The facility will provide food processing companies with local, sustainable, cost-effective, and environmentally sound waste disposal solutions and significantly promote local economic growth by creating jobs and attracting new businesses to the area.

Jesse Moffett
Frederick-Winchester Service Authority, Executive Director

**Project Highlights**

- **Design Capacity:** 12.6 mgd
- **Projected Savings:** $88M over 20 years
- **Owner:** Frederick-Winchester Service Authority
- **ESCO:** Energy Systems Group (ESG)
- **Engineer:** Black & Veatch
- **Constructor:** Haskell
As part of an energy savings performance contract, ESG, Haskell and Black & Veatch collaborated to construct a waste to energy facility and combined heat and power system.

**Treatment Infrastructure Renewal**

**Anaerobic Digestion:**
- Three 1.25 million gallon digesters, 13,000 SF control building housing switchgear, lab, boiler, heat exchangers, grinders, pumps, compressors

**Dewatering:**
- Gravity belt thickeners, belt filter presses, polymer feed pumps, progressive cavity pumps and associate electrical improvements

**Controls:**
- SCADA control system upgrade

**Electrical:**
- New primary 12.5kV switchgear unit, 800kW emergency power system interconnected to cogeneration, net metering/grid paralleling capability

**Aeration:**
- Replaced four 450 hp multi-stage blowers with four 150 hp turbo blowers, new electrical, fine-bubble diffusers, piping and controls

**Green Energy and Resource Recovery**
- 848 kW electric cogeneration with biogas conditioning system
- High strength food waste and FOG receiving facility with segregated waste storage
- Ostara Pearl® phosphorus nutrient recovery system

**Facility Efficiency Improvements**
- Building energy management control system
- Lighting and mechanical system improvements
- Potable water system upgrade

**Tangible Savings**
- Utility savings are from on-site power generation, more efficient blowers and lighting systems improvements
- Chemical savings through elimination of lime and implementation of biological phosphorus removal
- Landfill savings from reduced biosolids
- New revenue from high strength waste receiving