

**Supplement Analysis**  
for the  
**Bonneville-Hood River Transmission Line Rebuild Project Environmental Assessment**  
(DOE/EA-1981/SA-01)

Bonneville Power Administration  
Department of Energy



**Background**

In June of 2018, Bonneville Power Administration (BPA) completed the Environmental Assessment (EA) for the Bonneville-Hood River Transmission Line Rebuild Project (DOE/EA-1981) and issued a Finding of No Significant Impact (FONSI). The EA analyzed the potential impacts of rebuilding the 23-mile-long, 115-kilovolt (kV) high voltage transmission line that runs from Bonneville Dam on the Columbia River, to Hood River, Oregon, through the Columbia River Gorge.

Rebuild of the transmission line began in 2019 and is anticipated to continue through 2020. During demolition of the old transmission line and construction of the new transmission line foundations, substantial rock fall damage was observed on several of the old structures located in line mile 12, where the transmission line crosses Shell Rock Mountain. Shell Rock Mountain is characterized by a talus slope of volcanic rock, which is relatively unstable and prone to slides. To address the risk of rock fall damage to the new structures at this location, BPA has proposed to install permanent rock fall deflectors immediately uphill of eight new steel monopoles.

This supplement analysis (SA) was prepared to determine whether the proposed installation of permanent rock fall deflectors to protect eight of the new transmission line structures at this location is considered a significant new circumstance, or is information relevant to environmental concerns that were not addressed by the EA, such that either would warrant the need for a supplemental EA.

**Description of Proposed Rock Fall Deflectors**

The transmission structures being replaced in this area were a unique H-frame steel lattice design. In the past, the design of these structures made repairs due to rock fall damage relatively straight forward; damaged steel lattice could be removed and replaced by BPA transmission line maintenance crews. As discussed in the EA, the transmission line rebuild design at this location involves installation of steel monopoles on micropile foundations. In the event of rock fall and substantial damage to the new steel monopoles, replacement of the entire steel monopole structure would likely be required, which would likely have impacts to BPA's utility customers, as well as wildlife in the area, including pika and peregrine falcon.

To address the risk of rock falls damaging the new steel monopole structures, deflectors would be installed around a portion of the remaining structure leg of the steel lattice structure being replaced. The remaining steel lattice structure legs are upslope of the new structures, and the deflectors would be placed on the upslope-side of the steel lattice structure legs. Installing the new rock fall deflectors would involve modifying the existing steel lattice structure leg with steel struts and 8-inch by 8-inch by 7-foot wood lagging to make an A-shaped deflector assembly that would attach around the remaining steel

lattice structure leg. The deflector assembly would be approximately 7-feet-wide at the base and 5- to 8-foot-tall. If any component of the rock fall assembly displayed shine or a heightened visual profile, it would be painted with a Natina finish or something similar to dull the structure. The remaining excess steel lattice above the deflector structure would be cut and removed. In the event of rock slide, the rock would hit the wooden lagging and deflect downhill, away from the new steel monopole transmission structure. No additional workspace beyond what is currently being used for the rebuild project would be needed for the installation of the deflector structures.

### **Analysis**

With the rock deflector modifications, the effects of the Bonneville-Hood River Rebuild Project would essentially be the same as described in the 2018 EA. Since no additional workspace beyond what is currently being used for the rebuild project would be required, there would be no additional ground disturbance from installation of the deflector structures. Installation of these structures also would occur within the already underway construction period for the project.

Regarding the potential for visual impacts, BPA has analyzed whether the rock fall deflectors would potentially be visible from Interstate 84, Highway 14, the Columbia River, and the new Columbia Gorge bike path. Since there are currently temporary rock fall protection installations in place for the rebuild of the structures, these were used as a proxy for the proposed deflectors. The temporary rock fall protection, which consists of plywood attached to the historic steel lattice, should approximate the dimensions and materials of the proposed permanent rock fall deflectors. The steel monopoles have not been installed, so the temporary rock fall mitigation is fully exposed. BPA examined the subject area from key viewing areas including I-84, the new bike path, and Highway 14 and found that the temporary rock fall mitigation structures could be located from Highway 14 and Interstate 84, but could only be discerned with effort and with the intention of finding them on the landscape. In general, the temporary rock fall mitigation structures blended well with the trees and rocks of Shell Rock Mountain. One of the temporary structures was faintly visible from the new bike path, but was also difficult to locate and blended in with the landscape.

The proposed permanent rock deflectors would be located immediately behind and uphill from the new steel monopoles, which were addressed in the 2018 EA. The new monopoles would block the direct view of the rock fall deflectors from the nearby viewing points. Also, the rock deflector assembly would be constructed of materials, steel and wood, that generally would blend into the existing landscape. By re-using the historic steel lattice H-frame tower leg as the anchor for the assembly, BPA would be repurposing hardware that has existed in the Columbia Gorge Scenic Area since the 1930's. While pika habitat and a known peregrine falcon eyrie are present near the proposed installation area, the work would be timed so as to not substantially impact these wildlife resources. There are no additional sensitive resources within the rock deflector work area and impacts to all other resources would be consistent with those analyzed and detailed within the EA.

Based on the size of the rock fall deflectors relative to the overall transmission structures and distance to nearby viewing areas, and since the new steel monopoles would partially block the view of the permanent rock fall protectors, the visual impact of the permanent rock fall deflectors would be minimal and consistent with the project's overall visual effects as discussed in the EA. Impacts to other resources would not substantially deviate from those described in the EA and, overall, the installation of rock fall deflectors do not represent a substantial change in the project relevant to environmental concerns.

## **Findings**

This SA finds that the proposed actions and potential impacts related to the installation of permanent rock fall deflectors at eight structure locations on Shell Rock Mountain are similar to those analyzed in the Environmental Assessment (EA) for the Bonneville-Hood River Transmission Line Rebuild Project (DOE/EA-1981). There are no substantial changes in the proposed action and no significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts within the meaning of 10 CFR § 1021.314(c)(1) and 40 CFR §1502.9(c). Therefore, no further NEPA analysis or documentation is required.

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Concur:

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