Item 10: Sierra Nevada Cheese Company, Inc.

April 10, 2025 Business Meeting

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Energy Research and Development Division

Solicitation Overview

GFO-23-313, Round 2 - Deployment of Decarbonization Technologies and Strategies for California Industrial Facilities (INDIGO Program)

Goal: Deploy advanced decarbonization and/or grid support technologies at industrial facilities*:

- Electrification
- Reduce GHG emissions
- Target technologies that demonstrate cost-effectiveness and scalability geared towards widespread adoption

Solicitation Funding:

- 1 Project
- $5.5M with $1.4M in private match funding

*Projects that benefit an oil or gas production, processing, or refining facility are not eligible.

Benefits to Californians

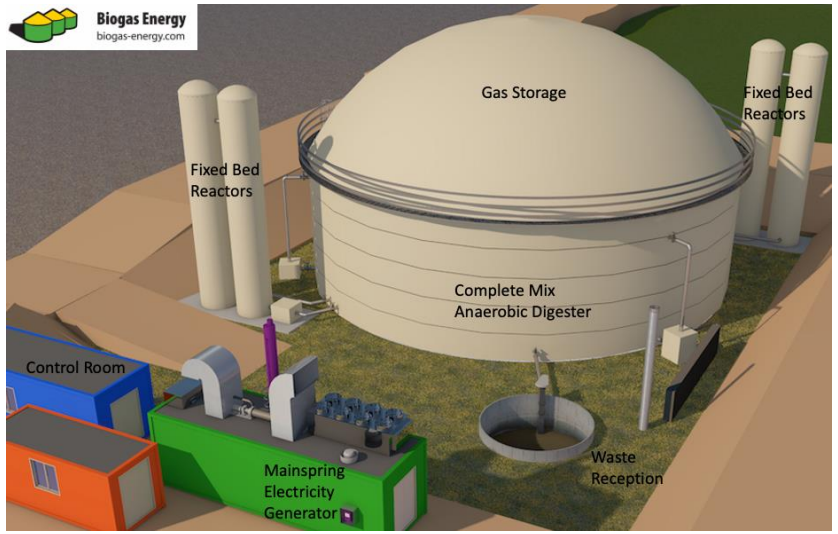
- Improve public health, with a focus on justice communities
- Enhance the electric grid, particularly during net peak periods
- Demonstrate reliability and effectiveness of advanced technologies and strategies for electrification, grid support, and decarbonization

Source: EnergyMonitor.ai website

Source: Northmore Gordon website

Sierra Nevada Cheese Co.

- **Location:** Glenn County, California Central Valley
- **Project Focus:**
  - Replace sludge ponds with an anaerobic digester - biogas to supply power to the plant and steam boiler
  - Replace existing chiller with an industrial CO_2 heat pump for hot and cold water
- **Objectives:**
  - GHG Emission Reductions of 3,554 MTCO2e/yr (85% reduction in facility emissions)
  - NOx Emission Reductions of 237,201 lbs/yr
  - Electric Grid Energy Savings of 2.2 GWh/yr (632 MWh Peak)



Source: Biogas Energy Inc.

Market Potential

- **Demonstration of emerging technologies in an integrated solution, applicable to multiple industries**
  - Anaerobic Digester: Biowaste related industries (food processing, pulp & paper, etc.)
    - Estimated over 1,200 potential new biogas installations across California
    - 116B ft^3 of renewable methane from biogas annually (966M gallons of gasoline equivalent)
  - Hybrid Biofuel/Natural Gas Steam Boiler: high temperature industrial processes
  - CO_2 Heat Pump: chillers & low temperature heat in industrial processes
  - Linear Generator: backup generators to support off-grid operations

- **With grant funding**
  - $1.1M in annual operating cost savings
  - 5-year payback period
  - 35-year expected lifetime of equipment

Staff Recommendation

- Approve the grant agreement
- Adopt staff's determination that this action is exempt from CEQA