GVEA Strategic Generation Plan

Feb. 27, 2024

The SGP as modified reads as follows:

1. Complete the installation of the Selective Catalytic Reduction System on Healy Unit 1 in 2024.
2. Continue operating Healy Unit 2 until such time as alternative sources of reliable, lower cost energy are available.
3. Finalize negotiations for Power Purchase Agreement(s) to integrate large-scale wind resources into GVEA's system at a price that will lower the overall cost of power to GVEA's members.
4. Install energy storage of sufficient size(s) to assist GVEA in integrating large-scale renewable resources onto GVEA's system.
5. Continue efforts to secure reliable baseload generation to replace Healy Unit 2 in order to lower rates, increase reliability and reduce emissions, both in the short term and long term.

Out 5. Secure a Purchase Power Agreement (PPA) for 30-50 MW of energy from southcentral. *Due to natural gas constraints in Southcentral, unknown when the SGP was implemented June 2022.*

GVEA's SGP, as modified Feb. 27, 2024, is intentionally open-ended. The plan ensures that as circumstances and conditions continue to change, GVEA has the flexibility to pursue all options and alternatives that are in the best interest of GVEA's members in terms of lowering rates, increasing reliability and reducing emissions – both in the short and long-term. The March 1 increase in GVEA's cost of power underscores the necessity that GVEA continue to aggressively pursue, and secure lower cost reliable energy to replace underperforming generation units and reduce GVEA's reliance on higher cost generation.

GVEA Strategic Generation Plan

June 27, 2022

In June 2022, Golden Valley Electric Association's (GVEA) Board of Directors adopted a Strategic Generation Plan with the goal of stabilizing and ultimately reducing member rates while simultaneously reducing emissions.

We are now a year into the implementation of this plan, and we would like to share an update on our progress. Please know that GVEA continues to work diligently to achieve the goals of the Strategic Generation Plan and is focused on maximizing federal funding opportunities.

GVEA's Strategic Generation Plan consists of five components:

1. **Install a selective catalytic reduction (SCR) system on Healy Unit 1.** This project is underway and on schedule. The SCR will be installed and operational by December 31, 2024.
2. **Develop a comprehensive plan for the systematic retirement of Healy Unit 2 by December 31, 2024.** The decision to close Healy Unit 2 was made because of the plant's unreliability due to a wide variety of mechanical issues. While GVEA employees and contractors have invested extensive time and effort to work toward improved reliability, the plant continues to have unplanned outages forcing GVEA to generate electricity from alternative, more expensive sources which negatively impacts rates. In preparing for the retirement of Healy Unit 2, GVEA is pursuing reliable replacement energy, and is making the necessary system modifications to ensure that Healy Unit 1 can operate independently from Healy Unit 2. GVEA continues to explore opportunities to repurpose Healy Unit 2 in order to minimize impacts to our skilled workers. GVEA is actively evaluating and pursuing all appropriate federal funding opportunities to restructure the existing Healy Unit 2 debt and to secure a renewable Power Purchase Agreement (PPA) and an energy storage system. GVEA will know more in late 2023/early 2024 as to whether our efforts in securing federal funding have been successful.
3. **Integrate large scale wind into GVEA's system.** GVEA worked with an independent third-party to develop a request for proposal (RFP) for a 40-150 megawatt (MW) wind system. The RFP is currently open until August 4, 2023. Once the RFP closes, GVEA will select a bidder to partner with and seek federal funding grants to reduce the ultimate cost of the wind project to our members.
4. **Purchase and install a new Battery Energy Storage System (BESS).** In November 2022, GVEA received several responses to a RFP for a new battery system. The battery costs associated with the responses were significantly higher than those received in 2020 and anticipated by GVEA (in some cases 200-250% higher). In July 2023, GVEA filed for a federal funding opportunity for a 46 MW/92 MWH BESS and is in the process of selecting a vendor and finalizing costs on this project. In addition, GVEA is evaluating the potential of long-duration energy storage that would complement and support integration of large-scale wind into our system. GVEA has partnered with a third-party entity and submitted a project for a potential grant opportunity with the Department of Energy.
5. **Secure a Purchase Power Agreement (PPA) for 30-50 MW of energy from southcentral.** GVEA currently has a PPA for natural gas generated power from southcentral through 2024. The cooperative is actively pursuing efforts to secure longer duration contracts from whatever source may be appropriate (gas, wind, solar, hydro or other commercially available technologies). Securing 30-50 MW of energy continues to be a challenge given Alaska's changing energy landscape, particularly as it relates to the anticipated Cook Inlet gas shortages. Recently, ENSTAR and the Berkley Research Group presented a report to the Regulatory Commission of Alaska on Phase 1 of their Gas Supply Assessment, and through that report several near- and long-term options for gas supplies have been identified. A copy of that report is available on the RCA's website.

GVEA is optimistic and enthusiastic about the potential to achieve real, transformative change on our system and across the Railbelt, particularly with the possibilities of federal funding opportunities. Our team is focused

and fully engaged in the successful implementation of the Strategic Generation Plan and significantly reducing rates and emissions through this process.