Hermitage Food Waste to Energy

Tom Darby,

Manager, Hermitage Municipal Authority

Superintendent, Hermitage Food Waste to Energy and Water Reclamation Facility

Food Waste to Energy

Why do it?

How do we do it?

Who's doing it?

No regrets?

Why do it?

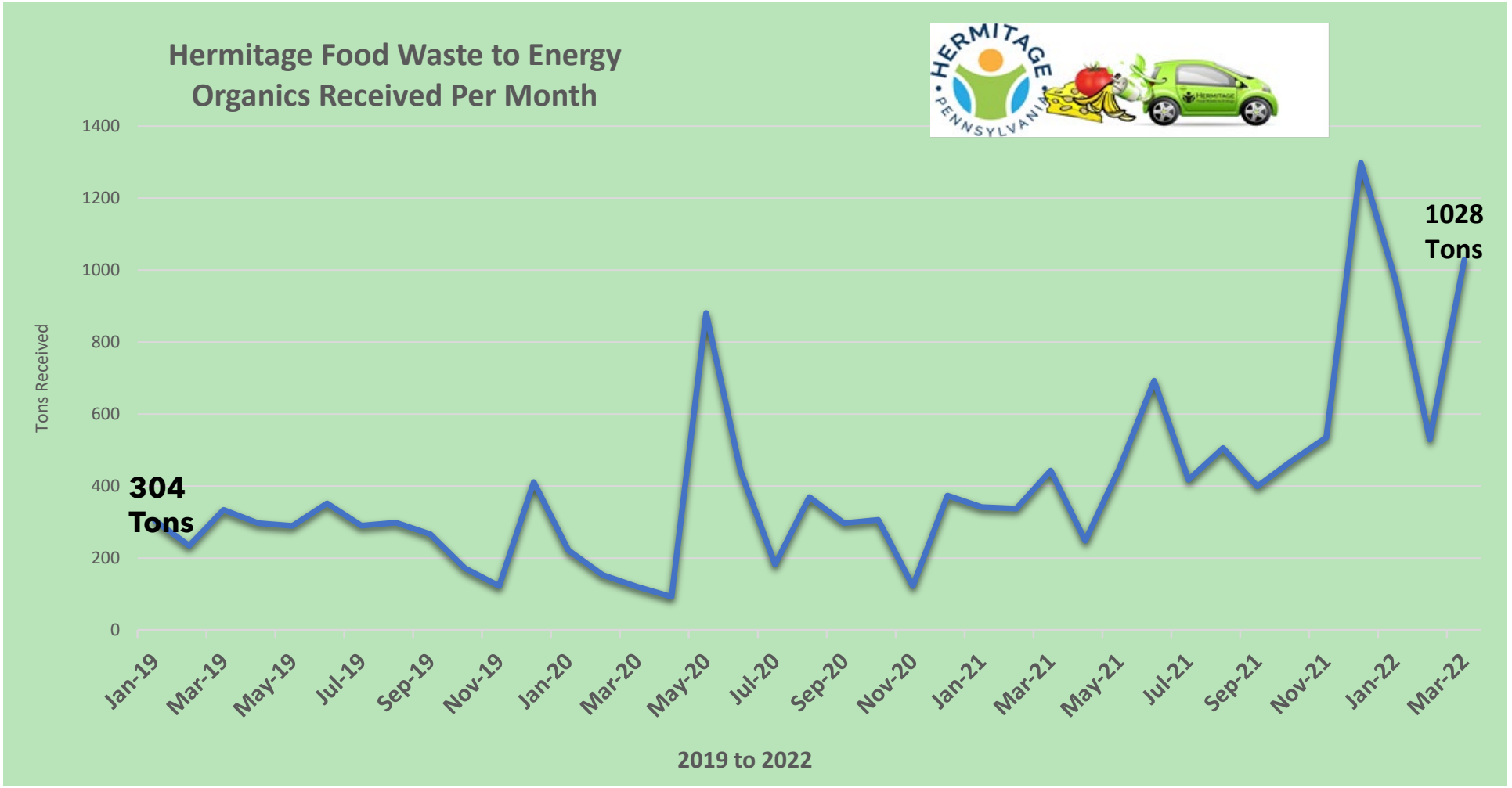
The Hermitage Food Waste to Energy and Wastewater Reclamation Facility upgraded to receive food wastes in 2012. Full operation began in 2013 with the generation of methane gas to be used to run a 600 KW Caterpillar engine for CHP.

We did it because we knew we could increase methane production by combining organics with our wastewater biosolids stream. And we get paid for receiving waste organics. Which results in increased revenue for the City.

How do we do it?

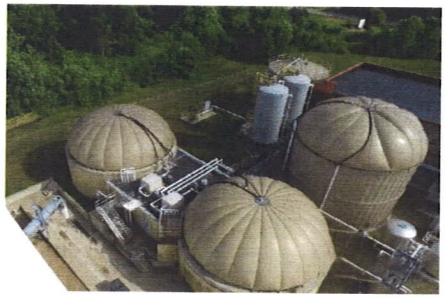
In 2008 when we began design, we had no one to look to in the state of Pennsylvania who were already doing waste food to energy. So, a lot of what we did was trial and error. But we learned by our mistakes.

Is there enough waste organics?



Bobby Run Water Pollution Control and Waste to Energy Facility

- **Wastewater Treatment – 7.7 MGD; 14,128 lbs BOD_5/d**
  - Screening – coarse, fine and grit removal
  - Sequencing Batch Reactors – WAS production
  - UV Disinfection
- **Anaerobic Digestion**
  - Liquid Waste Receiving
  - Food Waste Depackaging
  - Waste Hydrolysis Tank
  - SUEZ IDI 2PAD Process
    - Prefeed Sequencing Tank
    - Feed Sequencing Tank
    - Thermophilic Digester
    - 3 – Mesophilic Digesters
- **Biogas**
  - Gas Conditioning/Treatment
  - Combined Heat and Power
- **Class A Biosolids**



The way to get started is to quit talking and begin doing.

Walt Disney

Hydraulic Design Capacity – 7.70 mgd

Organic Design Capacity – 14,128 lbs/day BOD5

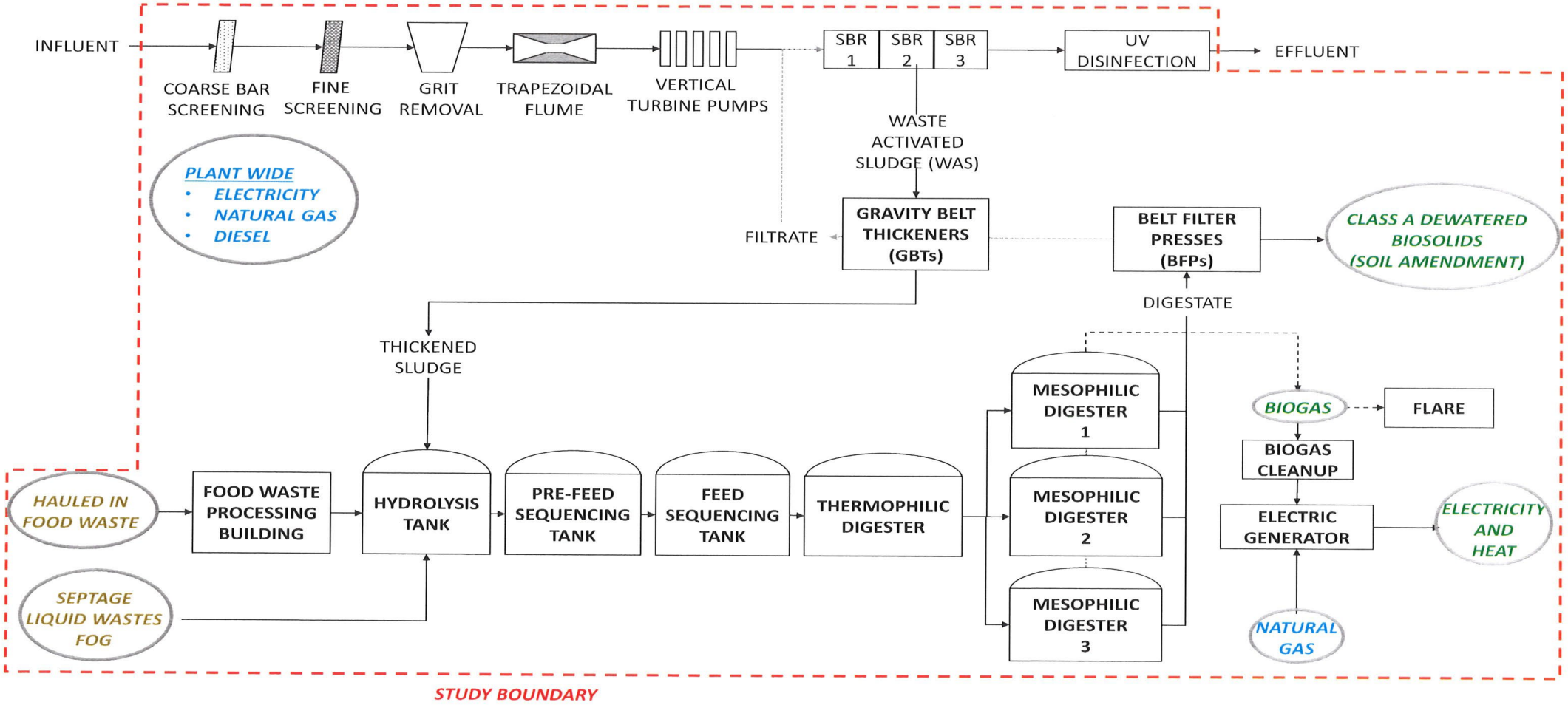
Process Flow Diagram

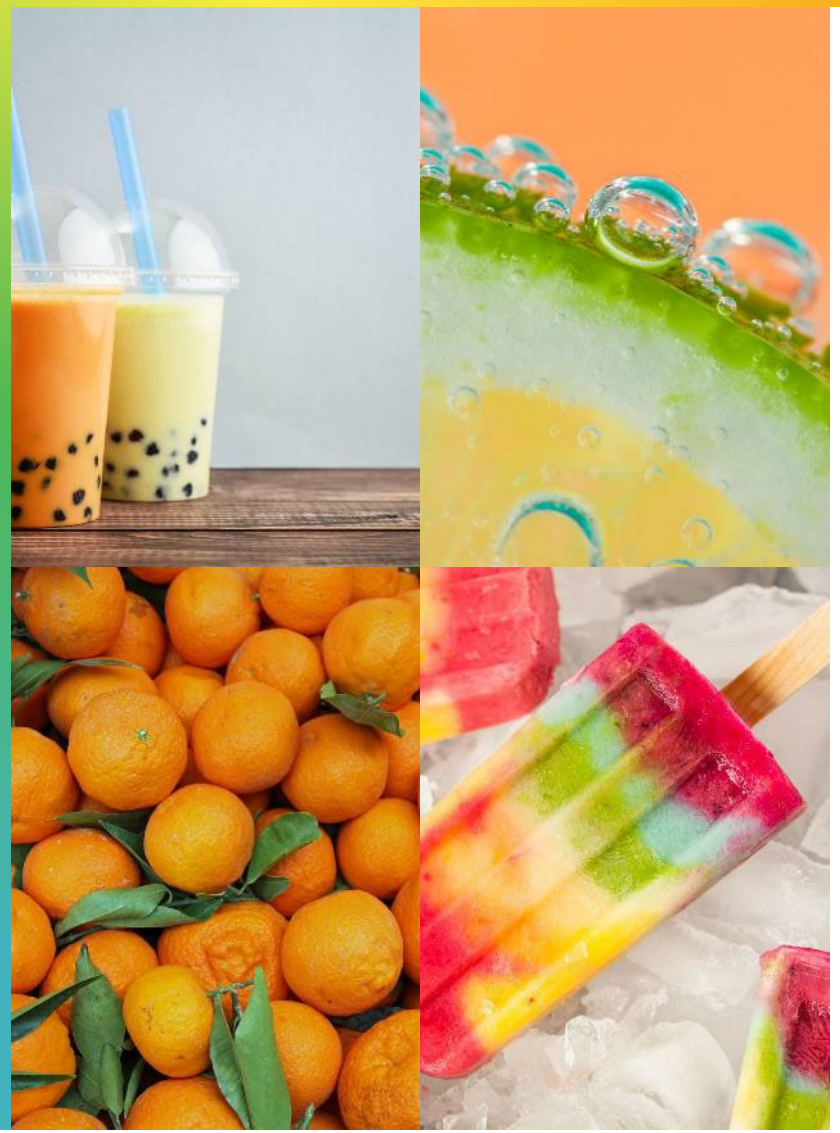
Mid 2016-Present

NON-RENEWABLE INPUT

FULLY/PARTIALLY RENEWABLE PRODUCT

HAULED IN WASTES





Hermitage Food Waste to Energy

1. We generate an average of 300,000 kWH/month
2. Enough to power 343 homes per month
3. The average electric vehicle uses 340 kWH/year
4. Enough to power 882 electric cars per year.

Team

Tom Darby

Superintendent

Wayne Covert

Assistant Superintendent



Thank you!

Tom Darby

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