

A photograph of an industrial facility, likely a biosolids gasification plant. The image shows a large, complex structure with numerous pipes, metal walkways, and a large green cylindrical tank. The facility is housed in a large, open industrial building with a high ceiling and exposed steel beams. The lighting is bright, and the overall scene is one of a modern, large-scale industrial operation.

INDUSTRIAL-SCALE
BIOSOLIDS
GASIFICATION
SERVING THE HOST
MUNICIPALITY AND
THE GREATER
PHILADELPHIA REGION

“We expect to see an immediate impact toward meeting our goals for resource recovery and renewable energy production without any cost increase to ratepayers.”

- John Warenda, Executive Director, Morrisville Municipal Authority

CHALLENGES

In 2018, the Morrisville Municipal Authority (MMA) faced a problem experienced by many neighboring wastewater utilities: rising costs and shrinking outlets for disposal of 4,000 tons per year of Class B biosolids.

OUR SOLUTION

Ecoremedy® provides thermal drying of all incoming sludge using only thermal energy recovered from the biosolids. To provide flexibility for changing regulations and markets, recovered resources include dried Class A biosolids, activated biochar, and concentrated nutrients.

SUMMARY

Within twelve months, Ecoremedy engineered, financed, permitted, and constructed the facility under an innovative BOOM (Build/Own/Operate/Manage) model.

The MMA provided a quarter-acre parcel adjacent to the dewatering building and a biosolids supply contract for a fixed-fee per ton to Ecoremedy.

Beginning in 2020, the project will process all biosolids generated on-site. An additional 21,000 wet tons per year of capacity is available as a regional merchant facility.

The activated biochar is under development as an alternative powdered activated carbon for filtration and adsorption applications.

ECOREMEDY IMPACT

This Ecoremedy project has the annual capacity to convert 25,000 wet tons of municipal sludge to:

- 6.5 million Btus per hour of renewable thermal energy for drying, replacing 52,630 MCF of natural gas per year
- 17,650 tons of water evaporated with no fossil fuel
- 2,450 tons of dried Class A biosolids exported as renewable solid fuel