The Water Infrastructure and System Efficiency (WISE) Program is a comprehensive, turnkey solution for water and wastewater system operators that offers no-cost energy engineering services, project support, and cash incentives. Lincus uses a holistic approach combining existing pump tests and hydraulic modeling to evaluate how water and wastewater customers can optimize their distribution and treatment systems. The program focuses on both individual pump efficiency improvements as well as comprehensive system optimization measures to assist water distributors in reducing energy costs.

- **Eligibility**: Customers must meet PG&E program requirements. Most water distribution systems, water and wastewater treatment plants are eligible for program participation and can contact a Lincus program manager to determine their eligibility.

- **Measures offered**: WISE is a comprehensive program that offers both deemed and custom measures.

**Energy efficiency measures and services**

Lincus is implementing an energy-efficiency (EE) program within PG&E’s service territory for water and wastewater customers. The WISE Program focuses on multiple layers of optimization that include: pump efficiency overhaul, pump system optimization, and overall system network analysis. WISE will benchmark each participating customer’s pumps in function of available data, evaluate the agency’s pumping system of optimization opportunities, and provide technical implementation assistance to drive projects to installation. Furthermore, WISE will prepare all necessary program paperwork for maximum allowable incentive. Energy efficiency incentives are based on calculated energy savings and permanent peak demand reduction. In addition, incentive payment is capped to 50 percent of the project cost.

Some of the program measures include but are not limited to:

**For Water Systems**: Pump overhaul, pump sequencing, variable frequency drives, storage system, pump station improvements, and overall distribution system optimization.

**For Wastewater Systems**: Aeration blower improvements, VFDs, DO control, VFDs on pumps, optimization of aerobic digestion, installation of high efficiency diffusers, indirect evaporative cooler-single state, and centrifuge operation optimizations.

The program will also provide Water Energy Nexus (WEN) Education and Outreach opportunities to selected water and wastewater system operators to evaluate and document the availability of customer water-energy data. Through the WEN report, Lincus will develop embedded energy intensity profiles for the customer’s system to identify opportunities for improving integrated water-energy resource management.
Eligibility requirements

- Any existing equipment required to establish the project baseline must be available for inspection. The existing equipment may be operational or non-operational.
- New equipment/systems must not be installed. Installation cannot begin until the WISE program has the opportunity to inspect and approve the project.
- Energy savings for which Incentives are paid cannot exceed the actual usage provided by PG&E.

Program information

WISE provides technical services to identify opportunities, develop project feasibility studies, provide project management assistance, perform measurement and verification services as necessary for the installation of high-efficiency equipment, and/or process system efficiency improvements to obtain incentives from WISE. Customers that install energy-saving technology are eligible for energy efficiency incentives based on calculated energy savings and permanent peak demand reduction. Incentive payment is based on a flat incentive rate (per kWh) applied to one year of energy savings, plus a flat incentive rate (per peak kW) applied to the resultant permanent peak demand reduction above and beyond baseline energy performance, which include state-mandated codes, federal-mandated codes, industry-accepted performance standards, or other baseline energy performance standards as determined by PG&E or the CPUC. Incentive rates vary based on project measures and are capped to 50 percent of the project cost. Customers who wish to participate in the program and receive incentives through WISE must submit an Access Agreement and a Program Participation Agreement. In order to qualify, customers must be willing to install eligible energy-efficiency measures through the program process described in the WISE Policy and Procedures Manual.

Conclusion

The Water Infrastructure and System Efficiency Program offers no-cost services designed to assist water and wastewater customers in identifying energy efficiency projects and securing incentives to help offset installation costs. Additionally, the Water Energy Nexus component will study existing integrated water-energy resource management to identify opportunities for improving water systems to reduce energy costs.

Next steps

For additional information about the Lincus Water Infrastructure and System Efficiency Program and how to optimize your water distribution system, please contact Cody Coeckelenbergh at CodyC@LincusEnergy.com or contact your PG&E account representative.