

**DECISION NOTICE  
and  
FINDING OF NO SIGNIFICANT IMPACT**

**Arizona Public Service Company  
East Flagstaff Substation  
USDA Forest Service  
Peaks Ranger District, Coconino National Forest  
Coconino County, Arizona**

**DECISION**

Based on the Environmental Assessment (EA) completed for this project, including public input, it is my decision to select Alternative 2 authorizing Arizona Public Service Company to construct a new 345/230/69kV electrical substation and associated facilities on National Forest System lands adjacent to the Western Area Power Authority (WAPA) 345kV switchyard east of Winona Arizona. The proposed facility lies within the southwest one-quarter of Section 24, Township 21 North, Range 9 East, Gila and Salt River Base and Meridian.

My decision is summarized by the following components:

- Construct a 345kV/230/69kV substation in two phases over a ten year period on a 35.64-acre parcel of NFS land adjacent to and west of the existing Western Area Power Authority 345kV switchyard through issuance of a special use permit for a thirty year term.
- Construction of the facility and permitting will be done in two phases. Phase I authorizes construction of substation facilities on 20 acres of NFS lands to meet current needs. Phase II will eventually authorize an additional 15 acres for substation facilities to allow for expansion totaling 35.64 acres under permit. The additional acreage under permit is estimated to be needed within 10 years.
- Connect the new substation with a 345kV transmission line from the WAPA switchyard
- Connect to the existing Flagstaff/Winslow 69kV power line immediately north of the new substation.
- Conduct temporary road improvements at the intersections of Forest Road (FR) 4 and FR 764 and at the intersection of FR 764 and FR 82 to allow for heavy oversized equipment to be hauled to the construction site.

**RATIONALE FOR THE DECISION**

The 1987 Coconino National Forest Land and Resource Management Plan provides for a multiple use management framework in which special uses are administered “to best meet public needs” (CNF 1987). The proposed project complies with standards and guidelines specified in the Forest Plan that are applicable to this type of use. The site is located adjacent to the existing WAPA switchyard and 345kV transmission line making the new facility consistent and compatible with existing uses.

To minimize forest impacts, the substation will be located adjacent to the existing Western Area Power Authority's (WAPA's) 345 kV high voltage transmission line and switchyard and will be visually consistent with the power line's existing vertical structures, therefore not significantly changing the existing visual, social, or environmental character of the area. The phased approach to permitting will limit the encumbrance to NFS lands to only what is currently needed but allow for expansion of the facilities if and when it is needed.

## **Background**

The proposed new 345kV/230kV/69kV substation site is located adjacent to a Department of Energy Western Area Power Administration (WAPA) 345kV switchyard south of Winona and east of Flagstaff. The substation would serve as an electrical transformer which will provide future additional circuits to the greater Flagstaff area. The substation would connect to the existing Coconino-Cholla 69kV power line immediately north of the proposed substation location. The substation would reduce the power voltage from the 345kV WAPA transmission line to lower voltages for local transmission or distribution lines providing an additional electrical power source for the Flagstaff area.

The 345kV WAPA electric transmission line and switchyard located south of Winona provides high-voltage power to various parts of Arizona. APS identified the WAPA switchyard as a feasible power tie-in source to the Flagstaff area for several reasons. The WAPA switchyard area would provide a flat topographic location with relatively low visibility. The eastern boundary of the proposed APS substation would border the western boundary of the fenced WAPA switchyard; this will allow for combined access to both substation yards, with the existing WAPA gate still being accessible. The interconnection will not exceed two spans in terms of pole placement (Arizona Corporation Commission requirement), and the project is consistent with the latest APS 10-year plan filed and approved with the Arizona Corporation Commission (APS 2007).

APS would need to begin construction by mid-2007, with the energizing of the initial facilities by 2009. APS then anticipates completing build out of Phase I within the following 5 years, with final build out of Phase II within 10 years of the initial construction.

## **Purpose and Need for Action**

There is a need for improved reliability and continuity of the electric service for growing communities in and around Flagstaff and along the I-40 corridor. To address the projected growth in the Flagstaff area, APS identified a need to upgrade the capacity of the power systems by constructing a new substation in the Winona area. The new electrical facilities are needed to maintain service reliability to Winona, Flagstaff, Williams, Grand Canyon, Tuba City, Munds Park, Sedona, and adjacent communities. APS currently supplies electrical power to the Flagstaff area including portions of Coconino County via power lines constructed in the 1960s. In 2004, the estimated population of the Flagstaff area was 61,270 and has grown at an average rate of 2% a year over the past 10 years. The estimated population in Coconino County increased by 35% from 1990 to 2005 (Coconino County Profile 2005). In addition, around 800 new building permits are issued each year in Flagstaff, contributing to the increased demand on the power system. Current residential and commercial growth is expected to continue, with the population reaching an estimated 69,000 by 2010. This projected growth will likely exceed the existing capacity of the APS's electrical delivery system by the year 2010.

The need for a new 345/230/69kV substation in Flagstaff is twofold:

- 1) By 2009, the hypothetical loss of the Cholla-Coconino 230kV line would result in a thermal overload on the remaining 230kV transmission source from the Yavapai substation. Because of projected growth, this condition worsens by 2015, and in order to alleviate the overload, up to 47 megawatts (MW) of load would need to be dropped. Approximately 9,400 customers in the Flagstaff area would be affected during such a power loss.
- 2) The proposed facilities provide a second transmission source into the Flagstaff area and would prevent service interruption for an extended period of time, given the loss of the existing 230/69kV Coconino substation. An outage of the 230/69kV Coconino substation would cause prolonged outages to more than 20,000 customers in northern Arizona.

Analyzed separately from the proposed action, upgrades to the existing distribution lines would also be desirable to accommodate the extra power from the proposed substation following its completion. Some upgrades to portions of the existing power lines have been completed in recent years because of the age of the lines. However, upgrades to the power lines alone can only provide limited increases without the development of more substation capacity to provide more power to the lines. It is anticipated that if a new substation was established, then placement of more efficient, higher-capacity transmission lines, using the existing corridors, could be completed. This would carry enough power to supply the Flagstaff area well into the future, with the added benefit of not needing new power line corridors.

### **Decision Rationale**

When compared to the no action alternative, the proposed action will meet the purpose and need for the project by improving electricity service reliability for the Flagstaff area. The no action alternative would not meet the project purpose and need. My decision is based on consideration of the best available science pertaining to the subject.

The proposed substation is consistent with the management direction and multiple use management frameworks described in the CNF Plan (1987).

Mitigation measures are displayed and discussed as part of the proposed action in the Environmental Assessment, Chapter 2-Alternatives and will be applied when implementing this project to avoid and/or minimize environmental impact.

Access policy and road maintenance objectives are not changed as a result of this decision.

### **PUBLIC INVOLVEMENT**

The proposal was listed in the Schedule of Proposed Actions on January 1, 2005 and has appeared on all successive quarterly issues to present. A project notification mailer detailing the proposed action, project background, and NEPA process was mailed on September 20, 2006 to 99 members of the public with interest in projects related to the CNF and the project vicinity in particular (i.e., adjacent landowners, interested organizations, and other local agencies).

A total of three comments were received in response to the mailer. One was from the Hopi Tribe's Cultural Preservation Office requesting a copy of the cultural resources inventory report when it becomes available, one was from a public member in favor of exploring other forms of energy, and one was from a public member requesting to receive any future mailings regarding the project.

The official 30 day comment period on the Environmental Assessment began on April 27, 2007. No comments were received.

## **ALTERNATIVES CONSIDERED**

Two alternatives were considered in detail. No action and the proposed action. Because there were no significant issues identified during the scoping process alternatives to the proposed action were not developed or analyzed in detail. During the process to develop the proposed action numerous potential alternatives were studied in concept and eventually dropped from further consideration because they did not meet the purpose and need of the project.

In addition to the proposed action alternative sites for the substation were initially evaluated. However, alternate locations are limited and restricted by the availability and proximity of existing high voltage transmission lines which are needed for supply to the substation. Other locations for the new substation would require new transmission lines across undisturbed forest lands to connect to the WAPA switchyard. During the application evaluation process, other locations were looked at but not carried forward for detailed evaluation because they would require new infrastructure on NFS lands that would have greater environmental impacts when compared to the proposed action.

## **FINDINGS REQUIRED BY OTHER LAWS**

### **Endangered Species Act of 1973**

Biological Evaluations were completed for sensitive plants and animals. No sensitive species will experience impacts that would cause or contribute to a trend towards federal listing or cause a loss of viability to the population or species.

### **Clean Air Act**

Construction of the facilities, including site preparation and clearing will be in accordance with provisions of the Clean Air Act as administered by the Arizona Department of Environmental Quality.

### **National Historic Preservation Act of 1966**

In support of the EA and the CNF's compliance with Section 106 of the National Historic Preservation Act a cultural resource survey was conducted in May 2006 on the property within a mile radius of the proposed action. Cultural resources clearance was recommended and accepted by the State Historic Preservation Officer for the proposed construction of this facility.

### **Floodplain Management (E.O. 11988), Protection of Wetlands (E.O. 11990)**

This activity will not impact the functional value of any floodplain as defined by Executive Order 11988 and will not have negative impacts on wetlands as defined by Executive Order 11990.

### **Environmental Justice (E.O. 12898)**

In accordance with Executive Order 12898 this project does not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

### **Wild and Scenic Rivers Act of 1968, as amended in 1986**

This project will have no adverse effects to any wild and scenic rivers.

### **Clean Water Act of 1977 as amended**

This activity will not impact the functional value or compromise the quality of any rivers, streams or riparian areas. Mitigation measures will be in place as discussed in the Environmental Assessment, Chapter 2-*Alternatives*.

## **FINDING OF NO SIGNIFICANT IMPACT**

The Environmental Assessment for this project was reviewed using criteria identified in implementing regulations for the National Environmental Policy Act (40 CFR 1508.27).

### **Context**

This project is a site-specific action that by itself does not have international, national, region-wide or statewide importance. The context of this action is that approximately .5 acres of CNF lands will be modified to construct the communications site. Within the CNF, impacts will be limited to the lease area and immediate surrounding forest land.

The discussion of the significance criteria that follows applies to the intended action analyzed within the Environmental Assessment.

### **Intensity**

The following discussion is organized around criteria described in the National Policy Act (NEPA) regulations (40 CFE 1508.27).

### **Beneficial and Adverse Impacts**

This action will avoid any impacts of significant intensity. Implementation of mitigation measures will minimize impacts (EA-Chapter 2).

The long-term effects are considered to be beneficial in terms of improved electrical services and reliability for the surrounding community.

### **Public Health and Safety**

There are no known adverse impacts to public safety.

### **Unique Characteristics**

There are no unique characteristics of the geographic area such as proximity to park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas that would be adversely affected.

### **Controversy**

The public generally supports the project and understands the project need. The effects of this action are widely understood and are not considered controversial among resource specialists. The effects on the quality of the human environment are not likely to be highly controversial.

### **Uncertainly and Risk**

The degree of possible effects on the human environment is not highly uncertain, nor are there unique risks involved. Effects are discussed in the EA-Chapter 3.

### **Precedent**

These site-specific actions do not establish a precedent for future actions, which may have significant effects; nor does it represent a decision in principle about a future consideration. The proposal is consistent with standards and guidelines in the Forest Plan. Future actions will be evaluated through the NEPA process and will stand on their own as to the environmental effects and project feasibility.

### **Cumulative Effects**

Past and present actions have been analyzed and considered and found to be not significant. Cumulative effects have been discussed and disclosed in the EA-Chapter 3.

### **Significant Scientific, Cultural or Historic Resources**

The cultural resource survey report determined that the project area and surrounding land had been previously inventoried for cultural resources for other projects. A full new survey was conducted to verify the information on file. The project area, transmission line tie-in locations, and road improvements and reroutes have been configured to avoid all but one site. The impacted site had been previously excavated and tested. A cultural resources clearance has been granted for the project based on avoidance of sites and the previous testing of AR-03-04-02-4563.

### **Threatened and Endangered Species**

This decision will not adversely affect any endangered or threatened species of plants or animals or habitat critical for the management of these species. This action does not violate Federal, State, or local laws imposed for the protection of the environment. A biological assessment and evaluation has not been completed.

Implementing Alternative 2 does not constitute a major Federal action that would significantly affect the quality of the human environment in either context or intensity. I have made this determination after considering the best available science, both positive and negative effects, as well as direct, indirect and cumulative effects of this action and foreseeable future actions and, therefore, the action does not require the preparation of an Environmental Impact Statement.

### **IMPLEMENTATION DATE**

This project maybe implemented immediately. APS plans to complete construction of the project by spring 2009.

### **RIGHT TO APPEAL OR ADMINSTRATIVE REVIEW**

This decision is not subject to appeal pursuant to 36 CFR 215.12. Implementation may begin immediately.

### **CONTACT PERSON**

For more information concerning this decision, please contact Ken Jacobs, Peaks and Mormon Lake Ranger District Lands Staff, 928-214-2464.

*/s/ Mark Sensibaugh*

*for* **NORA B. RASURE**

**Coconino National Forest Supervisor**

*6/13/2007*