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**Background on
EPA Advanced Notice of Proposed Rulemaking Regarding
The Navajo Generating Station and the Four Corners Power Plant**

Concerns about EPA’s ANPR on Navajo Generating Station

On August 28, 2009 the U.S. Environmental Agency published the Advanced Notice of Proposed Rulemaking (ANPR) on the “Assessment of Anticipated Visibility Improvements at Surrounding Class I Areas and Cost Effectiveness of Best Available Retrofit Technology for Four Corners Power Plant and Navajo Generating Station” in the Federal Register, Vol. 74, No. 166, with a deadline of October 28, 2009 for submission of comments.

The ANPR specifically asks for comments that may be considered in modeling the degree of anticipated visibility improvements in the Class I areas surrounding the Four Corners Power Plant (FCPP) and the Navajo Generating Station (NGS) and whether Best Available Retrofit Technology (BART) for emission controls are required at this time. As written, the rulemaking does not address issues of water delivery and economic sustainability of the Navajo and Hopi Reservations. These factors must be taken into consideration to give a fair and balanced view of the issues at stake in the State of Arizona.

Background

Central Arizona Project

The Central Arizona Project (CAP) is a massive water delivery project constructed by the United States Bureau of Reclamation under the authority of the Colorado River Basin Project Act of 1968. It is operated by the Central Arizona Water Conservation District (CAWCD) in order to enable Arizona to make full use of its Colorado River entitlement. In 1964, the United States Supreme Court confirmed Arizona's right to 2.8 million acre-feet of Colorado River water annually. Until construction of the CAP, however, Arizona had no practical means of putting its full Colorado River entitlement to use, because it lacked a delivery system capable of transporting water from the Colorado River to the rapidly growing regions of central and southern Arizona.

The CAP diverts Colorado River water from Lake Havasu, on the Colorado River, and transports it across the desert to central and southern Arizona by means of a 336-mile long water conveyance system that includes 15 pumping plants, concrete-lined canals, inverted siphons, tunnels, pipelines and a regulatory storage reservoir. Since CAP's service area is located at significantly higher elevations than the Colorado River, a large pump lift of about 3,000 feet is required to make deliveries of CAP water to water users.

As a result, CAP uses about 2.8 million megawatt hours of energy to pump about 1.6 million acre-feet of water each year from the Colorado River for delivery to cities, towns, Native American communities, irrigation districts, and private water companies throughout CAWCD's three-county service area. CAP is, therefore, the largest single source of renewable water

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supplies in the State of Arizona and, simultaneously, the largest single end-user of power in the State.

As Congress intended, the importation of Colorado River water through the CAP has reduced dependence on dwindling groundwater resources by providing a stable, renewable supply of water which, on a statewide basis, currently meets over 20% of Arizona's total water demands. Within CAWCD's service area, which encompasses about 80 percent of the State's water users and taxpayers, CAP water meets 50% of the municipal demand, including 45% of the City of Phoenix's total water demand, and about 80% of the City of Tucson's projected water demand by 2020. Equally important, CAP water is a significant source of water for Native American communities within Arizona: 47% of the total CAP supply is dedicated to Native American use.

Authorization of the Navajo Generating Station

The Colorado River Basin Project Act of 1968 also authorized the United States to participate in a coal-fired power plant to provide power for CAP pumping as an alternative to building additional dams on the Colorado River. Construction of the Navajo Generating Station (NGS) was the result of an environmental compromise brokered by then Secretary of the Interior Stewart Udall. The legislative history of the Basin Project Act makes clear that the United States' participation in the NGS was specifically anticipated by Congress in lieu of constructing additional dams in the Grand Canyon to meet CAP's power needs. The United States (Bureau of Reclamation) acquired a 24.3% entitlement to the output from the NGS for CAP, constituting the single largest share held by any NGS participant and resulting in NGS being essentially the sole source of power for pumping CAP water.

In addition, as authorized specifically by Congress, NGS power not needed for CAP pumping is sold to help repay the construction costs of the CAP and fund the costs of Indian water rights settlements in Arizona. Currently, revenues from the sale of surplus NGS power contribute about \$22 million per year toward CAWCD's \$57 million annual repayment obligation for the CAP. Since enactment of the Arizona Water Rights Settlement Act of 2004, revenues from surplus NGS power sales are also used to help fund the costs of Indian water rights settlements in Arizona. In the future, revenues from the sale of surplus NGS power are expected to contribute \$50 million or more per year toward CAP repayment and Indian water rights settlements.

Economic Benefits of NGS to the Navajo Nation and the Hopi Tribe

The Navajo Nation and the Hopi Tribe have long endured economic and living conditions considerably worse than those of non-Tribal citizens of the United States and the State of Arizona. In 2003, for example, the unemployment rates for the Navajo and Hopi were eight to twelve times higher than those of the United States and the State of Arizona, reaching 51 percent for the Navajo and 62 percent for the Hopi. In contrast, the unemployment rates for the United States and Arizona as a whole were 6 percent and 5.2 percent, respectively. Moreover, Navajo and Hopi unemployment data show deterioration in unemployment opportunities over the last decade.

Median household income on the Navajo and Hopi reservations also lags significantly behind household income in Arizona and the United States. According to the 2000 Census, the median income of households on the Navajo Reservation was \$18,900 per year, and \$21,300 per year on

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the Hopi reservation. For the United States as a whole, median household income was \$41,900 per year, while for Arizona the median household income was approximately \$40,500 per year.

The 2000 Census also revealed that over 43 percent of the Navajo population and over 45 percent of the Hopi population lives below the poverty line. By comparison, less than 10 percent of Arizonans and a little over 9 percent of the United States population as a whole live below the poverty line.

In the face of such economic disadvantage, the Navajo Generating Station represents a critical source of employment and revenue for the Navajo Nation and its people. The Kayenta Coal Mine, which supplies coal for the NGS, is another critical source of employment and revenue for the Navajo Nation and an important source of revenue for the Hopi Tribe. The Navajo Generating Station employs 545 full-time employees, almost 80 percent of whom are Navajo, and the Kayenta Mine employs another 422 tribal members. The plant and the mine are also a significant source of revenue, in the form of royalties and other payments, for the Navajo Nation and the Hopi Tribe. In 2009, the station and the mine are expected to contribute almost \$140 million in revenue and wages to the Navajo Nation and its tribal members. Payments to the Hopi Tribe will total about \$12 million in 2009. The revenue received by the Hopi Tribe from coal sales makes up the bulk of the Tribe's funds for governmental operations. These dollars provide employment for hundreds of Hopi.

Emissions Controls at NGS

In addition to the United States' 24.3% entitlement to the output from NGS for CAP, other participants in the NGS include the Salt River Project (21.7%); the Los Angeles Department of Water and Power (21.2%); Arizona Public Service (14.0%); Nevada Energy (11.3%); and Tucson Electric Power (7.5%).

The NGS participants have, to date, voluntarily installed state-of-the art controls for sulfur dioxide emissions and are achieving high levels of particulate emissions control. The NGS is the only plant to have had such controls installed exclusively for visibility purposes. At this time the NGS participants are voluntarily installing low-NO_x combustion technology at a cost of over \$40 million, to reduce NO_x emissions to levels that are even lower than the applicable BART presumptive limit. Retrofit of all three units with this technology will be completed by 2011.

It is clear from the Advance Notice of Proposed Rulemaking that the EPA is also evaluating Selective Catalytic Reduction (SCR) as the potential basis for a BART limit for NGS' NO_x emissions. According to the Salt River Project study, the use of SCR would require over \$660 million in additional capital expense (over and beyond the cost of low-NO_x combustion technology), over \$13 million in additional annual operation and maintenance expense, and the importation of as many as two tanker trucks of anhydrous ammonia per day to support the control equipment. If downstream particulate controls are required in addition to SCR, total capital costs could reach \$1 billion and would produce no perceptible improvement in visibility in the region over that achievable with low-NO_x combustion technology alone.

Future Steps

It is clear from President Obama's Earth Day call for "comprehensive legislation to move toward energy independence and prevent the worst consequences of climate change" and current

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legislative steps at the federal level such as the American Clean Energy and Security Act, HR 2454 to reduce greenhouse gas emissions, that the use of fossil fuels for power supply will be reduced in the future.

In recognition of the necessity to eventually move away from coal-fired power generation, the participants in the NGS are actively engaged in researching the availability of alternative power supplies. Implementation of new power supplies takes time, however, and will require not only development of new infrastructure but also State and Federal legislation to enable an entity such as CAWCD to participate in development and acquisition of energy supplies in advance of the actual need for those supplies to pump water.

Conclusions

As previously described, the NGS is critical not only to CAP operations and the ability of the CAP to meet its statutory purposes, but is also critical to the economic well being of the Navajo Nation and Hopi Tribe and to the fulfillment of commitments made in numerous Indian water rights settlements in Arizona to which the United States is a party. No action should be taken precipitously that would put the economic well being of the State of Arizona and the Native American communities within the State at such risk as described herein.

The approach to determining the level of emissions controls that are necessary at the NGS should account not only for visibility improvements within adjacent Class I areas but also the economic vitality of the Navajo Nation, Hopi Tribe and other Native American communities within Arizona, current and projected Indian water rights settlements, and the ability of the participants in the NGS to deliver renewable water supplies within the State of Arizona at a reasonable cost.

We recommend EPA develop a process that would give consideration to these and other worthy objectives while also balancing the need to meet the goals of the Clean Air Act. A process that takes into consideration the major factors of water delivery and economic impact, in addition to those factors currently outlined in the ANPR, would allow such a balance to be achieved.