Navajo Generating Station Speaking Points

Municipal, industrial and agricultural water users and Native American communities throughout central and southern Arizona rely on the Navajo Generating Station to provide the power necessary to deliver renewable water supplies from the Colorado River. In addition, the Navajo Generating Station is critical to the economic stability of the Navajo Nation and Hopi Tribe, to funding of current and future Indian water rights settlements throughout Arizona, and to repayment to the federal government of the Colorado River water delivery system.

Background

After decades of conflict and litigation, in 1964 the United States Supreme Court confirmed Arizona's right to 2.8 million acre-feet of Colorado River water annually. Prior to completion of the Central Arizona Project (CAP), however, Arizona had no practical means of putting its full Colorado River entitlement to use. The CAP, constructed by the U.S. Bureau of Reclamation under the authority of the Colorado River Basin Project Act of 1968 and now operated by the Central Arizona Water Conservation District (CAWCD), is a massive water delivery project that transports water from the Colorado River to water users throughout the rapidly growing regions of central and southern Arizona and helps ensure that the State has full access to its Colorado River entitlement.

The CAP diverts Colorado River water from Lake Havasu and transports it across the desert 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 approximately 3,000 feet is required to deliver CAP water to users at the terminus of the conveyance system.

As a result, CAP uses approximately 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, industries and private water companies throughout CAWCD's three-county service area (Maricopa, Pinal and Pima Counties). CAP is, therefore, the largest single source of renewable water supplies in the state of Arizona and, simultaneously, the largest single end-user of power in the state.

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. Participants in the NGS include the United States (24.3%); 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 legislative history of the Basin Project Act makes it clear that the United States' participation in the NGS was specifically authorized by Congress in lieu of constructing additional dams in the Grand Canyon to meet CAP's power needs. The United States' (Bureau of Reclamation) entitlement to the output from the NGS for CAP constitutes the single largest share held by any NGS participant and results in NGS being virtually the sole source of power (95%) for pumping CAP water.

Criticality of Renewable Water Supplies to Central and Southern Arizona

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. On a statewide basis, CAP currently meets over 20% of Arizona's total water demands. Within CAWCD's three-county service area, which encompasses about 80% of the State's water users and taxpayers, CAP water currently meets about 50% of the total water demand. CAP supplies about 45% of the City of Phoenix's total water budget, and by 2020, will meet about 80% of the City of Tucson's water demand. 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.

Economic Impacts of NGS to Native American Communities in Arizona

As authorized specifically by Congress, NGS power not needed for CAP pumping is sold to help repay the construction costs of CAP and to fund the costs of Indian water rights settlements in Arizona. Since enactment of the Arizona Water Rights Settlement Act of 2004, revenues from surplus NGS power sales have contributed about $22 million per year toward CAWCD's $57 million annual repayment obligation to the federal government for the CAP. 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 toward Indian water rights settlements.

The Navajo Nation and the Hopi Tribe have long endured economic hardship 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 employment opportunities over the last decade.

Median household income on the Navajo and Hopi reservations also lags significantly behind household income in the United States and Arizona. 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 the Hopi reservation, compared to the median household income of $41,900 for the United States as a whole and $40,500 for Arizona The 2000 Census also revealed that over 43% of the Navajo population and over 45% of the Hopi population live below the poverty level.

In the face of such economic disadvantage, the NGS represents a critical source of employment and revenue for the Navajo Nation and the Hopi Tribe. The Kayenta Coal Mine, which supplies coal for the NGS, is a critical source of employment and revenue for the Navajo Nation and an important source of revenue for the Hopi Tribe. The NGS employs 545 full-time employees, almost 80% of whom are Navajo, and the Kayenta Mine employs another 422 tribal members. The plant and the mine also provide royalties and other payments to 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, and payments to the Hopi Tribe will total about $12 million. 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.

The EPA should not embark on a rulemaking that disproportionately impacts one or more subpopulations, compared to the general population as a whole. Overly burdensome and costly emissions controls at NGS, which conceivably could lead to shutting down of the plant by the Participants, impact the viability of the Navajo and Hopi tribal economies, not to mention their very economic survival.

Best Available Retrofit Technology For Emissions Controls

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 in the country to have had such controls installed exclusively for visibility purposes. In addition, the NGS participants at this time are voluntarily installing low-NOx combustion technology at a cost of $43 million, to reduce NOx 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.

As required by the Clean Air Act and EPA's own BART regulations, the approach to determining the level of emissions controls that is necessary at NGS should account not only for visibility improvements to be achieved within adjacent Class I areas but also take into account the economic importance of NGS to the cost effective delivery of essential water supplies to Arizona and to the economic well being of the Navajo Nation and the Hopi Tribe.

Greenhouse Gas / Climate Change Legislation

On Earth Day, President Obama called for "comprehensive legislation to move toward energy independence and prevent the worst consequences of climate change." On May 21st, the House Energy and Commerce Committee took an important step toward accomplishing this by passing the American Clean Energy and Security Act, HR 2454. This bill, written by Chairman Henry Waxman (D-CA) and Representative Ed Markey (D-MA), would place an economy-wide cap on carbon pollution that would require reductions in emissions of GHGs by 17 percent by 2020 and 83 percent by 2050 and require utilities to generate about one fifth of all energy from renewable sources by 2020. The bill contains emission allowances for most electrical utilities that will reduce or delay

the cost impact of the legislation for most utilities. Unfortunately, because of the way eligible utilities are defined, it appears that none of these allowances will be available for the CAP share of NGS. This must be corrected as the legislation moves forward. While it isn't known how much carbon emissions controls might eventually cost, the impact of climate change legislation on CAP water rates could be substantial. In round numbers, NGS emits about one ton of carbon dioxide (CO_2) for each megawatt hour of energy produced. CAP uses about two megawatt hours of energy for each acre-foot of water delivered. So, a rough can estimate of the impact of the cost of CO_2 controls on our per acre-foot water delivery charges can be obtained by multiplying the cost per ton of CO_2 controls by two. For example, if CO_2 controls cost $100 per ton of CO_2 emitted, that would increase CAP water rates by about $200 per acre-foot. Today, CAP's energy costs are about $50 per acre-foot of water delivered. A $200 per acre-foot increase in CAP energy rates would represent a 400% increase to our water users.

Summary

The NGS provides power for CAP operations to deliver cost effective, renewable water supplies to its customers and, in total, to 80% of the State of Arizona's population located within the CAWCD service area. Substantial increases in power costs and detrimental impacts to reliability of the NGS will severely affect all CAP water users. The NGS is equally critical to the economic well being of the Navajo Nation and the 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.