BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

IN THE MATTER OF IDAHO POWER COMPANY'S

Docket: PCN 5

Opening Brief

PETITION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Intervenor: Wendy King

Date: May 15, 2023

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Introductio:n I will bring forward issues regarding Idaho Power B2H transmission line pertaining to fire risk and public safety. Idaho Power's evaluation of alternate routes and availability of newer routes that provide heightened public safety and achieve Land Use objectives.

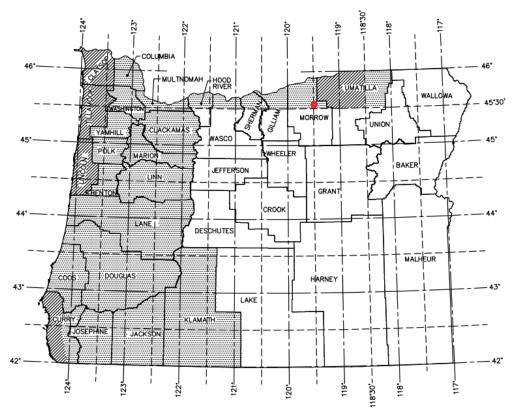
Public Safety: 860-025-0035(1) (b)

Myers Farm located in Morrow County is located in an elevated wind zone as noted in Morrow County Building Code Maps.

Exhibit: 1



Combined Oregon Wind Speed Map



- All areas with full exposure to ocean winds shall be designed to the highest wind speed for that Risk Catagory.
- 2. Areas in Hood River and Multnomah Counties with full exposure to Columbia River Gorge winds shall be designed to the highest wind speed for that Risk Catagory.

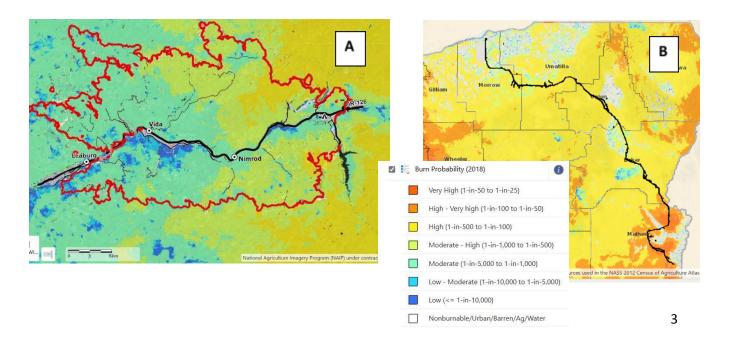
	RISK CATAGORY I	RISK CATAGORY II	RISK CATAGORY III & IV	
	125 mph	135 mph	145 mph	
L	115 mph	120 mph	130 mph	
Ī	100 mph	110 mph	115 mph	
		For SI: 1 mile per hour = 0.44 m/s		

The building code map shows the location of Myers agriculture operations in Morrow County indicated by a red dot. The shading on the map correlates to the table above (framed in red) indicating the building type and the wind speeds those structures should endure. This reference provides solid proof that safety is a concern in high wind areas and that Mr. Myers' Agriculture operations are in an above average wind location. Mr. Myers has proposed an alternate route that directs the line south and out of dangerous high wind areas of Morrow County to provide better public safety.

Comparison of Myers' agriculture operation environment to the Sept 7, 2020 Holiday Farm Fire conditions is relevant, as wind was the driving force in the +173,000 acre devastation. The availability of tinder dry fuel on Myers Farm dryland wheat crops is equal to or greater than the Holiday Farm pre-fire environment. Fire potential is extreme in the time of year that the wheat fields are mature, then harvested and left through next season as chem fallow where straw is left standing above ground to keep soil protected from wind erosion and to retain moisture until prep for seeding. Therefore, the fuels for fire are readily available and present under and around the B2H transmission line in Morter and Myers agriculture operations because it is sited in the middle of fields, not along roads or natural boundaries that create fire breaks.

While Idaho Power is pinning their argument that the Holiday Farm fire was not caused by a 500kV transmission line, they cannot dispute the fact that it was caused by a 115kV transmission line. The fact that wind created the ignition and wind further fanned and pushed it out-of-control in a low to moderate burn probability environment makes fire ignition on Myers' agriculture operations even more probable. The transmission line alone is a risk for igniting the surrounding fuels; and the risk is further increased because of the mere presence of the line and towers (construction, Right of Way opportunity of public access, operational maintenance, lightning attraction).

Exhibit A 2018 Oregon Wildfire Risk Explorer Tool with Holiday Farm burn perimeter overlay **Exhibit B** 2018 Oregon Wildfire Risk Explorer Tool with B2H transmission line overlay.



Sources of Ignition: Transmission Line Ignition

The proposed B2H route travels through Morrow County, where there are documented wind speeds that can affect the integrity of the transmission line. Because the towers are designed to withstand 120mph and the lines to withstand 100mph, the result in a high wind event would indicate that the line would fail or break before the tower would fail. This characterization would be evidence of an opportunity for ignition.

B2H is designed with a wind loading of 120 mph on the lattice towers and 100 mph loading in wire... Idaho Power/1900 Stippel/3

Exhibit U – PublicServices (oregon.gov) Idaho Power September 2018; June 2020 (Modified by Oregon Department of Energy during ASC – PO Phase)

....transmission line protection and control systems will be incorporated into the system and are designed to detect faults (such as arcing from debris contacting the line) and will rapidly shut off power flow (in 1/60th to 3/60th of a second) if arcing is detected. Page 7

While the fault detection is a solid safety feature, it does not remove the point of ignition from an arc. The best opportunity to mitigate a point of ignition, is to build the transmission line on surfaces that are less flammable, over more moist fuels, and in environments of less wind.

Exhibit U – PublicServices (oregon.gov) Idaho Power September 2018; June 2020 (Modified by Oregon Department of Energy during ASC – PO Phase)

Sources of Ignition: Construction

The risk of fire danger during transmission line construction is related to smoking, refueling activities, operating vehicles and other equipment off roadways, welding activities, and the use of explosive materials and flammable liquids. During operation, the risk of fire is primarily from vehicles and maintenance activities that require welding. Additionally, weather events that affect the transmission line could result in the transmission line igniting a fire. Page 1.

The alternate route Mr. Myers proposes places the line out of cropland and into lower value soils and closer to existing roads. OAR 860-300-0030 (1)(a)(B) The alternate route promotes fire suppression and public safety.

Sources of Ignition: Right of Way/Access Roads

3.1 Operation During transmission line operation, the risk of fire danger is minimal. The primary causes of fire on the ROW result from unauthorized entry by individuals for recreational purposes and from fires started outside the ROW. In the latter case, authorities can use the ROW as a potential firebreak or point of attack. During transmission line operation, access to the ROW will be restricted in

accordance with jurisdictional agency or landowner requirements to minimize recreational use of the ROW. Page 5.5

In the situation that a ROW is placed in the middle of cropland, where no fences exist, it would be useless to erect gates to ROW roads. As in the case of Morter and Myers cropland, access to a right of way can be accomplished at any point from the roads that border their fields. Furthermore, Idaho Power has provided no information to determine if a ROW will retain an access road or if the land is returned to farming without a road and therefore no future operational maintenance access point. In that case, if operational maintenance workers must access the towers and drive through a mature wheat crop, their vehicles will provide another point of ignition.

While IPC's Fire prevention and suppression plan identifies these risks, there is no mitigation plan for consequences to crop and soil loss if their project causes a catastrophic fire. IPC's 2023 Wildfire Mitigation Plan is a generic attempt to evaluate, prevent and address fire; however, it has not prepared anything of substance beyond its service territories. It is not thoroughly addressing Oregon properties beneath B2H.

A point of concern is the lack of acknowledgement that valuable cropland is indeed an element of consequence and compares to structures (currently considered a consequence) in terms of value as part of the Fire Potential Index (FPI). Loss of a crop from a fire is only the beginning, and loss of soil is another long-term consequence. Idaho Power is going to deflect and ignore these issues unless the commission denies their petition and forces them to address it. Only after a denial of their petition will Idaho Power be motivated to amend their Fire Prevention and Suppression Plan and uphold Oregon's Land Use requirements. ORS 215.243

The following proves the consequence of fire in EFU croplands:

Researchers have described the actual soil/fire dynamics that cause the yield limiting impacts to our soil in the following resource.

(Dryland Ecohydrology: Chapter 2) "The postfire increase in runoff and soil erosion was initially attributed to the loss of infiltration capacity due to rain splash and soil compaction. In addition, fires were believed to decrease surface soil permeability by clogging the soil pores with ashy particles (DeBano 2000). Krammes and DeBano (1965) showed that the decrease in infiltration capacity is in large part associated with water repellency developed by the fire at the soil surface or at shallow depths. Organic compounds of chaparral and other vegetation types are volatilized by the fire and transported downward into the soil by the strong temperature gradients existing through the soil profile. These gasses condensate at a certain depth (of only a few centimeters), developing a hydrophobic coating around the soil particles (e.g., DeBano 2000). This effect depends on the fire regime (Chap. 14), in particular on fire temperature, as repellency is observed to develop neither with relatively low (e.g., T < 175 C) nor with high temperatures (T > 300 C) (e.g., Doerr et al. 2000). The organic

compounds released by the fire affect the physical-chemical properties of the grain surfaces, possibly forming a hydrophobic layer and influencing the infiltration processes (Letey 2001). Thus, fire occurrences have important ecohydrological implications because the increase in runoff and the associated erosion of the soil surface redistribute water and nutrients, while the heterogeneity of burnt areas partly contributes to the emergence of patchy patterns of vegetation."

Above is a detailed explanation into the damaging effects of fire on our soils.

List of impacts:

- 1. Increased water runoff
- 2. Increased soil erosion
- 3. Loss of soil water infiltration (hydrophobic coating around soil particles and seals in soil nutrients)
- 4. Produces poor crop emergence and patchy vegetation

The book describes in detail what extension agents, Oregon State University researchers, and local farmers understand about the yield impacts from fires which our soils are vulnerable to.

DIRECT TESTIMONY OF PETITIONER SAM MYERS; ISSUE LU-9 DATED SEPTEMBER 17, 2021 OAH Case No. 2019-ABC-02833, Stop B2H/100 Kreider/1012 Page 2-6

Whether Applicant adequately analyzed the risk of wildfires from operation of the proposed transmission lines, especially during "red flag" warning weather conditions.

Question: Mr. Myers, you are giving testimony regarding the risk of wildfire danger during operation and the consequential soil damage and whether the B2H transmission line project proposed by IPC has mitigated that danger and rehabilitation treatments. Can you briefly share your qualifications?

Answer: I have standing with Wildfire Risk (OAR 345-022-0030) as a limited party petitioner. Additionally, I am a local farmer and have over five decades of full-time experience. I have a lifetime lease with my parents on dryland farm ground that the B2H transmission line directly traverses. My family has farmed the same land for over a century and I have personally witnessed the effects of fire and the damage it causes to the soil both immediately and over time.

Question: In your analysis of the Proposed Order (PO) does IPC admit to the risk that the operation of the proposed transmission lines will start fires? **Answer:** Yes. Their admission is found in Attachment U-3: Draft Fire Prevention and Suppression Plan. Listed below, IPC admits, during operation, weather conditions are contributing factors to line ignition. "During operation, the risk of fire is primarily from vehicles and maintenance activities that require welding. Additionally, weather events that affect the transmission line could result in the

transmission line igniting a fire." Attachment U-3 Draft Fire Prevention and Suppression Plan, September 2018; June 2020. Page 1

However, in the PO they fail to admit weather conditions are contributing factors to fires during operation. In fact, as seen below, they completely omit the confession in the PO: "During operation, the risk of fire would be primarily from vehicles and maintenance activities that require welding." ODOE - B2HAPPDoc2-1 Proposed Order on ASC w Hyperlink Attachments 2019-07-02. Page 46 of 699

Question: Does IPC have a plan that minimizes the ignition risk from the powerline or transmission towers during operation and provide immediate fire suppression?

Answer: IPC does claim in Attachment U-3: Draft Fire Prevention and Suppression Plan to have standards and practices in place for such risks during construction or maintenance. However, after reviewing both the PO and the above document, no such plan exists to minimize risk for fires caused by the combination of weather events and tower/line operation. Though they admit this is a valid risk, the plan does not contain any specific methods or equipment design that actually minimizes fire ignition. Whatever plans or standards IPC has, admittedly, does not completely mitigate the risk of the transmission lines igniting a fire. They admit that the risk is 'minimal,' but not zero. In my opinion, they completely downplay the potential for a catastrophic fire event caused by the transmission lines. In recent fires occurring in Oregon and surrounding states, we can clearly see that the impacts and risks are anything but 'minimal'.

Question: Does IPC identify the weather events that may cause transmission lines to ignite fires during operation?

Answer: No. Besides the brief admission in Attachment U-3: Draft Fire Prevention and Suppression Plan that such an event could occur, there is no other mention of 'weather events that affect the transmission line' being the source of fire ignition. Though IPC does admit in the PO excerpt, referenced below, that operational fire-related risks do exist, contradictory to their claim in the above document, weather events is not listed as one of those risks. "While uncommon, the operational risk of the proposed facility igniting a wildfire may be caused by overgrown vegetation contacting the transmission line, a tree falling on the transmission line, or from equipment failure." ODOE - B2HAPPDoc2-1 Proposed Order on ASC w Hyperlink Attachments 2019-07-02. Page 588 of 699

Question: Has IPC adequately analyzed the weather conditions known as 'red flag' warnings or high winds as they relate to in operation transmission lines igniting fires?

Answer: No. They have omitted both from being sources of operational fire ignition. The majority of their transmission line traverses areas in Eastern Oregon known for such reoccurring red flag warnings, which include high winds, low humidity and flammable landscape. Based on an excerpt from Power Lines and

Catastrophic Wildland Fire in Southern California, attached below, such conditions highly contribute to a catastrophic event occurring. Yet, IPC has not addressed nor analyzed such an event occurring during operation, though the majority of their line, and the land they will be constructed on, is directly impacted by such weather events. One could easily see by looking at recent fires in both California and Oregon, powerline operation combined with low humidity and high winds have been responsible for these catastrophic events. "Fires starting under high-wind conditions have been shown above to be larger than fires starting in calm conditions, even when including other weather variables such as relative humidity. The tendency of power line fires to become more frequent during extreme events, such as in October 2007 when they were responsible for up to nine of 20 major fires, is due to the fact that the ignition probability rises under high-wind conditions as well." Power Lines and Catastrophic Wildland Fire in Southern California: Mitchell, Joseph W

Question: Based on these findings Mr. Myers, does IPC have a mitigation plan for suppressing and extinguishing such catastrophic fires?

Answer: The only fire plan IPC has stated, is that the responsibility and management of such an event relies solely on local fire districts within the transmission line ROW. However, as stated below in the PO, privately owned land accounts for seventy-two percent of the transmission line, most of which are managed by rural, volunteer fire departments with limited personal, most of which are local farmers, and equipment. Not to mention, the response time in such areas varies widely. From personal experience, I know with most of the landscape containing combustible material, the likelihood of a fire spreading quickly and becoming out of control before adequate resources can reach it, is a high probability. It is my concern that these services would be completely overwhelmed responding to a catastrophic fire. "As described in ASC Exhibit U, federal agencies are responsible for fire suppression efforts on federal lands in the analysis area, including BLM-managed and National Forest (NF) lands. The BLM has jurisdiction over fire suppression on BLM-managed lands; the USFS has jurisdiction over fire suppression on NF lands.580 The State of Oregon is responsible for fire suppression on state lands. The Oregon Department of Forestry is the primary wildland fire protection agency on forested private and state lands and much of the non-forested lands. Municipal fire departments and rural and rangeland fire districts are the primary responders for incidents on private land. The applicant explains that approximately 72 percent of the land within the site boundary is privately owned. The BLM manages about 25 percent of the land in the site boundary, with the remaining three percent managed by other federal (USFS and U.S. Bureau of Reclamation) or State agencies. Table PS-9, below, summarizes staffing levels, equipment, and estimated response times for fire departments, rural fire protection districts, and rangeland fire protection associations that respond to incidents on privately-owned lands

within the analysis area." ODOE - B2HAPPDoc2-1 Proposed Order on ASC w Hyperlink Attachments 2019-07-02. Page 578/579 of 699

Question: Has IPC adequately analyzed the risk of placing a 500-kilivolt transmission line in Morrow County, which currently does not have any lines of such voltage?

Answer: No. It is my contention that the local area and its weather concerns deserve more study to determine if the potential fire ignition risks involved with this high voltage line are much greater than previously assessed.

Question: Has IPC adequately evaluated the risks of extreme whirlwind events? **Answer:** No. In my experience, in this area, we have seen whirlwinds reaching hundreds of feet tall, which could directly interact with the transmission lines creating a reaction discussed below. These, so called 'dust devils', create a vertical column of dirt and this weather/soil phenomena occurs over plowed ground which is common to this landscape. It is my concern that under the perfect conditions, these whirlwinds could create an electrical pathway in the dust column which could create a spark arcing between the transmission line and the ground. Thus, becoming a potential ignition source. This argument is supported in below excerpt of the Electrification of Particulate Entrained Fluid Flows – Mechanisms, Applications, and Numerical Methodology. "Electric fields in wind-blown sand flows, dust storms and dust evils could be as strong as several kilovolts per meter which may introduce flashover and breakdown of transmission lines, attenuation (or even interruption) of electromagnetic wave propagation, etc... In strong sand storms, E-fields produced by charged sand particles could potentially lead to many failures, such as electric spark, electric corona and point discharge of measuring instruments." Electrification of Particulate Entrained Fluid Flows – Mechanisms, Applications, and Numerical Methodology. Zhaolin Gu, Wei Wei, Physics Reports; 2015

Question: Does IPC have any mitigation plans in place to rehabilitate soils damaged in a catastrophic fire?

Answer: No. IPC seems to be unaware that long-term soil damage occurs in catastrophic fires. In the testimony referenced below from local farmer, Roger Morter, after a localized fire, that occurred shortly after a wheat crop was harvested, we see a crop yield decrease over the next three cropping cycles which encompass an eight-year span of negative soil impacts. These impacts were immediately present in the soil and lessened over time, directly effecting each year's harvest yield. Mr. Morter points out that in his case relatively small acres were affected, however, if a fire were to occur on a larger scale it would be mortally damaging to the livelihood and sustainability to dryland the wheat farm. Thus, soil rehabilitation would be a necessary expense to heal the soil. If IPC is placing their transmission line on ground that could potentially be impacted and damaged through a catastrophic fire to the point of affecting local livelihoods,

IPC better have such a plan in place for immediate soil rehabilitation or compensation.

Exhibit 2: Letter from Roger Morter

"To Whom It May Concern: Below is the account of the effect and subsequent aftermath that fire had on soil used for wheat production on my farm in Morrow County, Oregon and is an example of the long term danger posed by fire risk. In August of 2012 there was a fire that occurred on approximately 10 acres of a field that I own and that I have farmed since 1985. The fire was due to an ignition caused by a passing car on a nearby roadway. As previously mentioned the fire burned the remaining residue that was left after harvest (4-5 weeks prior to fire, the field was harvested). Due to the protection of the residue being removed and the heat of the fire the soil was subsequently damaged by reduction in both the lack of the conservation action that is normally due to residue coverage, and the heat killing the microbial population that lives in the top soil. In addition, the damaged acres were more subject to noxious weed populations also as a result of the removal of the residue. As a result of these conditions the next crop year produced approximately 21% less crop yield than comparable acres. The second crop year the yield was approximately 14% less. The third crop year the yield was approximately 6% less. The fourth crop year the soil was almost back to "normal", however the noxious weeds were still present and not fully in control due multiple crop years where the crop failed to thrive. Between the loss of crop production as well as the increase cost of weed control these acres were farmed at a loss for a total of 8 years. Had this been a wide spread event on more than just small acreage, such an event would be mortally damaging to the livelihood and sustainability to dry land wheat farm. Thanks to new conservation practices and no till or minimum till farming the residue left on the ground after a crop is harvested not only serves as a barrier to wind and rain erosion (protecting the top soil) but it also acts as a natural barrier to noxious weed populations. The protection of this residue is of paramount importance to a sustainable farming system. Putting this resource at risk is putting valuable land and resources in jeopardy which will have a chain reaction on the ecosystem as a whole." Direct Email from Roger Morter, 2021, Stop B2H/100 Kreider/1012 Page 2-6

Please note the following photo of Roger Morter's wheat field fire. It was most likely ignited by a vehicle along Myers Lane. Mr. Morter and other landowners, including Mr. Myers, fought the fire. This response is typical in rural Morrow County because fire suppression agencies are located many miles away. Landowners in this rural landscape understand the importance of an immediate approach to fire engagement because fuels are dry and winds can progress fires very quickly. Myers farm owns a truck with a 2,000-gallon water tank which can be summoned only to the nearest adjacent road. It serves to refill smaller trucks carrying 200-gallon tanks with pumps & hoses to drive into fields and rangeland to extinguish fires. The fire history in this area most likely has not been written up or referenced because many landowners are proactive in

fighting and extinguishing fires as quickly as possible utilizing their neighbors as support. I provide this narrative to support why historical information is not often available.



Exhibit 3: Morter Cropland Fire Image from 2013 fire ignition undetermined.

Location: 45°31′55.05 N, 119°29′05.54 (2.5 miles south of proposed route)

Please note the following conflicting testimonies pertaining to soil damage by fire and how Idaho Power uses the testimony to avoid Mitigation.

Exhibit 4: Mr. Madison's Testimony in Final Order, Attachment 6 at 8844 of 10603

"...If a fire were to occur at or near Mr. Myers' agricultural operations, the fire would most likely result in minimal damage to soils. As Idaho Power's soil expert Mark Madison explained, the fuel source would be mostly herbaceous, grass or grain vegetation. The low-intensity fire would likely move quickly through the fields due to the presence of higher winds in the area, and low-intensity, fast moving fires do not cause significant damage to soils. Consequently, Mr. Myers challenge to the proposed facility's compliance with the Land Use Standard on this basis is unpersuasive."

Exhibit 5: Mr. Madison's Testimony in Final Order, Attachment 1 at 8725 of 10603

If a fire occurred near Mr. Myers' agricultural operations, the fuel source would be mostly herbaceous, grass or grain vegetation. The timing of the fire will determine the fire conditions. The most likely time of year for a fire to move through his property is later in the growing season, when fuel sources are quite dry. This may result in a <u>high intensity fire</u>, but the fire would likely move quickly through the fields due to the presence of higher winds in the area. A fast-moving fire would not cause significant damage to soils. Moreover, a fast-moving fire may have other benefits to the burned area including reduction of viable weed seeds and reduction of disease and insect and rodent incidence. Burning also releases nitrogen, potassium, phosphorus and other nutrients from undecomposed organic matter to the soil."

I object to both of Mr. Madison's Testimonies. He states the fires would be low-intensity in one testimony and then high-intensity in another testimony. By contradicting himself he loses credibility. His logic uses vague terms of "most likely" and "would likely move..." His expert testimony may be correct in other locations, his argument lacks specificity, while the testimonies of Mr. Morter and Mr. John Myers provide actual detailed experiences of soil destruction from fire.

I object to Mr. Lautenberger's reference to: "Further, the hearing officer agreed with Mr. Madison's conclusion that even if a fire were to occur on Mr. Myers property, the damage to soil would be minimal." Idaho Power/2300 Lautenberger/25

Had the hearing officer been informed of these additional testimonies, the conclusion I believe would have been much different.

Exhibit 6: John E. Myers Testimony - March 18, 2023

For many years we have battled rye in our wheat fields. We were eliminating the problem by pulling or cutting / packing the heads out of the field in sacks. But one spot we just could not control and fire seemed to be the only solution. We were using a crop / fallow cropping system and during the 1981 wheat harvest of Township 1 North, Range 27 East - Sections 17 and 8, we decided to combine / harvest the wheat up to the edge of the rye patch which was near the Southwest corner of section 8. After harvest we had a 5+ acre patch of dense rye with stunted wheat that was ringed with two passes of our disc plow. On the morning of August 11, 1981, with a gentle southerly flow of air we ringed the patch with fire. We used the water truck to control fire in the disced area through the next 3 or 4 hours. At this time we judged the operation a success.

- 1 year later (in a fallow condition) I noticed when rod weeding, a much finer soil texture which lifted very easily in the wind. Well of course, we burned all the straw which would have been incorporated into the soil. That fall we seeded wheat, as usual.
- 2 years after the burn, now at harvest time, that burn patch had sparsely populated, half height, stunted wheat plants with shriveled kernels. With the microbes and organic matter destroyed in that soil, not even weeds grew! We had to admit the decision to burn was a mistake in that it destroyed many soil

properties. Now we had to approach this soil MUCH differently, with limited tillage.

- 4 years after the burn the wheat population was better but still suffered half height, stunted plants. I believe we fertilized the entire field with anhydrous ammonia that following fallow year.
- 6 years after the burn we could tell the soil was healing. The wheat was yielding 70 75% of close-by wheat in the same field.
- The 8th year was much better. This semi arid region cannot produce yearly crops. Healing of our fire impacted soil can only be accomplished over 4 to 5 crop / fallow sequences, which even at the 10th year we could still see the distinct area of the fire. I spoke with Cascade Agronomics on March 6, 2023 and they have a "Screened Steer Manure" product that they apply on various soils with various conditions / requirements and replenishes microbes and organic matter. The Rep. recommended for a fire repair treatment, 10 tons per acre. The cost per acre of product, application and trucking the product to the field is \$436.50 per acre. These fire acres of which I testify are exactly under the proposed B2H



transmission line at mile 25 - 26 in section 8, Township 1N Range 27E

Respectfully Submitted, John E. Myers, Pres. Myers Farm Co., Inc.

Exhibit 7: Testimony in Final Order, Attachment 6 at 8843 of 10603:

"...Fires caused by 500kV transmission lines are exceedingly rare. Moreover, historically, wildfires in the area near Mr. Myers agricultural operations have been relatively small and quickly contained. Given the improbability of a project-related wildfire disrupting Mr. Myers agricultural operations, there is no

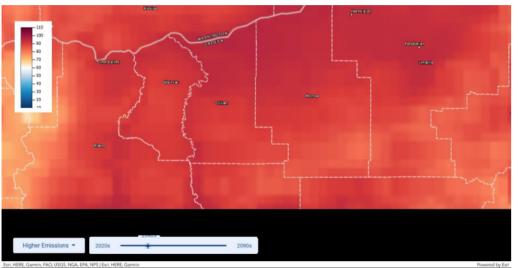
need for Idaho Power [to] have a soil rehabilitation plan in place for Mr. Myers' agriculture land."

Because Idaho Power claims low probability of a project-related wildfire, then why wouldn't they have a soil rehabilitation plan in place? According to Idaho Power it would be a rare occasion and in turn rarely used. The rejection of having a soil rehabilitation plan proves that Idaho Power does not trust its own analysis of wildfire probability in the area of Mr. Myers dryland wheat agricultural operation. OAR 860-025-0035 (1) (b)

The above images prove that there are historical fires under 500kV transmission lines and in locations where the B2H route is proposed. Dryland wheat cropland is exceptionally flammable and should be protected ahead of rangelands and marginal lands because of its value to Oregon's Agricultural Economy. PCN 5 Intervenor Cross-answering and Rebuttal Testimony Sam Myers Date: March 20, 2023 Page 11-13

Additionally, climate change as expressed in the PO may make soil rehabilitation efforts from fire damage more challenging and less effective. I do not see a mitigation plan that encompasses these difficulties. Stop B2H/100 Kreider/1012 Page 2-6

Exhibit 8: crt-climate-explorer.nemac.org Fire Climate Map showing predicted temperatures in



Fire Climate Map showing predicted temperatures in 2040.

2040.

Wendy King/200 Pg. 6

Sources of Ignition: Other

The variety of ignitions not caused by B2H in operations can be exacerbated by the line because while the line is energized, fire suppression is dangerous and must be delayed in order for authorities to request a De-Energization. This delay in time gives fire freedom to progress, expand and destroy valuable cropland. A delay in suppression places more people and structures at risk.

Exhibit 9:

3.1 A contact number directly to Idaho Power's 24/7 dispatch center will be provided to all necessary agencies for notification purposes. Upon being notified of a fire, Idaho Power dispatch will gather as much information as possible and immediately dispatches appropriate personnel to monitor the fire and/or coordinate with onsite emergency agencies. Once onsite, and if requested, Idaho Power personnel will confirm facilities to be removed from service for safety of fire personnel and communicates this back to Idaho Power dispatch. Idaho Power dispatch then removes the line from service, relaying that information to the Idaho Power onsite personnel, who in turn communicates the condition to onsite emergency agencies. Response time will vary, based on initial notification times to Idaho Power dispatch. Once onsite, Idaho Power personnel requesting a line outage for safety concerns can expect a line outage within a few minutes. The line would then be considered unavailable to return to service until onsite Idaho Power personnel are able to verify with onsite emergency agencies that all personnel and equipment are no longer in danger of electrical contact. Exhibit U -PublicServices (oregon.gov) Idaho Power September 2018; June 2020 (Modified by Oregon Department of Energy during ASC – PO Phase) Page 5.5 Wendy King Cross Examination Statement and Exhibits April 12, 2023 pg17

This plan is not considering the amount of time the "appropriate IPC personnel" will take to arrive on the scene of a fire, monitor the fire, and coordinate with onsite emergency agencies. Personnel will not notify dispatch to remove the line from service and confirm the necessity of emergency agencies to address the fire until they have appeared on site by request. The real problem here is timing.

That begs the question: Where is that IPC personnel coming from? Hemmingway? This plan might have credibility if there were a guarantee that IPC personnel were located and available 24/7 at marked locations along the route. Oregon landowners who live and work under the line are not allowed to possess the 24/7 dispatch phone number; nor are they trusted to request a de-energization of the line in case of emergency.

EVIDENTIARY HEARING APRIL 20, 2023, CROSS EXAM OF Chris Lautenberger:

Mr. Lautenberger: I'm maybe reading between the lines a little bit here, but I think what you're talking about is not a public safety power shutoff, but rather a landowner requesting de-energization of a transmission line.

Q. Ms. King: Yes. I think that would be appropriate to the -- to accomplish the end goal of fighting a fire, enabling a landowner to fight a fire. I think you're correct. Would then the landowner be able to request a de-energization?
A. My understanding from the Wildfire Mitigation Plan is that the dispatch center will take requests from firefighting professionals and not necessarily landowners.
And again, as this is outside of really my direct involvement, I would defer to Idaho Power personnel to amend.

Cross Examination of Chris Lautenberger Transcript 4-20-2023 pg. 233

If a landowner is not entitled to request a de-energization, then he cannot safely address a fire within close proximity of the transmission line for fear of electrocution since the smoke from a fire may create a fatal arc.

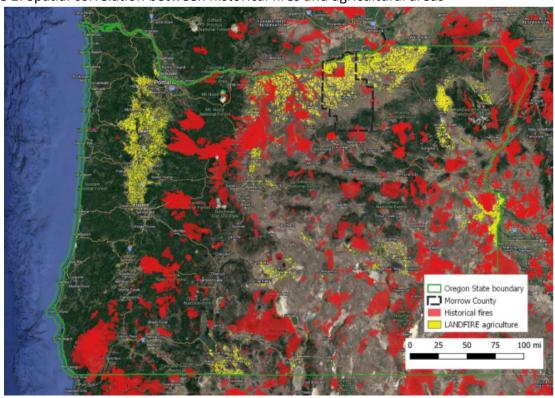


Figure 2. Spatial correlation between historical fires and agricultural areas

Idaho Power/2300 Lautenberger/14

Q. Ms. King discusses Idaho Power's evaluation of fire risk using the LANDFIRE program, and notes that fallow fields are considered as static conditions in this evaluation while they should be considered dynamic conditions. Is this an accurate characterization of the LANDFIRE tool?

A. Yes, LANDFIRE assigns a single surface fuel model to each pixel and that fuel model does not change throughout the year. Irrigated agricultural areas are treated as non burnable in LANDFIRE, which is consistent with industry practice for assessing risk associated with irrigated agricultural land. Idaho Power/2300 Lautenberger/14-15

The Landfire tool that Mr. Lautenberger is using doesn't take into consideration that Mr. Morter's and Mr. Myers' cropland is dryland wheat, which is <u>not irrigated</u>. The old interpretation of fallow is a stubble field in which the stubble is plowed into the soil. The majority of fields in the area of Myers' agriculture operations are using chem fallow, which leaves the stubble standing in the field and uses chemicals to control weeds in the next season. Non-irrigated chem fallow is not being taken into account in the Landfire tool and therefore underestimates the fire potential. This piece of local knowledge is exactly why Idaho Power needs to take notice of and account for local conditions in which they intend to place their transmission line. Mr.

Lautenberger would like you to believe that this specific location is somehow irrigated and non-burnable and attempts to tie that to an industry practice for assessing risk. He is applying the industry practice risk assessment for a completely different type of agriculture land.

If Mr. Morter and Mr. Myers agricultural cropland had been irrigated, it might have been avoided in the siting studies because it would have been labeled "High Value." However, because it is dryland wheat cropland, it not only bears the full brunt of a sited transmission line, it also must absorb the full risk of fire potential because it is not irrigated.

A close look in the Morrow County section of the above Landfire Map reveals the red areas that are labeled "Historical Fires," which are located in the Bombing Range near Boardman and in the midline next to Umatilla County. Mr. Lautenberger pointed out the fire history of the Bombing Range is of no concern because those federal activities of human fires are put out quickly and yet the B2H line travels North to South, fully exposed, along that location. Any Idaho Power map of the B2H line proves that fact. Further examination reveals another substantial fire history along the Red midline area of eastern Morrow county near Umatilla County, which is directly under the proposed B2H transmission line. This fire history is contrary to Mr. Lautenbergers' statement (see below).

EVIDENTIARY HEARING APRIL 20, 2023, CROSS EXAM OF Chris Lautenberger:

Q. Ms. King: I guess this is just in support that there are fires in -- there is fire history in Morrow County, that apparently Sam Myers has documented, and that would go towards the historical fires rather than proof of fires under a transmission line. So, my question was, does this -- does this support any of the information you take in as far as fire history?

A. Mr Lautenberger: So, I think you're mischaracterizing the fire history here. The majority of fire history in Morrow County is in the southern part of the county in the Blue Mountains. There is very little fire history along the B2H line, and in particular, near Mr. Myers' property. So, I'm not sure specifically which fire history you're referring to, but if you look into the fire history, whether it's the location of ignitions or historical perimeters, what you'll see is that there's very little history of fire along the B2H route. If you were to include the southern part of Morrow County in the Blue Mountains, there's significant fire history there, but that's not relevant to this current proceeding, because the B2H line is not passing through the Blue Mountains in the southern part of Morrow County.

Q. Okay. And even though it is close to the Bombing Range fire, that was a -- I guess, that was not in consideration or –

A. Well, fires in the Bombing Range are started by ordnance. Cross Examination of Chris Lautenberger Transcript 4-20-2023 pg. 241-242

Q. Ms. King: Are you concerned that that line is passing so close to (military) operations that deal a lot differently with fires than say for instance a crop owner?

A. Mr. Lautenberger: I -- that's not part of my scope of work as someone looking into fire issues.

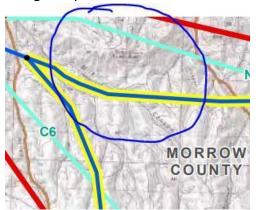
Cross Examination of Chris Lautenberger Transcript 4-20-2023 pg. 243

Mr. Lautenberger is misrepresenting the very Landfire tool he presented in Figure 2 of his Surrebuttal Testimony Dated April 7, 2023.

Alternate Routes: 860-025-0030 (2) (c) (C) & 860-025-0030 (2) (g) (d) (e)

According to the Oregon Agriculture Land Use Policy: "The preservation of a maximum amount of the limited supply of agriculture land is necessary to the conservation of the state's economic resources and the preservation of such land in large blocks is necessary in maintaining the agriculture economy of the state and for the assurance of adequate, healthful and nutritious food for the people of this state and nation." ORS 215.243 Agricultural land use policy June 26, 2021, Intervenor Amended Cross-Answering and Rebuttal Testimony Sam Myers March 20, 2023 pg. 1

Idaho Power will present the following alternate route siting studies as evidence of their due diligence; however, many of them are not relevant. The alternate routes presented in the <u>2010</u> Siting study were based on the northern point of Grassland Station, which was later dropped.



Interestingly, the preferred route traveled along the southern base of Gleason Butte (where Wheatridge Intraconnection corridor is now sited).

This study is not relevant because the Substation is not an end point.

Idaho Power/602 Colburn/43

The alternate route presented in <u>2012</u> had the Grassland Station as the starting connection for B2H and did not traverse over Morter or Myers Farm operations. Again, this study is not relevant because the Grassland Substation is not an end point.



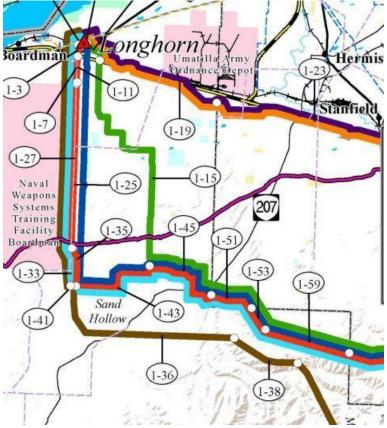
Idaho Power/603 Colburn/11

The alternate routes presented in the <u>2015</u> Siting study were based on the Longhorn station and Grassland as end points but did not traverse over Morter or Myers Farm operations. At this time, the proposed route is along the east side of Bombing Range and the challenge to site the line in an existing corridor began. Again, because there is uncertainty of where the actual end points will be located, the alternate routes are arbitrary.



Idaho Power/604 Colburn/11

The Alternate route in <u>2016</u> places the line over Morter and Myers agriculture operations as the West of Bombing Range Road – Southern Route Alternative.



Idaho Power/611 Colburn/119

The alternate routes presented in the June 2017 Siting Study were based on the Longhorn station and efforts were underway to develop a Green Energy Corridor to co-locate the existing UEC lines, Wheatridge lines and B2H lines and avoid Agriculture lands to the east. This is the point that the alternate route is sited on Morter and Myers Agriculture croplands. From that point on, there were no alternate routes studied in the area of Morter and Myers agriculture operations.



Idaho Power/605 Colburn/9

In October of 2015, Governor Kate Brown established an advisory committee to brainstorm solutions about the mess of transmission lines crossing farmers' properties to connect to the power grid. The committee issued its final report in February of 2017. Entities engaged in this process were: The Governors Committee, Department of Land Conservation and Development, Bonneville Power Administration, Morrow County planning Director, Carla McLane, State Sen. Bill Hansell, Rep. Greg Smith, Bureau of Land Management, U.S. Navy, B2H Spokeswoman Stephanie McCurdy, Wheatridge Wind Energy, and Umatilla Electric Cooperative general manager, Robert Echenrode. Idaho Power/1803 Colburn/1

While the work was being done to create a Green Energy Corridor along the Bombing Range, Wheatridge Wind Energy completed their Final Order in April 2017. Mr. Colburn states, "While I am not familiar with the designation of the Wheatridge corridor referenced above as a Green Energy Corridor, I was involved in the early phases of that process and am familiar with that process as it related to the identification of a Green Energy Corridor for B2H." Idaho Power/1800 Colburn/5

To the extent the Green Energy Corridor served to meet Idaho Power's need to locate the B2H line from Longhorn station, IPC failed to utilize another corridor to alleviate the same agriculture concerns less than 13 miles away.

Exhibit 10: East Oregonian article Green Corrridor by George Plaven, May 18 2017

...it is so crucial to protect this bank of farmland. <u>Kent Madison</u>, of Madison Ranches in Echo, said transmission lines impede regular farming and irrigation practices, such as aerial spraying of fertilizer and chemicals. Madison said he supports a single green energy transmission corridor in order to minimize the impact from wind and solar farms on surrounding agricultural land. "It's a whole lot better to have this corridor with one big transmission line through it than four small corridors over a 10-mile area, with four or five transmission lines," he said. "We need to protect the high-value agricultural ground." Idaho Power/1803 Colburn/4

Email from Kent Madison dated April 24, 2023:

Wendy. I still stand by my earlier comments about putting all the transmission lines in a single corridor for the protection of agricultural land. I am terribly disappointed that the state of Oregon would allow the B2H transmission line to be placed on ag land when a non ag alternative is available.

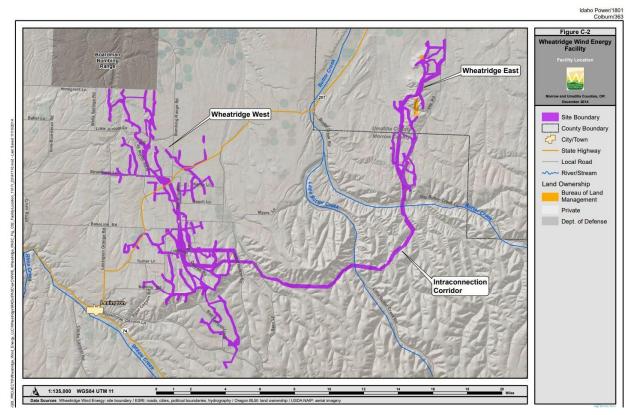
Thanks for bringing this to my attention.

Senator Hansell and Representative Levy and Smith. Please look into why the B2H transmission line is being placed on agriculture land when range land is located within the area. This transmission line has no benefits to the local landowners and should be placed on range land.

Thanks

Kent Madison Kent Madison Comments 4-24-2023 pcn5hac165134.pdf

Exhibit 11: Wheatridge Map dated December 2014 Idaho Power/1801 Colburn/363

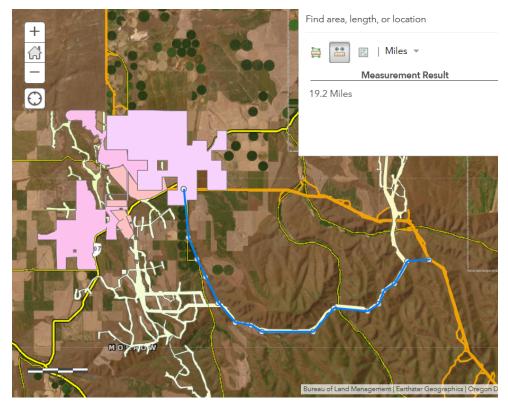


Please note the Date on this map of the Wheat ridge Intraconnection Corridor (2014)

Mr. Myers requested IPC evaluate an alternate route:

"Referencing page 26 of the IPC application they discuss the alternative routes, however they do not analyze critical standards involved in making an alternative route that takes the line away from high winds and impacting cropland. The Oregon department of AG has developed a website that shows the continued loss of cropland is an immediate concern. IPC has not adequately analyzed an alternative route that, as much as possible, avoids the cropland impacts and also avoids the high wind area in Morrow County. The IPC should have routed the transmission line south of the highest max wind load speed boundaries where it also avoids the dryland cropland. IPC should be choosing a route south of Gleason Butte where the line would traverse in much lower wind load speed areas and also avoid cropland. This move to a southern route would mostly impact sage brush and pastureland. Again IPC could have chosen a much less risky environmental location and also minimized cropland losses." 1-17-2023 Sam Myers/100 Sam Myers/Page 2

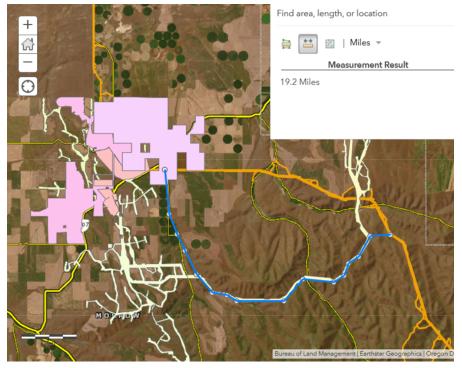
Exhibit 12: New Alternate Route Option A (blue) IPC proposed route (orange)



Option A is an alternate route that leaves the proposed route at MP 19.3 and continues its South East trajectory to the point on Spur Loop Road that intersects the Wheat Ridge **Energy Facility** East. It parallels the Wheat Ridge corridor south of Gleason Butte, departs the corridor at Ayers Canyon and reconnects with

the proposed route at MP36. Total length of Alternate Route A is 20 miles.

Exhibit 13: New Alternate Route Option B (blue) IPC proposed route (orange)



Option B is an alternate route that leaves the proposed route at MP 22.2 and travels South to the point on Spur Loop Road that intersects with the Wheat Ridge Energy Facility East. It parallels the Wheat Ridge corridor south of Gleason Butte, departs the corridor at Ayers Canyon and reconnects with the proposed route at MP36. Total length of Alternate Route B is 19.2 miles **Cross Examination** Statement Wendy King 4-12-2023 pg. 23

Exhibit 14: Alternate Route Option C to Wheat Ridge Intraconnection Corridor



Alternate route Option C is an alternate route that leaves the proposed route at MP 19.3 and continues its South East trajectory to the point near Spur Loop Road that intersects the Wheat Ridge Energy Facility East Corridor.

Wendy Kings' Clarification Exhibit 1 4-25-2023

REPLY TESTIMONY AND EXHIBITS OF MITCH COLBURN, 2-21-2023

- Q. Would moving the transmission line to the south shorten the overall distance the transmission line has to travel?
- A. No. In response to Mr. Myers' comments, Idaho Power performed a Google Earth-based desktop analysis (without detailed engineering analysis) comparing the length of the proposed location for the Project in comparison with a route passing south of Gleason Butte. Idaho Power determined that, due to the location of several wind generation facilities in that area that would require avoidance, the route passing south of Gleason Butte would be approximately 4 miles longer than the current route. Idaho Power/600 Colburn/32

SURREBUTTAL TESTIMONY OF MITCH COLBURN, 4-7-2023:

- Q. Has Idaho Power analyzed Mr. Myers' proposed alternative routes?
- A. As I discussed above, Idaho Power did not thoroughly analyze collocating the route with the Wheatridge corridor because Wheatridge https://doi.org/10.100/journ/7 approved. Idaho Power/1800 Colburn/7

This statement is false. The Wheatridge Energy Site Certificate was issued April 2017 additional amendments were completed November 2020. Idaho Power/1801 Colburn/1, Idaho Power/1802 Colburn/1

"...in response to Mr. Myers' Rebuttal Testimony, Idaho Power's consultant, Tetra Tech, conducted a desktop analysis comparing a potential route following the Wheatridge Intraconnection transmission lines to the Proposed Route.

A route following the Wheatridge corridor would be substantially longer than the Proposed Route, replacing a 14-mile segment of the Proposed Route with an alternative that is approximately 21 miles long. This Wheatridge route would impact 19 separate parcels, compared to the 17 parcels crossed by the Proposed Route—and would involve new landowners who have not yet been involved in the B2H EFSC proceeding." Idaho Power/1800 Colburn/7

There's a large discrepancy between the length of the potential alternate route between Mr. Colburn's testimonies: One route is 4 miles longer and one route is 7 miles longer. Because IPC didn't provide analysis of any alternate route co-locating B2H with Wheatridge Intraconnection corridor, we are left to assume there wasn't a serious analysis of those alternate routes. This analysis is more of an opinion than a factual assessment.

Q. Do you agree with Mr. Myers' assertion that his proposed alternative routes would be cheaper to build?

A. No, I do not. Mr. Myers asserts that collocating B2H with the Wheatridge transmission lines would cost less to build because of the shared right-of-way and fewer "large valley" crossings. However, as I stated immediately above, a route following the Wheatridge corridor would be longer, which would likely increase costs. Additionally, the Wheatridge corridor largely follows stream drainages with steeper terrain on either side of stream, which could present engineering challenges. Finally, based on Tetra Tech's desktop analysis, Mr. Myers' proposed alternative routes include more turns, which would require the use of a greater number of stronger towers due to the increased strain conductors place on their supports in areas where the transmission line turns. The increased use of these towers would increase the construction cost. Idaho Power/1800 Colburn/7 & 8

In the cross-examination of Mr. Colburn, he had no recollection of the "Tetra Tech" desktop analysis of the Wheatridge alternate route and its availability to review which leaves skepticism that it exists or was recently completed.. EVIDENTIARY HEARING APRIL 19, 2023, CROSS EXAM OF MITCH COLBURN page 91

It is my understanding that Idaho Power will be entitled to receive tax credits for their project through the operation of energy transmission. It appears reasonable that an increase in cost for an alternate route may be re-captured through those tax credits and the cost of avoiding EFU lands in the State of Oregon should be shouldered by Idaho Power as an acceptable cost of impacting Oregon Citizens who have little benefit in Idaho Power service territory.

Assuredly, the evaluation of the potential alternate Wheatridge route compared to the proposed route will have more turns and engineering difficulty because the proposed route travels straight as an arrow through Morter and Myers flat cropland with prime, non-highly erodible soil and every possible ease of construction. The comparison would not be needed if IPC had followed their own siting criteria of avoiding EFU croplands. When comparing the current proposed route to other segments of B2H, you will note there are far more engineering challenges and turns compared to the Myers' Wheatridge alternate route. And as we should all know, you can't move flat cropland onto non-resource sloped lands, but you can move transmission lines to non-resource sloped lands to avoid Prime farmland. Mr. Colburn's statement proves that there are alternative options; but at this point, Idaho Power is not interested in minimizing use of private lands or impacts on surrounding lands devoted to farm use to site the line. If Mr. Myers had known of the Wheatridge corridor before this year, he would have suggested it in EFSC. However, it is IPC's obligation to evaluate existing corridors, rights-of-way and siting options in the alternate routes they study. If IPC or BLM had done their due diligence, they would have known the Wheatridge corridor was an option as far back as 2014. Especially since, at the time, Mr. Colburn was very involved in the Bombing Range Green Energy Corridor that included Wheatridge.

Examples of different criteria include:

- Least disturbance to natural areas and habitat;
- Least disturbance to streams, rivers and wetlands during construction;
- Least disturbance to important tribal or cultural resources;
- Avoids populated areas;
- Greatest percentage of total length of the transmission line located within or adjacent to public roads and existing pipeline or transmission line rights-of-way;
- Least impact to agricultural operations and least percentage of the total length of the transmission line located within lands zoned for exclusive farm use ("EFU");
- Least percentage of total length of transmission line that would be located within lands that require zone changes, variances or exceptions;
- Best location for engineering reasons, including minimizing the length of the transmission line that would be located in areas with seismic, geological and soils hazards;
- Least impact to scenic and recreation resources or community aesthetic values; and
- Lowest cost Idaho Power/600 Colburn/8

Idaho Power failed to follow the criteria highlighted for the route through Mr. Morter and Mr. Myers Agriculture operations.

Exhibit 15: OAR 345-021-0010(1)(b)(D) i-vii

In the assessment, the applicant must discuss the reasons for selecting the corridors, based upon evaluation of the following factors:

- (i) Least disturbance to streams, rivers and wetlands during construction;
- (ii) Least percentage of the total length of the pipeline or transmission line that would be located within areas of Habitat Category 1, as described by the Oregon Department of Fish and Wildlife;
- (iii) Greatest percentage of the total length of the pipeline or transmission line that would be located within or adjacent to public roads and existing pipeline or transmission line rights-of-way;
- (iv) Least percentage of the total length of the pipeline or transmission line that would be located within lands that require zone changes, variances or exceptions;
- (v) Least percentage of the total length of the pipeline or transmission line that would be located in a protected area as described in OAR 345-022-0040 (Protected Areas);
- (vi) Least disturbance to areas where historical, cultural or archaeological resources are likely to exist;
- (vii) Greatest percentage of the total length of the pipeline or transmission line that would be located to avoid seismic, geological and soils hazards;
- (viii) Least percentage of the total length of the pipeline or transmission line that would be located within lands zoned for exclusive farm use

Wendy King Cross Exam Statement 4-12-23 pg.2

ORS 215.275 (3) States Costs associated with any of the factors listed in subsection (2) of this section may be considered, but <u>cost</u> alone may not be the only consideration in determining that a utility facility is necessary for public service. Wendy King 4-12-2023, Cross Examination & Exhibits pg.3

If Idaho Power is using cost as a constraint, it's important to note the above statute.

Exhibit 16: B2H Application for Site Certificate Exhibit K Page K-29

4.1.5 Mitigation and Minimization of Impacts to Farmland and Agricultural Practices ORS 215.275(5): The governing body of the county or its designee shall impose clear and objective conditions on an application for utility facility siting under ORS 215.213(1)(c)(A) or 215.283(1)(c)(A) to mitigate and minimize the impacts of the proposed facility, if any, on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmlands.

Wendy King Cross Exam Statement 4-12-23 pg. 5

Any efforts to mitigate or minimize the impacts of the B2H line in EFU lands fall short of preventing a significant change because the ROW, line and towers are placed in the middle of Mr. Myers cropland. No amount of mitigation, or micro-siting provides any level of relief to the changes in farm practices Mr. Myers will be required to execute. The loss of use in Mr. Myers dryland wheat operation from the ROW alone will endure a loss of at least \$21,000.00 in crop proceeds. There may be an additional loss of planted seed depending on the time of year Idaho Power commences clearing and construction. There has been no communication or plan from Idaho Power as to the construction sequence of events and how those events are lined out in the planting seasons.

Exhibit 17: Additional siting criteria in support of Alternate Routes

Bulletin 1724E-200 Page 3-3

TABLE 3-1 LINE ROUTING CONSIDERATIONS

	UTING CONSIDERATIONS		
Physical	Sources		
 Highways 	USGS, state & county highway department maps		
 Streams, rivers, lakes 	USGS, Army Corps of Engineers, flood insurance maps		
Railroads	USGS, railroad		
Airstrips	USGS, Federal Aviation Administration (FAA)		
 Topography (major ridge lines, 	USGS, flood insurance maps (FEMA), Army Corps of		
floodplains, etc.)	Engineers USGS, local utility system maps USGS, local utility system maps		
 Transmission lines & distribution lines 			
 Pipelines,(water, gas, sewer), 			
underground Electric			
 Occupied buildings 	Local tax maps, land use maps, local GIS maps		
Biological	Sources		
Woodlands	USGS, USDA - Forest Service,		
Wetlands	USGS, Army Corps of Engineers, USDA National Conservation		
	Resource Service, USDI Fish and Wildlife Service		
 Waterfowl, wildlife refuge areas, 	USDI - Fish and Wildlife Service, State Fish and Game Office		
endangered species & critical			
Habitat Areas			
Human Environmental	Sources		
Rangeland	\		
Cropland	Hood it was a like to the like		
·	USGS aerial survey, satellite mapping, county planning		
Urban development	agencies, state planning agencies, state soil conservation		
·	service, mining bureau, U.S. Bureau of Land Management,		
Industrial development	NRCS		
	1		
 Mining areas 	l I		
Mining areas Recreation or aesthetic areas,			
Recreation or aesthetic areas,			
Recreation or aesthetic areas, national parks, state and local parks	USGS, soil surveys, USDA - NRCS, state department of		
Recreation or aesthetic areas, national parks, state and local parks	USGS, soil surveys, USDA - NRCS, state department of agriculture, county extension agent		
Recreation or aesthetic areas, national parks, state and local parks	USGS, soil surveys, USDA - NRCS, state department of agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland	agriculture, county extension agent		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential)	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential)	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential)	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic preservation officer, state historic and archeological societies		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential) Historic and archeological sites	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic preservation officer, state historic and archeological		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential) Historic and archeological sites	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic preservation officer, state historic and archeological societies USGS maps, state maps, state department of natural resources, Department of Interior		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential) Historic and archeological sites Wild and scenic rivers	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic preservation officer, state historic and archeological societies USGS maps, state maps, state department of natural resources, Department of Interior Sources		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential) Historic and archeological sites Wild and scenic rivers	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic preservation officer, state historic and archeological societies USGS maps, state maps, state department of natural resources, Department of Interior Sources USGS, state maps, USDI Park Service, Bureau of Land		
Recreation or aesthetic areas, national parks, state and local parks Prime or unique farmland Irrigation (existing & potential) Historic and archeological sites Wild and scenic rivers Other Federal, state and county controlled	agriculture, county extension agent Irrigation district maps, applications for electrical service, aerial survey, state departments of agriculture and natural resources, water management districts National Register of Historic Sites (existing), state historic preservation officer, state historic and archeological societies USGS maps, state maps, state department of natural resources, Department of Interior Sources		

Exhibit 18: IPC Siting Criteria 2010 Siting Study

2.2.2 Opportunities	
Resources	
Physical characteristics	
Regulatory designations	
Existing transportation corridors	
Pipelines	
Electric transmission lines	
Agency-designated energy corridors	
IPC/602 Colburn/16	
Mitigation Cost Analysis	
Habitat mitigation policy	
(high, moderate or low cost)	
IPC/602 Colburn/31	

Additional Considerations

Maximize use of existing corridors (parallel existing Right of Ways)

Avoid or minimize impacts on resources required by law (ex. Mitigate sage grouse)

Avoid or minimize impacts on resources for environmental protection not regulated by law Minimize need for plan amendment

Avoid or minimizes proximity to private residences

Minimize use of private lands

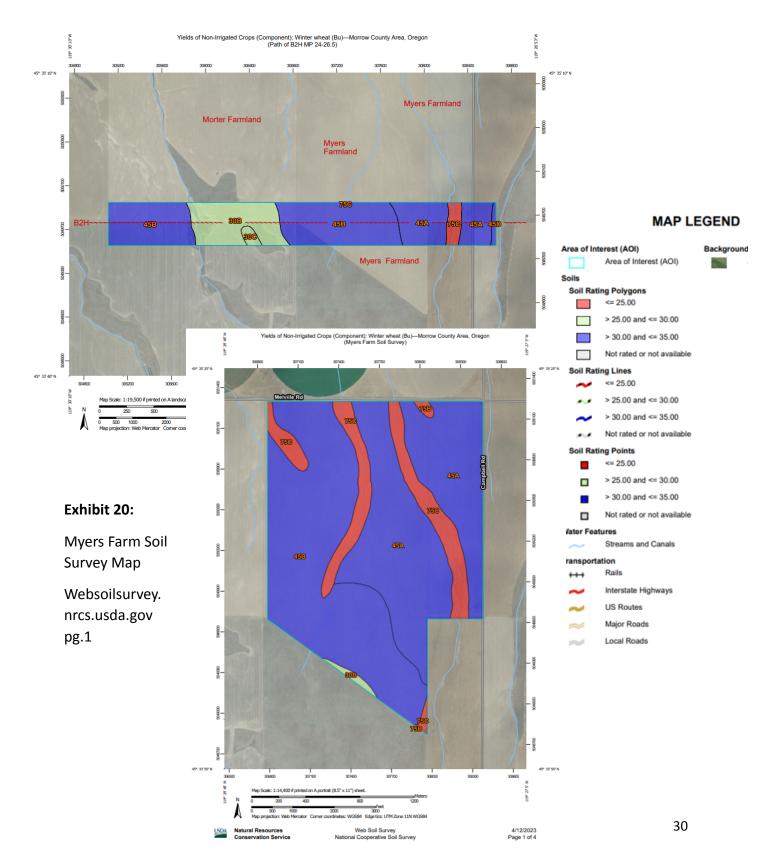
If multiple alternatives meet criteria, the agency preferred alternative would be the alternative that also minimizes technical constraints, construction, operational maintenance expense and/or time.

IPC/602 Colburn/201

Wendy King 4-12-2023, Cross Examination & Exhibits pg. 4-5

Many of the constraints, opportunities and considerations support the use of an alternate route to avoid Mr. Morter and Mr. Myers agriculture operations and utilize the Wheatridge Intraconnection Corridor.

Exhibit 19: Myers and Morter cropland under the proposed B2H route at MP 25.3 to 27.1 is considered Prime Farmland according to the NRCS (Natural Resources Conservation Service) websoilsurvey.nrcs.usda.gov page 1 Prime Farmland is considered a constraint for siting transmission lines. Wendy King 4-12-2023, Cross Examination & Exhibits pg. 10-12



Yields of Non-Irrigated Crops (Component): Winter wheat (Bu)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
30B	Mikkalo silt loam, 2 to 7 percent slopes	30.00	4.5	0.6%		
45A	Ritzville silt loam, 0 to 2 percent slopes	35.00	322.5	42.5%		
45B	Ritzville silt loam, 2 to 7 percent slopes	35.00	330.0	43.5%		
75B	Willis silt loam, 2 to 5 percent slopes	25.00	2.8	0.4%		
75C	Willis silt loam, 5 to 12 percent slopes	25.00	98.8	13.0%		
Totals for Area of Inter-	est	758.5	100.0%			

Wendy King 4-12-2023, Cross Examination & Exhibits pg. 13

Exhibit 21: Soil Data Access (SDA) Prime and other Important Farmlands https://www.nrcs.usda.gov/publications

Soil Data Access (SDA) Prime and other Important Farmlands An SDA-populated select list is used to pick a state and SSA which enables creation of a "Prime and other Important Farmlands" based upon those selections. The data is not static; it hits Soil Data Access Live. To reset the table hit F5 on the keyboard. Once a survey is selected and table appears, if a new survey is selected it will append to the table at the bottom. For more information about the table Oregon selected stateId = OR Morrow County Area, Oregon selected SSA areasymbol = OR648 State_Sym Area_Symbol Area_Name Mapunit_SYM Mapunit_Name mukey OR OR648 Morrow County Area, Oregon 61337 45A Ritzville silt loam, 0 to 2 percent slopes Prime farmland if irrigated OR648 Morrow County Area, Oregon 61338 45B Ritzville silt loam, 2 to 7 percent slopes Prime farmland if irrigated OR OR648 Morrow County Area, Oregon 61339 45C Ritzville silt loam, 7 to 12 percent slopes Farmland of statewide importance OR OR648 Morrow County Area, Oregon 61340 45D Ritzville silt loam, 12 to 20 percent slopes Farmland of statewide importance Ritzville silt loam, 20 to 40 percent north slopes OR648 Morrow County Area, Oregon 61341 46E Farmland of statewide importance

Mikkalo silt loam, 2 to 7 percent slopes

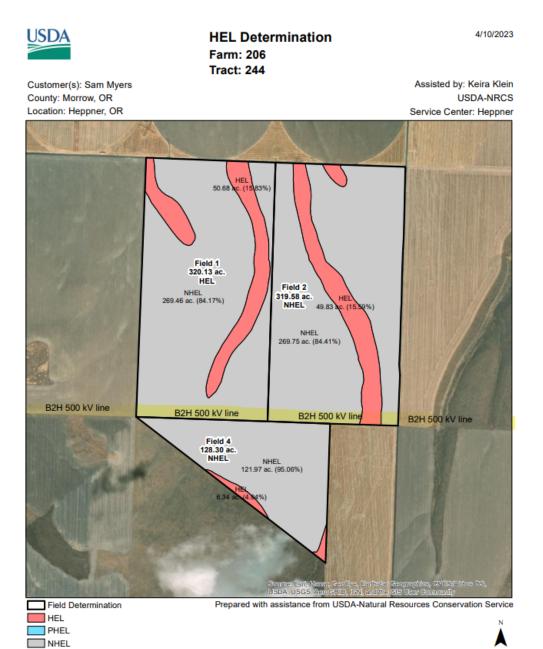
Wendy King 4-12-2023, Cross Examination & Exhibits pg. 13

Morrow County Area, Oregon 61309 30B

Due to the quality of the soil on Mr. Morter and Mr. Myers Agriculture operations under the proposed route, it is prudent to relocate the line to an alternate route.

Exhibit 22: Prime Farmland is characterized by erodibility or HEL determination. In the vicinity of B2H, Myers Farmland is over 90% Not Highly Erodible Land, indicating it should be used exclusively for farm use.

Prime farmland if irrigated



An Equal Opportunity Provider, Employer, and Lender

Wendy King 4-12-2023, Cross Examination & Exhibits pg. 14

Non Highly Erodible Soil is another constraint for siting transmission lines and evidence an alternate route is appropriate to preserve soil in this location.

Exhibit 23: NRCS Prime and other Important Farmlands (usda.gov) Report Metadata: Soil Data Access Prime and other Important Farmlands

Area_Symbol: A symbol that uniquely identifies a single occurrence of a particular type of area (e.g. Dane Co., Wisconsin is WI025).

Area_Name: The name given to the specified geographic area.

mukey: A non-connotative string of characters used to uniquely identify a record in the Mapunit table.

Mapunit_SYM: The symbol used to uniquely identify the soil mapunit in the soil survey.

Mapunit Name: Correlated name of the mapunit (recommended name or field name for surveys in progress).

Prime and other Important Farmlands: Identification of map units as prime farmland, farmland of statewide importance, or farmland of local importance.

Prime and other Important Farmlands Description:

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber.

Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service. For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses.

The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Wendy King 4-12-2023, Cross Examination & Exhibits pg. 15 & 16

Exhibit 24:

Aerial Chemical application Crop <u>Exhibit K -- Land Use (oregon.gov)</u>

Transmission lines located along the edges of fields, existing roadways, or natural boundaries, rather than through existing fields, will result in less risk to the applicator and more efficiency to the producer. Page 24

Tower Placement During Project design, IPC's engineering, ROWs, and permitting staff will work with landowners to address tower placement, where feasible.

Sensitive areas such as those with the potential to interrupt irrigation equipment and other areas identified by landowners will be avoided, where feasible. When the preliminary design is complete, the land rights agents will review the staked tower locations with landowners. In general, towers will be located along field boundaries. Placement in field headlands or in the middle of fields will be avoided to the maximum extent possible. Page 38 Wendy King 4-12-2023, Cross Examination & Exhibits pg. 21

When questioning a local crop-dusting pilot about how they would apply chemicals in fields where 500kV transmission lines and towers exist, he said he would fly under the transmission line. Because the shorter span of field (divided by the line) creates more passes, turns and in-flight time without applying chemicals and wastes fuel. Keeping the lines out of the middle of fields is an argument for public safety, alternative routes and transmission line reliability.

Exhibit 25: Airstrip, Hangar & Plane Airstrips are to be avoided in transmission line routing considerations. B2H is in the flight path as planes approach for landing from the Northeast and takeoff occurs to the Northeast due to the gradual slope of the graded runway. Also see Intervenor Amended Cross-Answering and Rebuttal Test. Sam Myers, March 20, 2023, Exhibit 3



Wendy King 4-12-2023, Cross Examination & Exhibits pg. 22 Myers airstrip was graded in the 1970's and utilized by aerial Chemical applicators, a Charter carrier, neighbor Tom Currin, Wayne Seitz, Jerry Myers and Sam Myers. This runway is an unclassified landing field used in Myers agriculture operations. Myers airstrip was not given consideration when siting the B2H Transmission line and will be unusable or used with extreme risk with the line in the airspace required for takeoff and landing, therefore supporting an alternate route for public safely.

Exhibit 26: Myers Century Farm: National Registry of Historic Places Eligible

Amended preliminary application for site certificate Exhibit S Page S-166

Also see: Intervenor Amended Cross-Answering & Rebuttal Test. Sam Myers, March 20, 2023, Exhibit 4

Boardman to Hemingway Transmission Line Project

Exhibit S

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
Benson Reservoir	4B2H-EK-31	N/A	Historic Site/Aboveground	Eligible (Criteria A and B); Not Eligible (Criteria C and D)	Proposed Route	Direct Analysis Area
CFR 1003 (Gekeler Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area
CFR 1064 (Vey Ranch)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
CFR 1093 (Thomson Myers Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
CFR 1098 (Gilliland Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
CFR 1169 (Muilenburg Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area
Chambeam Ditch	4B2H-EK-15	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
Charles Brandt Blacksmith Shop	N/A	B2H-UN-178	Historic Site/Aboveground	Eligible (no further evaluation)	Proposed Route	Visual Assessment analysis area
Combs Creek Cabin	N/A	B2H-BA-332	Historic Site/Aboveground	Unevaluated	N/A	N/A ²
Corral Ditch	4B2H-EK-06	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
Daly Wagon Road		B2H-UM-006	Historic Site/Aboveground	Eligible (Criteria A and C)	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area
Durkee School	N/A	B2H-BA-288	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area

AMENDED PRELIMINARY APPLICATION FOR SITE CERTIFICATE

Page S-166

Wendy King 4-12-2023, Cross Exam & Exhibits pg. 24

Mr. Colburn states: "So, it's a collective impacts we're evaluating and trying to minimize collective impacts." Cross Examination of Mitch Colburn Transcript 4-19-2023 pg. 107

It is unimaginable that one private property should bear so many intrusions from the B2H Transmission Line (Interruption in the middle of Prime EFU Cropland, Fire hazard in dryland wheat, Unusable airstrip and Century Farm Viewshed). Had IPC evaluated the variety of impacts, they should have analyzed an alternate route instead of creating so many impacts in pursuit of the cheapest option.

Bartholomew-Myers Farm Founded in 1898 IS HONORED WITH THIS CERTIFICATE BY THE OREGON AGRICULTURAL EDUCATION FOUNDATION AS A CENTURY FARM RECOGNIZING 100 YEARS OF CONTINUOUS FARMING AND IMPORTANT CONTRIBUTIONS TO OREGON'S AGRICULTURAL HERITAGE Presented September 3, 2005 EDUCATION FOUNDATION

Exhibit 27: Myers Farm Century Farm Certificate presented 9-3-2005

Sam Myers Amended Reply Testimony 3-20-2023 pg.8

Exhibit 28: Letter from Brian Morter

April 12, 2023

To Whom it May Concern,

In regards to the proposed Hemingway to Boardman powerline, I am adamantly against this project in its current proposed route as I have written before. It is my sincere belief that this project has not been thoroughly researched and has been routed on EFU (Exclusive Farm Use) cropland without taking notice of available alternative routes. My Prime farmland is being crossed between B2H mileposts 22.2 to 25.3 (east-west from Sand Hollow to Myers Farm). There are no appropriate micro-siting options for this current proposed route in my field because it is in the center of my cropland. Furthermore, my aerial chemical applications are along the same North to South trajectory as with all my cultivation, seeding, harvesting and erosion prevention operations. The current location of this transmission line creates a significant change to my farming practices. I am very concerned that the access roads within my field will allow unauthorized entry by the public, and I am concerned about fire risks associated with operational maintenance and public access during the most flammable season, which is when my crops are at their peak value.

It has come to my attention that there are alternate routes proposed by Sam Myers that reroute the transmission line at Wheatridge Renewable Energy Facility or at Sand Hollow Canyon to connect with the Wheatridge Green Energy Corridor. I'm in favor of its relocation to border the west edge of my farmland along a portion of Sand Hollow and proceed south to the point on Spur Loop Road that intersects the Wheat Ridge Renewable Energy Facility East. Having shared the ROW (right of way) with Wheatridge, there are multiple opportunities to reconnect with the proposed route depending on least constraints.

I understand the Wheatland facility and corridors have been approved and that it is an accepted practice to co-locate transmission lines, especially when permitting is easier to accomplish and access roads are utilized by both utility and facility.

In closing, I ask that Oregon Public Utility Commission first consider the long-term costs to those affected, ahead of Idaho Power's cost of relocation, before considering the approval of B2H. If the line must be built, then at a minimum, require its location be primarily in the best interests and safety of Oregon citizens who will have to live and work under and beside it.



Respectfully Submitted,

Brian Morter 208-610-1910

brianmorter@gmail.com

Wendy King 4-12-2023, Cross Examination & Exhibits pg. 25

EVIDENTIARY HEARING APRIL 19, 2023, CROSS EXAM OF MITCH COLBURN:

Q. MR. KREIDER:-- and that you have to look at the totality of all the landowners, whereas in Union County there was a single landowner that was able to influence the route, to move it off his property so it would affect him and eight other landowners so that he did not bear the full burden of the line. So here is an instance of an individual landowner working with the Company to change the route. From your response it sounded like Mr. Morter was not going to be afforded the same courtesy. And that's why I was asking to -- I've kind of explained the situation of the landowner in Union County, but I'm just wondering why is Mr. Morter not getting the similar consideration?

A. MR. COLBURN: Mr. Kreider, I'm not aware of a Union County landowner who moved the project off of his property. I'm not -- I'm not following that. Cross Examination of Mitch Colburn Transcript 4-19-2023 pg. 111

Q. ALJ MELLGREN: And Mr. Colburn, just as a follow up on that, you know, you indicated that Idaho Power did work with the one landowner, why did Idaho Power not work with the other landowner that Mr. Kreider referenced, Mr. Morter?

A. MR. COLBURN: So, my understanding is this is a route proposed now, you know, at a point we're in the construction phase of B2H, and so we're discussing impacts that haven't been evaluated. In Mr. Allen's case, that route was brought into the final EIS and it was brought into our EFSC process. So considerably more evaluation time, process for these two instances.

Cross Examination of Mitch Colburn Transcript 4-19-2023 pg. 113

Conclusion: Because Idaho Powers' B2H has been in development for over 16 years, many Oregonians have hoped it would become antiquated when new decentralized sources of energy emerged and replaced the project before the shovel ever hit the ground. At this juncture it is clear that Idaho Power has no interest in preserving Oregon Land Use, it is avoiding aspects of public safety in determining wildfire risk and soil destruction mitigation, and they are not willing to analyze alternate routes to co-locate it's transmission line even though it could submit and amended application in EFSC while other portions of the line are being built. Idaho Power is about providing more energy rather than promoting conservation.

Current conventional agriculture systems using intensive energy has to be re-vitalized by new integrated approaches relying on renewable energy resources, which can allow farmers to stop depending on fossil fuel resources. The aim of the present study was to compare wheat production in dryland (low input) and irrigated (high output) systems in terms of energy ratio, energy efficiency, benefit/cost ratio and amount of renewable energy use. Based on the results of the present study, dry-land farming can have a significant positive

effect on energy-related factors especially in dry and semi dry climates such as Iran. (Applied Energy, A case study of energy use and economical analysis of irrigated and dryland wheat production systems. R. Ghorbani, F. Mondani, S. Amirmoradi, H. Feizi, S. Khorramdel, M. Teimouri, S. Sanjami, S. Anvarkhah, H. Aghel, Jan 2011)

Myers Farm is a century farm with upcoming generations buying into the role of Farming while many farms are being converted to wind and solar energy, along with urban development. Oregon is in dire need to protect and retain EFU farmland. Some people have been heard to say, "I don't know why we need farmers, I get my food from the grocery store."

Idaho Power claims the proposed route achieves minimal impacts; however, they can't possibly understand the difficulty, risk, and expense the B2H line imposes. They've gotten away with noise exceedances, variances, and likely tax breaks. Let's make them get the line right the first time without having to be told down the road, "I told you the wind was too destructive for the line there," or "the fire risk was too extreme here."

Idaho Power has employed an impressive legal team to manage its experts and has pressed the opposition into an expedited schedule that has given the B2H cause an overwhelming advantage. I believe Idaho Power has skirted issues and has many unfinished plans that won't have public review. It is with strong conviction that I entrust the Oregon Public Utility Commission to make the best possible decisions according to their mission and the rules that guide them to protect Oregonians. I wish to employ as many OAR 860 rules as applicable to my Brief as a lay person can hope for. I believe Idaho Power has much more work to do before OPUC should grant its certificate: mainly, submit to EFSC an alternate route as suggested and amend its fire prevention and suppression plan. At this time, I ask the OPUC to deny Idaho Power the certificate for public necessity and convenience.

I hereby declare under penalty of perjury under the laws of the State of Oregon that I prepared the above Opening Brief for the PCN5 docket, and that to the best of my knowledge and belief, declare the statements, testimony and exhibits to be true and that they were made for use by the Commission as evidence in this proceeding.

Dated this fifteenth (15) day of May, 2023.

<u>/s/ Wendy King</u>

Wendy King