

# SWANA Florida Summer Conference



**Pinellas County Solid Waste**  
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Operations Division Manager



Our Vision: To Be the Standard for Public Service in America



# Mission Statement



*The mission of Pinellas County Solid Waste is to provide safe, competitive, and environmentally sound integrated solid waste services to our residents, visitors and businesses.*



**Our Vision:** To Be the Standard for Public Service in America



# Background

- ❖ Pinellas County is 95+% built-out, extending landfill life is a critical long-term strategy
- ❖ Commitment to long term disposal service for community
- ❖ WTE is the best option to meet this commitment
- ❖ WTE operator selected in 2014, provided plant metrics from that point in time and forward



# Background (Continued)

## Highlights of Service Agreement

### ❖ Technical Recovery Plan (TRP)

- ◆ Initially defined projects
- ◆ Six month operating period to identify additional repair or replace projects
- ◆ Relax performance guarantees during TRP

### ❖ Share of Revenues

- ◆ Electrical sales
- ◆ Capacity
- ◆ Metals

### ❖ Alignment with Power Purchase Agreement

### ❖ Initial Operating Period

- ◆ Relaxed performance guarantees
- ◆ Extended for additional projects
- ◆ Scaled additional maintenance fee





# Background (Continued)

- ❖ PPA ends in 2024 with nearly \$500M in capacity payment's due
- ❖ PPA requires 70% Capacity Factor guarantee, actual Capacity Factor had fallen to 75% in 2014
- ❖ Why re-investment in facility?  
Provide at least another 30+ years of operation
  - ❖ Maximize valuable landfill life
  - ❖ More economical than building new WTE, transferring waste out-of-County, etc.
  - ❖ Existing on-site water treatment is available for reuse for WTE Operations.





# Technical Recovery Plan (TRP) Development

- ❖ EOR assessment of facility condition
- ❖ Predefined equipment/systems requiring repair/replace
- ❖ Six month period for operator to assess equipment and systems
- ❖ Develop process for construction administration
- ❖ Projects acceptance



# Technical Recovery Plan (TRP) Development (Continued)

- ❖ **Mutual agreement on additional TRP projects**
- ❖ **Additional TRP projects exceeded stated value in Service Agreement**
- ❖ **Service Agreement amendment, increase cost limit and TRP term**
- ❖ **Transition from cost-substantiation to lump sum**
- ❖ **Pinellas County Commission unanimously agreed to increased cost and initial operating period**





# TRP Implementation

- ❖ Approximately 260 projects identified
- ❖ Replacement project incorporated improved technology such as Inconel Overlay, SDA hopper ceramic spray coating, turbine steam path efficiencies, etc.
- ❖ Major projects included:
  - ❑ Replacement of 3 overhead refuse cranes
  - ❑ Replacement of stoker transfer frame and grate system, in addition to the combustion control system
  - ❑ Replacement of flyash transfer system
  - ❑ Replacement of all SDA hoppers (with 1 SDA hopper with sprayed ceramics)
  - ❑ Replacement of all boiler pressure parts. All water wall with spiral wound Inconel overlay
  - ❑ SDAs rebuild with Hasteloy liner from bottom of hopper to top of shell
  - ❑ Cooling Tower rebuilt





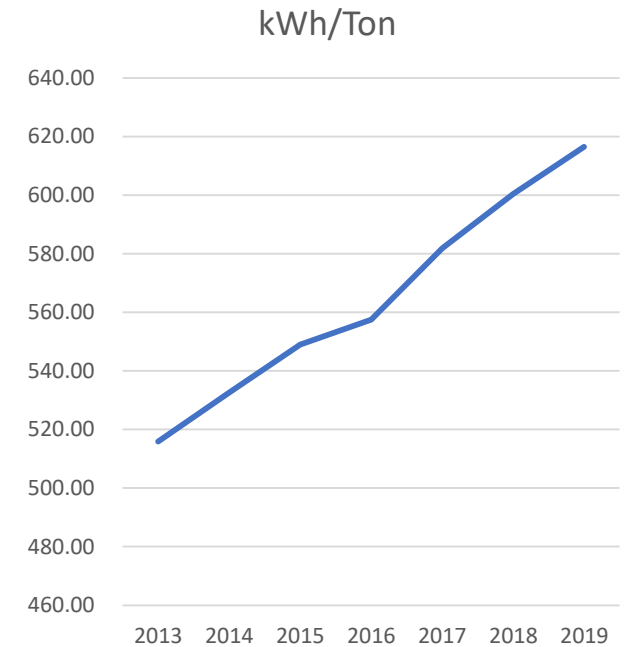
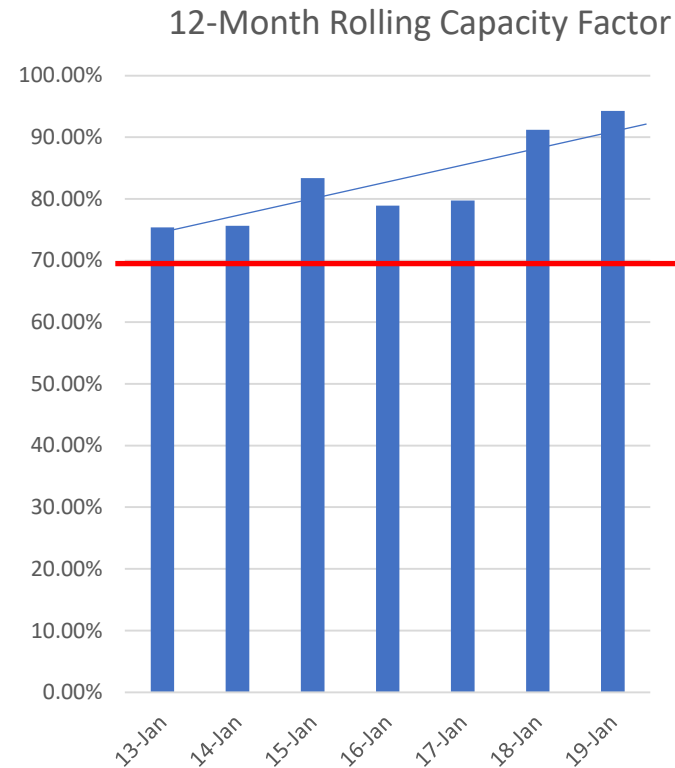
# TRP Implementation (Continued)

- ☐ Fire Protection system replacement including fire alarm system (most underground moved to above ground)
  - ☐ Bypass condenser replacement
  - ☐ Surface condenser rebuild
  - ☐ Electrical (transformers, TG bus, cable trays, conduits, other)
  - ☐ Mechanical systems
  - ☐ Structural steel refurbishment and replacement
- 
- ☐ Cost to date: \$198.2M
  - ☐ Cost to complete: \$45.1M
  - ☐ Completion schedule: Fall 2021



# TRP Impacts

- ❖ Capacity Factor January 2013: 75.39%
- ❖ Capacity Factor June 2019: 96.2%
- ❖ Gross electrical generation January 2013: 515.92 kWh/ton
- ❖ Gross electrical generation June 2019: 605.12 kWh/ton
- ❖ Boiler availability January 2013 83.5%
- ❖ Boiler availability June 2019 95.8%
- ❖ Other Impacts
  - ☐ Improved overall condition of facility
  - ☐ Improved housekeeping and cleanliness
  - ☐ Improved aesthetics
  - ☐ Improved operator morale
  - ☐ Improved environmental performance





# Pinellas County



## Next on the Horizon

- Renegotiate PPA
- WTE Service Agreement Amendment
- Enhanced metals recovery and evaluation of future ash recycling
- Awaiting Master Plan completion to evaluate recommendations (refuse pit expansion, increased bulky waste processing, regional partnership opportunities, etc.)
- Explore electric power wheeling from WTE to other County facilities



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