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November 8, 2016

**VIA HAND DELIVERY**

Jean D. Jewell, Secretary  
Idaho Public Utilities Commission  
472 West Washington Street  
Boise, Idaho 83702

Re: Case No. IPC-E-16-28  
Certificate of Public Convenience and Necessity for Wood River Valley  
Idaho Power Company's Application and Testimony

Dear Ms. Jewell:

Enclosed for filing in the above matter please find an original and seven (7) copies of Idaho Power Company's Application for a Certificate of Public Convenience and Necessity.

In addition, enclosed are an original and eight (8) copies each of the Direct Testimony of Michael J. Youngblood, the Direct Testimony of David M. Angell, and the Direct Testimony of Ryan N. Adelman filed in support of the Application. One copy of each of the aforementioned testimonies has been designated as the "Reporter's Copy." In addition, a disk containing Word versions of the testimonies is enclosed for the Reporter.

Very truly yours,

Donovan E. Walker

DEW:csb  
Enclosures

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Attorney for Idaho Power Company

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER	)	
COMPANY'S APPLICATION FOR A	)	CASE NO. IPC-E-16-28
CERTIFICATE OF PUBLIC CONVENIENCE	)	
AND NECESSITY TO CONSTRUCT SYSTEM	)	APPLICATION FOR A
IMPROVEMENTS TO SECURE ADEQUATE	)	CERTIFICATE OF PUBLIC
AND RELIABLE SERVICE TO CUSTOMERS	)	CONVENIENCE AND
IN THE WOOD RIVER VALLEY.	)	NECESSITY
	)	

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Idaho Power Company ("Idaho Power" or "Company"), in accordance with *Idaho Code* §§ 61-501, 61-502, 61-503, 61-508, 61-526, 61-527, 61-528, 67-6528, and RP 52, 54, 112, and 211, hereby respectfully makes application to the Idaho Public Utilities Commission ("Commission" or "IPUC") for an order directing the Company to construct improvements to its electric transmission system to secure adequate service to its customers. Idaho Power requests that the Commission issue an order granting the Company a Certificate of Public Convenience and Necessity ("CPCN" or "Certificate") to construct a new 138 kilovolt ("kV") transmission line and related facilities to provide redundant service from the Wood River substation, near Hailey, into the Ketchum

substation. More specifically, the Company requests a CPCN for the particular line route and facilities identified in testimony as Underground Transmission-TP1, to include 138 kV overhead transmission from the Wood River substation, north along Highway 75, to an underground transmission transition point near Elkhorn Road (TP1), and then underground to the Ketchum substation.

The Company requests, pursuant to *Idaho Code* §§ 61-508 and 61-526, that the Commission find it to be in the public convenience and necessity that Idaho Power construct a new 138 kV transmission line as a redundant source of energy into the Wood River Valley north of East Fork Road, including the communities of Sun Valley, Ketchum, and areas of Blaine County (“North Valley”), with a transition from overhead to underground transmission near Elkhorn Road. The North Valley is currently supplied by a single-source radial line that has experienced sustained outage line events, which Idaho Power forecasts to increase in frequency. Additionally, the existing radial transmission line, constructed in 1962, is aged and must be reconstructed. The proposed facilities follow the same path and will replace existing distribution lines, which minimizes the aesthetic impact. The proposed facilities, as described herein, are necessary and required in order to continue to provide reliable and adequate electricity to Idaho Power’s customers in the North Valley into the future.

In support of this Application, Idaho Power represents as follows:

### **I. CORPORATE STATUS**

1. Idaho Power is a corporation incorporated under the laws of the state of Idaho. Idaho Power is engaged in the business of generating, purchasing, transmitting, and distributing electric energy and providing retail electric service in the states of Idaho and Oregon. Idaho Power’s principal offices are situated in Boise, Idaho, and its address is 1221 West Idaho Street, Boise, Idaho 83702. Copies of Idaho Power’s

Articles of Incorporation and Certificates of Convenience and Necessity are on file with the Commission. *Idaho Code* § 61-528.

## II. SUMMARY

2. Idaho Power has engaged the affected communities in the North Valley regarding a second 138 kV transmission line on a consistent basis since approximately 1995, and has planned a second transmission line to the North Valley since 1973. See Case No. U-1006-89; Case No. IPC-E-95-6.<sup>1</sup> Today, beyond the continuing need to serve growing load, there are two compelling reasons that now require the construction of this second 138 kV transmission line: (1) the increased reliability provided by a redundant source of energy and (2) the need to reconstruct the existing and aging 138 kV radial transmission line without long-term disruption of service to the North Valley. Additionally, the Wood River Valley has seen moderate increases in load, which is expected to continue to grow into the future.

3. Through Idaho Power's communications and work with the affected communities, it appears that a majority of the parties generally agree upon the purpose and need for the redundant source of energy, and if that source is an additional transmission line, that a feasible route could be obtained and permitted, as long as at least a portion of the line is underground. The parties have been unable to reach agreement upon the funding and payment of any incremental cost difference between an overhead, or least-cost alternative, and an underground, or higher-cost build. Idaho Power requests that the Commission issue a CPCN for the construction of a new 138 kV transmission line as a redundant source of energy that utilizes underground transmission (identified as TP1) beginning at Elkhorn Road. The estimated cost of this

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<sup>1</sup> Idaho Power was granted a CPCN for a second 138 kV line in 1973, which was subsequently withdrawn in 1995.

line route is economically equivalent to the Company's standard construction configuration, a redundant overhead distribution line solution. Consequently, this route would not require any additional incremental cost recovery from the local jurisdictions.

### **III. BACKGROUND**

4. The North Valley contains the resort communities of Ketchum and Sun Valley and the Sun Valley ski resort. Idaho Power serves over 9000 customers in the North Valley. The peak demand reached 63 megawatts ("MW") during the winter of 2007. The local population, typical of a resort community swells, during the peak tourist seasons in summer and winter, with high winter peak demand.

5. The North Valley is served by two substations, one located in Ketchum and the other in the Elkhorn Valley within Sun Valley city limits. These two substations are supplied by a single, 12.4 mile, 138 kV transmission line from the Wood River substation in Hailey. The transmission line is constructed with wooden poles that were built in 1962. Access to repair the line is impeded by residential development, rough terrain, and aged construction roads in many areas. The mountainous terrain limits vehicle access, impedes equipment set-up, and contributes to avalanche threats. This line's access limitations may result in extended outages for line conductor, insulator, or structure failures caused by, among other things, vandalism, inclement weather, wood decay, woodpecker damage, avalanche, fire, and micro-burst wind events (collectively "Line Events"). Power outages caused by avalanche, fire, and other natural events also negatively impact the emergency and life safety response activities that are critical during these events.

6. Idaho Power generally initiates and constructs a second transmission source and transformer when a substation peak load is projected to exceed 40 MW. Recent examples include the additions of second transmission lines and transformers at

the Victory and McCall substations. Idaho Power is also moving forward with a second transmission project in the Eagle and Star area, which peaks at 71 MW. The Ketchum and Elkhorn substations' peak load of about 60 MW, coupled with the winter tourism population in the North Valley, strongly supports the need for a second transmission line. The most significant risk of outage and economic impact occurs during the peak of the winter season when the electrical demand and tourism activity peak. Deep snow and steep terrain can create very difficult access to susceptible sections of the existing transmission line, resulting in sustained outages (defined as an interruption that lasts more than five minutes). Idaho Power currently estimates the existing North Valley transmission configuration will result in average sustained outages of more than 209 minutes per year. However, an extended outage could last multiple days and be catastrophic, not only from the economic loss of the area, but the additional damage that may be caused by water pipes freezing. Summers are not immune from risk either, with the potential for a fire to take out the existing line, impacting the ability to pump gas or water, and resulting in economic loss. Multiple transmission sources are standard practices that Idaho Power implements to reduce the likelihood of sustained outages. Additionally, Idaho Power installs distribution circuit tie switches, where adjacent circuits are available, to reduce the duration of sustained outages on the radially sourced distribution system.

7. Idaho Power has existing franchise agreements with both the City of Sun Valley and the City of Ketchum. The franchise agreements generally provide for the construction, maintenance, and operation of facilities, such as transmission lines, in the streets, alleys, and public places in the cities.

8. Idaho Power has been and is currently engaged in acquiring the appropriate and required permits, including the submission in 2015 for a right-of-way

encroachment application to the cities of Ketchum and Sun Valley and a conditional use permit, with a revised application in 2016 to Blaine County. All requests are still pending, with a hearing set for the conditional use permit application with Blaine County on November 10, 2016. Idaho Power would like to start construction in 2019 and have the second line in service by 2020.

#### **IV. COMMUNITY OUTREACH AND PUBLIC PARTICIPATION**

##### **A. Prior CPCN.**

9. In 1973, Idaho Power began planning a second transmission line to the North Valley along with a second 138 kV transmission line from the Midpoint substation to Hailey. Both transmission line projects were initiated based on the Wood River Valley peak load, transmission line exposure, terrain, limited access, extended outages, and the economic impact caused by transmission outages. The Company was issued Certificate No. 272 to construct the line and related facilities in 1974. Order No. 11315, Case No. U-1006-89.

10. In 1995, Idaho Power participated in an extensive public involvement process regarding the proposed construction of a second 138 kV transmission line from the Wood River substation to the Ketchum substation. The public involvement process included public meetings before the Ketchum and Sun Valley City Councils, as well as the Blaine County Board of County Commissioners. Idaho Power also presented the proposal for the new transmission line to a community advisory committee. In addition, Idaho Power held a public open house at the Ketchum City Hall, with invitations sent to over 8,000 Idaho Power customers in northern Blaine County, to provide information regarding the proposed transmission line and to receive public comment.

11. At the conclusion of Idaho Power's 1995 public involvement process, the Company carefully evaluated the input received from the area's public officials and

citizens. The general response at that time from the parties commenting was that, despite the unavoidable risk of an outage to the existing transmission line, the proposed new transmission line should not be built. The reasons for the public opposition at that time included the difficulty of finding an acceptable route for the transmission line, aesthetic impacts, perceived health and safety concerns, and requirement of local funding of incremental cost of placing part or all of the line underground. At the Company's request, the Commission cancelled Certificate No. 272. Order No. 26107, Case No. IPC-E-95-6.

**B. Community Advisory Committee Process.**

12. Idaho Power, mindful of the Commission's guidance in its final order in the City of Eagle case from 2004,<sup>2</sup> has undertaken extensive public involvement activities with regard to local land use and transmission planning activities with local governments, citizens, and the public generally. The Commission's parting words in its Findings and Discussion from that case are:

Finally, we note that this case should serve as a reminder to utilities that they should monitor and participate in local land use planning activities. In particular *Idaho Code* § 67-6508(h) requires that city and county comprehensive plans consider and identify "utility transmission corridors" and other public facilities. For purposes of transmission planning, utilities must advise local governments that the construction of electric transmission lines normally entails tall poles and structures. We also encourage cities and counties to be realistic in designating transmission corridors within their areas. It may not be enough to simply designate that public streets and road right-of-ways will serve as transmission corridors. Aerial transmission lines are the most cost-effective construction method and represent 99% of all transmission line miles in the nation. Tr. at 305.

Order No. 29634 at 7-8, Case No. IPC-E-04-04.

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<sup>2</sup> Case No. IPC-E-04-04, Order No. 29634.

13. Following the Eagle case in 2004, Idaho Power initiated several Community Advisory Committees and undertook a comprehensive, cooperative transmission planning exercise with the communities and leaders across its service territory. Idaho Power has completed seven Community Advisory Committee processes. These committees were created to provide a cooperative effort between the Company and the communities it serves in developing an outline for prioritized improvements and additions to the Company's transmission and substation infrastructure. Each committee was created from and reviewed a specific geographic region. The committees formed to date have been from the Treasure Valley, Eastern Treasure Valley (Ada and Elmore Counties), Western Treasure Valley (Canyon, Owyhee, and Adams Counties and Eastern Oregon), Wood River Valley, Magic Valley, Western Central Mountains (Adams, Boise, and Valley Counties), and Eastern Idaho. Each of these committees was composed of elected officials, jurisdictional planners, civic leaders, business leaders/developers, and residents. Each committee met on a monthly basis with each session lasting most of a day. The process included educational sessions that began with a bus tour of Idaho Power facilities. The committees were presented with a view, from production to delivery, of Idaho Power's electrical system, including an introduction to electrical generation, substations, transmission, demand-side management, and regulatory affairs. The committees then developed a list of goals and siting criteria that would guide them in their plan development. The committees were presented with growth statistics and anticipated load data based on the planned build-out of the community. Using the education gained through these meetings, the committees then spent a few meetings to lay out proposed transmission lines and substation sites. The committees then determined a preferred plan by consensus with some alternatives identified. This process of education and

development of a plan takes just over a year and is the result of hundreds of hours of involvement from the community.

14. In 2007, a Community Advisory Committee (“CAC”) was convened which developed the Wood River Valley Electrical Plan (“WREP”), which is a comprehensive plan for future transmission facilities in the Wood River Valley, which includes the North Valley area. One of the two near-term facility additions identified was a second 138 kV transmission line between the Wood River and Ketchum substations. In 2011, after additional deliberations and extensive public outreach, the CAC updated the WREP. The CAC once again recommended that Idaho Power construct the second 138 kV transmission line. The CAC was convened again in 2012 to discuss new information about potential impact to sage grouse habitat, and the impact to the WREP. Later in 2012, the CAC was reconvened to provide additional input regarding planned open house events in Hailey, Sun Valley, and Ketchum. High-level cost estimates were provided, proposed boundaries and approximate owner costs for a possible local improvement district to fund the incremental local cost for underground preferences for the redundant line were included. In 2014, in response to inquiries from both the City of Ketchum and the Ketchum Energy Advisory Committee (“KEAC”), the Company invited representatives from both entities to join the CAC to investigate the possibility of any new alternatives to the proposed redundant line. The “updated” CAC was convened twice in late 2014. At that time, the updated CAC, which included two members from the KEAC, reaffirmed the need for a second energy path into the North Valley.

15. In addition to the CAC process, Idaho Power has undertaken additional numerous public involvement activities and efforts specific to the Wood River Valley. The Company has more than 100 documented communications; i.e., meetings and letters with city officials, presentations to committees, open houses, meetings with

residents and subdivisions, etc., regarding transmission siting in and around the North Valley from 2007 to the present, in addition to the numerous other informal discussions, phone calls, and contacts about this matter. Most recently, Idaho Power took part in several collaborative processes geared towards exploring the possibility of providing alternative sources of energy in the North Wood River Valley. The results of this exploration have shown that the cost of such alternative sources (diesel engine, gas turbines, and photovoltaic plus battery energy storage systems) are significantly higher than the cost of the redundant line and provide less reliability.

**C. Local Jurisdictions' Current Positions.**

16. Through all of Idaho Power's communications and work with the affected communities of the North Valley, it appears that a majority of the parties generally agree upon the purpose and need for a redundant source of energy. Starting in May of this year, and continuing to the present, Idaho Power initiated both formal meetings as well as numerous informal communications with the parties and stakeholders in the North Valley. This recent outreach by the Company was done with the intent of attempting to reach a compromise, agreement, and/or consensus regarding the redundant line into the North Valley that could be communicated to the IPUC and included with a filing. See Exhibit No. 1. A number of stakeholders from the local jurisdictions have expressed a preference for the TP1, Elkhorn Road underground transmission line option, with an assumption of zero incremental costs above the economic base case and no need for additional local funding. The TP1 option appears to strike a reasonable balance between the overall project cost and the goal of minimizing adverse visual impacts for the North Valley area.

17. In response to the Company's request for written positions from the parties (See Exhibit No. 1, August 31, 2016, letter), the Company received a letter from

the City of Sun Valley. In summary, the letter stated that Sun Valley felt it was thoroughly informed on the purpose and need for the redundant line, as well as the impacts of potential routing options. Sun Valley stated that at the regular City Council meeting of September 1, 2016, the council unanimously agreed that the redundant line project was necessary and vital for its community and that the best location at which to underground the line would be near the intersection of Highway 75 and Elkhorn Road (the TP1 option).

18. The Company has not yet received a response from Blaine County, but the Company currently has a pending conditional use permit before the county that generally coincides with the TP1 option. The Company has attended a public hearing on October 13, 2016, and a follow-up planning and zoning meeting on October 20, 2016, with Blaine County. A final decision is scheduled for November 10, 2016.

19. While the Company has not received any response from the City of Ketchum directly, Idaho Power is aware that the City Council met on October 3, 2016. At that meeting, the KEAC recommended that the City Council address its concerns to the IPUC and request that Idaho Power be required to pay for an independent cost-benefit and reliability analysis of alternatives to a redundant transmission line. The KEAC requested that in addition to evaluating local distributed energy resources and microgrid options, the city request consideration of redundant distribution versus transmission alternatives, which it believes, would allow for local generation to integrate into the grid north of the Hailey substation and move directly north. Idaho Power appreciates the request. However, based on the Company's analysis of alternatives and its work with the Idaho National Laboratory, Idaho Power believes that the cost of microgrid technologies—which require additional generation sources—greatly exceed the cost of the second transmission line.

## **V. CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY**

20. The Company must construct facilities in the Wood River Valley/North Valley area to meet its continuing obligation to serve customers, and thus is requesting an order from the Commission affirming that the public convenience and necessity requires the same. The proposed facilities represent a cost-effective means of providing adequate and reliable service to the North Valley area. A more detailed description of Idaho Power's need to construct a new transmission line to the North Valley area, and why the facilities promote the public convenience and necessity, is contained in the accompanying direct testimonies of David M. Angell and Ryan N. Adelman. Mr. Angell is Idaho Power's Customer Operations Planning Manager and Mr. Adelman is Idaho Power's Customer Operations Project Manager. Their respective direct testimonies are filed concurrently herewith in support of this Application.

21. The Commission has the express authority to order a utility to build new structures, or to upgrade and/or improve existing plant and structures, in order to secure adequate service or facilities.

Whenever the commission, after a hearing had upon its own motion or upon complaint, shall find that additions, extensions, repairs or improvements to or changes in the existing plant, scales, equipment, apparatus, facilities or other physical property of any public utility . . . ought reasonably to be made, or that a new structure or structures should be erected, to promote the security or convenience of its employees or the public, or in any other way to secure adequate service or facilities, the commission shall make and serve an order directing such additions, extensions, repairs, improvements, or changes be made or such structure or structures be erected in the manner and within the time specified in said order.

*Idaho Code § 61-508.*

22. A CPCN or Certificate represent the exercise by the Commission of foundational authority and principles that are necessary in Idaho's system of permitting

regulated monopoly public utilities to exist and to provide necessary services to the public. Certificates have been utilized in various ways from the time that Idaho's statutory system of public utility regulation was enacted by the Legislature in 1913, *Idaho Code* § 61-101, *et seq.*, to the present time. After nearly 100 years of legislative enactments, Commission orders, and Idaho Supreme Court reviews, the Certificate remains the embodiment of the Commission's fundamental power and authority to, at the most basic level, authorize and direct a public utility to serve in the public interest. *See Idaho Power & Light Co. v. Blomquist et al.*, 26 Idaho 222, 141 P.1083 (1914); *Idaho Op. Atty. Gen. No. 87-2*, 1987 WL 247587 (Idaho A.G.).

23. In the broadest sense, a Certificate allows a company that meets the definition of a "public utility" pursuant to *Idaho Code* § 61-129 to exclusively provide its service to the public in a specified geographic region, its service territory. It is a codified part of the "regulatory compact" whereby the utility takes on the exclusive obligation/right to serve all those requesting service within its service territory and, correspondingly, submits itself to the rate and service quality regulation of the Commission. In a more literal sense, a Certificate from the Commission is required for the construction or extension of a line, plant, or system by any street railroad, gas, electrical, telephone, or water corporation. *Idaho Code* § 61-526. A Certificate is not required if such corporation is extending within any city or county where it had previously commenced lawful operation, or the extension into territory contiguous to the territory already served by it, and not served by another public utility of like character. *Id.* If the proposed construction or extension interferes with, or is about to interfere with, the operation of another all ready existing public utility of like character, the Commission may prescribe terms and conditions regarding the location and type of plant the utility may construct. *Id.*

24. *Idaho Code* § 61-526 also provides that “if public convenience and necessity does not require or will require such construction or extension [of a line, plant, or system] the commission . . . may, after hearing, make such order and prescribe such terms and conditions for the **locating or type** of line, plant or system affected as to it may seem just and reasonable . . . .” (Emphasis added.) Consequently, in cases such as the present where the Company is not *required* to obtain a Certificate in order to construct, extend, and upgrade its transmission and distribution facilities within its service territory, the Commission may grant the Company a Certificate if the public convenience and necessity so requires.

25. In addition to the Commission’s authority pursuant to a CPCN, the Idaho Legislature has granted the Commission the ultimate authority for determining whether the public interest, convenience, and necessity requires the construction of certain facilities by expressly providing that land use actions or orders of other government agencies or local governments that are in conflict with an order of the Commission are null and void. Chapter 65 of Title 67 of the *Idaho Code* addresses local land use planning. *Idaho Code* § 67-6528 addresses the interaction of Commission Orders and land use planning actions by other government agencies.

If a public utility has been ordered or permitted by specific order, pursuant to title 61, *Idaho Code*, to do or refrain from doing an act by the public utilities commission, any action or order of a government agency pursuant to titles 31, 50 or 67, *Idaho Code*, in conflict with said public utilities commission order, shall be insofar as it is in conflict, null and void if prior to entering said order, the public utilities commission has given the affected governmental agency an opportunity to appear before or consult with the public utilities commission with respect to such conflict.

*Idaho Code* § 67-6528, Applicability of Ordinances.

**A. Purpose and Need.**

26. Idaho Power has an obligation to provide adequate, efficient, just, and reasonable service on a nondiscriminatory basis to all those that request it within its certificated service territory. *Idaho Code* §§ 61-302, 61-315, 61-507. The Commission must assure that the rates Idaho Power charges its customers and that the rules and regulations by which it provides service are just, reasonable, nondiscriminatory, and non-preferential. *Idaho Code* §§ 61-501, 61-502, 61-503, 61-507, 61-508.

27. The need for a redundant source of energy into the North Valley has existed on various levels since approximately 1973. A previous CPCN to construct a new 138 kV transmission line was cancelled in 1995 based primarily upon public opposition, including the difficulty of finding an acceptable route, aesthetic impacts, perceived health and safety concerns, and the excessive cost of undergrounding the line. However, the need for a second source of energy has not dissipated with time and, in fact, the safety and security of customers due to the risk of a prolonged outage or the potential economic impact on businesses has increased with the age of the existing line. Today, beyond the continuing requirement to serve the Wood River Valley's growing load, there are two compelling reasons that now require the construction of such facilities: (1) the increased reliability provided by a redundant source of energy and (2) the need to reconstruct the existing and aging 138 kV radial transmission line without long-term disruption of service to the North Valley.

28. Idaho Power generally initiates and constructs a second transmission source and transformer when a substation peak load is projected to exceed 40 MW. Recent examples include the additions of second transmission lines and transformers at the Victory substation south of Boise and the McCall substation in McCall, Idaho. Idaho Power is also moving forward with a second transmission project in the Eagle and Star

area, which peaks at 71 MW. After the upgrades in the Eagle/Star/Middleton area, the area north of Hailey represents the largest customer base in Idaho Power's service territory served by only a single transmission line. The Ketchum and Elkhorn substations' peak load of about 60 MW, coupled with the winter tourism population in the North Valley, strongly supports the need for a second transmission line.

29. Historically, this particular line has had a relatively good service record for reliability. This was one of the reasons that the previously issued CPCN was withdrawn in 1995. However, this line, built in 1962 and located in rough terrain, is aging and now requires complete reconstruction. Idaho Power estimates that without any significant changes to the existing North Valley transmission line, the expectation could be that the current configuration will result in an average duration of sustained outages of more than 209 minutes per year. The most significant risk of an outage on the current single 138 kV transmission line and the resulting economic impact would occur during the winter season when the electric demand and tourism activity are at their highest. Deep snow and steep terrain can make it very difficult to access the susceptible sections of the existing transmission line, resulting in sustained outages (defined as an interruption that lasts more than five minutes). An extended outage could last multiple days and be catastrophic, not only from the economic loss to the area, but the additional damage that may be caused by water pipes freezing. Summers are not immune from risk either, with the potential for a fire to take out the existing line, affecting the ability to pump gas or water, and resulting in economic loss.

30. Reconstruction of the existing line, which is required whether or not a redundant transmission line is constructed, is not feasible absent long-term outages without building either a redundant transmission line or a temporary line that would be removed after construction because of the extreme disruption of service required by the

reconstruction. The reconstruction of the existing line involves replacing the existing wood structures with steel structures in approximately the same locations and replacing the existing conductor. During this reconstruction, it was estimated that 57 out of 93 structure replacements would require as many as 40 eight-hour line outages, or 20 assuming the use of two construction crews. Furthermore, it is estimated that the replacement of the line conductor would require a six to 12 week continuous outage. Replacing the other 35 structures while the line is energized would require much larger construction equipment pads that produce significant environmental and aesthetic impacts, particularly on hillsides. Considering all the impacts described above, the reconstruction of the existing line while the line is energized is infeasible. A temporary line to the Ketchum substation would be required to serve the customers of the Ketchum and Elkhorn substations during the reconstruction of the existing line. The temporary line would be placed in road right-of-way, mostly along Highway 75, to minimize private property impact and right-of-way costs. The temporary line would almost assuredly be deemed a visual impact by many North Valley customers. Following the completion of the reconstruction, the majority of temporary line materials (poles and insulators) would be salvaged; however, the conductor cannot be salvaged. With the construction of a redundant 138 kV transmission line the reconstruction of the existing line could be done with little to no disruption of service, and without the lost investment of installing and removing a temporary line during reconstruction.

**B. Redundant Service Options/Potential Line Routes.**

31. Idaho Power investigated four different configurations that would provide the required redundant source of energy to the North Valley. This requires approximately 11-13 miles of new transmission and/or distribution line from the Wood River substation to the Ketchum substation. All options utilize the same "Common

Route” configuration, which consists of a 138 kV overhead transmission line from the Wood River substation near Hailey, north along Highway 75 for approximately 7.5 miles, to approximately the area near Owl Rock Road, south of the Medical Center. Each various alternative route then differs from this point north to the Ketchum substation. Each route is described in the testimonies of Mr. Angell and Mr. Adelman, and is discussed below under the following categories: (1) Overhead Transmission, (2) Underground Transmission, (3) Overhead Distribution, and (4) Underground Distribution.

**1. Overhead Transmission.**

32. The North Valley exhibits several transmission siting obstacles for overhead access to the existing Ketchum substation. First, the North Valley is congested due to numerous residences and businesses sited in a valley less than one mile wide with mountains of steep slope and narrow roadways. This would force an overhead transmission line either through the downtown district of Ketchum or over the top of Dollar Mountain and spanning down over existing homes near the substation. Second, the valley has multiple ordinances restricting certain development. For example, because of these steep slopes and for aesthetic reasons, Blaine County has an ordinance limiting the development along the mountains (Mountain Overlay District). In addition, the cities of Ketchum and Sun Valley require new electrical facilities be located underground. Third, the community is adamantly against additional visual impacts. Idaho Power representatives have been advised that new overhead lines would not be allowed in Ketchum and Sun Valley. Mr. Angell’s Exhibit No. 4 contains a map depicting each Overhead Transmission route: Dollar Mountain and Downtown District.

33. The line route across Dollar Mountain would be limited to a double circuit on common tower configuration with the existing 138 kV transmission line from Elkhorn substation to Ketchum substation. This common tower construction has a high probability of resulting in the simultaneous loss of both transmission circuits should a failure occur, resulting in North Valley customer outages for the Line Events. This fact alone defeats the purpose and need of constructing a redundant source of energy to improve the reliability of service, and is therefore not a viable option. Additionally, condemnation of private property may be required to enter the Ketchum substation overhead from Dollar Mountain. Finally, North Valley customers would likely strongly oppose this option due to the visual impacts. This option would not provide an independent and fully redundant transmission source to the Ketchum substations nor meet the purpose and need where the other options discussed below would.

34. The Overhead Transmission line route through the Ketchum downtown district would have significant challenges. The challenges include the fact that the City of Ketchum is set up with a grid of streets, sidewalks, and zero setback buildings. Options that exist for construction of overhead transmission include placing the poles in the sidewalks, the edge of streets, and overhanging the wires over the streets, constructing tall enough structures to span the wires over the tops of buildings, and utilizing side streets. Because of the very tight geographical constraints, this option would likely be dependent upon and require condemnation of private property in order to pass through downtown Ketchum with an overhead line to the Ketchum substation. Again, North Valley customers, in particular Ketchum customers, would strongly oppose this option on visual impacts alone.

Neither of the two possible route options for an Overhead Transmission construction configuration provides a viable solution for redundant electric service to the North Valley.

**2. Underground Transmission.**

35. Mr. Angell's Exhibit No. 5 contains a map depicting the Underground transmission route, as well as the three possible overhead-to-underground transition points. The line would include the Common Route along Highway 75 to one of three possible overhead-to-underground transition points between Owl Rock Road and Elkhorn Road, at which point the transmission line would be constructed underground and proceed along the highway and in road rights-of-way to the Ketchum substation. The line would replace an existing distribution line, in turn minimizing the visual impacts. The three potential transition points are: (1) just before entering the City of Ketchum, near the intersection of Elkhorn Road and Highway 75 ("TP1"); (2) further south, near the intersection of Hospital Drive and Highway 75 ("TP2"); and (3) prior to the hospital, near the intersection of Owl Rock Road and Highway 75 ("TP3"). Each of these alternative routes would provide an independent and fully redundant transmission source. The line would provide a second source to the Ketchum substation and reduce sustained outages. The North Valley customers would not experience a sustained outage for loss of either transmission line. The line would support a build-out demand of 120 MW. An underground transmission line would greatly reduce visual impacts in the North Valley. The line would also provide the ability to de-energize any section of either line for maintenance, inspection, repair, or reconstruction. The CAC recommended this as the preferred option as part of the WREP.

Cost. The estimated cost for the Underground Transmission route varies from approximately \$30 million to approximately \$35.7 million based upon the transition

point: TP1 = \$30 million; TP2 = \$32.7 million; and TP3 = \$35.7 million. TP1 is the preferred routing option, being the economic equivalent to the standard overhead distribution base option. Idaho Power believes that the Elkhorn Road option, TP1, appropriately balances the collective interest of the local communities with the Company's desire, and requirement, to continue to provide safe, reliable, and low-cost electric service into the future. The other Underground Transmission options, TP2 and TP3, would both have additional incremental cost over the base case option, Overhead Distribution, that would require funding by the local jurisdictions.

### **3. Overhead Distribution.**

36. Mr. Angell's Exhibit No. 6 contains a map depicting the Overhead Distribution route. This option consists of the Common Route to a new substation on the west side of Highway 75 south of Owl Rock Road. This option would include a new substation with 2x44.8MVA 138/12.5kV transformers, two 4-bay metalclad sections, five feeder getaways, a control building, 10 foot decorative walls, and sound barriers around the transformers. Five overhead distribution circuits would connect with the existing Ketchum and Elkhorn substation distribution circuits and require the acceleration of a 2018 planned Ketchum substation distribution circuit. Eight sets of padmount switchgear and optical fiber from the new substation for Supervisory Control and Data Acquisition (SCADA) control will be installed to effectuate the load transfers during outages of any transmission line or substation.

37. The line, substation, and distribution circuits would provide a 60 MW second source to the existing customers served from the Ketchum substation with similar reliability benefits as the Underground Transmission option. New distribution circuits would provide backup service for maintenance activities on portions of the existing distribution circuits. Idaho Power has extensive experience operating and

maintaining overhead transmission and distribution lines and substations. However, customers would experience a short sustained outage for Line Events until the distribution circuits are switched to the alternate service circuits and would not result in a reduction of the number of sustained outages. The substation and five overhead feeders would cause additional visual impacts. This configuration provides only 60 MW of backup service for the existing customers. Customers would experience sustained outages if the alternate source switching is not automated. Even if the switching is automated, the customers would experience sustained outages if any circuit is in an abnormal configuration prior to the Line Event. Lack of automation and abnormal circuit configurations have the potential to increase the System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) reliability indices. Additionally, cold load pickup might complicate and prolong re-energizing feeders that are out if the automation is either not implemented, disabled, or malfunctions.

Cost. The estimated cost for the Overhead Distribution route ranges from \$29.1 to \$31.1 million. This base case, overhead option that is consistent with the Company's standard practice of providing redundant electrical service to an area. The variance in cost is attributable to the conceptual design level with possible variances as a result of actual right-of-way costs. For purposes of comparison to the costs of the Underground Transmission options, the midpoint cost estimate of \$30 million was used.

#### **4. Underground Distribution.**

38. This option is substantially the same as the Overhead Distribution option with the 12.5 kV distribution circuits installed underground requiring boring, asphalt, and landscape work. From a reliability and capacity perspective, the Underground Distribution option would provide substantially similar benefits as the Overhead

Distribution option. However, unlike the Overhead Distribution option, this option would greatly reduce the visual impacts of overhead distribution circuits.

Cost. The estimated cost of the Underground Distribution route ranges from approximately \$43.4 to \$45.9 million. The excessive cost of this option effectively rules it out as a viable option.

**C. Cost and Payment Allocation.**

39. Although the specific siting of facilities is generally an area of local concern in the state of Idaho, the Idaho Legislature has granted the Commission the ultimate authority for determining whether the public interest, convenience, and necessity require the construction of certain facilities by expressly providing that land use actions or orders of other governmental agencies or local governments that are in conflict with an order of the Commission are null and void. *Idaho Code* § 67-6528. The Company is not seeking any specific rate recovery for the facilities involved herein at this time, and will do so in a proper rate recovery proceeding in the future. The Company is also not seeking to avoid or thwart any city or county permitting processes or procedures. The Company is asking the Commission to find it to be in the present and future public convenience and necessity that Idaho Power constructs a new 138 kV transmission line and related facilities to provide redundant service from the Wood River substation, near Hailey, into the Ketchum substation. The Company requests the Commission find that the proposed facilities are necessary and required in order to continue to provide reliable and adequate electricity to Idaho Power's customers in and around the North Valley. Because the Underground Transmission-TP1 route is the same cost or economic equivalent of the standard, least-cost, Overhead Distribution option, there would be no incremental cost for the underground facilities attributable to the local jurisdictions. This is the line route for which Idaho Power is seeking a

Commission approval of a CPCN. However, because both the Underground Transmission-TP2 and TP3 construction configurations have additional incremental cost over the base case Overhead Distribution, should those routes be required because of local aesthetic preferences for underground facilities, the Company asks that the incremental cost difference between the Overhead Distribution and Underground Transmission configurations be assessed to the cities of Ketchum and Sun Valley and to Blaine County.

40. If the local government entities and communities require that the facilities be constructed underground or on an alternative route(s) that increase the cost of such facilities, Idaho Power maintains that it is appropriate to require those local government entities and communities to contribute the additional incremental cost associated with the required line routing or underground facilities. If the local government and communities do not bear that incremental additional expense, Idaho Power's other customers will ultimately pay higher rates as a result of one community's dissatisfaction with the aesthetics of overhead transmission facilities. The Idaho Legislature has vested the Commission with the exclusive power to regulate public utilities for the state of Idaho and with the authority to carry out its regulation. Any other arrangement would place the public utility and its general body of utility customers in an untenable situation. Local governmental agencies could require public utilities to expend unreasonably large amounts of money to satisfy local aesthetic or other concerns. Those additional expenses would then be passed on to all of the public utility's other customers, outside of the local jurisdiction, thereby resulting in unreasonable, preferential, and discriminatory rates. Idaho Power is requesting that the Commission exercise its statutory authority to protect both the Company and its customers from such a result.

41. Here, there is a routing option that combines overhead and underground transmission, the Underground Transmission-TP1 construction configuration, which is an economic equivalent to the base case, Overhead Distribution construction configuration that would require no incremental cost allocation to the local jurisdictions. This option appears to have majority support of the local jurisdictions, and Idaho Power respectfully requests the Commission issue a CPCN for the construction of Underground Transmission-TP1.

#### **VI. COMMUNICATIONS AND SERVICE OF PLEADINGS**

42. Communications and service of pleadings with reference to this Application should be sent to the following:

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Tim Tatum  
Vice President, Regulatory Affairs  
Idaho Power Company  
1221 West Idaho Street (83702)  
P.O. Box 70  
Boise, Idaho 83707  
[ttatum@idahopower.com](mailto:ttatum@idahopower.com)

#### **VII. REQUEST FOR RELIEF**

43. Idaho Power respectfully requests that the Commission issue an order: (1) specifically finding that the present and future public convenience and necessity requires the construction of a new 138 kV transmission line and related facilities to provide redundant service from the Wood River substation, near Hailey, into the Ketchum substation and (2) specifically granting the Company a Certificate of Public Convenience and Necessity for the construction of such line and facilities identified herein as Underground Transmission-TP1.

44. Idaho Power requests that the Commission convene a prehearing conference in this matter at its earliest convenience to establish a proper procedure to expedite the orderly conduct and disposition of this proceeding. RP 211.

DATED at Boise, Idaho this 8<sup>th</sup> day of November 2016.



DONOVAN E. WALKER  
Attorney for Idaho Power Company