Materials Innovation and Recycling Authority

Status of MIRA’s CSWS Waste-to-Energy Project

October 27, 2021
Connecticut Solid Waste System (CSWS)
MIRA’s Hartford wTe Project

- Current Operations
- Transition from Combustion to Transfer — Permit Modification
- Remediation of the Site
- Closure Plan

October 27, 2021
Current Operations

RDF Resource Recovery Facility (RRF) - Hartford

- Waste Processing Facility (WPF)
- Power Block Facility (PBF)
- Jet Turbine Facility (JTF)
- RRF struggles to run at 2/3rds capacity

Recycling Facility - Hartford

- Recyclables Currently Transferred
- Processing Equipment Dormant

Transfer Stations

- Essex
- Torrington
- Watertown
- Ellington — Dormant since 2013
Current Operations

- Hartford RRF — NAES Corporation
- Hartford Recycling Facility — Murphy Road Recycling
- Essex TS — CWPM
- Torrington TS — USA
- Watertown TS — CWPM
- MIRA Personnel Operate all Scales

October 27, 2021
Current Operations

- Municipal Service Agreements (MSAs) with 49 towns
  - 48 with Term through June 2027
  - Towns can Opt-out each March
- One-Year Delivery Agreements with ~30 Private Haulers
Current Operations

Direct to Hartford = 19 Towns
Essex = 10 Towns
Torrington = 14 Towns
Watertown = 6 Towns
Current Operations

- Tons Managed (FY 2021) - Entire System
  - RRF and 3 Transfer Stations
    - Contract Towns: 414,000 TPY
    - Non-Contract Towns: 28,500 TPY
    - Interruptible/Spot: 45,200 TPY
    - Total: 487,700 TPY
Current Operations

- Tons Managed (FY 2021) - Direct to Hartford RRF
  - Contract Towns: 285,000 TPY
  - Non-Contract Towns: 22,000 TPY
  - Interruptible/Spot: 45,200 TPY
  - Total: 352,200 TPY

- Transfer Stations = 135,500 TPY

October 27, 2021
Current Operations

- Three Towns “Opted Out” July 1, 2021
  - East Hartford = 28,000 TPY
  - North Branford = 4,500 TPY
  - Roxbury = 700 TPY
- Total of 33,000 TPY is now going elsewhere
Transition — Combustion to Transfer

- RRF to Suspend Combustion Activities ~ July 2022
- Application for Permit Modification to Transfer MSW
- Jet Turbine Facility to Shut Down May 31, 2023
  - Not Associated with Solid Waste Activities
Transition — Combustion to Transfer

• Solid Waste Permit Modification Application
  - Conduct Transfer Activity on Full-Time Basis — Five Years
    - ~ 275,000 TPY — Direct Delivery Towns Only; No Transfer Station Deliveries
      - Opt-Out Provision in MSAs May Reduce Actual Quantity Received
    - Significant Reduction in Vehicle Traffic
    - No Emissions from the Three MWCs
    - MIRA Developing Facility Closure Plan (RCSA 22a-209-13)
Transition – Combustion to Transfer

• Current Permitted Capacity
  - 888,888 TPY Processed in WPF
  - 739,855 TPY Combusted in PBF

• Proposed Transfer Capacity
  - 275,000 TPY Maximum
  - Weekly Delivery Maximum Requested — 6,000 TPW
    - Accommodates the several weeks per year when deliveries are elevated
Transition – Combustion to Transfer

• Cessation of:
  - Combustion and Associated Emissions
  - Cooling Water Diversion from CT River
  - Discharge of Wastewater to MDC Sewer System
  - Ash Generation

• Reduction in Vehicle Traffic

• Installation of Odor Control System in Transfer Building
Transition — Combustion to Transfer

- **Reduction in Vehicle Traffic**
  - **Truck Trips** — 22% Reduction
    - (196 trips/day decrease to 153 trips/day)
  - **Add other vehicles (Labor Force, Contractors)** — 44% Reduction
    - 316 trips/day decrease to 177 trips/day
Transition — Combustion to Transfer

• Odor Control
  o First In-First Out (FIFO) Management
  o Storage Time: 48-96 Hours (regulatory limit)
  o Active Odor Control System
    ➢ Deodorizing Solution, Biocatalyst Process
    ➢ Spray Cannons deliver atomized solution across Tip Floor
Remediation of Property

• Remediation of the 80 Acre Site — Commenced in 2001
• CT Transfer Act
• Certifying Party
• Cost Cap Insurance Policy — Premium paid March 2001
• Meets CT Industrial/Commercial Remediation Standards
Remediation of Property

- Site Investigation/Feasibility Study/Design: $2,548,000
- Site Remediation: $16,191,000
- Long Term O & M and Monitoring: $1,288,000
- Project Development and Administration: $422,000
- Insurance Premiums and Fees: $6,300,000

TOTAL: $26,749,000
Remediation of Property

• Remediation Activities Completed to Date:
  - 44 AOCs identified, investigated and remediated
    - ~100 GW monitoring wells
    - Thousands of soil samples
  - 12 years of active remediation
  - 60,000 tons of impacted soil removed
  - Several Engineered Controls reviewed and approved by DEEP/EPA
  - Two Deed Restrictions recorded per EPA requirements
  - Verification Report is Pending One Additional Area Being Remediated
Facility Closure Plan

• Closure Plan
  ▪ Areas in which solid waste has been managed
  ▪ Cost Estimate