BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE BOARDMAN TO HEMINGWAY 500-KV TRANSMISSION LINE.	)	CASE NO. IPC-E-23-01

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

LINDSAY BARRETTO

Q. Please state your name and business address.

A. My name is Lindsay Barretto. My business address is 1221 West Idaho Street, Boise, Idaho 83702.

Q. By whom are you employed and in what capacity?

A. I am employed by Idaho Power Company ("Idaho Power" or "Company") as the 500 kilovolt ("kV") and Joint Projects Senior Manager.

Q. Please describe your educational background.

A. I received a Bachelor of Science degree in Civil Engineering from Purdue University, West Lafayette, Indiana in 2005. In 2007, I earned a Master of Science degree in Civil Engineering from Purdue University. I am a registered professional engineer in the state of Idaho.

Q. Please describe your work experience with Idaho Power.

A. I began my employment with Idaho Power in 2010 as an engineer in Power Production's Civil Engineering department. As an engineer I worked on hydroelectric and hatchery projects and regulatory compliance. In 2015, I moved to Transmission and Distribution Engineering and Construction as a project manager leading power line and substation projects. In 2018, I became an Engineering Leader, responsible for the Stations Engineering and Design department. In 2020, I was promoted to my current position, Senior Manager of 500kV and Joint Projects, where

my responsibilities include supervision over Idaho Power's 500-kV projects.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony begins with a description of the Boardman to Hemingway transmission line ("B2H project") design and the standards and guidelines for which it is constructed and operated. Next, I describe the siting and permitting process that has spanned nearly two decades, including the federal, state, and local permits necessary for construction and operation of the B2H project. Finally, I will discuss the costs associated with the B2H project.

Q. Have you prepared any exhibits?

A. Yes. Exhibit No. 8 presents a cross-section of a transmission tower. Exhibit No. 9 identifies the federal, state, and local permits needed for construction and operation of the B2H project in both Idaho and Oregon. Exhibit No. 10 represents Idaho Power's final B2H route choice among the alternatives approved by Oregon's Energy Facilities Siting Council ("EFSC"). Confidential Exhibit No. 11 includes a summary of the B2H project cost estimates by cost category as well as a comparison of B2H project cost estimates prepared between 2018 and 2022 in support of Integrated Resource Plan ("IRP") preparations and the

Company's request with the Public Utility Commission of Oregon for a Certificate of Public Convenience and Necessity ("CPCN").

I. THE B2H PROJECT DESIGN

Q. Please describe the design of the B2H project.

A. The B2H project is a 500-kV transmission line between Boardman, Oregon and the Hemingway substation in southwestern Idaho. It consists of approximately 298 miles of electric transmission line, with 274 miles located in Oregon and 24 miles in Idaho. The B2H project will require 298 miles of single-circuit 500-kV transmission line, removal of 12 miles of existing 69-kV transmission line, rebuilding of 0.9 miles of a 230-kV transmission line, and rebuilding of 1.1 miles of an existing 138-kV transmission line into a new right-of-way. The B2H project is designed to withstand a wide range of physical conditions and extreme events. Because transmission lines are so vital to the electrical grid, design standards are stringent. B2H will adhere to, and in most cases, exceed, the required codes or standards observed for high voltage transmission line design. This approach to the design, construction, and operation of the B2H project will establish utmost reliability for the life of the transmission line.

Q. What are the components of a transmission line?

A. The basic components of a transmission line are the structures/towers, conductors, insulators, foundations to support the structures, and shield wires to prevent lightning from striking conductors. See Exhibit No. 8 to my testimony for a cross-section of a transmission tower. For a single-circuit transmission line, such as B2H, power is transmitted via three phase conductors (a phase can also have multiple conductors, called a bundle configuration). These conductors are typically comprised of a steel core to give the conductor tensile strength and reduce sag and of aluminum outer strands. Aluminum is used because of its high conductivity to weight ratio.

Shield wires, typically either steel or aluminum and occasionally including fiber optic cables inside for communication, are the highest wires on the structure. Their main purpose is to protect the phase conductors from a lightning strike.

Structures are designed to support the phase conductors and shield wires and keep them safely in the air. For the B2H project, structures will primarily be steel lattice tower structures, which provide an economical means to support large conductors for long spans over long distances.[1] The typical structure height for B2H is

[1] H-frame towers, rather than lattice towers, will be used in certain locations to mitigate potential impacts to visual resources.

approximately 160 feet tall, but structure height will vary depending on location, with a structure located roughly every 1,400 feet on average. The tower height and span length were optimized to minimize ground impacts and material requirements; taller structures could allow for longer spans (fewer structures on average per mile) but would be costlier due to material requirements. Again, the B2H tower and conductors were engineered to maximize benefits and minimize costs and impacts.

Q. Are there guidelines or standards for which the structure of a transmission line is designed?

A. Yes. Overhead transmission lines have been in existence for over 100 years, and many codes and regulations govern the design and operation of transmission lines. Safety, reliability, and electrical performance are all incorporated into the design of transmission lines. Several notable standards include the: (1) American Concrete Institute 318—*Building Code Requirements for Structural Concrete*, (2) American National Standards Institute standards (for material specifications), (3) American Society of Civil Engineers ("ASCE") Manual No.74—*Guidelines for Electrical Transmission Line Structural Loading*, (4) National Electrical Safety Code ("NESC"), (5) Occupational Safety and Health Administration 1910.269 April 11, 2014 (for worker safety requirements), and (6)

National Fire Protection Association 780—*Guide for Improving the Lightning Performance of Transmission Lines*. NESC provides for minimum guidelines and industry standards for safeguarding persons from hazards arising from the construction, maintenance, and operation of electric supply and communication lines and equipment. The B2H project will be designed, constructed, and operated at standards that meet, and in most cases exceed, the provisions of NESC.

Q. Why is Idaho Power designing and constructing the B2H project to exceed NESC provisions?

A. Physical loads induced onto transmission structures and foundations supporting the phase conductors and shield wires for the B2H project are derived from three phenomena: wind, ice, and tension. Under certain conditions, ice can build up on phase conductors and shield wires of transmission lines. When transverse wind loading is also applied to these iced conductors, it can produce structural loading on towers and foundations far greater than normal operating conditions produce. Design weather cases for the B2H project exceed the requirements in the NESC. As an example, for a high wind case, NESC recommends 90 miles per hour (mph) winds. The criteria proposed for the B2H project is 100 mph wind on the conductors and 120 mph wind on the structures. There are multiple loading conditions that will be incorporated into the design of the

B2H project, including unbalanced longitudinal loads, differential ice loads, broken phase conductors, broken sub-phase conductors, heavy ice loads, extreme wind loads, extreme ice and wind loads, construction loads, and full dead-end structure loads.

Q. What is the design of the transmission line foundation?

A. The 500-kV single-circuit lattice steel structures require a foundation for each leg of the structure. The foundation diameter and depth will be determined during final design and are dependent on the type of soil or rock present. The foundations will be designed to comply with the allowable bearing and shear strengths of the soil where placed. Soil borings will be taken at key locations along the project route, and subsequent soil reports and investigations will govern specific foundation designs as appropriate.

Q. Are there guidelines or standards for design of transmission line foundations?

A. Yes. The 2017 NESC Rule 250A4 observes the structure capacity obtained by designing for NESC wind and ice loads at the specified strength requirements is sufficient to resist earthquake ground motions. Additionally, ASCE Manual No. 74 states transmission structures need not be designed for ground-induced

vibrations caused by earthquake motion. Historically, transmission structures have performed well under earthquake events,[2] and transmission structure loadings caused by wind/ice combinations and broken wire forces exceed earthquake loads. It is common industry practice to design transmission line structures to withstand wind and ice loads that are equal to, or greater than, these NESC requirements.

Q. How does the potential for lightning impact the design?

A. The B2H project is in an area that historically experiences 20 lightning storm days per year,[3] which is relatively low compared to other parts of the United States. The transmission line will be designed to not exceed a lightning outage rate of one per 100 miles per year. This will be accomplished by using proper shield wire placement and structure/shield wire grounding to adequately dissipate a lightning strike on the shield wires or structures if it were to occur. The electrical grounding requirements for the project will be determined by performing ground resistance testing throughout the project

[2] Risk Assessment of Transmission System under Earthquake Loading. J.M. Eidinger, and L. Kemper, Jr. Electrical Transmission and Substation Structures 2012, Pg. 183-192, ASCE 2013; *see also* Earthquake Resistant Construction of Electric Transmission and Telecommunication Facilities Serving the Federal Government Report. Felix Y. Yokel. Federal Emergency Management Agency (FEMA). September 1990.

[3] USDA RUS Bulletin 1751-801.

alignment, and by designing adequately sized counterpoise or using driven ground rods with grounding attachments to the steel rebar cages within the caisson foundations as appropriate.

Q. What measures have been taken with respect to the B2H project design for earthquakes?

A. Experience has demonstrated that high-voltage transmission lines are very resistant to ground-motion forces caused by earthquake, so much so that national standards do not require these forces be directly considered in the design. However, secondary hazards can affect a transmission line, such as landslides, liquefaction, and lateral spreading. The design process considers these geologic hazards using multiple information streams throughout the siting and design process. For the final route, Idaho Power evaluated geologic hazards using available geographic information system data, such as fault lines, areas of unstable and/or steep soils, mapped and potential landslide areas, etc. Towers located within potential geologic hazard areas are investigated further to determine risk. Additional analysis may include field reconnaissance to gauge the stability of the area and subsurface investigation to determine the soil strata and depth of hazard.

Q. Did the Company identify any geologic hazards

that would be of risk to the structure?

A. At this time, no high-risk geologic hazard areas have been identified. If, during the process of final design, an area is found to be high-risk, the first option would be to microsite, route around, or span over the hazard. If avoidance is not feasible, the design team would seek to stabilize the hazard. Engineering options for stabilization include designing an array of sacrificial foundations above the tower foundation to anchor the soil or improving the subsurface soils by injecting grout or outside aggregates into the ground. If the geotechnical investigation determines the problematic soils are relatively shallow, the tower foundations can be designed to pass through the weaker soils and embed into competent soils.

Q. Please describe Idaho Power's plans to reduce risks associated with wildfire during operation of the B2H project.

A. Idaho Power has developed a Wildfire Mitigation Plan ("WMP").[4] This plan details how the Company uses situational awareness of wildfire and weather conditions to change the way the system is operated. It

[4] 2022 Wildfire Mitigation Plan (idahopower.com), *see also In the Matter of Idaho Power Company's Application for Review of the Company's Current Wildfire Mitigation Plan and Authorization to Defer Newly Identified Incremental Wildfire Mitigation Costs* (Case No. IPC-E-22-27).

also includes best practices that internal and contract crews follow for construction and maintenance activities during wildfire season, vegetation management practices, and transmission system and distribution system hardening efforts. B2H has been included in this analysis as part of the planning process. The wildfire risk along the B2H project route was assessed as part of the plan. This plan will be reviewed annually and updated with new information and lessons learned as required.

Q. Will the B2H project remain operational in the event of a wildfire?

A. The transmission line steel structures are constructed of non-flammable materials, so wildfires do not pose a physical threat to the transmission line itself. However, heavy smoke from wildfires in the immediate area of the transmission line can cause flashover/arcing between the phase conductors and electrically grounded components. Standard operation is to de-energize transmission lines when fire is present in the immediate area of the line. Transmission lines generally remain in-service when smoke is present from wildfires not in the immediate vicinity of the transmission line. When compared to other resource alternatives, the B2H project may be more resilient to smoke. For example, the recent forest fire events in the Pacific Northwest caused smoke along the proposed B2H

corridor and in the Pacific Northwest in general. While generation from solar photovoltaic would likely operate at a much-reduced capacity, the B2H project would likely still operate so long as the fires are not in the immediate area.

Q. Are there any other hazards the B2H project design must take into account?

A. As I mentioned earlier, the B2H project is designed to withstand extreme wind loading combined with ice loading. With respect to landslides, Idaho Power avoided steep, unstable slopes through the siting and design process, especially where evidence of past landslides is evident. During the preliminary construction phase, geotechnical surveys and ground surveys (light detection and ranging surveys) help verify potentially hazardous conditions. If a potentially hazardous area cannot be avoided, the design process will seek to stabilize the area. Finally, identification and avoidance of flood zones was incorporated into the siting process and will be further incorporated into the design process. Foundations and structures will be designed to withstand anticipated flood conditions.

Q. Was any consideration made in the event of a direct physical attack?

A. Yes. A direct physical attack on the B2H transmission line will remove the line’s ability to deliver

power to customers. In the case of a direct attack, B2H is fundamentally no different than any other supply-side resource under a direct physical attack. However, because the B2H project is connected to the transmission grid, a direct physical attack on any specific generation site in the Pacific Northwest or Mountain West region will not limit the B2H project's ability to deliver power from other generation in the region. In this context, the B2H project provides additional ability for generation resources to serve load if a physical attack were to occur on a specific generation resource or location within the region and therefore increases the resiliency of the electric grid as a whole.

If a direct physical attack were to occur on the B2H transmission line and force the line out of service, the rest of the grid would adjust to account for the loss of the line. Per the Western Electricity Coordinating Council facility rating process, the B2H capacity rating is such that an outage of the B2H line would not overload any other system element beyond equipment emergency ratings. Idaho Power also keeps a supply of emergency transmission towers that can be quickly deployed to replace a damaged tower allowing the transmission line to be quickly returned to service. Transmission lines add to the resiliency of the grid by providing additional paths for electricity should

one or more generation resources or transmission lines experience a catastrophic event.

Q. Is there any incremental value the B2H project may provide in the event of emergency conditions?

A. During non-emergency conditions, the transfer capability between the Pacific Northwest and Idaho will be limited by real-time-contingency-analysis to ensure a single transmission system element outage does not result in overloading any remaining element above its emergency rating (i.e. loss of the B2H project does not result in a remaining system element overloaded above its emergency rating). Per North American Electric Reliability Corporation ("NERC") requirement TPL-001-4, the system must be designed to accommodate single contingency element losses without using load tripping as mitigation. However, during emergency conditions, transfers across the B2H project could be increased above the normal rating by implementing a remedial action scheme, also pursuant to NERC TPL-001-4 for emergency conditions starting from an outage scenario.

II. SITING AND PERMITTING

Q. When did siting and permitting of the B2H project begin?

A. In 2007, Idaho Power filed a Preliminary Draft Application for Transportation and Utility Systems and

Facilities on Federal Lands and began scoping routes. The following year, in 2008, the Company submitted application materials to the Bureau of Land Management ("BLM") as the lead agency for the federal National Environmental Policy Act ("NEPA") review and a Notice of Intent to the Oregon Energy Facility Siting Council ("EFSC" or "Council"). The NEPA and EFSC processes are separate and distinct permitting processes and not necessarily designed to work simultaneously. At a high level, the NEPA process requires federal agencies take a "hard look" at the environmental consequences of their actions along with reasonable alternatives, but NEPA does not mandate a particular result. The comparative analysis is conducted at a "desktop" level. Information is brought into the process on a phased approach. A more detailed analysis must be conducted on the final route prior to construction, which generally occurs once final design is complete. On the other hand, the Oregon EFSC process is a standards-based process based on a fixed site boundary. For a linear facility, like a transmission line, the process requires the transmission line boundary to be established (one or more routes selected) and fully evaluated to determine if the project meets established standards.

Q. What occurred when the application was submitted to the BLM?

A. The BLM responded with a Notice of Intent to prepare an Environmental Impact Statement ("EIS"), officially initiating the BLM-led federal NEPA process. It was at this time that Idaho Power embarked on a more extensive public outreach program to determine the transmission line route.

Q. Did the Company involve public participation when determining the route for the B2H project?

A. Yes. In 2009, Idaho Power paused the NEPA and EFSC activities to work with community members throughout the siting area to identify a proposed route that would be acceptable to both the Company and the public. The year-long community advisory process ("CAP") had four objectives and steps: (1) identify community issues and concerns, (2) develop a range of possible routes that address community issues and concerns, (3) recommend proposed and alternate routes, (4) follow through with communities during the federal and state review processes. Through the CAP, Idaho Power hosted 27 Project Advisory Team meetings, 15 public meetings, and 7 special topic meetings. In all, nearly 1,000 people were involved in the CAP, either through Project Advisory Team activities or public meetings.

Q. Was a proposed route selected through the CAP process?

A. Yes. Forty-nine routes and/or route segments

were considered through the CAP and ultimately the route recommendation from the CAP was the route Idaho Power brought into the NEPA process as the proponent-recommended route, submitted in 2010.

Q. What occurred following conclusion of the CAP?

A. With a final route recommendation developed through the CAP, Idaho Power resubmitted the proposed route to the BLM and published its B2H Siting Study. At this point, the Company also filed a new Notice of Intent with EFSC.

Q. Was this the end of public involvement in the final selection of the B2H project's route?

A. No, public involvement and outreach continued for years. The NEPA process, which the BLM re-initiated following the Company's resubmittal of a proposed route, included additional opportunities for public comment at major milestones, and Idaho Power worked with landowners and communities along the way. Throughout this process, Idaho Power worked with landowners, stakeholders, and jurisdictional leaders on route refinements and to balance environmental impacts with impacts to farmers and ranchers. For example, Idaho Power met with the original "Stop Idaho Power" group in Malheur County to help the group effectively comment and seek change from the BLM when the Draft EIS indicated a preference for a route across Stop

Idaho Power stakeholders' lands. The BLM's decision was modified, and the route moved away from an area of highly valued agricultural lands in the Final EIS almost two years later.

Idaho Power also worked with landowners in the Baker Valley, near the National Historic Oregon Trail Interpretive Center ("NHOTIC"), to move an alternative route along fence lines to minimize impacts to irrigated farmland, where practicable. This change was submitted by the landowners and included in the BLM's Final EIS and ultimately the Record of Decision. Another change in Baker County was in the Burnt River Canyon and Durkee area, where Idaho Power worked with the BLM and affected landowners to find a more suitable route than what was initially identified as the preferred route in the Draft EIS. Idaho Power has worked with landowners and local jurisdictional leaders to microsite in these areas to minimize impacts.

Finally, in Union County Idaho Power worked with local jurisdictional leaders, stakeholder groups, such as the Glass Hill Coalition and some members of Stop B2H (prior to that group's formation), to identify new route opportunities. The Union County B2H Advisory Committee agreed to submit a route proposal to the BLM that followed existing high-voltage transmission lines, which was later identified as the Mill Creek Alternative. In that same

area, Idaho Power proposed the Morgan Lake Alternative as an alternative to the Mill Creek Route, providing a route that was farther from and not visible from the City of La Grande.

Q. What was the status of the EFSC application at this time?

A. In 2012, concurrent with the BLM NEPA process, the Oregon Department of Energy ("ODOE") conducted informal meetings, solicited comments, and issued a Project Order outlining the issues and regulations Idaho Power must address in its Application for Site Certificate ("ASC"). Also, due to the route modifications and refinements submitted to the BLM, the Company issued a Siting Study Supplement, and began conducting field surveys for the ASC. Idaho Power submitted to ODOE its preliminary ASC in 2013, which included a request that the site certificate include and govern the local land use approvals related to siting.

Q. Had the BLM-led NEPA process concluded at this point?

A. No. In 2013, the BLM released the preliminary preferred route alternatives and began preparing their Draft EIS, which was issued on December 19, 2014, identifying an Agency Preferred Alternative.

Q. Was the route proposed through the CAP the final route selected by the BLM?

A. No. The route preferences of Idaho Power and the local communities are not always reflected in the BLM's Agency Preferred route. For example, Idaho Power had worked in the Baker County area to propose a route on the backside of the NHOTIC to minimize visual impacts, and in the Brogan area to avoid landowner impacts. However, both route variations went through priority sage grouse habitat and were not adopted in BLM's Agency Preferred route. However, the Company worked with Umatilla County, local jurisdictional leaders, and landowners to identify a new route through the entire county, essentially moving the line further south and away from residences, ranches, and certain agriculture. This southern route variation through Umatilla County was later included as part of the BLM's final Agency Preferred route.

Q. What occurred following issuance of the Draft EIS?

A. The BLM's issuance of the Draft EIS kicked off the opening of a 90-day comment period. The BLM hosted open houses for the public to learn about the Draft EIS, route alternatives, and environmental analysis. On November 22, 2016, the BLM completed its NEPA process, issuing its Final EIS. The preferred route was incorporated into the EFSC application and a routing solution on Navy-owned land for an easement on the Naval Weapons System Training

Facility in Boardman, Oregon. Field surveys necessary for the EFSC application continued to be conducted. In 2017, the Company submitted an Amended Preliminary ASC to ODOE. On November 17, 2017, the BLM released its record of decision for the B2H project, authorizing the BLM to grant a right-of-way to Idaho Power for the construction, operation, and maintenance of the B2H project on BLM-administered land. The right-of-way was granted on January 9, 2018.

Q. Were any additional decisions required with respect to rights-of-way for the B2H project?

A. Yes. The BLM's record of decision triggered United States Forest Service ("USFS") and Navy decision activities. The USFS and Navy issued their own separate decisions regarding rights-of-way across lands under their jurisdictions on November 13, 2018, and September 26, 2019, respectively. With issuance of the Navy record-of-decision, after nearly 10 years, the B2H project had secured all federal records of decision.

Q. Was the final B2H project route proposed by the Company in the EFSC ASC the route proposed by the BLM?

A. No. The route Idaho Power submitted to the EFSC as part of the ASC is very similar to the BLM's Agency Preferred route. When the ASC was finalized, which was prior to issuance of the Final EIS, Idaho Power included

two alternative route segments in the La Grande area, called the Morgan Lake Alternative and the Mill Creek Alternative/Proposed Route. The BLM's Agency Preferred route in that area was similar to a prior route concept that was called the Glass Hill Alternative. Additionally, the EFSC application included alternative route segments at the northern end of the B2H project, near the Boardman Bombing Range, and toward the southern end of the of the B2H project in Malheur County near the Double Mountain Wilderness Characteristic Unit.

Q. What is the current status of the Council's review of the Company's ASC?

A. In July 2020, ODOE issued its Proposed Order, proposing approval of the B2H project subject to certain conditions. However, certain members of the public objected to aspects of the proposed order, and EFSC initiated a contested case hearing process to consider the issues that those members of the public raised. The contested case spanned nearly two years and included exchange of discovery, live depositions, submission of written testimony, live cross-examination hearings, and extensive briefing. On May 31, 2022, at the conclusion of the contested case, the hearing officer issued a Proposed Contested Case Order, proposing approval of the B2H project

subject to certain conditions.[5] The Council held a three-day hearing to consider the parties' exceptions to the Proposed Contested Case Order, and provided direction to ODOE regarding modifications to the Proposed Order and the Proposed Contested Case Order. ODOE implemented the Council's direction and issued the draft Final Order on September 16, 2022, and on September 27, 2022, EFSC made its final decision in a unanimous (6-0) vote to approve the B2H project subject to certain conditions.

Q. Has the EFSC issued their Final Order and Site Certificate?

A. Yes. On October 6, 2022, EFSC executed their Final Order and Site Certificate for the B2H project.[6]

Q. Has the Final Order been appealed?

A. Yes. In accordance with the statutory time limitation for appeal of the final order, three parties timely filed appeals to the Supreme Court of Oregon in connection with EFSC's Final Order. However, in accordance with Oregon Revised Statute ("ORS") 469.403(4), the filing of a petition for judicial review does not stay the Council's Final Order—and no party has requested stay—and

[5] See Administrative Law Judge's Proposed Contested Case Order, page 296 of 337 (May 31, 2022) (I propose the Oregon Department of Energy, Energy Facility Siting Council, issue a Final Order granting the requested site certificate consistent with the Department's Proposed Order dated July 2, 2020, including the recommended site certificate conditions, and incorporating the following amendments to recommended conditions: . . . .).

[6] See Final Order (Sept. 27, 2022) (available at: https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2022-09-27-Final-Order-on-ASC.pdf

thus, the EFSC Final Order and EFSC Site Certificate remain in effect pending judicial review. Accordingly, Idaho Power may begin construction in areas where it has site control and where all pre-construction conditions have been met, notwithstanding the appeal. Idaho Power filed Answering Briefs on January 3, 2023, and Oral Argument is scheduled for January 18, 2023. Pursuant to 469.403(6), the Oregon Supreme Court must render a decision within six months of the petitions for review, or in this case, on or before June 6, 2023.

Q. What additional permits and land use approvals are necessary for siting the B2H project?

A. Exhibit No. 9 to my testimony identifies the federal, state, and local permits needed for construction and operation of the B2H project in both Idaho and Oregon. The permits and approvals beyond those I have discussed are in various stages of their respective application and approval processes, the status of which is also presented in Exhibit No. 9. The Final Order and Site Certificate include the land use approvals (and related conditions) for the B2H project, and in accordance with Oregon Revised Statute 469.401(3), following issuance of the site certificate, the state and local agencies in Oregon will issue the permits and land use approvals governed by the site certificate without further hearings or other

proceedings.

Q. You indicated the EFSC application included alternative route segments for portions of the B2H project. Has the Company determined a final route for the B2H project?

A. Yes. Exhibit No. 10 to my testimony represents Idaho Power's final route choice among the alternatives approved by EFSC, which includes the Morgan Lake Alternative and the West of Bombing Range Alternative 1 routes.

Q. How did Idaho Power determine the final route among the approved alternative options?

A. Idaho Power initially proposed the Mill Creek Route in response to the request by Union County that the B2H project be routed parallel to the existing 230-kV transmission line. In that same area, Idaho Power proposed the Morgan Lake Alternative as an alternative to the Mill Creek Route, providing a route that was farther from and not visible from the City of La Grande. Based on feedback Idaho Power received from the local community and given EFSC approved both routes, Idaho Power has decided to develop the Morgan Lake Alternative and not the Mill Creek Route.

III. B2H PROJECT ROUTE IMPACT EVALUATIONS

Q. Did Idaho Power evaluate the potential impact

of the B2H project on topography, geology, stream crossings, or other similar conditions?

A. Yes. With respect to hydrologic systems, the Company anticipates the impact will be minimal. For example, any temporary impacts to regulated waters will be mitigated by restoring the sites to existing conditions, and the total amount of permanent impacts will be less than 0.5 acres.[7] To mitigate those impacts, Idaho Power has acquired the rights to develop a wetland and stream restoration project along Catherine Creek, a tributary to the Grande Ronde River.[8]

The Company does not anticipate that construction-related blasting activity will impact landowners' springs, wells, or other water sources. However, to address any concerns the landowners may have regarding the same, Idaho Power will test water sources if requested, as memorialized in the site certificate condition, Soil Protection Condition 4.b.[9]

Geological hazards are addressed in the ASC as well. The B2H project will be designed in accordance with multiple applicable engineering and building standards, which address, directly or indirectly, hardness of rock and

[7] As detailed in Exhibit J (Waters of the State) to Idaho Power's ASC, page J-16 (Sept. 28, 2018).
[8] As detailed in Exhibit J (Waters of the State) to Idaho Power's ASC, page J-17 to J-18 (Sept. 28, 2018).
[9] As detailed in Site Certificate at 24 (Sept. 27, 2022).

other geological considerations.[10] Additionally, Idaho Power is required to prepare, in consultation with the Oregon Department of Geology and Mineral Industries, a geologic report that addresses the suitability of the site for the B2H project and any mitigation measures.[11] While the final mitigation measures will be refined prior to construction based on site-specific geological testing, generally, those measures will include modifications to tower locations, design changes to structure foundations, soil amendments, or tower design modifications.

Q. Were any mitigation measures implemented for scenic or recreational resources?

A. Yes. Per an agreement with the City of La Grande, the Company will provide funding to the city for recreational improvements at Morgan Lake Park.[12] Additionally, Idaho Power will construct the B2H project segment near Morgan Lake Park using shorter, H-frame towers with a weathered steel finish to reduce visual impacts to the park.[13] Similarly, in the vicinity of the NHOTIC and the Birch Creek Area of Critical Environmental Concern, Idaho Power will construct the B2H project using shorter, H-frame

[10] See Exhibit H (Geological Hazards and Soil Stability) to the Company's ASC, page H-21 (Sept. 28, 2018).
[11] See Exhibit H (Geological Hazards and Soil Stability) to Idaho Power's ASC, pages H-4 to H-5, and Engineering Geology and Seismic Hazards Supplement, Attachment H-1 to Idaho Power's ASC.
[12] See EFSC's Final Order at 277-78 (Sept. 27, 2022) (available at 2022-09-27-Final-Order-on-ASC.pdf (oregon.gov)) (last visited Sept. 29, 2022).
[13] *Id.* at 557.

towers instead of lattice towers to reduce the visual impacts to these resources.[14]

Q. Were potential cultural, environmental or agricultural impacts evaluated?

A. Yes. To receive a site certificate from EFSC, the B2H project must undergo a thorough review and meet the Council's siting standards. Those standards address issues such as soil protection, land use, protected areas, fish and wildlife habitat, threatened and endangered species, scenic resources, historic, cultural, and archaeological resource, recreation opportunities, public services, waste minimization, and others.[15] Idaho Power addressed the EFSC standards in the Company's ASC, where Idaho Power analyzes the B2H project's potential impacts on those resources and describes the measures the Company will employ to avoid, minimize, or mitigate the potential impacts. Some of the potential impacts that were analyzed and the commitments the Company has made to address those potential impacts include:

Historic, cultural, and archaeological resources: Idaho Power conducted extensive records research, literature review, and field surveys to inventory the historic, cultural, and archaeological resources that

[14] *Id.* at 451.
[15] See OAR Chapter 345, Division 22.

potentially will be impacted by the B2H project.[16] For identified resources, Idaho Power will implement measures to avoid or minimize adverse impacts, including relocation of structures through the design process, realignment of the route, relocation of temporary workspace, or changes in the construction and/or operational design. Where impacts are unavoidable, Idaho Power will implement mitigation actions set forth in a Historic Properties Management Plan, which was developed in coordination with various governmental agencies, including environmental training, data recovery, analysis, documentation, curation, resource-specific treatments, restoration, public signage, publication, and interpretive planning.[17]

Fish and wildlife habitat: Idaho Power catalogued the various types of fish and wildlife habitat potentially impacted by the B2H project through desktop analysis and ground surveys.[18] To avoid and minimize impacts to fish and wildlife habitat, the Company will implement seasonal work restrictions, map and flag sensitive resources, and implement various other measures set forth in the Company's Reclamation and Revegetation Plan, Vegetation Management

[16] See Exhibit S (Historic, Cultural, and Archeological Resources) to Idaho Power's ASC, pages S-21 through S-28.
[17] See Historic Properties Management Plan, Attachment S-9 to the EFSC Final Order (Sept. 27, 2022).
[18] See Exhibit P1 (Fish and Wildlife Habitat) to Idaho Power's ASC, pages P1-21 through P1-31.

Plan, and Noxious Weed Plan.[19] Unavoidable impacts will be addressed through compensatory mitigation, as outlined in the Fish and Wildlife Habitat Mitigation Plan.[20]

In addition, to avoid and minimize impacts to avian species during construction, Idaho Power will limit construction activities to time periods outside of the primary migratory bird nesting season of April 1 to July 15, unless the Company conducts surveys immediately prior to such activities to identify avian nests to avoid, as memorialized in the proposed EFSC site certificate conditions, Fish and Wildlife Condition 13, Fish and Wildlife Condition 14, and Fish and Wildlife Condition 20.[21] During operations, Idaho Power will implement its Avian Protection Plan, which includes mitigation measures to be taken if avian mortalities are discovered along the transmission line and modifications to the line that can be made if elevated mortalities of avian species are discovered.[22] With respect to bat species, Idaho Power avoided and minimized impacts by siting the B2H project to avoid mines, caves, and known bat hibernacula.[23]

---

[19] See Exhibit P1 (Fish and Wildlife Habitat) to Idaho Power's ASC, pages P1-86 through P1-90; Reclamation and Revegetation Plan, Attachment P1-3 to EFSC's Final Order; Vegetation Management Plan, Attachment P1-4 to EFSC's Final Order; and Noxious Weed Plan, Attachment P1-5 to EFSC's Final Order.

[20] See Fish and Wildlife Mitigation Plan, Attachment P1-6 to EFSC's Final Order.

[21] EFSC Final Order at 375-76, 399.

[22] See Avian Protection Plan at 15 included as Attachment P1-9 to EFSC's Final Order.

[23] See Exhibit P1 (Fish and Wildlife Habitat) to Idaho Power's ASC, page P1-70 (Sept. 28, 2018).

Additionally, if previously unidentified hibernacula are located, Idaho Power will develop additional avoidance, minimization, and mitigation measures in consultation with the Oregon Department of Fish and Wildlife, as set forth in the proposed site certificate condition identified as Fish and Wildlife Condition 12.[24]

Land use: Idaho Power analyzed, and demonstrated compliance with, the affected cities and counties' comprehensive plans and development codes.[25] The Company addressed potential impacts to agricultural operations in particular in the Company's Agricultural Lands Assessment.[26] In that document, Idaho Power includes various measures the Company will undertake to avoid, minimize, and mitigate impacts to agricultural lands and operations, including locating towers outside cultivated fields where feasible, scheduling construction activities around agricultural operations, avoiding damage to drainage tiles, restoring compacted soils, noxious weed control, and other measures.[27]

Idaho Power has made a tremendous effort to design the route of the transmission line to avoid irrigated areas and has sited towers along agricultural field boundaries where feasible. Of the approximately 1,461 transmission

[24] EFSC Final Order at 374.
[25] See Exhibit K (Land Use) to Idaho Power's ASC.
[26] See Agricultural Lands Assessment, Attachment K-1 to EFSC's Final Order.
[27] *Id.* at 37-42.

towers along the proposed route, only 26 are proposed to be located within an irrigated portion of an agricultural field, and Idaho Power may be able to further reduce this total number through micrositing, which provides the flexibility to marginally shift the transmission line within a 500-ft wide site boundary.[28] The Company is committed to working with each landowner to try to minimize impacts to farming operations where feasible for the construction of the line, and will move structures out of cultivated fields where practical.

Q. Were any statewide or local economic impacts associated with construction of the B2H project evaluated?

A. Yes. The B2H project will have positive economic impacts for eastern Oregon communities include construction jobs, economic support associated with infrastructure development (e.g., lodging and food), and increased annual tax benefits to each county for project-specific property tax dollars, totaling an estimated $5.8 million.[29] In addition, Idaho Power anticipates the project will add about 500 construction jobs, which will provide a temporary increase in spending at local businesses.

As explained in Company witness Mr. Ellsworth's testimony, when energized, the B2H project will benefit

[28] *Id.* at 26.
[29] See Idaho Power's 2021 IRP Appendix D.

local economies by providing cost-effective energy, adding 1,050 megawatts of transmission connectivity between the Bonneville Power Administration ("BPA") and Idaho Power systems. Currently, the transmission connections between BPA and Idaho Power are fully committed for existing customer commitments. Along the B2H project route, Idaho Power currently serves customers in Idaho's Owyhee County and in Oregon's Malheur County and portions of Baker County. PacifiCorp, through Pacific Power, serves portions of Umatilla County. BPA provides transmission service to local cooperatives in the remainder of the project area in Morrow, Umatilla, Union, and Baker counties. Cost-effective energy also provides economic development opportunities in these areas. Finally, additional transmission capacity can create opportunities for new energy resources, which can add to the county tax base and create new jobs.

Q. Are there any negative economic impacts that may occur with construction of the B2H project?

A. The Company does not anticipate the B2H project will have any negative economic impacts at a statewide or regional level. However, Idaho Power recognizes the B2H project may have negative economic impacts on individual landowners in the form of removing timber or agricultural land from production; interference with timber, agricultural, or other land uses during

construction; and impacts on land values. To address those concerns, the Company has developed management plans containing best practices to avoid, minimize, and mitigate such impacts. For example, the Company's Right-of-Way Clearing Assessment includes a multitude of actions designed to minimize and mitigate impacts to forested lands and forestry operations, including logging best management practices, fire protection practices, road maintenance and improvements, and erosion controls.[30] Additionally, Idaho Power's Agricultural Lands Assessment includes numerous minimization and mitigation efforts to address impacts to agricultural lands and operations, including tower placement modifications, coordinated construction scheduling, coordinated helicopter options, maintenance and repair of drainage tiles, remediating soil compaction, noxious weed control, topsoil separation and storage, dust control, soil erosion protection, addressing inducted voltage, livestock control measures, and protections for organic crops.[31] Finally, Idaho Power will compensate impacted landowners where the B2H project will be located for the use of their land through utility easement negotiations.

[30] See the Right-of-Way Clearing Assessment, Attachment K-2 to the EFSC's Final Order at page 16 to 21 (Sept. 27, 2022).
[31] See the Agricultural Lands Assessment, Attachment K-1 to EFSC's Final Order at pages 33 to 47.

IV. B2H PROJECT COSTS

Q. Does Idaho Power have an estimate of the costs of the B2H project?

A. Yes. Based on the Company's most recent forecast dated December 2022, the total cost of Idaho Power's share of the B2H project on a system basis is approximately [redacted], which is made up of costs associated with the transmission facilities including a contingency, overheads, Allowance for Funds Used During Construction ("AFUDC"), property taxes, and local interconnection costs. In addition, the Company estimates ongoing operations and maintenance expenses associated with the B2H project will be approximately $300,000 per year on a system basis. Confidential Exhibit No. 11 to my testimony includes a summary of the B2H project costs by cost category.

Q. You indicated the B2H project cost estimate is based on a December 2022 forecast. How has the B2H project cost estimate developed over time?

A. A number of updates have been made to the B2H project cost estimates in the past five years, the progression of which I will explain in detail and are also presented in Confidential Exhibit No. 11 for comparison purposes. First, B2H project cost estimates for the 2019 IRP through the 2021 IRP were based on a 10 percent

detailed design/indicative design.

Q. What is an indicative design?

A. A design starts with an indicative design based on available data and as additional information is made available, such as detailed topography captured by light detection and ranging ("LiDAR"), the design progresses. With more site-specific data, detailed engineering progresses and economization occurs based on on-the-ground data. The 10 percent detailed design/indicative design included selection of a standard tower series and conductor, the ASC proposed route location and length, preliminarily sited towers and access roads, and identified primary station equipment.

Q. How does this translate to a cost estimate?

A. Based on the design, Owner's Engineer HDR, Inc. ("HDR") utilized their utility and industry experience with current market values for materials, equipment, and labor to arrive at the B2H estimate, including experience with the specific towers and conductor BPA has installed that the B2H project is using. They start with preparation of a preliminary transmission line design that locates every tower and access road needed for the project based on the proposed route location and length. The design included the selection of a standard tower series and conductor design for 500-kV lines. HDR accomplished a partial

material take off for all major items (towers, conductors, foundations, roads, rights-of-way, etc.) using the fewest assumptions possible.

In 2021, Idaho Power hired the firm Leidos Engineering, LLC ("Leidos"), to provide engineering services to develop a detailed transmission line design for the project. In 2022, the Company hired the firm Quanta Infrastructure Solutions Group ("QISG") as the constructability consultant for the project. QISG has significant experience overseeing and managing construction of high voltage transmission projects. Leidos completed a 30 percent detailed design package, providing engineering design criteria, the project alignment with structure locations based on LiDAR, and structure tower class development for all structures required for the line. With this 30 percent detailed design package, QISG performed a constructability review of the design and provided a revised cost estimate for the transmission line component of the project based on their expertise. The 30 percent detailed design package and corresponding estimate by QISG was the basis for the cost estimate used in the Company's Petition for Certificate of Public Convenience and Necessity filed with the Public Utility Commission of Oregon on September 30, 2022, Docket No. PCN 5 ("PCN 5").

Q. Is the cost estimate provided in this case the

same as provided in the initial filing in PCN 5?

A. No. The Company's initial filing with the Public Utility Commission of Oregon in PCN 5 reflected a 30 percent design estimate. In late December, the Company filed supplemental testimony providing a cost update reflecting the 60 percent design package from Leidos, and the estimate provided here is consistent with the December 2022 PCN 5 update. The 60 percent design package includes more site-specific constraints to meet height limitations, as well as right-of-way considerations. At this point, the transmission line structure locations are generally confirmed, structure types and class are finalized, and access roads are near finalized. With this 60 percent detailed design package, QISG performed a constructability review of the design and provided a revised cost estimate for the transmission line component of the project based on their expertise. The 60 percent detailed design package and corresponding estimate by QISG was the basis for the cost estimate used in this proceeding.

Q. Are the varying percentage levels of detailed design indicative of the percentage accuracy of the cost estimate?

A. No. The difference between preliminary design and the levels of detailed design are some of the areas around which assumptions must be made about project

requirements. As with any large project, the goal is to increase certainty over time and reduce contingencies and unknowns as the project matures. The design percentage is indicative of the unknowns that have been eliminated. Therefore, the B2H project estimate has included a budget for those various unknowns since the beginning.

Q. Were any additional adjustments made to the cost estimates received under each of the 10-, 30-, 60 percent design packages?

A. Yes. For modeling of the 2019 IRP, Idaho Power included a 20 percent contingency on B2H project costs, as is standard and reflective of the status of the overall project which was prior to any pre-construction work and prior to execution of competitively bid contracts for materials or construction. However, for modeling of resources in the 2021 IRP, including the B2H project, no contingency amounts were included. Therefore, it would have skewed the IRP modeling results to have included a contingency amount in the B2H cost estimate. For comparison purposes in Confidential Exhibit No. 11, however, the Company has added a 20 percent contingency to the 2021 IRP B2H project costs. In addition, Idaho Power's ownership share of the B2H project was updated from 21.21 percent for modeling in the 2019 IRP to 45.45 percent for modeling of B2H project costs in the 2021 IRP. Finally, the cost

estimate was updated to reflect increased material and labor costs due to inflation and supply chain issues. Idaho Power's ownership share of the resulting December 2022 B2H project cost estimate is [redacted].

Q. Does Idaho Power have cost controls in place for the B2H project?

A. Yes. The Company has strict project cost controls for internal and external personnel. Regular monthly forecast updates, including the tracking of budgets and schedules, are part of the project controls suites that the project management team employs. During the current preconstruction phase, Idaho Power's constructability consultant, QISG, aided in certain preconstruction reviews and tasks. This early integration of the construction team allows for constructability feedback, identification of risks, and opportunities to economize the design. As the B2H project transitions into the construction phase, all material and construction services will be competitively bid and be pulled into a guaranteed maximum price ("GMP") that will serve as the construction pricing if awarded. This GMP is tied to a schedule that Idaho Power and the construction manager will have developed together that the Company, and as a result of the contract, the construction manager will be responsible for meeting that schedule. Milestone dates will be tied to monetary penalties for the

construction manager if key dates slip.

Q. Is the B2H project cost estimate based on executed master contracts for construction of the project?

A. No. Idaho Power has not yet selected contractors for the construction phase but anticipates issuing Requests for Proposals for materials and contractors during the first quarter of 2023. In addition, the Company anticipates selecting a construction manager in the third quarter of 2023. The B2H project cost estimate is based on Idaho Power's most recent forecast of project costs. As described in the direct testimony of Mr. Ellsworth, B2H project costs included in the modeling of the 2021 IRP were reviewed and approved by BPA and PacifiCorp, both of whom have recent 500-kV transmission line construction projects to calibrate against. In addition, Idaho Power worked collaboratively with NV Energy and Southern California Edison to calibrate the B2H project cost estimate using their experience on two recent 500-kV projects.

V. CONSTRUCTION OF THE B2H PROJECT

Q. Now that the Company has received an EFSC Order and Site Certificate, when does Idaho Power anticipate commencing construction of the B2H project?

A. As discussed earlier, in April 2022 the Company contracted with QISG for constructability

consulting services, who reviewed and analyzed the project details, and subsequently advised that a construction start date in the summer of 2023 is recommended to ensure energization of the line to meet the 2026 resource deficit.

Q. Is Idaho Power required to obtain any other regulatory approvals prior to construction of the B2H project?

A. Yes. Oregon Revised Statute 758.015 requires a CPCN if condemnation of land or an interest therein is necessary for construction of a transmission line. Idaho Power is currently negotiating with landowners in good faith to obtain options for easements, but the Company anticipates it may need to initiate condemnation proceedings to gain access to certain parcels along the B2H project route. As such, on September 30, 2022, immediately following EFSC's final decision approving the B2H project subject to certain conditions on September 27, 2022, Idaho Power initiated the PCN 5 proceeding with the Public Utility Commission of Oregon in order to obtain the CPCN in time for construction to commence in 2023. The Public Utility Commission of Oregon is targeting an order by June 30, 2023.

Q. Is the Company requesting the Commission issue a CPCN by June 30, 2023, in this proceeding as well?

A. Yes. Idaho Power is requesting the Commission

issue a CPCN no later than June 30, 2023, as a final Commission decision is critical to allowing the Company to construct the B2H project in time to meet the 2026 resource deficit. If a Commission's order in this proceeding is delayed beyond June 2023, Idaho Power may not be able to begin construction in 2023 and accordingly meet the B2H project's 2026 in-service date.

VI. CONCLUSION

Q. Please summarize your testimony.

A. The B2H project will be vital to the electrical grid and designed to adhere to, and in most cases, exceed, the required codes or standards observed for high voltage transmission line design to establish utmost reliability for the life of the transmission line. As part of the route determination, the Company evaluated numerous potential impacts, including topography, geology, stream crossings, cultural resources, environmental and agricultural uses. After extensive public participation, Idaho Power submitted its final proposed B2H project route including four alternative route segments to the Council. On October 6, 2022, EFSC executed their Final Order and Site Certificate for the B2H project.

The B2H project is moving into the preliminary construction phase and construction must start in the summer of 2023 to ensure energization in time to meet the

2026 resource deficit identified in Idaho Power's 2021 Integrated Resource Plan. Idaho Power must commence the CPCN proceeding in order to obtain the CPCN in time for construction to commence in 2023.

Q. Does this conclude your testimony?

A. Yes.

//

//

//

//

//

//

//

//

//

//

//

//

//

//

//

//

//

DECLARATION OF LINDSAY BARRETTO

I, Lindsay Barretto, declare under penalty of perjury under the laws of the state of Idaho:

1. My name is Lindsay Barretto. I am employed by Idaho Power Company as the 500kV and Joint Projects Senior Manager.

2. On behalf of Idaho Power, I present this pre-filed direct testimony and Exhibit Nos. 8 through 11 in this matter.

3. To the best of my knowledge, my pre-filed direct testimony and exhibits are true and accurate.

I hereby declare that the above statement is true to the best of my knowledge and belief, and that I understand it is made for use as evidence before the Idaho Public Utilities Commission and is subject to penalty for perjury.

SIGNED this 9th day of January 2023, at Boise, Idaho.

Signed:

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

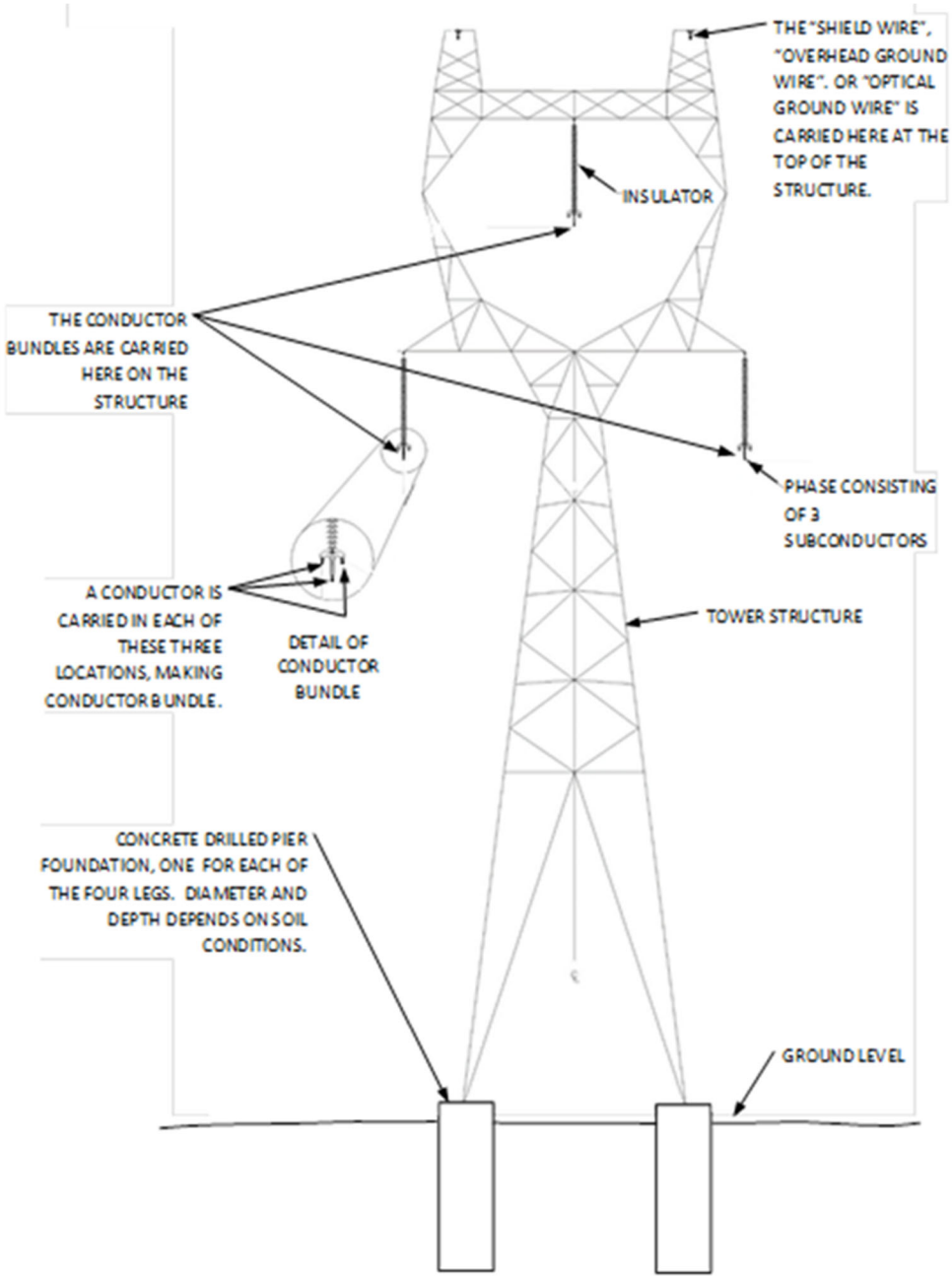
CASE NO. IPC-E-23-01

IDAHO POWER COMPANY

BARRETTO
TESTIMONY

EXHIBIT NO. 8

Transmission Tower Components



BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-23-01

IDAHO POWER COMPANY

BARRETTO
TESTIMONY

EXHIBIT No. 9

Land Use Approvals and Permits Required for the B2H Project

Permit or Approval	Regulatory Authority	Federal /State/ Local	Included in EFSC Site Certificate	Status	Date Issued or Expected
Bureau of Land Management ROW Grant	U.S. Bureau of Land Management	Federal	No	Issued	January 2018
Cultural Resource Use Permit and Site-Specific Authorizations	U.S. Bureau of Land Management	Federal	No	Issued	June 2022
Permit for Archaeological Investigations	U.S. Bureau of Land Management	Federal	No	Issued	Contractor-held[1]
Paleontological Resources Use Permit	U.S. Bureau of Land Management	Federal	No	Issued	Contractor-held
Navy Easement	U.S. Department of Navy	Federal	No	Issued	March 2020
Forest Service Easement	U.S. Forest Service	Federal	No	Issued	May 2019
Special Use Authorization for Archaeological Investigations	U.S. Forest Service	Federal	No	Issued	July 2022
Archaeological Excavation Permit	Oregon State Historic Preservation Office	State	No	Issued	August 2022
Energy Facility Site Certificate	Oregon Energy Facility Siting Council	State	Yes	Issued	October 2022
Baker County Land Use Permits	Baker County	Local	Yes	Issued	January 2023
Malheur County Land Use Permits	Malheur County	Local	Yes	Issued	January 2023
Morrow County Land Use Permits	Morrow County	Local	Yes	Pending	March 2023
Umatilla County Land Use Permits	Umatilla County	Local	Yes	Pending	March 2023
Union County Land Use Permits	Union County	Local	Yes	Issued	December 2022
Federal Notice of Proposed Construction or Alteration	Federal Aviation Administration	Federal	No	Pending	Prior to Construction

[1] Contractor-held permits are held by Idaho Power's contractors as part of their ordinary course of business rather than being obtained specifically for B2H.

Permit or Approval	Regulatory Authority	Federal /State/ Local	Included in EFSC Site Certificate	Status	Date Issued or Expected
Clean Water Act Section 404, Nationwide Permit 57[2]	U.S. Army Corps of Engineers	Federal	No	Pending	Prior to Construction
Special Use Permit for Logging Activities	U.S. Forest Service	Federal	No	Pending	Prior to Construction
Removal-Fill Permit	Oregon Department of State Lands	State	Yes	Pending	Prior to Construction
Oregon Notice of Proposed Construction or Alteration	Oregon Department of Aviation	State	No	Pending	Prior to Construction
National Pollutant Discharge Elimination System Permit 1200-C	Oregon Department of Environmental Quality	State	No	Pending	Prior to Construction
National Pollutant Discharge Elimination System Permit 1200-A	Oregon Department of Environmental Quality	State	No	Pending	Prior to Construction
Air Contaminant Discharge Permit	Oregon Department of Environmental Quality	State	No	Pending	Prior to Construction
Permit to Operate Power Driven Machinery	Oregon Department of Forestry	State	No	Pending	Prior to Construction
Burn Permit	Oregon Department of Forestry	State	No	Pending	Prior to Construction
Plan for Alternate Practice	Oregon Department of Forestry	State	No	Pending	Prior to Construction
Permit to Construct a State Highway Approach	Oregon Department of Transportation	State	No	Pending	Prior to Construction
Oversize Load Movement Permit/Load Registration	Oregon Department of Transportation	State	No	Pending	Prior to Construction
Permit to Occupy or Perform Operations Upon a State Highway	Oregon Department of Transportation	State	No	Pending	Prior to Construction

[2] Nationwide Permit 57 was formerly known as Nationwide Permit 12 prior to being renumbered in 2021.

Permit or Approval	Regulatory Authority	Federal /State/ Local	Included in EFSC Site Certificate	Status	Date Issued or Expected
Fish Passage Plan Update (if needed)	Oregon Department of Fish and Wildlife	State	Yes	Pending	January 2023
Road Approach Permit	Baker County	Local	No	Pending	Prior to Construction
Work in County Right-of-Way Permit	Baker County	Local	No	Pending	Prior to Construction
Flood Plain Development Permit	Baker County	Local	No	Pending	Prior to Construction
Permit to Occupy or Perform Operations upon Public Roads	Malheur County	Local	No	Pending	Prior to Construction
Flood Plain Development Permit	Malheur County	Local	No	Pending	Prior to Construction
Utility Crossing Permit	Morrow County	Local	No	Pending	Prior to Construction
Access Approach Site Permit	Morrow County	Local	No	Pending	Prior to Construction
Construction Permit to Build on Right-of-Way	Morrow County	Local	No	Pending	Prior to Construction
Flood Plain Development Permit	Morrow County	Local	No	Pending	Prior to Construction
Installation of Utilities on County and Public Roads Permit	Umatilla County	Local	No	Pending	Prior to Construction
Road Approach and Crossing Permit	Umatilla County	Local	No	Pending	Prior to Construction
Flood Plain Development Permit	Umatilla County	Local	No	Pending	Prior to Construction
Road Approach Permit	Union County	Local	No	Pending	Prior to Construction
Work in County Right-of-Way Permit	Union County	Local	No	Pending	Prior to Construction
Flood Plain Development Permit	Union County	Local	No	Pending	Prior to Construction
Conditional Use Permit	Owyhee County (Idaho)	Local	No	Pending	Prior to Construction
Certificate of Public Convenience and Necessity	Idaho Public Utilities Commission	State	No	Pending	Prior to Construction
Certificate of Public Convenience and Necessity	Oregon Public Utilities Commission	State	No	Pending	Prior to Construction

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

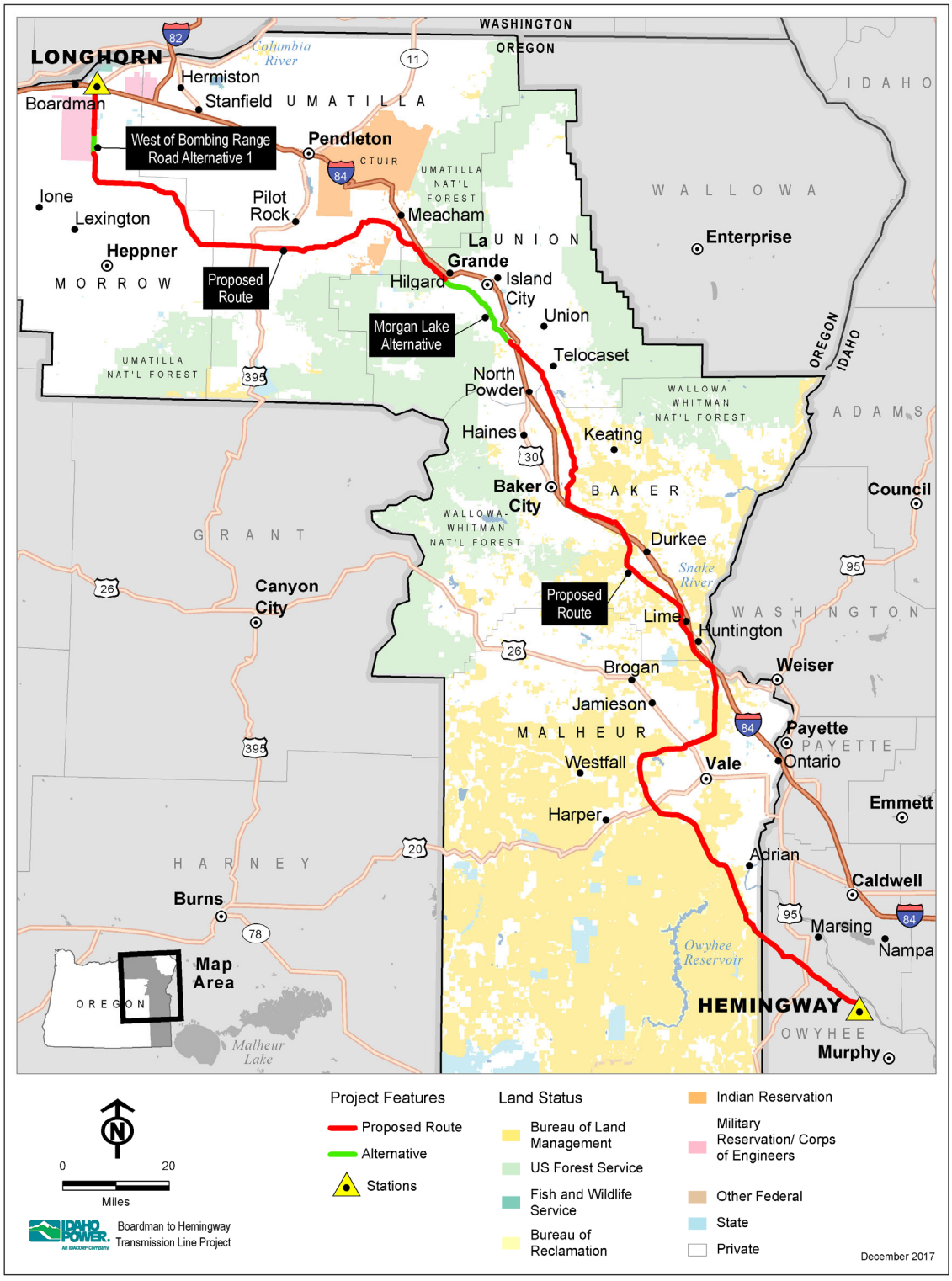
CASE NO. IPC-E-23-01

IDAHO POWER COMPANY

BARRETTO
TESTIMONY

EXHIBIT NO. 10

B2H Project Proposed Route



BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-23-01

IDAHO POWER COMPANY

Confidential
BARRETTO
TESTIMONY

EXHIBIT NO. 11