



**SOLID WASTE
MANAGEMENT
CONSULTANTS**

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Waste-to-Energy Facility Services and Monitoring

Overview

At GBB, we believe Waste-to-Energy (WTE) facilities play a role in the sustainable materials management paradigm through the recovery of energy from non-recyclable materials. For this reason, GBB provides resources and technical services to support the optimal performance of WTE facilities. As a company, we strive to implement the 3 Ps of sustainability: planet, people, and profit, because initiatives must address all three to be successful. We accomplish this goal by tailoring our services to help develop programs and projects do so as well.

GBB provides a broad range of services and capabilities that are needed to support the optimization of WTE facility operations (including life extension), reporting, and compliance. Our comprehensive technical services can include inspections, audits, performance monitoring, providing recommendations, assisting with power sales and offtake agreements, reporting, and developing documentation required by the Owner and/or the Operator to comply with contractual, regulatory, and financial obligations for each Facility.

Our services are divided into three main categories: business management, operations monitoring, and regulatory compliance:

Business Management:

- Operations contract procurement and negotiation
- Waste acquisition, power, and by-products marketing
- WTE facility efficiency, life extension, and expansion studies
- Capital improvement and refurbishment plans
- Financing, including annual fiscal reports
- Electric Power Sales and Environmental Attributes, RFPs, and Contracts
- Facility due diligence
- Evaluations of WTE ash beneficial reuse

Operations Monitoring:

- Review of plant operational metrics
- Operation and maintenance inspections to enable enforcement of Standards of Maintenance
- Major maintenance outage inspection and repair monitoring
- Review equipment performance and over-haul reports provided by owner/operator
- Prepare facility annual reports

Regulatory Compliance:

- Monitor related regulatory and permit conditions and advise Owner as needed
- Prepare and submit the annual Title V Fee documentation, Annual Operating Report, and renewal application
- Perform work required of Owner to ensure compliance with regulatory permit requirements
- Maintain Facility Inventory Lists, including spare parts, equipment, chemicals and supplies per contract terms

Past Performance

GBB has a wealth of corporate operational experience in WTE facilities. The foundation of our experience stems from helping implement many successful WTE projects still operating today. The GBB team has hands-on management and operational experience gained over the years that provides unique and valuable insight for our clients, earning us a reputation for professional, in-depth knowledge that has successfully guided our clients' operations, compliance, and financial performance success.

Positive outcomes of our services include:

- Improvements in overall facility operation, maintenance, and environmental performance
- Identifying and forecasting challenges and concerns for the upcoming operating year
- Revenue performance and forecasting market trends



Kent County, MI

For the Department of Public Works, GBB provides WTE facility monitoring as well as other services related to the development of its Sustainable Business Park.



Hennepin County, MN

For the Hennepin Energy Recovery Center (HERC), GBB reviewed its Baghouse facility and its engineering criteria for modifications to the ash handling system. GBB supplies ongoing systems and equipment monitoring.



Wasatch Integrated Waste Management District, UT

10-year Energy Recovery Facility Operations and Capital Plan -- evaluate facility reliability and availability improvements, and the economic impact of the planned improvements. Provided assistance in transitioning away from WTE since energy market changed to a new system to do materials and organics recovery and production of engineered fuel for use by a cement kiln.



Metropolitan Government of Nashville and Davidson County, TN

GBB developed and executed a District Energy System (DES) Study which led to the implementation and administration of this award-winning project in Nashville replacing poorly operated WTE facility. GBB managed the implementation and transition of the WTE facility to the new DES and administered DES's initial years of operations.



Lancaster County Solid Waste Management Authority, PA

For the Lancaster Solid Waste Management Authority, GBB developed specifications and supplied procurement support of a new ash reuse and metal recovery system.

Thought Leadership

GBB consultants author and present often on this topic. Recent articles and presentations include:

- [What's New in Waste Conversion Technology](#), Steve Simmons, published in Waste Today (August 2019).
- [Waste Conversion Market Update](#), Harvey Gershman, presented at the Renewable Energy from Waste Conference webinar (October 2017).
- [The Minnesota Waste Combustor Operator Training & Certification Program](#), Rob Dunnette, presented at the North American Waste-to-Energy Conference, Minneapolis, MN (April 2017).
- [Times are Changing for Renewable Energy from Waste](#), Harvey Gershman, published in Renewable Energy from Waste (December 2016).
- [Energy-ready Organics](#), Brad Kelley, published in Renewable Energy from Waste (December 2015).