



Navajo Generating Station and the Central Arizona Project

CAP does not have an ownership stake in Navajo Generation Station (NGS). The original plan to power the CAP called for construction of two dams on the Colorado River, at Bridge Canyon and Marble Canyon. But when that plan proved infeasible, the U.S. elected to partner with five southwest utilities to construct NGS. The United States is a partial owner, holding 24.3% of NGS—547 megawatts of capacity—for the benefit of CAP. The U.S. entitlement at NGS was intentionally sized larger than needed for CAP pumping so that about 1/3 of the capacity would be available for the sale of surplus energy to help pay for CAP construction, meaning that, at most, energy needed for CAP pumping would consist of no more than approximately 16% of the overall NGS capacity.

Historically, NGS provided much of the energy needed to pump CAP water from the Colorado River into central Arizona. At one time, NGS met more than 90% of CAP's power needs, although in recent years CAP has relied more on other sources of energy from the market. In 2016 and 2017, NGS supplied about 70-75% of CAP's energy needs, and is expected to be about the same for 2018. See charts on the next page for more information regarding CAP's energy sources.

Closure of NGS will not impact CAWCD's ability to meet its annual repayment obligation

- To date, NGS surplus revenues have repaid more than \$600 million towards CAWCD's repayment obligation, returning nearly double the \$350 million that the United States spent to construct NGS and install SO₂ scrubbers. But NGS was never expected to cover the entire CAP repayment obligation. That is why the United States insisted that Arizona create a single entity with ad valorem taxing authority to contract for CAP repayment—the Central Arizona Water Conservation District. The United States spent more than \$4 billion to build the CAP, of which \$350 million was spent on NGS. CAWCD is obligated to repay approximately \$1.65 billion. After making the payment due in January 2018, the remaining principal amount owed on the federal debt is a little less than \$1.1 billion. NGS has more than paid for itself. The outstanding portion of the CAP debt is related to other facilities.
- Even with the closure of NGS, there will continue to be other revenues to the Lower Colorado River Basin Development Fund that will assist in CAP repayment—e.g., surcharges on Arizona sales of energy from the Hoover and Parker-Davis projects, which contribute nearly \$6 million per year on average. CAWCD also collects tax revenues from its three-county service area that it can use to meet its annual repayment obligation, and capital charges from CAP's city and business water purchasers. By contract, capital charges are to be used to repay CAP construction costs related to the delivery of water to cities, towns and private water companies, which is effectively the outstanding balance of the CAP repayment obligation.

Higher energy costs mean higher water rates for CAP customers

- CAP is a public entity and has a responsibility to our rate payers to deliver a reliable water supply at the lowest reasonable cost. Lower energy costs benefit CAP water users, including Indian tribes, agricultural and municipal and industrial water users.
 - In 2016, the last year NGS was operated under a normal maintenance regime, the budgeted cost of NGS energy to plant owners was \$37.20/megawatt-hour, of which \$22.40 was the cost of fuel. By comparison, the average price actually paid by CAP for energy purchased on the market in 2016 was \$17.21/megawatt-hour—less than half of the cost of NGS energy and most significantly, \$5/megawatt-hour less than the cost of fuel for NGS. The average price CAP paid for energy purchased on the market in 2017 was \$19.68/megawatt-hour, and 2018 is looking similar.

- CAP has significantly reduced its pumping energy costs in recent years by curtailing generation at NGS and buying more energy from the market. That has resulted in substantial savings to CAP water users.
 - The CAP pumping energy rate, which was \$77 per acre-foot (AF) in 2017, was reduced to \$65/AF in 2018. In early April, CAP published its proposed rates for 2019-2024, which show a provisional pumping energy rate for 2020, the first year without NGS, of only \$54/AF. That represents a 30% decrease compared to 2017, which means a savings of \$23/AF to all CAP customers.

CAP's need to plan for its future energy needs, which could include NGS

- CAP must take appropriate action to ensure that it has the energy it needs to deliver water in the event that NGS closes. The current NGS owners have stated publicly that they are not going to operate the plant beyond 2019.
- While CAP is not obligated to purchase power from NGS after the current contracts expire in 2019, CAP has repeatedly stated that it would welcome the opportunity to contract for competitively priced post-2019 power, in the event that a new ownership group emerges. Even after CAP executes contracts based on its RFP, there will be room in the CAP portfolio for both short and longer-term opportunities for potential new owners of NGS.
- In November 2017, CAP issued a Request for Proposals (RFP) for energy to be delivered beginning January 1, 2020. CAP received numerous responses to its RFP and discussed the responses at Board meetings in March and April. As a show of good faith to proponents of NGS, the CAP Board not only delayed the initial issuance of the RFP from October to November, it also agreed to delay its decision on the RFP from April 5, 2018 to May 3, 2018, where it selected the "Lowest Cost Portfolio" -- 30MW of non-firmed solar for 20 years and 35MW of utility fleet for 5 years. Those contracts will be coming to the Board for approval on June 7.

