

Scott Fitzwilliams, Forest Supervisor
White River National Forest
900 Grand Avenue
Glenwood Springs, CO 81601

Re: Holy Cross Energy Avon-to-Gilman 115-kV

Dear Mr. Fitzwilliams,

I appreciate the opportunity our democracy provides for public input to be part of the process that evaluates proposed projects on our collective public lands. Public involvement/input is a bedrock on which our great nation was founded and it is heartening to me that the USFS continues to seek out public input. It is my sincere hope that public input into this proposed project is impactful upon the decision reached by the USFS regarding this project.

It is important for the Forest Service to recommend as a result of this Environmental Analysis that an Environmental Impact Statement (EIS) be implemented for the Holy Cross Energy Avon-to-Gilman 115-kV Transmission Line. This is because significant impacts to the environment through which the transmission line is contemplated/proposed exist.

Although Holy Cross Energy, the applicant, states on their public website that the proposed Avon to Gilman Transmission Line “project would help to protect [electric service to] the eastern part of Eagle County from natural phenomena like wildfires, avalanches, and landslides...”, this transmission line project has the potential to increase wildfire risk in the corridor the project will traverse. There are also mudslide zones possibly in the proposed path for this transmission line.

I am generally in support of providing redundancy in the electrical grid for all the benefits Holy Cross Energy lists on their website, however the benefits should not come at the detriment to the current safety status quo within the corridor that will be impacted by the presence of the new transmission line.

Safety concerns for residents in the impacted corridor are not the only reasons to pursue a full EIS process for this proposed Holy Cross Energy transmission line project. Additional concerns include those identified in the USFS NOPA for the Holy Cross Energy Avon to Gilman Transmission Line project submittal:

1. Project will diminish visual quality of Minturn area
2. Project will increase risk of wildfire
3. Project will change the occurrence of electromagnetic fields
4. Project may impact developed and disbursed recreation uses

As these potential impacts to the human and biological environment of this project have already been identified, these and the concerns of other stakeholders as collected during the public comment period should be thoroughly analyzed in an Environmental Impact Study.

This memo includes notes about the following concerns:

1. Notes on USFS Management Area Guidelines as referenced in the USFS NOPA: Holy Cross Energy Avon to Gilman 115 kV Transmission Line
 2. Notes on Alternatives to the Proposed Action:
 3. Notes on Visual Quality and the Environment:
 4. Notes on Fire Risk
 5. Notes on Rockfall Hazard
 6. Notes on Mudslides
 7. Notes on Dispersed Recreation Activities
 8. Notes on Change in Occurrence of Electromagnetic Fields
 9. In the case the USFS intends to issue a ruling of FONSI
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1. **Notes on USFS Management Area Guidelines as referenced in the USFS NOPA: Holy Cross Energy Avon to Gilman 115 kV Transmission Line**
(5.5 Forested Landscape Linkages)

The project-impacted corridor includes USFS land that is designated to provide migration and movement corridors for forest carnivores and other wildlife species. There is potential for invasive power line infrastructure and the associated electromagnetic fields to decrease the usability of these forest areas by forest carnivores and other wildlife species for migration and movement from habitat to habitat.

For example, this transmission line borders an area that is closed for elk winter range and for elk calving season, i.e. elk security habitat. Could the transmission lines further strain or disrupt critical annual elk behavior that may be already strained?

A thorough understanding of the impacts of above ground transmission lines on wildlife habits and habitat use (including migration corridors) would provide insight and proper direction into the importance of choosing to minimize impacts to wildlife and wildlife habitat over the least costly intrusion into the area for human benefit. At some juncture, we humans will need to not make the least costly decisions for our benefit in order to appropriately accommodate wildlife and the natural environment.

2. Notes on Alternatives to the Proposed Action:

One alternative to the proposed plan included locating the transmission line outside of Minturn and to the west through the area known as Meadow Mountain. The NOPA for this project states this alternative was “eliminated due to concerns about impacts to Meadow Mountain and extensive use for recreational activities by local residents”. USFS land adjacent to the Eagle River and Two Elk Creek area, where the transmission line is proposed, is also an area regularly frequented by local residents for recreation, whether that is Two Elk TH access, use of the Dispersed Shooting Range by Minturn and other local residents, or early-morning and after-work recreation on the access road (FSR 762) into this area.

The statement about impacts on Meadow Mountain could accurately be re-written for the Two Elk TH and FSR 762 area to “was considered but eliminated due to concerns about impacts to [the Two Elk TH and FSR762] and recreational activities by local residents”. It is concerning that there could be impacts to the quality of recreation activities in the Two Elk TH and FSR 762 area as a result of the HCE transmission line project.

A straightforward way to avoid these impacts to the quality of recreation opportunities is to bury the proposed line through more of the proposed area than currently proposed. Burial provides for the most straightforward way to mitigate the impact of the power line while accommodating the public utility need for electric transmission line redundancy.

3. Notes on Visual Quality and the Environment, or Scenic Beauty:

Visual quality, or scenic beauty, is an attribute identified by Town of Minturn Community Surveys as a primary factor for living in Minturn. In the 2019 Town Survey, 65% of Minturn Town residents listed “scenery” as a response to a question about what they enjoy most about Minturn. The Town of Minturn’s 2018-2020 Strategic Plan lists as one of four key strategies the “Long-term stewardship of the natural beauty and health of Minturn’s environment”. Minturn’s recreation tourism economic activity also relies upon the visual quality of the Eagle River corridor through Town and its surrounding parcels, whether privately, federally, state, or Town owned.

When considering this impact, the USFS should consider Town-collected data about the preferences of local residents for “scenery” and the Town’s strategy for “long-term stewardship of the natural beauty and health of Minturn’s environment”. Aerial transmission lines in the corridor are not in line with these local resident preferences and local municipality goals.

Aerial transmission lines in the area of Interstate 70 and the entrance for most visitors to Minturn would be a significant burden on the visual quality of the corridor and reduce the scenic beauty of the so-called “gateway” to Minturn. Minturn desires to retain the current minimum

environmental visual quality present in this “gateway” area to the Town, for the benefit of town residents and businesses and also for the many people that recreate in the Meadow Mountain area. The parking lot for the Meadow Mountain trailheads would be located more or less directly under the transmission lines. This is not an ideal scenario to inspire recreational use of public lands.

Aerial transmission lines are also not in keeping with the aesthetic the USFS should strive to maintain in the area of a Ranger Station facility. Overhead transmission lines are not a naturally-occurring item that recreationists expect to encounter and experience in a USFS service area.

4. Notes on Fire Risk:

The biological environment within the corridor is susceptible to wildfire due to abundant fuels, steep terrain, and the potential for strong micro-climate generated wind events. Should wildfire occur in this corridor, the ability for wildfire to quickly conflagrate up steep hill sides with abundant fuels has the potential to put the Town of Minturn, its residents and Vail Mountain operations at elevated risk.

Multiple fires occurred during 2018 in this corridor, in the area of the dispersed shooting range near the Two Elk Creek TH, at the end of FSR 762. With proper wind direction and intensity, any of these fires could have jeopardized Minturn resident property and homes just across the Eagle River from the dispersed shooting range location. Any fire could also end up impacting additional portions of and neighborhoods in Minturn, possibly leading to the need for the entire evacuation of Minturn.

These fire events at the base of the Two Elk Creek drainage also have the potential to significantly impact recreation tourism occurring further up the drainage in Vail Mountain’s operation permit area. One of the fires during 2018 required the closure and evacuation of Vail Mountain summer activities, disrupting economic activity and endangering Vail’s privately owned ski area operating infrastructure and facilities. While physical damage to Vail Mountain facilities did not occur as result of the wildfire, economic activity was curtailed and this was a disruption to the recreation tourism industry on which Eagle River Valley communities, including Minturn, are dependent. Is Vail Resorts an affiliate party to this NOPA and the Environmental Analysis being completed due to the NOPA?

How do aerial transmission lines impact the ability for a wildfire event in the corridor to be addressed with air support? Air support was critical to containing the support of the largest 2018 wildfire event.

The transmission line is proposed at lower geographic elevations relative to any future dispersed, ranch lot style, home building that may occur on private land at the top of Battle

Mountain, directly uphill and downwind of prevailing winds from the proposed transmission line location.

In Minturn's 2019 Community Survey, residents noted that they're not satisfied with efforts related to wildfire mitigation. Clearly there is an aspect of this that falls on the Town and the County, to manage wildfire mitigation efforts. Minturn is, however, surrounded by USFS land, and wildfire mitigation in those areas is the responsibility of the USFS. During the HCE Gilman to Avon transmission line scoping process to date, Minturn residents have repeatedly expressed their deep level of concern about an aerial transmission line running through Minturn's narrow corridor and the related increase in wildfire risk so close to their community and homes. Those concerns are heightened by multiple human-caused wildfire events in the area of the Two Elk TH and the Dispersed Shooting Range during 2018.

It is important to document Minturn resident concern regarding wildfires and their desire to achieve the safest possible scenario for any transmission line through the corridor. Increasing the amount of buried transmission line to properly mitigate as much as possible the likelihood of the transmission line causing wildfire, would do a great deal of good for Minturn resident concerns about this project. It is important to note that the likely change in installation cost for a full risk-mitigating transmission line is a fraction of the cost to fight, rebuild, and recover from a catastrophic wildfire event in this corridor.

As a base expectation of this project, private residents living within Town of Minturn or Eagle County boundaries should not experience a decrease in their personal- and property- safety due to changes in the likelihood of wildfire risk as the result of the introduction of transmission lines into the existing corridor environment.

5. Notes on Rockfall Hazard

Many parts of the Eagle River valley floor between Gilman and Dowd Junction have significant rockfall hazard potential from the eastern steep wall with exposed rock that is located above the proposed transmission line location in the NOPA. Rockfall impacting above ground transmission lines is nearly inevitable in this corridor, it is just a matter of time.

In March 2014, a portion of Minturn's famous "Lionshead Rock" fell off and tumbled down the steep eastern wall of the Minturn corridor above the Eagle River. Rockfall the size of tiny houses nearly reached the Eagle River, destroying the double set of UPRR tracks at the base of the steep hillside. Xcel has a buried gas line on the hillside where this rockfall occurred. The buried line was able to stay in service after the rockfall event, even though a thorough inspection of the line was necessary.

There are two primary concerns due to rockfall hazard: rockfall knocking out the functionality of the transmission line and the increased potential for wildfire caused by rockfall impacting the transmission line and then sparking a wildfire event.

Rockfall hazard impacting the functionality of the transmission line is likely a short-term, straightforward fix. But the line being out during a critical time when other parts of the “looped” electric grid are not properly functioning could present challenges in providing “enhanced reliability...[to]...benefit public safety, local and regional economies, and national security”, as described as the intended benefit on HCE’s website.

Rockfall impacting the line and sparking a fire anywhere in the Minturn corridor circles back to all the concerns listed under “Notes on Fire Risk” as discussed in section 4 of this memo.

The most straightforward way to mitigate rockfall hazard impacting the transmission line is through additional burial of the proposed transmission line between the northern mouth of the Gilman Canyon and all the way through Dowd Junction to mitigate rockfall risk impacting the line. I believe this is the area of the transmission line most susceptible to rockfall hazard and wildfire risk, the intent with additional burial to be to reduce or eliminate the potential for wildfire to occur and/or spread.

6. Notes on Mudslide Zones

There are 4 mudslide zones on or near the Meadow Mountain USFS Ranger Station at Dowd Junction. These mudslide zones and the location of the proposed transmission lines need to be evaluated to make sure that potential significant movement in these mudslide zones will not cause safety issues to the proposed transmission line. Does the existing transmission line in the area of Whiskey Creek cross one of these identified mudslide zones?

Any transmission line addition should be designed so as to be ultimately reliable in the case of other portions of the loop becoming inoperable, and mudslides have the potential to knock out the functionality of the transmission line.

7. Notes on Dispersed Recreation Activities

The proposed project has the potential to impact dispersed recreational activities that already occur in the transmission line corridor. There is a dispersed shooting range facility on USFS land within the corridor. The Two Elk Creek TH is also located in the same area, and the TH sees both recreationists parking at the TH and also through-traffic from the Shrine Pass and Vail Mountain Back Bowl areas via the Two Elk Creek trail.

The Two Elk Creek trail is also contemplated by Vail Valley Mountain Trails Alliance as part of their efforts to create a continuous soft-surface trail from Vail Pass to Gypsum. Input from

VVMTA should be sought on transmission line presence in the area of this soft-surface trail and related impacts to visual quality in the area of this valley-wide through-trail that is intended to be a valley-wide amenity.

Throughout Minturn's 2019 Town Survey, recreational amenities are consistently listed as one of the attributes that town residents hold most dear and would like to see expanded. The Town Survey demonstrates there is current recreational facility use and a desire to have access to, and use, more recreational facilities. An overhead powerline does not condone, visually or physically, an environment where recreation use is encouraged. Facilities in this case include the physical environment, trail heads, trails, roads, and any other recreational facilities already present in the corridor environment.

There are notes in the opening statement of this memo that relate to the use by Minturn locals of FSR 762, dispersed shooting range, and Two Elk Creek Trail in a similar manner to the stated use of the Meadow Mountain area.

Any transmission line in this area should not pose a decrease in the quality of current or future recreation opportunities in the area. It is worth noting the buried gas line through this area does not disrupt existing recreational use of the FSR 762 and Two Elk Creek TH corridor.

8. Notes on Change in Occurrence of Electromagnetic Fields

From the US EPA website, I understand that electromagnetic radiation from power lines, and how much it affects individuals, has to do with the overall power of the line. It would be good to have a clear understanding of the potential impact a 115 kV line will have on the occurrence and radiation strength of the proposed transmission line. Bear in mind that there are potentially homes that would fall within the recommended 200 meter buffer of the power line. Other information states that high powered lines can emit their electromagnetic field to 300 meters. That may increase the number of homes within the electromagnetic field, especially related to the homes in the area of Cross Creek Road. Understanding this information is important prior to moving forward with any transmission line project.

Further, I understand that there are ways for utilities to mitigate the electromagnetic fields and the resultant radiation power through the manner in which the transmission line is constructed. Additional wires placed in tandem with the transmission line can help to reduce radiation due to current flowing in the opposite direction in the adjacent wire. Understanding Holy Cross Energy's specification for their transmission line and ability to mitigate electromagnetic fields and radiation would be extremely helpful in making decisions for the Environmental Analysis.

Electromagnetic fields are the strongest directly under the transmission line. While there is little difference in the electromagnetic field emitted by underground transmission lines in comparison to those above ground, the simple fact that the field's strength can be mitigated below the line

through burial seems worthy of further investigation. Burial of the line, especially in the areas identified as critical to wildlife as forested landscape linkages, would reduce disruption to wildlife and reduce impacts and/or effects from electromagnetic field radiation to both wildlife and humans who presently used the corridor through which the transmission line is proposed.

9. In the case the USFS intends to issue a ruling of FONSI:

Without intending to imply a pessimistic outlook, if the USFS NOPA for the Holy Cross Energy Avon to Gilman Transmission Line as proposed proceeds with no EIS, features and mitigation measures should stipulate the burial of the line from the entrance of Gilman Canyon (just south of Hwy 24 crossing the Eagle River) all the way to currently used overhead line structures in the area of the Dowd Junction Ranger Station so as to be the least intrusive as possible to the following considerations:

- Additional strain or disturbance to wildlife species and their forested landscape linkages
- The view corridor that is the Eagle River valley between Gilman and Avon, including the Minturn corridor, and the economic and qualitative importance of that corridor in its current state to residents and visitors
- To reduce the likelihood of the transmission line creating a wildfire event
- To reduce the chances of rockfall hazard interrupting line transmission or sparking wildfire
- To minimize the impact to existing recreational uses in the corridor
- To reduce the effects or impacts of electromagnetic field radiation, which is radiation that comes along with the presence of electric transmission lines

Thank you for the opportunity to participate in the United States Forest Service Public Comment Period for the proposed Holy Cross Energy Transmission Line Gilman to Avon Project. I look forward to remaining involved in this process during future opportunities to comment and participate.

Sincerely,

Brian Eggleton
Minturn Town Council