

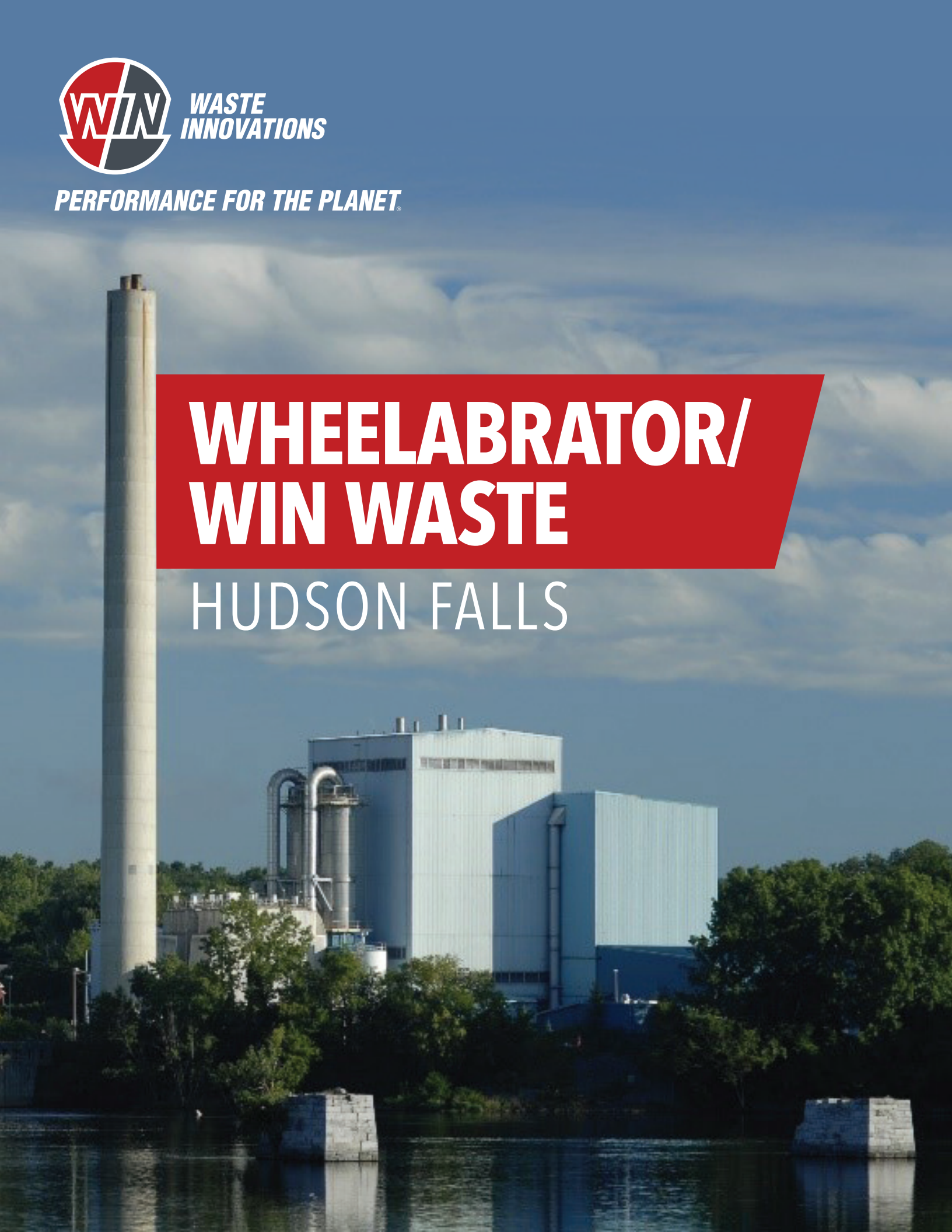


**WASTE  
INNOVATIONS**

**PERFORMANCE FOR THE PLANET®**

# **WHEELABRATOR/ WIN WASTE**

## HUDSON FALLS



# WHO WE ARE

Wheelabrator/WIN Waste Hudson Falls diverts post-recycled residential and commercial waste from landfills and converts it into renewable energy that powers homes and businesses in the region. Creating electricity from waste is an environmentally friendly alternative to landfilling that generates a byproduct upon which all of us depend – electricity.

## EACH YEAR, WHEELABRATOR HUDSON FALLS:



### CONVERTS

148K tons of post-recycled waste into renewable energy, producing enough electricity to power the equivalent of 6,000+ homes for an entire year



### RECOVERS AND RECYCLES

1.7K+ tons of metals from the waste stream



### REDUCES

fossil fuel use by eliminating the need for 124,000 barrels of oil



### ELIMINATES

thousands of tractor trailer trips to and from landfills, thereby reducing traffic-related air pollution and preventing unnecessary wear and tear on highway infrastructure

WIN Waste supports 35 full-time employees with jobs that pay living wages – hourly compensation starts at \$24/hour and averages \$37/hour. Many positions do not require a college degree. The company contributes \$600,000 in taxes and fees annually.

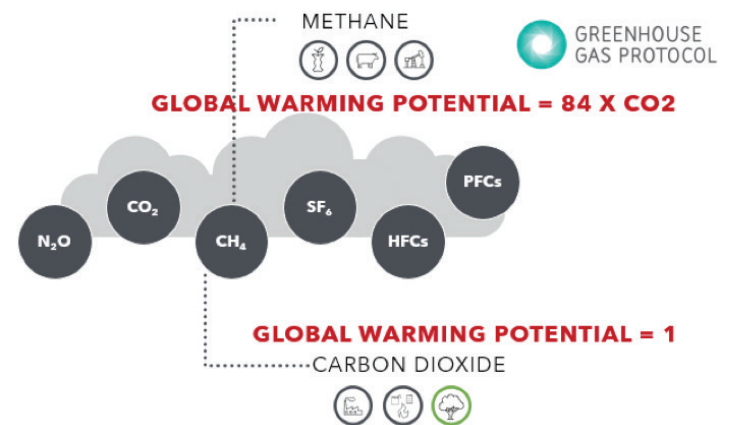


# THE WASTE DISPOSAL CHALLENGE

New Yorkers are producing 40+ million tons of waste each year – more than ever before. Despite the state's leadership in recycling, New York is still generating more unrecyclable trash than its disposal infrastructure can handle, a trend that is projected to continue.

After recycling and composting, there are only two large-scale disposal options for New York's remaining waste: send it to landfills or convert it into energy. But many landfills in New York are at or near capacity. In fact, today New York exports 33% of its waste to other states due to a lack of available landfills. Recent landfill closures have exacerbated the disposal challenge. In December 2024, Ontario County voted to close its landfill, which will leave the county struggling to find affordable disposal options for 918,000 tons of waste every year. The most viable alternatives will almost certainly involve paying export fees and transporting waste long distances.

What's more, landfills emit methane, a greenhouse gas far more powerful than carbon dioxide – its warming potential is 84 times greater.<sup>1</sup> Landfills are the third-largest source of human-caused emissions in the U.S., according to the EPA.



**"The Environmental Protection Agency estimates that landfills are the third-largest source of human-caused methane emissions in the United States, emitting as much greenhouse gas as 23 million gasoline cars driven for a year." (The New York Times, March 31, 2024)**

**"Methane is the strongest lever we can quickly pull to reduce warming between now and 2050." (The Guardian, July 30, 2024)**

<sup>1</sup> United Nations Economic Commission for Europe, <https://unece.org/challenge>, last accessed Jan. 15, 2025

NEW YORK STATE WASTE PROJECTIONS 2023 - 2050 <sup>2</sup>									
		2018	2023	2025	2027	2030	2032	2040	2050
<b>MSW</b>	Tons Generated	17,889,980	17,889,980	17,889,980	17,889,980	17,889,980	17,889,980	17,889,980	17,889,980
	Tons Diverted	3,399,096	3,935,796	4,651,395	5,724,794	7,155,992	9,123,890	11,628,487	15,206,483
	Recycling Rate (%)	19%	22%	26%	32%	40%	51%	65%	85%
<b>Total Waste Stream</b>	Tons Generated	42,248,278	42,248,278	42,248,278	42,248,278	42,248,278	42,248,278	42,248,278	42,248,278
	Tons Diverted	18,381,623	19,650,678	21,415,997	23,268,511	25,471,226	28,080,873	31,255,212	35,795,853
	Recycling Rate (%)	44%	47%	51%	55%	60%	66%	74%	85%

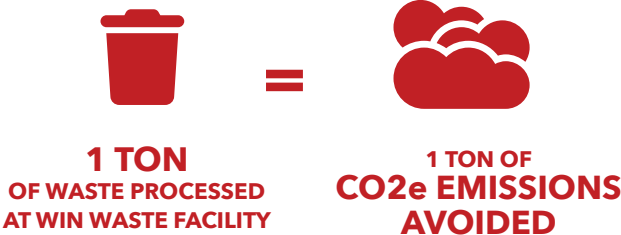
Despite increased recycling efforts, New York is projected to continue generating 17.8 million tons through 2050.

<sup>2</sup> New York State Solid Waste Management Plan: Building the Circular Economy Through Sustainable Materials Management (2023 - 2032)

## WASTE-TO-ENERGY: THE SUSTAINABLE ALTERNATIVE

Every day, the Wheelabrator waste-to-energy center in Hudson Falls converts more than 400 tons of post-recycled waste into renewable energy through a highly efficient combustion process that meets strict state and federal standards.

By recovering energy from post-recycled trash, Wheelabrator diverts all those tons of waste from landfills, where they would otherwise decompose, releasing methane, the greenhouse gas that has a global warming potential more than 84 times that of carbon dioxide in its first 20 years. Diverting waste from landfills and converting it into a renewable resource eliminates vast amounts of future greenhouse gas emissions. This is one of the reasons waste-to-energy is the EPA’s preferred method for end-disposal of waste.



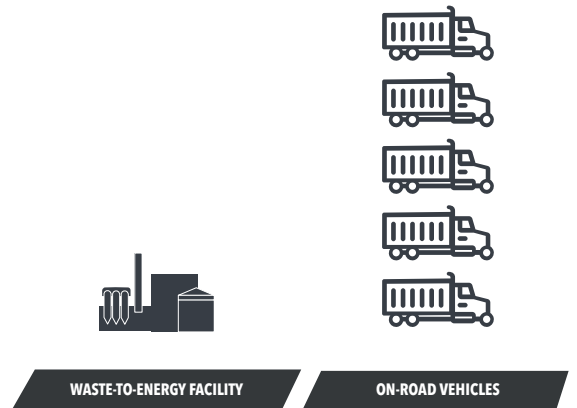
**“Waste-to-energy is the better alternative to landfilling for managing MSW that is not recyclable, a reality explicitly recognized by the waste management hierarchy recommended by both the U.S. [EPA] and the European Union.”**

– Marco J. Castaldi, Ph.D.  
 “The Scientific Truth About Waste-to-Energy”

## IMPACT ON AIR QUALITY

A recent study<sup>1</sup> conducted in Florida revealed that the health risk associated with a waste-to-energy facility is below the risk posed by simply walking down the street and inhaling benzene emitted from automobiles.

Not only is traffic a much more potent source of air pollution than the highly regulated Wheelabrator/WIN Waste facility, converting waste into energy eliminates the thousands of tractor trailer trips to and from distant landfills that would otherwise be required. This further reduces traffic-related air pollution and prevents wear and tear on highway infrastructure.



<sup>1</sup> Arcadis, "Future Waste to Energy Facility Preliminary Air Modeling Report," 2024.

## ABOUT TITLE V

The New York State Department of Environmental Conservation (NYSDEC) is charged with protecting human health by keeping the state's air quality as high as possible. To fulfill its mandate, the NYSDEC issues permits to commercial operators whose productions release emissions into the air. These permits allow NYSDEC to closely monitor the activities of these operators and ensure they are compliant with both the federal Clean Air Act standards and New York's own stringent Regulations for Air Emissions. Title V permits protect you and the environment.

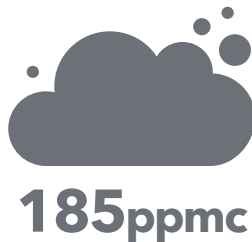
Title V permits are on a five-year permit renewal schedule.

## NEW PERMIT WILL REFLECT REDUCED NO<sub>x</sub>

Current  
EPA and New York NO<sub>x</sub>  
emissions limit



Proposed  
New York daily NO<sub>x</sub>  
emissions limit



Proposed  
New York annual  
NO<sub>x</sub> emissions limit



ppmc = parts per million corrected

The NYSDEC has set new limits on NO<sub>x</sub> emissions that are lower than the current EPA limit. The new permit limits will reduce the facility's potential NO<sub>x</sub> emissions by 20%. **That's equivalent to a more than 27.5-ton reduction in NO<sub>x</sub> emissions, or removing the NO<sub>x</sub> emissions of about 24,000 vehicles.**

# COMPLIANCE

Like other forms of energy generation, waste-to-energy is highly regulated. Our team of 35 highly trained professionals oversee our plant’s operations 24 hours per day and 365 days per year to ensure we are not only meeting but beating the requirements of our operating permit wherever we can.

This chart shows some of the many ways we ensure compliance and minimal emissions.

## STACK TESTING

Third-party experts conduct annual stack testing under the supervision of regulatory agency personnel.

## REPORTING & REVIEW

We retain all the data we collect so it is readily available upon regulators’ request or during unannounced visits, and we submit reports to regulatory agencies monthly, quarterly, and semi-annually.

## AIR, WATER & WASTE PERMITS

WIN Waste operates under state and federal permits that are granted only after a rigorous review process that includes public participation.

## CONTINUOUS MONITORING

Our continuous emissions monitoring system (CEMS) collects data every minute, 24/7/365. Plant engineers closely monitor the data collected to achieve limit requirements.

## SCHEDULED MAINTENANCE

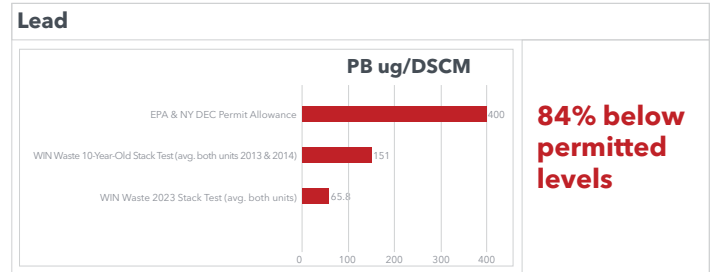
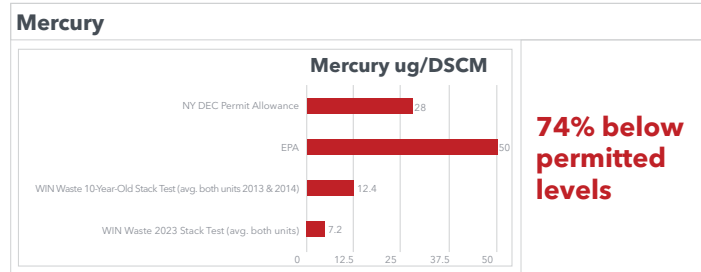
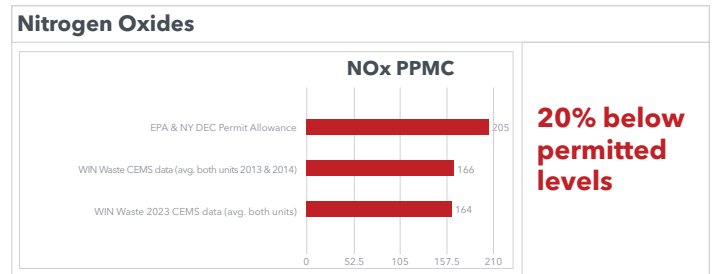
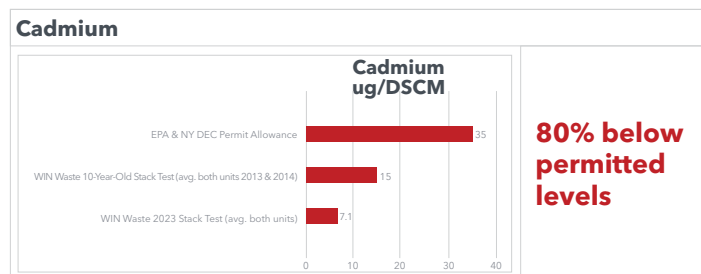
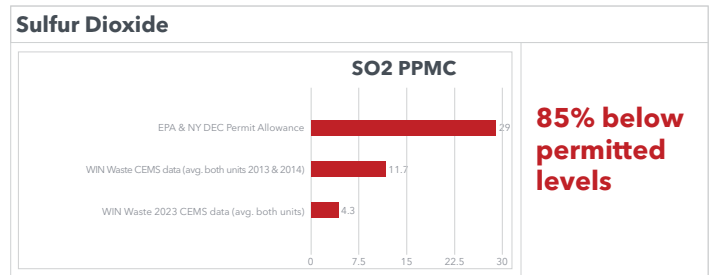
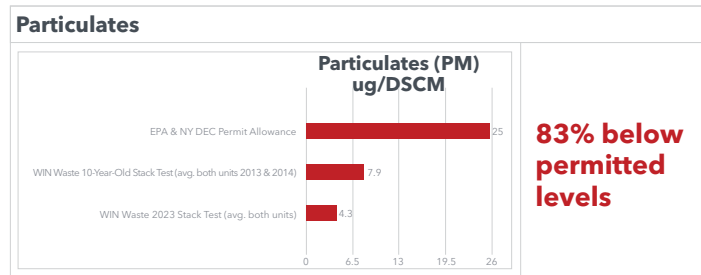
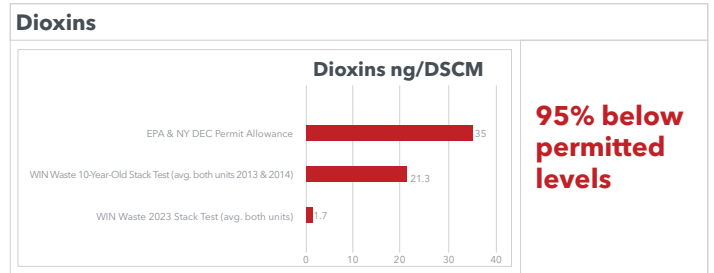
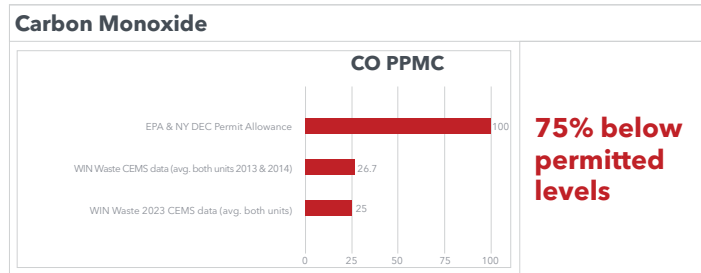
Our multimillion-dollar maintenance budget keeps our plant running safely, efficiently, and in prime condition.

## PERSONNEL & OVERSIGHT

Our staff oversees our operations onsite 24/7/365. We have entire teams dedicated to operations, environmental compliance, and safety.

# PERMISSIBLE EMISSIONS VS. ACTUAL EMISSIONS

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements. And we continue to innovate and improve. Below are some of the emissions that we monitor. You will notice a big difference between what we are allowed to emit and what we actually emit. Also note how these numbers have improved over the last 10 years.



## WASTE TYPES & ORIGINS

Most of the waste (89%) processed at Hudson Falls is post-recycled municipal solid waste – the types of things average households and businesses discard daily. A small percentage of the waste processed includes industrial waste such as biosolids, pharmaceuticals, and tires, which are acceptable materials under the facility's solid waste permit.

NYSDEC ensures that, regardless of what type of waste gets processed, the facility's emissions remain within its permitted limits. Permit compliance can assure the public that the plant is operating safely for both people and the environment.

HUDSON FALLS - TYPES OF WASTE 2023		
TYPE	2023 AMOUNT (IN TONS)	% OF TOTAL
MSW	127,046	89.9%
BIOSOLID	7,824	5.5%
INDUSTRIAL	5,204	3.7%
PHARMACEUTICAL	685	0.5%
TIRES	560	0.4%
INTERNATIONAL	1	0.0%
TOTAL	141,320	100%

## ORIGIN OF WASTE PROCESSED AT WHEELABRATOR/ WIN WASTE HUDSON FALLS - 2023

We're proud to offer a local, reliable waste disposal option to keep the environmental and financial impact low for local communities. Waste-to-energy also provides a uniquely safe disposal option for special waste needs like contraband from local authorities or pharmaceuticals that must be destroyed by way of our highly efficient combustion process. Most of the waste processed at WIN Waste/Wheelabrator Hudson Falls comes from within 100 miles of the plant.

**69% OF WASTE RECEIVED → 0-50 MILES RADIUS**

**22% OF WASTE RECEIVED → 50-100 MILES RADIUS**

**9% OF WASTE RECEIVED → MORE THAN 100 MILES RADIUS**

## DID YOU KNOW?

In our 13 waste-to-energy facilities, WIN Waste captures 2,733,455 air compliance data points every year!

### EXAMPLES: COMPLIANCE POINTS REQUIRED UNDER TITLE V PERMIT

- ✓ Use a continuous emissions monitoring system
- ✓ Run emissions quality control constantly
- ✓ Staff trainings and certifications
- ✓ Monitor furnace temperature constantly
- ✓ Do not exceed onsite emission standards
- ✓ Do not exceed opacity limits
- ✓ Maintain proper carbon injection rates
- ✓ Limit particulate emissions
- ✓ Inspection-ready at all times
- ✓ Complete all reports
- ✓ Keep all records
- ✓ Gain approval for process changes
- ✓ Record all down times
- ✓ Report any permit deviations to the NYSDEC in a timely manner
- ✓ Keep readily available daily reports of hourly averages

## WIN WASTE SCORES HIGH ON SUSTAINABILITY

In 2024, WIN Waste Innovations earned a five-star rating – the highest possible – from the Global Real Estate Sustainability Benchmark (GRESB), the worldwide leader in environmental, social, and governance performance assessment. The GRESB five-star designation recognizes industry leadership in sustainability management and performance. Only 20% of GRESB-rated entities receive a five-star rating.



## BENEFITS BEYOND RENEWABLE ENERGY

### WHEELABRATOR HUDSON FALLS HOLDS COVETED VPP STATUS

Nine Wheelabrator/WIN Waste Innovations waste-to-energy facilities, including Hudson Falls, have achieved OSHA “Star” worksite status. The Occupational Safety and Health Administration designates “Star” sites through its Voluntary Protection Program (VPP). It is the highest safety rating OSHA bestows, and fewer than one percent of worksites in the United States achieve the designation.



## ENGAGED PARTNER

WIN Waste Innovations invests hundreds of thousands of dollars in vital New York-based nonprofit organizations each year. These groups share our dedication to making the state a better place to live and work. Together with our partners, WIN Waste has helped provide affordable healthcare, workforce training, STEM education, and community beautification, among many other initiatives.

**LEARN MORE ABOUT WHEELABRATOR/  
WIN WASTE HUDSON FALLS**  
[winwins.co/HF](http://winwins.co/HF)

