the Project at the Horn Butte Substation, it will independently develop the 20-acre facility.

creation of a model that depicts the probability of failure, using an assessment that categorizes the probability and effects of a failure for three distinct groups:

- Grid: The IPC transmission generation system. Failure effects have the potential of impacting economic dispatch of power or grid stability, the risk of failure is high if maintenance is neglected or not properly managed.
- Asset: The physical apparatus or adjacent equipment found in the substation. Failure effects include severe damage or total loss of the asset generally resulting in its replacement, the risk of failure is high if maintenance is neglected or not properly managed.
- Customers: Loss of key functions results in a sustained outage affecting a large segment of customers, the risk of functional failure is high if maintenance is neglected or not properly managed.

The RCM model is then used to develop a generic maintenance program for each type of equipment. The maintenance intervals for each type of substation equipment are detailed in Table D-3.

Table D-3. Substation Maintenance

Equipment	Maintenance Interval
Transformers	6 years
Transformer's Load Tap Changer	6 years
Circuit Breakers	10–18 years
Relays	3 years
Regulators	6 years

As noted, these maintenance intervals are used for routine maintenance; however, in the event that a monthly inspection identifies a problem that requires more immediate attention, IPC performs the necessary maintenance to ensure that the device or equipment is ready to function properly.

IPC has successfully applied this Substation Maintenance Program to all substations owned by IPC. To the extent that IPC may be required to perform maintenance at the proposed Grassland Substation Expansion (Portland General Electric [PGE]) or the Alternate Longhorn Substation Expansion (Bonneville Power Adminstration [BPA]), IPC will apply its Substation Maintenance Program or will develop an operations and maintenance agreement with PGE or BPA. In the event that IPC develops the Alternate Horn Butte Substation, IPC will apply its Substation Maintenance Program to that substation.

3.3 Qualifications of Personnel Responsible for the Project

OAR 345-021-0010(1)(d)(B)

The qualifications of the applicant's personnel who will be responsible for constructing and operating the facility, to the extent that the identities of such personnel are known when the application is submitted;

IPC has assembled an experienced team of professional, technical, and administrative personnel to manage all phases of the Project. The following provides a brief description of the qualifications and experience of the key members of the Project Team:

- Vern Porter, Vice President of Engineering and Operations. Mr. Porter has been in his current position since October 1, 2009, and first joined IPC in 1989 after starting his career in 1986 with Pacific Gas and Electric Company. Before serving as Vice President

of Engineering and Operations, Mr. Porter served as IPC's General Manager of Power Production. With a background in electrical engineering, Mr. Porter has also held numerous engineering positions within IPC, including a position as a high voltage transmission engineer. Mr. Porter is the executive ultimately responsible for the completion of the Project and as such he will oversee the Project from design, through construction, to in-service.

- Douglas Dockter, Manager of 500-kV Projects. Mr. Dockter is responsible for managing IPC's Boardman to Hemingway and other 500-kV projects. He is directly responsible for interfacing between Executive Management and the Project Team and interfacing between Idaho Power and external stakeholders (PacifiCorp, BPA, and the Federal Rapid Response Team for Transmission for examples). Mr. Dockter has a degree in electrical engineering, is a licensed professional engineer in the state of Oregon (19491PE) and has been an employee of IPC since 1998. During this time, Mr Dockter has gained experience as a transmission line design engineer; a project leader for substations and transmission and distribution lines; an engineering leader in the transmission design group that included transmission and distribution design, joint use facilities, and right-of-way activities; an engineering leader for 500-kV projects; a manager of delivery projects; and a manager of 500-kV projects.
- Mike Bracke, Engineering Leader—500-kV Projects. Mr. Bracke is responsible for leading IPC's Boardman to Hemingway and Gateway West transmission line projects. He is directly responsible for the supervision, development, actions, and duties of the Project Team members. Mr. Bracke is responsible for working with and overseeing project partners, consultants, contractors, and agencies to ensure timely and cost-effective completion of the 500-kV projects. Mr. Bracke has a degree in mechanical engineering and has worked for IPC since 1996. During this time Mr. Bracke has gained experience as a Regional Apparatus Leader responsible for the operation and maintenance of the region's transmission and distribution substations; a Core Process Design Leader responsible for the structural engineering and design of substations; a Region Lines Leader responsible for the region's lines maintenance, design, construction and new services; and an Engineering Project Leader with primary responsibilities for the engineering, design and construction of IPC's Hemingway 500-kV substation.
- Todd Adams, Engineering Project Leader. Mr. Adams is responsible for project management of a variety of projects relating to system capacity, reliability, and financial performance. He executes defined projects, manages project resources (including IPC personnel, contract personnel, equipment, budget allocations, forecasts, and scheduling), and leads and evaluates project team members. Mr. Adams also directs performance of the project team to ensure completion of the project on schedule and within budget. Mr. Adams has a degree in civil engineering, is a licensed professional engineer, and has over 20 years of experience with IPC. He has worked in transmission design for 13 years, and project management for 7 years. Mr. Adams was the project manager for the following transmission line projects: Gateway West 500-kV, Borah-Hunt 230-kV and Danskin-Hubbard 230-kV.
- Stacey Baczkowski, Senior Biologist. Ms. Baczkowski is responsible for developing, conducting, and implementing complex technical investigations and management plans and leading or directing significant investigations. Her specific technical projects include those associated with the construction of new transmission lines and the operation and maintenance of existing transmission and distribution lines. Ms. Baczkowski is responsible for coordinating, overseeing, and implementing environmental resource surveys for new and existing lines and working with federal agencies through the National Environmental Policy Act (NEPA) review and authorization processes. She is

also responsible for overseeing IPC's construction storm water program and noxious weed compliance. She has been conducting this work for 5 years with IPC. Prior to joining IPC, Ms. Baczkowski served for several years as a regulator responsible for construction and municipal stormwater compliance and implementation of Water Quality Certification (Section 401 of the Clean Water Act). Prior to that she worked as an environmental consultant responsible for preparing sections of NEPA and California Environmental Quality Act documents; conducting wetland delineations; obtaining authorizations for development projects; and conducting ecological risk assessments.

- Zach Funkhouser, Biologist II. As a Biologist, Mr. Funkhouser coordinates with other departmental staff to develop and assist in the preparation and review of environmental documentation pertaining to construction, operation, and maintenance of transmission and distribution lines. Mr. Funkhouser provides technical support, guidance, and direction with regard to environmental issues and permitting for transmission line projects, participates in consultation with agencies and works with transmission planners, engineers and other environmental staff to communicate and implement permitting processes. Mr. Funkhouser also participates in preparing comments to agencies regarding NEPA actions including Environmental Impact Statements, Environmental Assessments, and Categorical Exclusions that relate to transmission and distribution line projects and their ongoing operation and maintenance. He manages implementation of projects and tasks for which consultants have been acquired to provide work products in support of projects, and participates in site inspections to ensure compliance with permits. Mr. Funkhouser works with federal agencies through the NEPA process and associated authorizations. He has been with IPC for 2 years. Prior to employment with IPC, he spent 12 years as the Senior Environmental Planner for District Two of the Idaho Transportation Department, where he was responsible for preparation of NEPA documents and support including wetland delineations, biological assessments, archaeological and historic inventories, storm water planning, and permit compliance.
- Justin Hitt, Transmission Line Design Senior Engineer. Mr. Hitt is responsible for various engineering design aspects of electrical transmission lines, including the routing and design of new lines and the planned maintenance and emergency repairs of existing lines. He is responsible for the preparation of accurate and complete design packages (including drawings and construction specifications) that conform to established codes and standards for transmission line projects. Mr. Hitt prepares work orders, material summaries, cost estimates, work schedules, and construction drawings. He also designs transmission line projects, including line modeling with PLSCadd and AutoCAD software, structure design, structure spotting, conductor and tension selection, development of conductor sag-tension models, and selection of insulation and line hardware. Mr. Hitt is a licensed professional engineer with 21 years of experience in a variety of transmission and civil/structural design projects for utility and industrial clients; 9 of those years focused on transmission design.
- Dave Valentine, Archaeologist (Biologist II). Mr. Valentine has been in this position with IPC for 3 years, and his duties include overseeing cultural resource activities related to licensing, permitting, and constructing utility facilities including hydroelectric generation projects, transmission lines, and substations. He is the main point of contact for federal, state, and tribal related cultural resource issues and assures corporate compliance with the National Historical Preservation Act and other relevant state and federal laws. Mr. Valentine contracts with and oversees cultural consultants including archeologists, historians, and ethnographers and develops studies, proposals, or plans to mitigate impacts to cultural resources resulting from IPC-related activities as required by state and federal permits. Mr. Valentine obtained a master’s degree in anthropology with an

emphasis in historic archaeology, and has 26 years of cultural resource management experience. Mr. Valentine developed his cultural resource management experience through working with private consulting firms or university contracting arms, and also with the federal government. He has experience on all phases of cultural resource permitting and archaeological investigations for a wide variety of projects, including linear energy projects such as gas pipelines and electrical transmission lines in Idaho, Oregon, and Nevada.

- Michael Vaughn, Engineering Project Leader. Mr. Vaughn is responsible for project management of a variety of transmission line and station projects relating to system capacity, reliability, stability, communications and control. He executes defined projects, manages project resources (including IPC personnel, contract personnel, equipment, budget allocations, forecasts, and scheduling), and leads and evaluates project team members to ensure completion of the project on schedule and within budget. Mr. Vaughn has a degree in Electrical Engineering, is a licensed professional engineer, and has 27 years of experience, 6 with IPC. Mr. Vaughn has been the project manager for numerous transmission line, communication station, and transmission station projects for IPC.

3.4 Qualification of Contractors

OAR 345-021-0010(1)(d)(C)

The qualifications of any architect, engineer, major component vendor, or prime contractor upon whom the applicant will rely in constructing and operating the facility, to the extent that the identities of such persons are known when the application is submitted;

3.4.1 Pike Energy Solutions

IPC has retained the services of Pike Energy Solutions (Pike) to assist in the preliminary engineering of the Project. Pike is a leading provider of engineering and construction services for electric power delivery projects to over 200 investor-owned, municipal and cooperative utilities nationwide. Pike's portfolio of services includes siting, permitting, engineering design, installation, maintenance, and repair of power delivery systems. Pike Energy Solutions has a staff of over 250 project managers, engineers, designers, drafters and support personnel across five regional engineering offices, and has worked on a wide variety of engineering and construction projects from small transmission and substation upgrade projects to $275 million Engineer, Procure, Construct projects.

Pike has performed both design and oversight roles for many projects, including several in the Northwest region of the United States. A representative sample of Pike's experience on projects similar to the Project is provided in the Table D-4.

Table D-4. Pike's Representative Experience

Client/Location	Station/Host Utility	Commercial Operation	Scope
PacifiCorp Rocky Mountain Power, Utah	PacifiCorp	In Permitting	Owner's engineer for 170-mile 345-kV transmission line and two substations
South Carolina Electric & Gas, various locations in South Carolina	SCE&G	Under Construction	Engineer, Procure, Construct (EPC) Contractor for 250 miles of 230-kV Transmission Line Upgrades ($275 MM Project)
Fluor Oklahoma, Arkansas, Tennessee	Clean Line Energy	In Permitting	Owner's engineer for 800-mile Plains & Eastern HVDC Line
Wind Energy Transmission Texas (WETT), Texas	WETT	Under Construction	Owner's engineer for 345-kV transmission lines
South Carolina Electric & Gas, South Carolina	SCE&G	In Construction	EPC Contractor for 230-kV Switchyard at VC Summer Nuclear Station
Bonneville Power Administration, Pacific NW	BPA	Various Projects 2001-2005	500-kV transmission line furnish and install contract
Duke Energy North America Clark County, Nevada	Moapa (Nevada Power)	Completed On-Schedule	EPC for 500-kV switchyard
Duke Energy North America Maricopa County, Arizona	Arlington Valley (Salt River Project)	June 2002 - Completed On-Schedule	EPC for 500-kV switchyard & transmission line
Shaw Power Group Stone & Webster Division	Harry Allen Plant (NV Energy/ Nevada Power)	Engineering began November 2008, construction in June 2009. Substantial completion was reached July 2010.	EPC for 500-kV switchyard at Harry Allen Generating Station in Clark County, Nevada
Duke Energy North America Hot Springs, Arkansas	Hot Springs (Entergy)	June 2002 - Completed On-Schedule	EPC for 500-kV switchyard

3.4.2 General Contractor

IPC intends to retain an outside general contractor to actually perform the detailed design, procure materials, and construct the transmission line. Although that contractor has not yet been selected, IPC is developing its request for proposal (RFP) package that will set forth the criteria it will use to ensure that the firm retained has the requisite skill and experience to design, procure, and construct the line.

The RFP process will be overseen by IPC managers who have extensive experience conducting RFPs and overseeing the construction of large projects by third-party contractors.

The team responsible for administering the RFP is made up of internal and external experts from the following technical areas:

- Project Management
- Contracting
- Legal
- Design
- Environmental
- Construction
- Safety
- Quality Control

The RFP package being developed by IPC will outline the scope of work, the contract requirements, project schedule, design specifications, material and procurement specifications, and construction specifications. This RFP will be sent to potential bidders who are well known and experienced in projects similar to the Boardman to Hemingway transmission line project. In order to be considered, all respondents will be required to demonstrate ability to comply with all requirements. The administration team will select the respondent that demonstrates the best ability to accomplish the requested work scope on schedule, while meeting all safety, environmental and permit requirements and while providing the best value to IPC.

The following are examples of the criteria that will be used to evaluate respondents to the RFP:

Examples of Technical Evaluation Criteria

- Demonstrated experience within the last 5 years' of successful completion of similar contracts;
- Experience in the design and engineering of large 500-kV transmission line projects;
- Experience with the installation of 500-kV lattice towers and tubular h-frame structures, large diameter drilled pier foundations, and triple-bundle conductor.Demonstrated ability to work well as a complete EPC team;
- Demonstrated experience with the compliance of environmental regulations, mitigation plans Plans, avoidance areas (temporal and spatial restrictions), environmental monitoring, and education/training, etc.;
- Quality Control Plan;
- Demonstrate a commitment to safety and an excellent safety record; and
- Materials Procurement and Management Plan.

Examples of Commercial Evaluation Criteria

- Bonding capacity and financial stability;
- Credit score;
- Use of Minority and Women-Owned businesses;Acceptance of delay and performance liquidated damages; and
- Willingness to the accept the terms and conditions proposed by IPC in the RFP.

3.5 IPC's Past Performance

OAR 345-021-0010(1)(d)(D)

The past performance of the applicant, including but not limited to the number and severity of any regulatory citations in constructing or operating a facility, type of equipment, or process similar to the proposed facility;

IPC has a long history of providing reliable electricity to its customers through the prudent operation of its transmission network. IPC's experience is demonstrated by its compliance with all applicable safety and reliability standards, including those promulgated by FERC at the federal level and by the OPUC at the state level. IPC also has a strong record of environmental regulatory compliance.

3.5.1 Federal Reliability Standards

The federal Energy Policy Act of 2005 authorized FERC to oversee the adoption of mandatory reliability standards for the electric grid. FERC delegated to NERC, a non-governmental organization designated by FERC as the nation's electricity reliability organization (ERO), the authority to develop and enforce reliability standards. To facilitate the enforcement of these reliability standards, NERC delegated certain enforcement authority to regional entities, such as WECC. As a result, IPC's transmission system is subject to three levels of reliability enforcement—WECC, NERC, and FERC.

To determine how the reliability standards apply to each registered entity, such as IPC, NERC outlined 14 specific functions that a registered entity can perform. IPC is registered with NERC to perform 12 separate functions related to IPC's ownership, operation, and use of the bulk electric system. These functions include the Transmission Owner and Transmission Operator functions. IPC's registration for these functions obligates IPC to follow the reliability standards that apply to these functions, including the critical infrastructure protection (CIP) cyber security standards, and to create and maintain documentation of IPC's compliance. The first non-CIP reliability standards became mandatory and enforceable on June 18, 2007, and the first CIP cyber security standards became mandatory and enforceable on July 1, 2008. In all IPC is subject to over 300 separate reliability standards and all 43 CIP cyber security standards.

IPC participates in a number of WECC enforcement processes relative to the reliability standards. Since the reliability standards became mandatory and enforceable, IPC has participated in one NERC audit, one WECC audit, and five self-certification processes regarding its compliance with the reliability standards. The few issues discovered in the audits and self-certification processes presented no material risk to the bulk electric system and were not associated with any incident in which transmission service was interrupted or IPC's transmission or distribution customers were adversely impacted.

In addition to audits and self-certification, IPC conducts internal monitoring of its compliance with the reliability standards. Because WECC encourages utilities to self-report possible violations of the reliability standards and self-reporting can result in mitigation of penalties resulting from actual violations of the standards, IPC errs on the side of over-reporting potential violations it discovers in its internal monitoring. Thus, while IPC may self-report a number of potential violations, many of these reports do not result in enforcement actions by WECC, NERC, or FERC. To date, issues discovered in IPC's internal monitoring processes have not created any material risk, or been associated with any incident in which transmission service was interrupted or IPC's transmission or distribution customers were adversely impacted.

To resolve several issues determined by WECC to be alleged violations, IPC has entered into confidential settlement agreements with WECC. To the extent that settlement agreements

include alleged violations of CIP cyber security standards covered under those aforementioned agreements, WECC, NERC, and FERC keep the name of the registered entity confidential and do not release that information to the public. To date, IPC has mitigated all CIP cyber security standard alleged violations, including those resolved in the confidential settlement agreements.

Final monetary penalties, including any resulting from the settlement agreements mentioned above, and any regarding non-CIP reliability standards are public information and are posted on NERC's website. For example, IPC has a FAC-013 self-reported violation from 2010 posted on the website with a $10,000 penalty assigned, which has been paid. Additionally, potential violations of non-CIP reliability standards being handled using the find, fix, track, and report (FFT) process are also posted on the NERC website. The FFT process is reserved for potential violations that afford no more than a minimal risk to the bulk electric system, and potential violations handled using this process do not receive any penalty. It should be noted that IPC's recent potential violations have been processed in this manner. Additionally, IPC has mitigated all non-CIP reliability standard alleged violations, including those resolved in settlement agreements and through the FFT process.

3.5.2 State Reliability Standards

The OPUC has jurisdiction to regulate IPC's construction, operation, and maintenance of its electrical system to ensure that IPC operates "in such a manner as to protect and safeguard the health and safety of all employees, customers, and the public."[3] To this end, the OPUC has adopted specific safety standards for the construction and operation of IPC's facilities.[4] The OPUC's safety standards require the construction, operation, and maintenance of IPC's electric supply lines to be in full compliance with the NESC's standards.[5] IPC has never been found by the OPUC to be in violation of this requirement.

The OPUC also has detailed reliability reporting requirements. IPC must maintain detailed records of all service interruptions.[6] IPC must calculate interruption indices on a system-wide basis, for each operating area, and for each circuit.[7] IPC must also develop threshold levels for applicable interruption indices based on past reliability data, demographic, geographic, and electrical characteristics, and the relative performance of the circuits to each other.[8] Finally, IPC is required on an annual basis to file with the OPUC a report detailing the previous year's reliability information.[9] This report includes a comparison of the year's data to the determined thresholds and provides a summary of the causes of interruptions on IPC's system. This report also includes a summary of all the year's major events, which IPC must also report to the OPUC within 20 days of their occurrence.[10]

IPC's filed Electric Service Reliability Annual Reports indicate that at the end of 2011, Idaho Power served 19,409 customers in Oregon from 63 distribution circuits. The composite performance of the 63 circuits in 2011 included 691 sustained (more than 5 minutes) interruptions, 914 momentary events, 73,203 hours out, a System Average Interruption Duration Index (SAIDI) of 3.47, a System Average Interruption Frequency Index (SAIFI) of 1.41, and a Momentary Average Interruption Frequency Index (MAIFI) of 3.80.

[3] Oregon Revised Statute 757.035(1).
[4] 860-024-0010 IPC must construct, operate, and maintain electric supply lines in compliance with NESC standards.
[5] OAR 860-024-0010.
[6] OAR 860-023-0100.
[7] OAR 860-023-0110.
[8] OAR 860-023-0120.
[9] OAR 860-023-0150.
[10] OAR 860-023-0160.

The SAIFI remained below threshold for interruptions by 2.31 percent. The SAIDI was below threshold for customer hours out by 2.32 percent, and the MAIFI momentary interruptions were below threshold by 2.59 percent.

3.5.3 Other Regulatory Compliance

IPC has a strong record of compliance with state and federal environmental regulations. Relevant to the construction and operation of the Project. IPC operates its generation, transmission, and distribution facilities in compliance with the requirements of many regulatory agencies including the National Oceanic and Atmospheric Administration (Fisheries), ODFW, Oregon Department of State Lands, Oregon Occupational Safety and Health Administration (OSHA), Oregon Department of Environmental Quality (ODEQ), OPUC, as well as the requirements of numerous Oregon cities and counties. In fact, the Company has remained in compliance with all such agency requirements over the last 3 years, with the following two relatively minor exceptions that were fully addressed.

1. IPC has secured a number of environmental permits, including Clean Water Act (CWA) § 404 and National Pollutant Discharge Elimination System (NPDES) permits. In the last 3 years, IPC received one Notice of Violation (NOV) for a NPDES permit. The violation occurred as a result of increased precipitation causing increased storm water and runoff, and at the time the violation occurred, IPC's general contractor was in the process of taking remedial measures in response to the unexpected storm event. No additional follow up on the NOV was required.
2. In the last 3 years, IPC has had one isolated incident resulting in a penalty from OSHA. In that one incident, a troubleman failed to buckle his harness while in a bucket. In response to this incident, IPC held safety meetings across the property to discuss the violation, fall protection use was included on the list of daily job briefings; and a formal audit was conducted across the property to assure consistent fall protection use. Additionally, field leaders conduct formal safety assessments on a monthly basis, which includes assessment for "Personal Protective Equipment: Fall Protection."

3.5.4 Past Experience in Oregon

The majority of IPC's transmission facilities are located in Idaho; however, as discussed above in Section 3.2, IPC owns and maintains approximately 785 miles of transmission line in Oregon.[11] Since 2009, IPC has built approximately 27 miles of 69-kV transmission lines in Oregon.

As demonstrated by Table D-5, IPC has obtained permits from ODEQ to construct and maintain projects in Oregon and has fulfilled the terms of these permits.

Table D-5. ODEQ Permits

Name of Facility	Facility No.	Type
Hells Canyon Power Plant	41297	NPDES
Oxbow Power Plant	41299	NPDES
Oxbow Village	111911	WPCF-OS
Ontario to Ontario Junction Transmission Line	117860	NPDES
Dunnaway to Adrian 69-kV Transmission Line	117963	NPDES
Ontario to Quartz 138-kV Transmission Line Maintenance	118548	NPDES
Quartz to LaGrande Maintenance	118742	NPDES
Neal Hot Spring Transmission Line	120852	NPDES

[11] IPC's transmission lines located in Oregon represent approximately 6.13 percent of its total transmission system.

In response to increased electrical demand in the Ontario, Oregon area, IPC has proposed the Sage Substation project. IPC has built 16 miles of new 138-kV transmission line initially and currently energized at 69 kV to a junction point called Ontario Junction. At some point in the future the Ontario Junction will be converted into the proposed Sage Substation. The first phase of this project, the Ontario to Ontario Junction 138-kV transmission line, was completed in 2011. IPC applied for and received permits from ODEQ and from the Oregon Department of Transportation (ODOT) to support construction of the Ontario to Ontario Junction transmission line. Specifically, IPC obtained a NPDES permit from ODEQ and a Permit to Occupy or Perform Operations Upon a State Highway from ODOT. The construction work under both permits was successfully completed without any permit violations or compliance issues. As the Sage Substation project progresses into later phases, IPC will obtain and comply with the terms of additional permits necessary to complete the Sage Substation project.

3.6 No Past Experience

OAR 345-021-0010(1)(d)(E)

If the applicant has no previous experience in constructing or operating similar facilities and has not identified a prime contractor for construction or operation of the proposed facility, other evidence that the applicant can successfully construct and operate the proposed facility. The applicant may include, as evidence, a warranty that it will, through contracts, secure the necessary expertise; and

Because IPC has extensive past experience with this type of project, this provision is inapplicable.

3.7 ISO Certification Program

OAR 345-021-0010(1)(d)(F)

If the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program, a description of the program;

IPC does not propose to design, construct and operate the Project in accordance with an ISO 9000 or ISO 14000 certified program.

3.8 Compliance with Standards

OAR 345-021-0010(1)(d)(G)

If the applicant relies on mitigation to demonstrate compliance with any standards of Division 22 or 24 of this chapter, evidence that the applicant can successfully complete such proposed mitigation, including past experience with other projects and the qualifications and experience of personnel upon whom the applicant will rely, to the extent that the identities of such persons are known at the date of submittal.

Based on IPC's extensive experience with projects of this type, IPC will be able to comply with any and all conditions and mitigation requirements necessary to ensure compliance with applicable standards. In addition to IPC's engineers and biologist, who are responsible for the permitting, design, construction, and operation of the Project, as described in Exhibit B, IPC's habitat mitigation biologists, wildlife and plant biologists, and cultural resource staff will also assist with any necessary mitigation measures. IPC has in-house expertise in designing, implementing, and maintaining Informaiton and education panels, recreational opportunities, fisheries mitigation, and water quality programs to meet mitigation requirements. The majority of IPC's experience with mitigation is related to impacts of hydroelectric facilities, as described below. IPC also regularly reseeds disturbed areas and implements noxious weed control for projects with ground-disturbing activities.

3.8.1 Overview of Mitigation Projects for Hydroelectric Facilities

IPC currently owns and operates 17 hydroelectric facilities on the Snake River and its tributaries in Southern Idaho, under 12 FERC operational licenses. In order to meet the requirements associated with the compliance of these FERC licenses, IPC has nearly 70 full-time staff biologists in the Environmental Affairs department who provide expertise in the areas of Terrestrial, Aquatic, Recreation and Water Quality areas and issues that may occur or be ongoing in the project boundaries.

Included in the requirements of the FERC licenses, IPC Environmental Staff provide for the planning, research, and ongoing program management and monitoring for state and federal listed ESA species in conjunction with federal Biological Opinions as part of ongoing operations, including transmission line rights-of-way included witin the FERC licenses. Each license includes article requirements to protect and manage any ESA species that may be in the project areas, in coordination and consultation with state and federal regulatory agencies.

In each of the FERC licenses, there is an evaluation and statement of licensee capabilities to provide for the ongoing management of all environmental protection, mitigation, and enhancement measures (PMEs). To date, the FERC has acknowledged that IPC has the ability and resources to provide for these measures under each license. IPC has a robust License Compliance Program that includes two full-time staff who track and document all FERC license requirements and work closely with each specific resource area.

Presently, IPC has over 300 such license articles that contain environmental PMEs and may have several requirements within each article with which IPC must comply. At this time, IPC is in substantial compliance with all of our license article requirements. In such cases where PMEs have changed or these requirements need to be modified to reflect on the ground conditions, IPC requests an amendment to the license, in consultation with the regulatory agencies who are involved, and works to obtain approval from the FERC. At this time, IPC has nine such amendment requests pending FERC approval.

For the C.J. Strike and Mid Snake Project Licenses that were received from FERC in 2004 and 2005, IPC currently has 77 license articles/compliance programs that are directly related to compensatory mitigation for environmental resources at the projects. These include Water Quality, Recreation, Aquatic and Terrestrial, or Land Management activities.

Additional information regarding IPC's satisfaction of regulatory requirements through the development of the C.J. Strike Area is provided below.

3.8.2 C.J. Strike Area

IPC assumed management of 3,000 acres (owned by IPC but previously managed by the Idaho Department of Fish and Game [IDFG] within the C.J. Strike Wildlife Management Area in 2005; management of this area is coordinated with IDFG). IPC's August 2004 FERC license for the C.J. Strike Project included (but were not limited to) the following requirements:

- Dissolved Oxygen and Water Temperature Monitoring Plan (LA405), filed with the FERC on 2/4/2005;
- Total Dissolved Gas (TDG) monitoring plan (LA406), also filed on 2/4/2005;
- White Sturgeon Conservation Plan (LA408), filed on 8/4/2005;
- Fish Stocking Plan (LA409), filed on 8/4/2005;
- Snail Study Plan (LA410), filed as part of the Upper Salmon, Lower Salmon, and Bliss Projects also, which describes a 6-year study in cooperation with the U.S. Fish and

Wildlife Service to assess the impacts of load following operations vs. run of river on listed snails known to occur in the project area;

- Snail Protection Plan (LA411), as noted above, part of the other licensed projects, following the final report re: the study plan for LA410;
- Riparian Habitat Acquisition Plan (LA412), filed on 8/4/2005, which spells out the acquisition of at least 170 acres of riparian wetland or spring habitat. IPC purchased the Turner Ranch on the Bruneau River upstream of the project reservoir and has been managing this area for riparian/wetland habitat, approximately 360 acres. This area was included in the project boundary and is managed with the other habitat areas out of the CJWMA Headquarters, constructed in 2008/9;
- C.J. Strike Wildlife Management Area Operations and Management Agreement (LA413), filed on 8/4/2005, where IPC reached agreement with the IDFG that IPC would take over ongoing operations and maintenance of its lands in the project area (~3000 acres). IDFG had been managing these lands under contract with IPC for the first 50 years of the original license;
- Visual Resource Management Plan (LA414), filed on 8/4/2005, including signage, interpretive kiosks at 4 viewpoints;
- Historic Properties Management Plan (LA415), filed as part of the license application and implemented under the Programmatic Agreement (PA) with state, federal and tribal agencies to identify and protect cultural resources in the project area;
- C.J. Strike Land Management Plan (LA416), filed on 2/4/2005, which spells out how IPC will manage its lands and any that were acquired under LA412 above; and
- Recreation Management Plan (LA417), filed on 8/4/2005, which identified those construction-related projects to enhance existing recreation facilities as well as new ones to provide facilities for the public use.

Each article plan listed above required IPC to consult with the local, state, and federal agencies and non-governmental organizations in the development of the plans, prior to FERC submittal for approval. Following FERC approval, IPC initiated these projects and has been actively engaged in the ongoing operations and maintenance and annual reporting to all parties involved. IPC tracks compliance with all license article requirements at each licensed facility and annually certifies its compliance to senior and executive management.

FERC has held two formal environmental inspections and one site visit since the new license was issued in 2004. In all cases, the FERC's follow-up letters indicated that the projects were in compliance, or minor remedies were needed to correct deficiencies. IPC has complied with all requests for such remedies and is in compliance with the license requirements. For the recent site visit in 2012, IPC had submitted revised LMPs for FERC approval, and FERC completed a follow-up visit to the project to confirm those changes to the plan that IPC proposed. FERC's follow-up letter was very complimentary of IPC's management of such lands and the staff who were involved.

For each of the license articles listed above, as well as other license requirements for all other FERC licensed projects, IPC is in substantial compliance (see Section 3.8.3 below) and has met each deadline that FERC proposed as well as ongoing requirements.

3.8.3 Adaptive Management

Over the course of a 30-year license, conditions change at a mitigation project. For this reason, the licensee has the ability to identify those areas/items related to license article conditions and to propose to change the article's requirements to meet current/future conditions. This process is referred to as adaptive management. In practicing adaptive management, the licensee may

meet with the relevant resource agencies to discuss the discrepancies and develop remedies that are agreeable to all parties, and develop an amendment application to the FERC for their consideration. These amendment applications can be as minor as changing the monitoring schedule to the total elimination of a license article requirement that may not necessary anymore. In any case, the IPC works with the consulting entities and files a consultation summary of this interaction with the amendment application. IPC has nine such amendments pending before the FERC at this time, awaiting their approval.

3.8.4 FERC License Auditing and IPC's Compliance Record

The FERC tracks licensee's compliance on an ongoing basis, and as mentioned earlier, schedules regular environmental inspections of licensed projects. In the past 3 years, IPC has cooperated with three separate environmental inspections by the FERC, and with minimal follow up items, passed each one. IPC has not received a letter of non-compliance for any land management, fisheries, or recreational program mitigation requirements.

IPC's Hydro Compliance program conducts an annual audit of its licensing conditions across all its 12 FERC licensed projects, and certifies to senior/executive management that it has and will continue to comply with all requirements contained within the licenses, as well as corporate policies and standards.

4.0 CONCLUSIONS

IPC's Exhibit D fulfills the requirements of OAR 345-021-0010(1)(d), and establishes that IPC has the organizational expertise to construct, operate, and retire the Project in compliance with the Council's organizational expertise standard in OAR 345-022-0010.

5.0 SUBMITTAL AND APPROVAL COMPLIANCE MATRIX

Table D-6 provides cross references between Exhibit submittal requirements of OAR 345-021-0010 and where discussion can be found in this Exhibit.

Table D-6. Submittal Requirements Matrix

Requirement	Location
OAR 345-021-0010(1)(d)	
(d) **Exhibit D.** Information about the organizational expertise of the applicant to construct and operate the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0010, including:	
(A) The applicant's previous experience, if any, in constructing and operating similar facilities.	Section 3.2
(B) The qualifications of the applicant's personnel who will be responsible for constructing and operating the facility, to the extent that the identities of such personnel are known when the application is submitted	Section 3.3
(C) The qualifications of any architect, engineer, major component vendor, or prime contractor upon whom the applicant will rely in constructing and operating the facility, to the extent that the identities of such persons are known when the application is submitted.	Section 3.4
(D) The past performance of the applicant, including but not limited to the number and severity of any regulatory citations in constructing or operating a facility, type of equipment, or process similar to the proposed facility.	Section 3.5

Table D-6. Submittal Requirements Matrix (continued)

Requirement	Location
(E) If the applicant has no previous experience in constructing or operating similar facilities and has not identified a prime contractor for construction or operation of the proposed facility, other evidence that the applicant can successfully construct and operate the proposed facility. The applicant may include, as evidence, a warranty that it will, through contracts, secure the necessary expertise.	Section 3.6
(F) If the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program, a description of the program.	Section 3.7
(G) If the applicant relies on mitigation to demonstrate compliance with any standards of Division 22 or 24 of this chapter, evidence that the applicant can successfully complete such proposed mitigation, including past experience with other projects and the qualifications and experience of personnel upon whom the applicant will rely, to the extent that the identities of such persons are known at the date of submittal.	Section 3.8
OAR 345-022-0010	
(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.	Throughout Exhibit D
(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.	Not applicable
(3) If the applicant does not itself obtain a state or local government permit or approval for which the Council would ordinarily determine compliance but instead relies on a permit or approval issued to a third party, the Council, to issue a site certificate, must find that the third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering into, a contractual or other arrangement with the third party for access to the resource or service secured by that permit or approval.	Not applicable
(4) If the applicant relies on a permit or approval issued to a third party and the third party does not have the necessary permit or approval at the time the Council issues the site certificate, the Council may issue the site certificate subject to the condition that the certificate holder shall not commence construction or operation as appropriate until the third party has obtained the necessary permit or approval and the applicant has a contract or other arrangement for access to the resource or service secured by that permit or approval.	Not applicable

Table D-6. Submittal Requirements Matrix (continued)

Requirement	Location
Project Order	
Regarding the ability to successfully construct the project "in accordance with site certificate conditions," the Council's review is not limited to IPC's ability to construct a transmission line. The application must also demonstrate that IPC can honor all commitments and conditions regarding minimization and mitigation of impacts on the resources protected by Council standards and applicable regulations of other agencies.	Section 3.8
Exhibit D should include a safety and environmental regulatory compliance history for the last three years that is focused on similar facilities owned or operated by the applicant, such as transmission lines and substations. If possible, evidence of successful completion of mitigation projects should also be provided.	Section 3.5, Section 3.8

6.0 RESPONSE TO COMMENTS FROM REVIEWING AGENCIES AND THE PUBLIC

There were no comments from reviewing agencies and the public regarding Exhibit D.

7.0 REFERENCES

No references.