

Long-Term Future of Navajo Generating Station
Subgroup to **PURSUE POTENTIAL NEW CUSTOMERS/LOAD**
Recap of March 23, 2017 Status Call

Arizona Corporation Commission (lead) in coordination with Navajo Nation Task Force is working to explore of potential customers post-2019. Would existing owners be potential customers? Where/to whom can power/energy be sold if generated?

Subgroup members include:

Matt Gress, ACC
Erin Ford Faulhaber, ACC
Dave Hutchins, TEP
Jo Smith, TEP
Jeff Guldner, APS
Greg Bernosky, APS
Robert Taylor, SRP
George Bilicic, Lazard
Robert Joe, Navajo Nation
Bryan Galli, Peabody Energy

The purpose of the conference call was to discuss findings and considerations related to potential customers. The topics of discussion included:

- Overview of regional transmission availability to consider for potential customers
- Q-3 operational considerations
- Assessment of how decisions at NGS can affect other base load plants as well

MAIN TAKEAWAYS AND ACTION ITEMS

Transmission

- A major focus of subgroup effort is on transmission—is there a value to maintaining transmission system should the plant discontinue operation? NGS lease requires removal of transmission if plant closes. If plant shuts down and transmission capability remains in place, this is a better result according to the utilities; but ownership structure around transmission is complex. Looking at who owns the different transmission paths.
- System was built to accommodate current owners/participants. For example, suppose the plant could serve eastern loads (Colorado or New Mexico). The transmission line from NGS to Four Corners (Moenkopi) is designed to take energy in one direction (westward). There may be capacity constraints related to taking power a different direction than the system was designed for.
Without NGS transmission, does region suffer? Really, what is taken away is ability to get power to NV and CA. **Navajo, APS, TEP, and SRP Following Up.**

Altered Operating Profile

- Is Peabody open to reduced operation of NGS? (See “Q3 Operational Considerations” below.) Nearby coal plants are either running (Cholla) or expected to run (Coronado) at reduced capacity. How do those scenarios work, and could they inform potential options at NGS? APS and Peabody to examine coal contracts (reduced operation,

exchange of other existing coal contracts). **APS and Peabody Following Up.**

- How can energy storage impact operation of NGS—Matt Gress referenced a letter to the ACC Docket No. E-00000C-17-0039 from ALEVO advocating “that stakeholders explore how energy storage may enable NGS to operate more efficiently...and in turn operate into 2020 and beyond.” Follow this [link](#) to view the letter. **APS Following Up.**

CONSIDERATIONS DISCUSSED

California and Nevada have state policies that restrict/prohibit the import of coal generation. The cost gets you on the spot market; bars long term sales.

Discussion of what happens if one or more NGS participants are involved in the Energy Imbalance Market (EIM) or join the California Independent System Operator (CAISO):

- If PacifiCorp were to fully join CAISO—the PacifiCorp transmission system would be operated by CAISO and move into business model of how power plants are dispatched. The power plant would bid in a day ahead to CAISO—if bid is accepted and determined to be the least cost resource (including carbon taxes), then the power plant would also face an added transmission access charge.
- NGS could bid into CAISO as a generator but questions remain related to governance. Would CAISO disallow a utility’s coal-fired fleet from bidding into CAISO in order to comply with NV and CA state regulations that discourage use of coal-generated power?

Energy delivery that utilizes multiple transmission systems is subject to tariffs from each system (“pancaking”)

- In this scenario, if NGS energy is sold to customers in New Mexico, the electricity would travel from NGS to Moenkopi to Four Corners (one transmission tariff for that path). From Four Corners, the electricity would enter transmission lines owned by Public Service of New Mexico (PNM) and would be assessed another transmission tariff. If NGS participants don’t own transmission needed to deliver electricity, then differing transmission tariffs can add up quickly, making the sale of that power uneconomic.
- Navajo asked about whether customers of PNM have network service transmission, which may mitigate “pancaking.” APS is unsure but wanted to raise the concept of “pancaking” as an issue when considering possible customers. Regarding potential for “pancaking”: (which adds to cost of power), if current participants are no longer using transmission, then that transmission must be made available (available transmission capacity) from power plant to load.
- SRP did a transmission study—if NGS is decommissioned, and leave transmission intact—the transfer capability east of river goes down 400 mW. Both NGS and its associated transmission are decommissioned, then that capability drops 2,000 mW. Navajo suggested that if a customer continues to take output from NGS, conserves benefit of transmission system as whole. If new participant steps up to NGS, can they get transmission tariff discounts? Would APS/TEP consider discounts? The utilities noted

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that available transmission capacity tariffs are subject to FERC rules, which do not allow discounts.

Q3 Operational Considerations

- The value of NGS for utility customers is in Q3. If one were to put together a transactional model that packs energy into Q3, the utilities purchasing energy would need to mitigate “shaft risk,” which is having a reserve capability in the event of an unplanned outage at NGS.
- A seasonal arrangement might be a summer-only period from June 1-Sept. 30.
- TEP concurred with the seasonal approach. In the “shoulder months” of the spring and fall, the glut of renewable energy is displacing coal-fired baseload energy.
- When you look at non-summer periods—when loads are highest, there is a need for more flexible generation due to the need to drop thermal generation to take advantage of very cheap renewable energy.