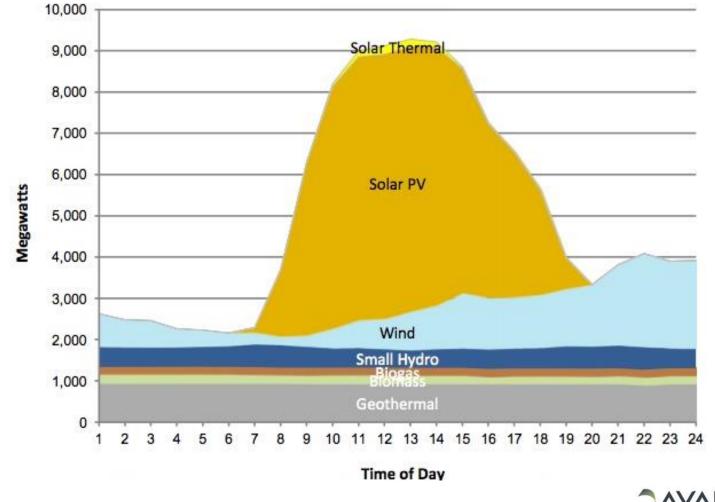


# Hometown BioEnergy

Brian Meek Director, Plant Operations Avant Energy

#### **Renewable Generation Example**



\*Data provided by CAISO 4/6/17

# Description of Hometown BioEnergy

- Anaerobic Digestion Facility
  - Agricultural and Food Processing Streams
- 8 MW Electric Generation
- 20 Million Gallons Effluent Storage



### **Overview**



#### **Key to Facility Features**

- 1. Admin Building 2. Process Building
- 3. Liquid Biomass Pre-Tank 12. Flare
- 4. Digester No. 1
- 6. Gas Holder No. 1
- 7. Gas Holder No. 2
- 9. Gas Cleaners

- 11. Genset Blowers

- 5. Digester No. 2

- 8. Gas Holder No. 3

- 13. Flare Blowers

  - 15. Fire Water Tank
  - 16. Dump Coolers
  - 17. Hot Water Tank
  - 18. Biofilter

- 10. Make-Up Water Tank 19. Stormwater Infiltration Pond
  - 20. Electrical Enclosures
  - 21. Electrical Transformer
  - 22. Lagoon Valve Shed
- 14. Fire Pump Enclosure 23. By-Product Storage Lagoon No. 1 24. By-Product Storage Lagoon No. 2



# Hometown BioEnergy





# **Receiving Hall**





## **Automated Monorail Crane**





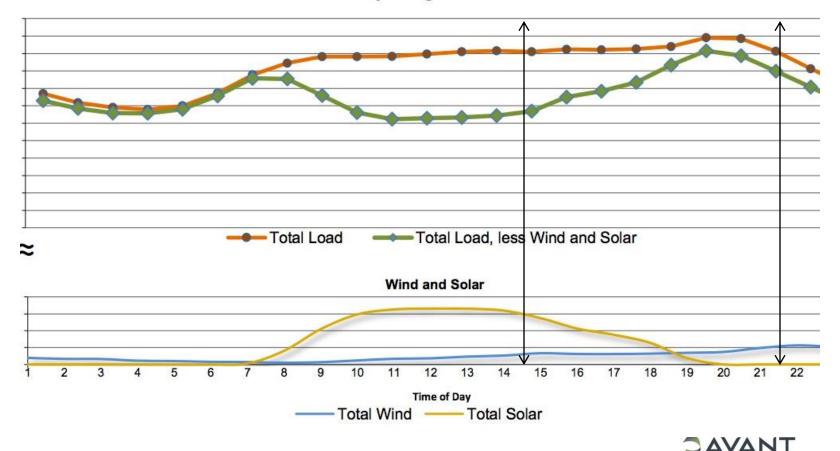
#### Generators





#### Load vs. Renewable Generation

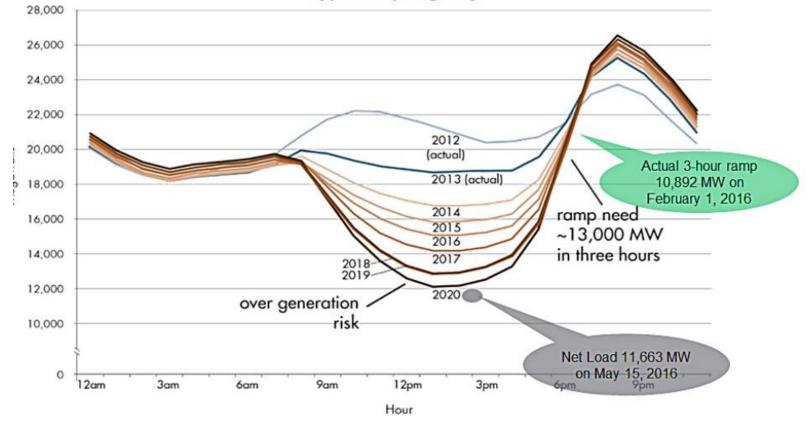
Hourly Average Net Load



\*Data provided by CAISO 4/6/17

# **Duck Curve**

Typical Spring Day





\*Data provided by CAISO

# **HTBE Efficiency**

Produces On-Peak Electricity

- Gas Storage Needed

- Recovers Heat from Generation
   To Heat Process and Building
- Connected at Distribution Level
- Digestate used as soil amendments for local farmers





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