



SIERRA CLUB

IDAHO CHAPTER

Idaho Power's Proposed Second Transmission Line Warrants Additional Analysis

Executive Summary

Idaho Power Company has argued for a second, redundant transmission line connecting the Hailey transmission station to the Ketchum substation since 1973. Sierra Club does not believe that the Company has demonstrated need for a second line or provided an adequate review of relevant costs and technical alternatives.

With decisions on the proposed redundant transmission line pending before both the Blaine County Commission and the Idaho Public Utilities Commission, the Sierra Club prepared this document to detail the history of the proposed line, analysis of the line's historic and future reliability, a review of Idaho Power's technical and public case for the redundant line, and a review of potential alternatives.

- **The existing line is extremely reliable and a rebuilt line can be even better.** While Idaho Power is unable to provide any outage records for the first 18 years of operation (1962-1980), the existing line has only caused 3 hours of unplanned outages and operated reliably 99.999 percent of the time. Their proposed second line would have only been useful for a handful of hours over the past four decades and future usefulness is likely equally negligible.
- **The redundant line is a very expensive means to achieve a relatively small reliability improvement.** Sierra Club is not the only one questioning the need and cost effectiveness of a second line. In May 2017 Idaho Public Utility Commission (PUC) staff filed testimony indicating that Idaho Power's proposal represents "a very expensive means to achieve a relatively small reliability improvement," concluding there is no compelling evidence that the marginal benefits justify the cost of the redundant line.
- **Redundant line does not provide back-up power.** Unlike local generation and storage alternatives, a second line would not provide an independent source of power that can be utilized during a variety of circumstances that can lead to disruption of service. For example, a second line would have done nothing to mitigate the infamous December 24, 2009 outage that left the Wood River Valley without power for 12 hours.
- **Financial implications for the North Wood River Valley (NWRV):** PUC staff testimony recommended that "in the event the commission determines a second line is necessary, the City of Ketchum and other affected "cities/counties" should be prepared to provide the incremental difference in cost required to place those facilities underground." The alternative is a second overhead transmission line right through downtown.
- **Alternatives not adequately analyzed.** For example, Idaho Power did not consider using a temporary shoo-fly line to facilitate rebuilding of the existing line because it did not comport with their goal of redundancy. This alternative saves \$26.8 million compared to the company's proposal. Additionally, the Company's review of non-wires alternatives was riddled with analytical deficiencies described in more detail in section 6 below.

Before we spend \$30 million on a project and potentially expose NWRV residents or general ratepayers to a substantial cost imposition, it's in everyone's interest to make sure all relevant alternatives are fully evaluated.



SIERRA CLUB

IDAHO CHAPTER

Table of Contents

(1) Historical context: Hailey-Ketchum transmission timeline.....	3
(2) Existing line extremely reliable.....	4
(3) Redundant line does not provide back-up power.....	5
(4) Financial Implications.....	7
(5) Community Advisory Committee.....	11
(6) Other Alternatives	13
(7) Status of current PUC and Blaine County reviews.....	14



SIERRA CLUB

IDAHO CHAPTER

1. Hailey-Ketchum Transmission Timeline

1962 – Transmission line built from Hagerman to Ketchum via Hailey transmission station. 12.4 mile long Hailey – Elkhorn – Ketchum line first operated at 46kV, later raised to current 138kV level.

1973 – In response to delay in bringing new coal unit in Wyoming online, Idaho Power requests and is granted a Certificate of Public Convenience and Necessity (CPCN) to build a 50MW gas and oil fueled generator in Hailey and a redundant transmission line from Hailey to Ketchum.

1995 – Idaho Power hires expert firms to conduct analysis of the Hailey – Ketchum line. One of the firms Idaho Power retained to analyze the line condition noted in their report that the line had only experienced 3 minutes of unplanned outages since 1980, a record which they characterized as displaying “unsurpassed reliability”. Idaho Power argues to Public Utilities Commission (PUC) that redundant line is not needed and CPCN should be withdrawn. PUC withdraws CPCN for redundant Hailey-Ketchum transmission line.

2004 – After a contentious exchange between Idaho Power and the City of Eagle, PUC directs Idaho Power to establish community based committees to site future transmission build outs across the Idaho Power service territory. Half dozen Community Advisory Committees (CACs) are established. One of the CACs covers the Wood River Valley and other portions of Blaine, Camas and Lincoln counties.

2007 – Idaho Power, in cooperation with the Wood River Electrical Plan CAC, publishes the December 2007 Wood River Electrical Plan. The first goal in the 2007 Plan calls for “Provid(ing) redundant transmission facilities throughout the Wood River Valley”. The only portion of the valley without redundant transmission in December 2007 was the area north of Hailey. Thus, the CAC’s work was from the start focused, among other things, on siting a redundant line from Hailey to Ketchum.

2009 – Historic December 24th outage. Failure on both lines feeding Hailey transmission station from the south. No power available at Hailey means 12-hour outage at Elkhorn and Ketchum substations. Currently proposed redundant Hailey-Ketchum line would have had no effect in mitigating this outage.

2015 – After years of CAC concern related to the potential for WRV residents being charged the cost of any or all undergrounding on a redundant Hailey-Ketchum transmission line, Idaho Power proposes an accounting cost comparison method that would eliminate locals having to pay for undergrounding lines through the city of Ketchum.

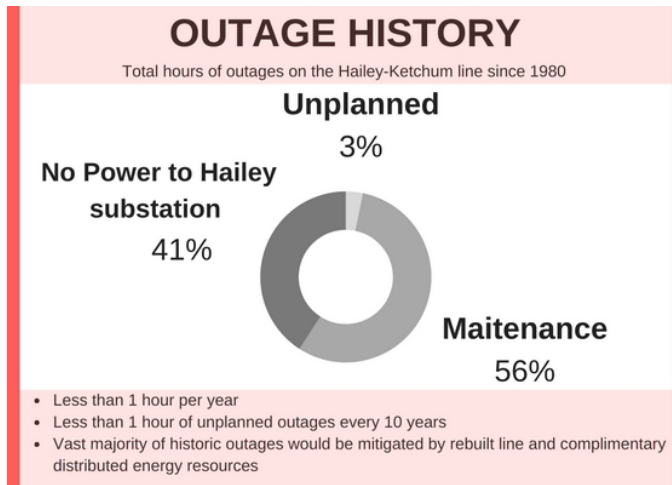
2016 – Idaho Power files a request with the PUC that the PUC issue another CPCN for a redundant Hailey-Ketchum transmission line.

2017 – Blaine County Planning and Zoning Commission denies Idaho Power request for a Conditional Use Permit for the proposed redundant transmission line.

May 2017 – After reviewing Idaho Power’s application the PUC Staff concluded that they have failed to provide a compelling case for redundancy as the proposed second line is “a very expensive means to achieve a relatively small reliability improvement” (Morrison direct p11 lines 4-5).



2. Existing line extremely reliable



The existing Hailey-Ketchum transmission line has been extremely reliable. While Idaho Power is unable to provide any outage records for the first 18 years of operation (1962-1980), since 1980 the line has only been down for a cumulative total of just under 33 hours.

Of those 33 hours of outages only 3 hours were due to unplanned outages (i.e. failures on the existing line). There have been more than 300,000 hours since 1980 with a total of 3 hours of unplanned outages. The existing line has operated reliably 99.999% of the time. And a rebuilt line can be as good or even better.

From 1980 through 1995 there were only 3 minutes of outages on the existing line. Since 1995 there have been 10 outages of three different types as shown in the tables below.

UNPLANNED OUTAGES			
Year	Month	Duration (hours)	Cause
1998	August	0.1	Unknown
2004	January	0.2	Weather
2005	February	1	Equipment failure
2014	August	2	Lightning

*When the line has experienced unplanned outages they have been of short duration (ranging from 5 to 126 minutes) and are often spaced years apart.

MAINTENANCE OUTAGES			
Year	Month	Duration (hours)	Cause
1995	May	1.7	Not listed
2004	October	1.8	Vandalism
2011	September	5.7	Wood decay
2015	October	7.8	Woodpecker damage

*Unlike the unplanned outages, maintenance outages are scheduled at times selected to minimize their impacts. Although these outages have longer durations (ranging from 104 to 465 minutes) they are conducted during low load seasons (May, September and October) and low load times of the day (e.g. starting work around midnight). As a consequence, total loads effected are less than 15MWs combined for both the Ketchum and Elkhorn loads. Note also that the by far the longest maintenance outages (in 2011 and 2015) were to repair damage to wooden structures, a type of repair that would not be required on a line rebuilt using steel structures.

SOUTH OF HAILEY OUTAGES			
Year	Month	Duration (hours)	Cause
2009	December	11.8	No power to Hailey
2014	June	.8	No power to Hailey

*The longest duration outage, occurring at a time of enhanced impact (Christmas Eve, 2009) was caused by failures on lines running up to the Hailey transmission station. No number of redundant lines running north from Hailey would reduce the effects of outages that cause no power to flow to that transmission station.



SIERRA CLUB

IDAHO CHAPTER

3. Redundant line does not provide backup power

Idaho Power’s proposed redundant line will not protect the North Wood River Valley from a repeat of the infamous December 24, 2009 outage.

All power flowing on the existing Hailey-Elkhorn Ketchum line, and any that would flow across the proposed redundant line requires power to be transmitted to the Wood River transmission station (see map below - note Wood River transmission station is often referred to as the Hailey transmission station or the Hailey substation). The Dec 24, 2009 outage was caused by failures on both the lines coming up to the Wood River transmission station (one from the King transmission station near Hagerman, the other from the Midpoint substation near Jerome).

If we had another outage like the one that occurred in December 2009 the NWRV would still be without power even with the proposed redundant line in place. The redundant line simply does not provide an independent power source, substantially limiting its ability to provide increased reliability.



* Note that “Wood River” is shown as a “Transmission Station”. Unlike the Hailey, Elkhorn and Ketchum substations, the Wood River transmission station doesn’t directly serve any customer load. It merely connects three transmission lines



SIERRA CLUB

IDAHO CHAPTER

Cold Weather Outage

Several of the characteristics of the existing line that Idaho Power argues make that line unreliable could be eliminated or substantially mitigated by rebuilding the existing line with steel structures.

A major focus of Idaho Power's message has been that relying on a single line exposes the NWRV to unacceptable risk of winter outage. However, in response to an information request submitted by a party to the PUC proceeding Idaho Power conceded that risks from avalanche, ice loading and wind events (as well as fire) could be substantially reduced through appropriate engineering and design of steel structures on a rebuilt line. Idaho Power's response states in relevant part:

“Neither (wildfire or woodpecker) threats would affect the new steel replacement structures. The new steel replacement structures could be designed to mitigate the threat from weather events such as avalanche, micro-burst wind, and ice loading but these threats cannot be eliminated. In particular, because of the extreme nature and unpredictability of avalanches, it is impossible to design structures that are entirely avalanche resistant. Threat from micro-burst winds and extreme icing events can also be mitigated but not completely eliminated. Idaho Power engineering will use its experience and knowledge to minimize the threats to the reconstructed line to the extent practical.”

Avalanche Risk

In 1995 Idaho Power retained Power Engineers to analyze the existing line's exposure to avalanche risks. That study concluded that the existing wooden structures could withstand expected avalanche loads and also identified the location of avalanche chutes. The quote above indicates that new steel structures could be even more resilient to avalanche loads than those wooden structures were.

Additionally, the avalanche chutes that Power Engineers identified are not as remote as Idaho Power often insinuates. Most of the potential chutes are adjacent to the Valley golf course. Others are along the East Fork road or near an existing access road running north from East Fork.

Extreme Wind Risk

Winds loads are relevant, especially considering the recent line failure near Jackson, WY this past winter. Reports from Jackson differ, some claim wind speed exceeded 100 mph at the time the line failed and others assert winds that exceeded 90 mph. Both those wind speeds are significantly higher than empirically verified wind speeds experienced in the Wood River Valley since 1973.

A review of records collected at Friedman airport shows high winds are infrequently recorded in the valley and even when recorded the highest speeds are in the low to mid 60 mph range. Considering the power of the wind is a function of its speed squared, even the lower Jackson estimate of 90 mph winds puts twice the load on structures as a wind of 63 mph. The Wood River Valley is relatively protected from extreme winds. If there is a risk of winds taking out relevant transmission lines, it is much more likely to occur south of the WRV where the lines feeding Hailey come up from Hagerman and Jerome.

A second, redundant transmission line running from the Wood River transmission station to the Ketchum substation does not provide an independent power source. A rebuild of the existing line on steel structures can reduce risks on what has already been an extremely reliable transmission line. And it's not just parties like the Sierra Club coming to these conclusions.

After reviewing the Company's application, the PUC Staff concluded that Idaho Power has failed to provide a compelling case for redundancy as the proposed second line is “a very expensive means to achieve a relatively small reliability improvement” (Morrison direct p11 lines 4-5).



SIERRA CLUB

IDAHO CHAPTER

4. FINANCIAL IMPLICATIONS

Adding a redundant line is financially beneficial to Idaho Power. Investing \$30 million in a redundant line would increase Idaho Power shareholder annual income between \$1.425-1.575 million in the first year¹. Shareholders will get repeating annual returns on the investment over the line’s estimated 70-80-year useful life.

While a redundant line is financially beneficial to Idaho Power shareholders, Sierra Club questions whether the marginal benefits of this project warrant significant cost imposition on customers generally and NWRV residents specifically. As we detail below, Sierra Club thinks both groups would be harmed by building Idaho Power’s proposed redundant line.

Shoo-fly Alternative better for Idaho Power customers

In their CPCN application Idaho Power laid out three rationales for building a redundant line

1. Needed for reliability (but see PUC staff comments – no compelling evidence)
2. Needed for future load growth (see Idaho Power retraction below)
3. Needed to facilitate rebuilding of existing line (see the following)

Idaho Power argues that one of the benefits of their redundant line is that such a line can be used to provide power while the existing line is being rebuilt. All parties seem to agree that the existing line needs to be rebuilt. One of the many places where the parties disagree is on the efficacy of using a temporary (often called “shoo-fly”) line to facilitate rebuilding the existing line. Take a look at the cost comparisons below.

	Proposed Redundant Line	Shoo-fly Rebuild
Cost of Proposed Partial Overhead/Undergrounded Redundant line	\$30 million	Not applicable
Cost to rebuild existing line using redundant line during outages	\$6.2 million	Not applicable
Cost to rebuild existing line including cost of temporary “shoo-fly” line	Not applicable	\$9.4 million
Totals	\$36.2 million	\$9.4 million

Sierra Club is not against Idaho Power investments that increase resiliency and provide for increased reliability (or the increased shareholder returns those investments produce). But Idaho Power’s proposed alternative is \$26.8 million more expensive than using a temporary line while re-building the existing Hailey-Ketchum transmission line. We can envision investing some of those \$26 million in grid-edge/distributed energy resources in ways that would provide better benefits to both NWRV residents and Idaho Power customers generally. Idaho Power customers deserve a solution that measurably addresses power reliability and community resilience. But to find the best solution the Company needs to fairly review alternatives and not just stick to a 19th century approach that only looks at adding more wires.

¹ Income estimate is based on the following calculation - \$30 million times 50% [accounting for 50-50 debt to equity split] times 10% +/- .5% [reflecting annual allowed target return on equity] equals \$1,425,000- \$1,575,000 annual return on their \$30 million investment.



SIERRA CLUB

IDAHO CHAPTER

In contrast, the redundant line could be financially harmful to North Wood River Valley residents. Based on PUC staff testimony undergrounding even the portion of the proposed redundant line through Ketchum could obligate NWRV residents to pay more than \$11 million.

NWRV residents to be charged for cost of Undergrounding

For years CAC members expressed concern related to the potential for WRV residents being charged the cost of any or all undergrounding on a redundant Hailey-Ketchum transmission line. In 2015 Idaho Power proposed a “creative accounting” method that would eliminate locals having to pay for undergrounding lines through the city of Ketchum. PUC staff have seen through this creativity. Staff testimony states, “In short, the Company’s proposed base case appears to be an inadequate, non-standard alternative used to justify the high cost of its preferred route” (Morrison direct p22 lines 20-22). Additionally, staff noted that “in the event the commission determines a second line is necessary, the City of Ketchum and other affected “cities/counties” should be prepared to provide the incremental difference in cost required to place those facilities underground”, estimated at more than \$11 million (Morrison direct p11 lines 4-5).

The issue arises from an accounting principle that if some locality desires a non-standard treatment (such as undergrounding lines to eliminate a visual impact) then the benefitted locality is charged for any additional costs of that arise from that non-standard treatment.

For years the CAC wrestled to balance a desire to reduce visual impact by undergrounding all or a portion of the redundant transmission line with the prospect of burdening NWRV residents with a hefty bill for that undergrounding. In 2015 Idaho Power found a new “standard” that eliminated the additional cost issue.

By creating a new standard (that conveniently cost just as much as the cost of their preferred partially undergrounded transmission line) the issue of any additional cost from non-standard treatment that would need to be borne by NWRV residents was eliminated.

The image to the right and the table on the following page provide some context.





SIERRA CLUB

IDAHO CHAPTER

Alternative	Estimated Price
1. Overhead Transmission	\$18.5 million
2. Partial Underground Transmission Line	\$30 million (TP1) \$32 million (TP2) \$35 million (TP3)
3. Sub w/Overhead lines	\$30 million
4. Sub w/buried lines	\$42 million

In their CPCN application Idaho Power presents four alternative methods for providing redundant transmission from Hailey to Ketchum.

Alternative 1 above involves building an above ground transmission line from Hailey to the Ketchum substation. Alternatives 2 though 4 all

involve building an above ground transmission line from Hailey at least as far north as the location identified as “TP-3” (transition point 3) in the image to the right.

Alternative 2 comes with three sub-alternatives that vary with where they would begin transmission line undergrounding. TP-1 (the alternative that Idaho Power prefers and which carries a project cost equal to the cost of their purported “standard”) involves undergrounding beginning at roughly Elkhorn Road. TP-2 starts undergrounding further south (and so carries a higher total cost estimate). Similarly, TP-3 is undergrounded even further south and carries an even larger cost.

Alternatives 3 and 4 involve building an above ground transmission line from Hailey to a point near TP-3 where a new substation would be built. Five new distribution lines would be run north from that substation to interconnect with distribution lines running from the existing Elkhorn and Ketchum substation. Alternative 3 would run these five new distribution voltage lines above ground from the new substation up to where they could be connected to existing distribution lines. Alternative 4 would underground the five new distribution circuits up to their interconnection points.

Version TP-1 of alternative 2 costs the same amount as alternative 3. Idaho Power used this cost equivalency to justify their selection of the substantially more expensive Partially Overhead / Partially Undergrounded (from TP-1 transition point) Transmission Line rather than the lower cost Overhead transmission (alternative 1). Alternative 2 costs no more than their “standard” alternative 3. Idaho Power argues it is an “economically equivalent alternate route” (Youngblood direct p 6 line 17)) and thus there is no additional cost for non-standard treatment to be charged to NWRV residents.

PUC staff disagrees with Idaho Power’s analysis arguing that the appropriate baseline against which to compare the cost of a new redundant transmission line some portion of which is undergrounded at additional cost is the cost of the same type of transmission line absent the cost of undergrounding. That is, staff says the \$30 million cost of Idaho Power’s TP-1 alternative should be compared to the \$18.5 million cost of alternative 1. The \$11.5 million of additional cost for undergrounding should be borne by “cities/counties” benefitted by the undergrounding, not Idaho Power customers as a whole.

There are multiple problems with Idaho Power’s argument that their alternative 3 (build a new substation and run 5 sets of new distribution lines north along highway 75 for several miles). Idaho Power can’t point to anywhere in their procedures there is any written documentation of this approach being a “standard”. They cannot point out a single instance where they have built a new substation that wasn’t used to provide distribution service to local loads but was constructed to substitute for building new transmission lines. The five lines running from this proposed substation would only carry provide half the capacity of the redundant transmission line Idaho Power suggest that they supplant. The interconnections between these five new distribution lines and the existing distribution lines would only be energized with some unknown period of delay after any outage was incurred. And, if we have had extensive discussion over whether to build one new set of lines in the area north of the TP-3 location,



SIERRA CLUB

IDAHO CHAPTER

could Idaho Power reasonably expect locals to prefer the building of FIVE new sets of wires along that same route?

Sierra Club agrees with PUC staff that the appropriate cost baseline for the redundant line is the \$18.5 million all overhead transmission. However, we don't believe accounting questions related to how much of the cost is allocated to NWRV residents is the primary problem. We think incurring the cost of a redundant line in the first place is the much more substantial cost issue.



5. Community Advisory Committee

In response to direction from the Idaho PUC, Idaho Power formed multiple Community Advisory Committees (CACs) across its service territory in the 2005-2007 timeframe. These CACs were designed to provide local input on siting issues associated with the Company’s building of new transmission lines. The CACs were set up for their expertise on local siting issues rather than being structured to answer technical questions related to power engineering.

Wood River Valley CAC

Wood River Valley residents provided long hours volunteering as members of the Wood River version of Idaho Power’s Community Advisory Committees (CACs). The Sierra Club’s perspective on the CAC is that while substantial work was done by both its members and Idaho Power, the scope of their mandate was too limited to fairly evaluate the spectrum of cost-effective alternatives. In particular, we believe the CAC’s review was fatally limited by Idaho Power’s insistence that reliability required redundancy supported by drastic over-estimates of future load growth.

Redundancy as a Goal

Idaho Power published the first version of its Wood River Electrical Plan in December 2007. The first goal in the 2007 Plan calls for “provid(ing) redundant transmission facilities throughout the Wood River Valley”. (see image below)

Idaho Power Company

Goals Document

The first step in developing proposed solutions to the electrical needs of the Wood River Valley was to develop a goals document that could be used to guide the committee’s efforts to develop and evaluate alternatives. The goals were divided into 6 areas:

- ➔ **Reliable Power:** Provide reliable power to the entire Wood River Valley
 - Provide redundant transmission facilities throughout the Wood River Valley
 - Provide sufficient reliable, quality power necessary to support the Valley’s current and future business and economic activities
 - Include Lincoln and Camas counties’ electricity needs

Because the only portion of the Wood River Valley without redundant transmission in December 2007 was the area north of Hailey, it is clear that the CAC’s work was from the start focused on siting a redundant line from Hailey to Ketchum. By establishing transmission line redundancy as a goal, the CAC process failed to fairly consider more cost-effective alternatives for providing reliable power to the entire Wood River Valley.

Inaccurate Load Growth projections

In 2007 Idaho Power presented CAC members with projections that total WRV electric consumption might more than triple (from 95MWs to 320MWs) and that of those 320MWs, load at the Ketchum and Elkhorn substations would double (to 80 and 40MWs respectively, 120MWs collectively). That 120MW NWRV load represented the maximum amount that could be transmitted on the existing line, thereby offering an “adequacy” based rationale to their “reliability” base when the Company argued for building a second Hailey – Ketchum line.

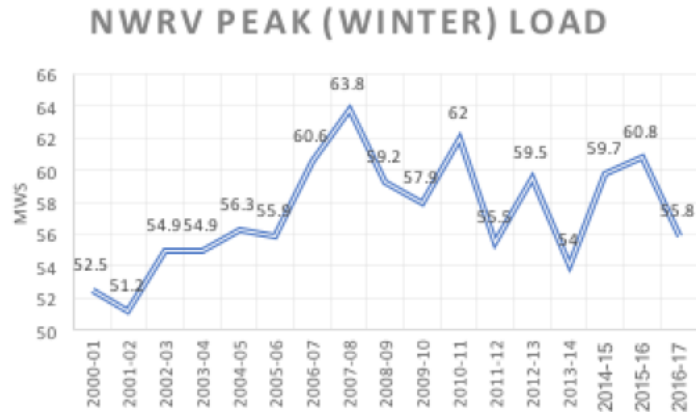
These load projections were calculated before the 2008 economic turndown. They did not take into account increasing efficiency of modern appliances and concentrated efforts to reduce energy use throughout Wood River Valley. As late as November 2016 Idaho Power did suggest on page 3 of their



SIERRA CLUB

IDAHO CHAPTER

CPCN application that there remained a “need to serve growing load” in the area. In fact NWRV loads have declined since 2007 (see graphic below).



Now, the “adequacy” argument has largely been laid to rest. The existing line can provide 100-120MWs of capacity at all times of the year (less in summer due to line heating, more in winter). As is shown in the graphic above, maximum loads in the NWRV have been flat to declining for the past decade and do not approach the existing line’s capacity of 100-120MWs. Now, even Idaho Power (through Dave Angell’s PUC testimony offered in rebuttal to Sierra Club) concedes that the “proposed transmission line is not required to address forecasted peak demand beyond the capacity of the existing transmission line” (Angell rebuttal p17 line 3-7).



SIERRA CLUB

IDAHO CHAPTER

6. OTHER ALTERNATIVES

Technology has advanced dramatically since 2007 when the CAC was set on its course to site a redundant Hailey-Ketchum transmission line. There are now alternatives that offer better local resiliency at a lower total cost than Idaho Power's proposed redundant transmission line.

One potential alternative involves combining a rebuilt line on steel structures along the existing right-of-way with some set of distributed energy resources. While a cursory analysis of alternatives was done by Idaho Power based on requests from CAC members, that "analysis" was riddled with analytical deficiencies, including the following:

- Used Idaho Power's redundant line proposal as baseline against which alternatives were compared rather than comparing alternatives by how well they serve a need for reliable service;
- Assumed the outage occurred during winter peak load lasted for a duration of 24 hours ignoring the fact that outages caused by the existing line have been rare, short-lived, and show no seasonal pattern;
- Substantially over estimated the costs of DERs;
- Failed to capture potential synergies between alternatives, resulting in inappropriate conclusions about the real world function of distributed energy technologies; and
- Focused solely on costs ignoring the benefits that DERs could provide.

Another alternative that was not given fair evaluation involved the use of a temporary "shoo-fly" line to provide a power source while the existing line would be re-built. Although some CAC members remember cursory discussions related to a shoo-fly line, when asked formally in the PUC CPCN docket whether a shoo-fly option was presented to the CAC, Idaho Power replied that it was not presented. Idaho Power explained that a shoo-fly option was not presented because use of a shoo-fly was inconsistent with the CAC goal to "Provide redundant transmission facilities throughout the Wood River Valley" (Rock Rolling PR #15).

Throughout the CAC process Idaho Power has pushed for a redundant line, ignoring potential alternatives. Sierra Club believes that North Wood River Valley residents and all other Idaho Power customers deserve a fair analysis of alternatives before any redundant line receives either PUC or Blaine County approval.



SIERRA CLUB

IDAHO CHAPTER

(7) Status of current PUC and Blaine County reviews

Both the Idaho PUC and Blaine County Commissioners will be holding hearings in the Wood River Valley related to Idaho Power's proposed redundant line. The Public Utilities Commission has scheduled their Public Hearing for July 26th and the Blaine County Commissioners have scheduled a hearing on August 1st. As each body of commissioners are forming a final opinion we believe they should give careful thought to the following when contemplating how they will rule on their respective dockets.

There is no compelling reason to build the proposed redundant line. The existing line is nearing the end of its useful life and should be rebuilt. Using a temporary shoo-fly line to provide power while re-building the existing line can facilitate the re-building process. Re-building the existing line (including the cost of the temporary shoo-fly line) is much more cost efficient than both building the proposed new line and re-building the existing line.

Even if the existing line is rebuilt, there remains some residual reliability risk based on low probability events (such as earthquakes or plane crashes). Combining some amount of local generation and storage (distributed energy resources or DERs), especially if focused on supporting critical loads, with a re-built line is the best practice for addressing the reliability risks associated with such low probability events.

The CAC members worked diligently but they are not technical experts. The Company does not propose to start construction for a couple more years. Sierra Club does not believe the current PUC record contains adequate information to address the relevant open issues. We have time to conduct additional, needed review. We think the public interest would be best served by holding off on final decisions on the PUC and Blaine County reviews until some competent, independent technical review of alternatives to Idaho Power's proposal can be completed.

Technical analysis led by Michael Heckler, Energy Chair of the Idaho Sierra Club