

Chapter 25 Irreversible or Irretrievable Commitment of Resources

NEPA requires that an EIS include a discussion of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented (42 USC 4332(C)(v) (see also 40 CFR 1502.16). An irreversible commitment of resources occurs when a nonrenewable resource such as minerals or petroleum-based fuels is used for the construction or operation of the project. Because these nonrenewable resources are “used up,” or consumed, this use cannot be reversed except possibly over an extremely long period of time (e.g., hundreds of thousands or millions of years), and thus are considered irreversible. An irretrievable commitment of resources, on the other hand, involves the loss of productive use or value of renewable resources such as timber or rangeland for a period of time.

Words in **bold** and acronyms are defined in Chapter 32, Glossary and Acronyms.

Implementation of any of the action alternatives would consume natural and man-made resources for transmission line, substation, and access road construction, operation and maintenance. The following sections describe potential commitments of resources by general resource area. This chapter does not address the No Action Alternative because there would be no project-related irreversible and irretrievable commitments of resources under that alternative.

25.1 Project Materials

Materials such as aluminum, steel, other metals, wood, gravel, sand, plastics, and various forms of petroleum products would be consumed during the construction and maintenance of the transmission line, substations, and access roads. Most of these materials are not renewable and could be irreversibly committed if not recycled (metals and glass) or reused (sand and gravel) during maintenance or at the end of the life of the project.

25.2 Geology and Soils

Project construction would cause irreversible alterations to topography, particularly during construction of new access roads and at the Castle Rock area substation sites. Vegetation clearing, access road construction, and tower placement would increase soil erosion potential throughout the project area. Long-term impact of soil erosion would be preventable once erodible soils were revegetated and stabilized following construction, however, an irretrievable loss of soil stability and increased soil compaction and landslide potential would occur between construction and revegetation.

25.3 Biological Resources

The project would cause an irretrievable removal of natural habitat from access road, tower, and substation sites. Vegetation (including wetlands) removal and conversion along the right-of-way would represent an irreversible commitment of biological resources if areas were not restored after construction or if transmission facilities were retired but not removed. Likewise, if former

low-growing vegetation cover and composition did not recover after construction, an irreversible commitment of resources would occur. Alteration of stream channels and riparian habitat during construction and improvement of access roads, and construction and operation of the transmission line and substations would represent an irreversible commitment of fish habitat and riparian function if areas were not restored after construction or if transmission facilities were retired and removed. Resulting wildlife losses from these permanent alterations and during construction and operation of the project would represent an irretrievable commitment of biological resources.

25.4 Cultural Resources

Any loss of cultural resources (archaeological sites, historic trails, structures, cultural landscapes, and traditional cultural properties) would be irreversible, because they are nonrenewable resources. Prior to construction, archaeological sites would be delineated and avoided either by siting towers and roads to avoid sensitive areas, through excavation of sensitive resources before construction, or by using other avoidance measures identified when resource areas are known. Visual elements that alter the character or setting of cultural resource sites could cause an irretrievable reduction in site integrity. The commitment would be irreversible if facilities were retired but not removed.

If existing substations, transmission lines and towers that are eligible for listing on the NRHP are altered or replaced as part of the project, it could cause an irreversible and irretrievable commitment of those resources based on the historic nature of some of BPA's transmission infrastructure.

25.5 Land Clearing and Use

The project would commit land for right-of-way clearing, substations, transmission towers, access roads, and construction staging areas. Construction areas that would not be occupied by project facilities could be used for other uses after construction is complete except where portions of the project could create stranded use. Use of these areas for construction would not be an irreversible commitment of resources, but the temporary loss of productive use of these lands for other purposes during construction would be irretrievable. Land used for transmission facilities also would represent an irretrievable property commitment during transmission facilities' operation and maintenance. The commitment would become irreversible if any facilities were retired but not removed, or if after removal some areas of the natural landscape could not be restored to their prior use.

25.6 Greenhouse Gases

The project would cause an irretrievable commitment of resources (primarily tall-growing trees and shrubs) available to sequester greenhouse gas emissions that help to minimize the effects of climate change. Should any transmission facilities be retired and removed at a later date, those areas that previously supported carbon sequestering vegetation could be restored. Fuel combustion by construction equipment and the carbon that would not be sequestered from vegetation removal along the right-of-way and access roads would represent an irreversible contribution of greenhouse gas emissions into the atmosphere.