WIN Waste Hudson Falls

Public Meeting

April 16, 2025

WIN WASTE INNOVATIONS

Sustainable Waste Handling

WIN Waste Innovations is a waste management company committed to delivering essential waste management solutions to customers and communities.

COMPANY STATS

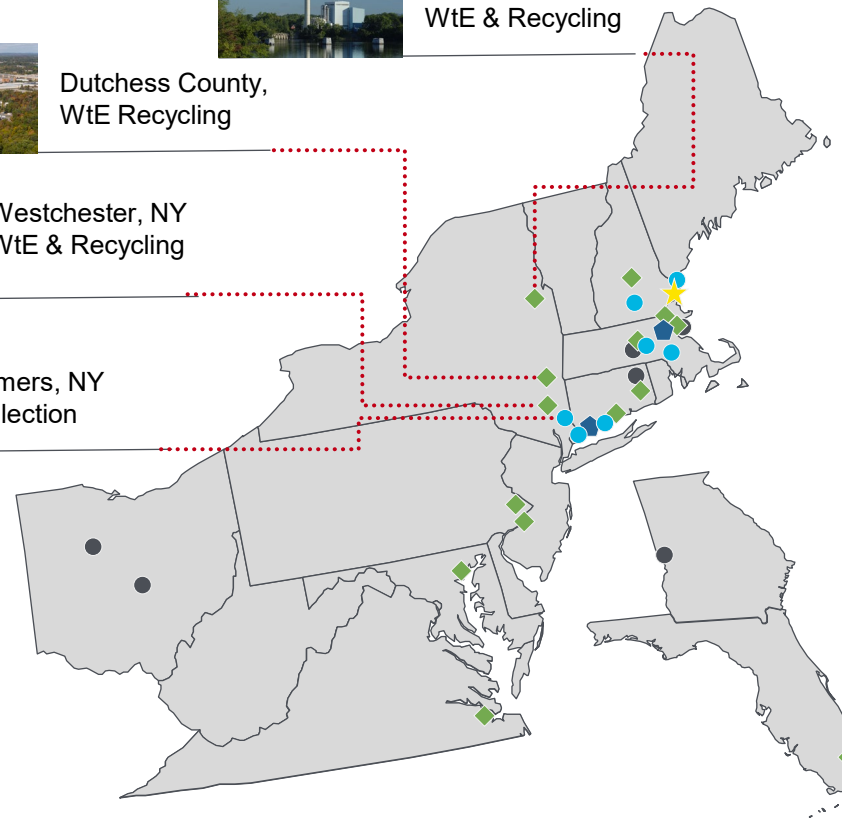
- **Generating 3.3M MWh of renewable energy to the grid**
- **Recovering 258K tons of recycled material**
- **Providing jobs for over 2,250 team members**
- **Delivering essential services to over 150K customers**
- **Managing 11M+ tons per year of waste from residential households and businesses**

Hudson Falls, NY
WtE & Recycling

Dutchess County,
WtE Recycling

Westchester, NY
WtE & Recycling

Somers, NY
Collection



- Corporate Office
- Waste Collection Facility (10)
- Recycling and Recovery Facility (2)
- Waste-to-Energy Facility (14)
- End of Life Management Site (7)

Waste transportation sites (20) not pictured

Delivering Performance for the Planet

Sustainability at every step

At WIN Waste Innovations, we believe that efficient recycling and waste management is an essential part of a more sustainable future. We have a platform of 53 strategically located collection, transfer, and disposal assets, including waste-to-energy facilities, transfer stations, ash monofills, and landfills, as well as fleets of rail cars and collection vehicles, including electric trash trucks. We embed sustainability into every step of the waste handling process — from curbside pickup to the capture of landfill gases and creation of renewable fuel and electricity.

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.

GRESB ★★★★★ 2024

GRESB INFRASTRUCTURE sector leader 2024

WIN Waste's Hudson Falls, NY Impact

WIN Waste Innovations at Hudson Falls converts up to 148K+ tons of waste each year into renewable energy and returns it to the communities we serve.

CONVERTS
148K+
TONS OF WASTE INTO RENEWABLE ENERGY

POWERS
6K
HOMES WITH CONVERTED ELECTRICITY

AVOIDS
124K
BARRELS OF OIL NEEDED FOR EQUIVALENT ENERGY

RECOVERS & RECYCLES
1.7K
TONS OF METAL RECOVERED FOR RECYCLING

ELIMINATES
THOUSANDS
OF TRACTOR TRAILER TRIPS TO AND FROM LANDFILLS

400+ TONS OF WASTE PROCESSED EVERY DAY

$600K IN ANNUAL, LOCAL PAYMENTS VIA TAXES AND FEES

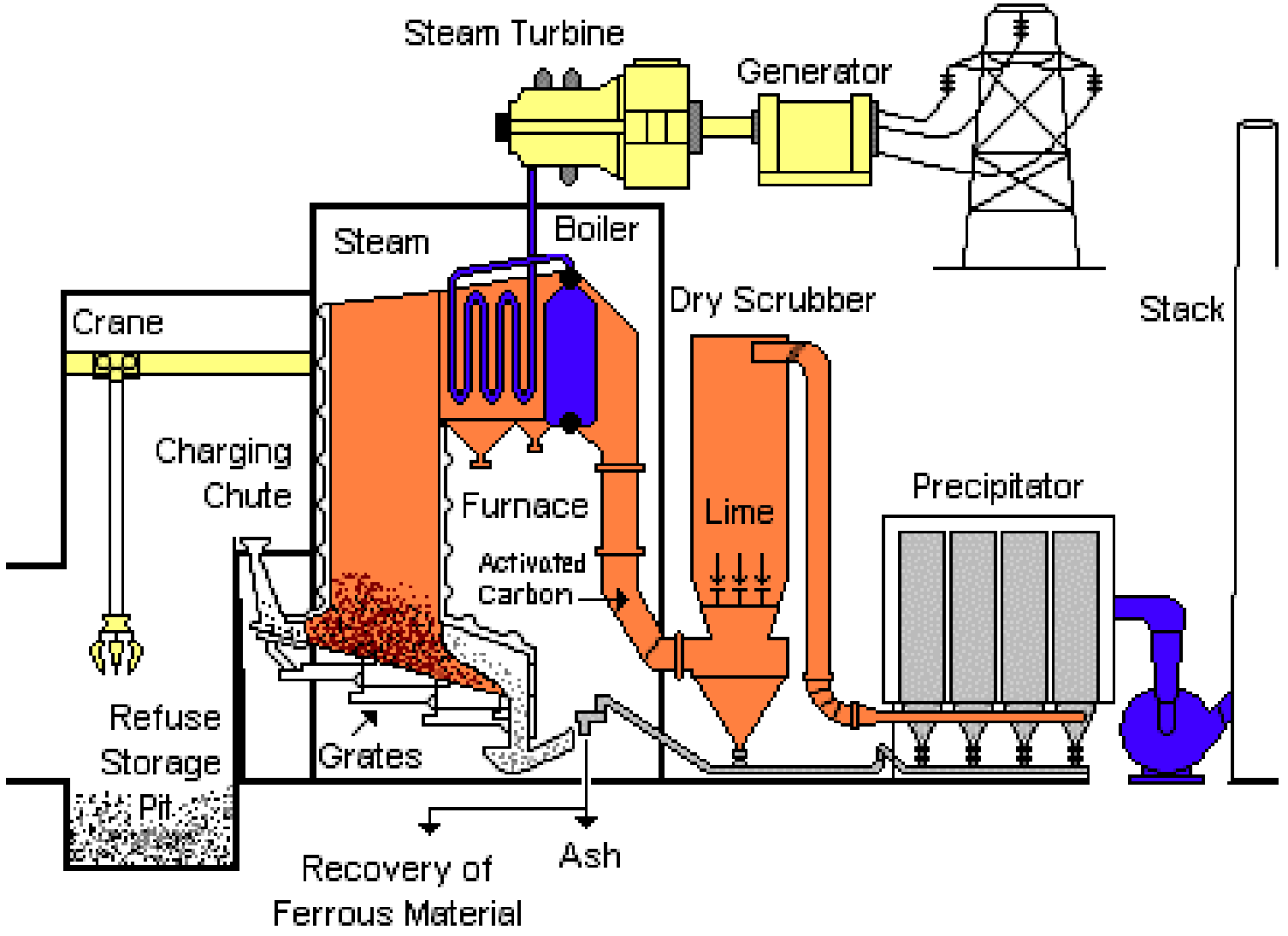
35 FULL-TIME, LOCAL JOBS WITH DAY-1 BENEFITS

WIN Waste's Hudson Falls, NY Impact

An engaged community partner:

- Hudson Falls Police Benevolent Association Annual Scholarship
- South Glens Falls Marathon Dance
- Saratoga Wilton Soccer Club May Day Classic
- Adirondack Regional Chamber of Commerce
- Talk Derby To Me and Moran-Derby Park
- Make A Wish Foundation

The Waste-to-Energy Process



Hudson Falls Holds Coveted VPP Status

OSHA's highest safety designation

- 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 .02% of worksites in the United States achieve the designation.
- Hudson Falls facility has maintained VPP status for 28 years.

The Waste Disposal Challenge

Despite increased recycling efforts, New York is projected to continue generating 17.8 million tons through 2025

NEW YORK STATE WASTE PROJECTIONS 2023 - 2050[2]									
		2018	2023	2025	2027	2030	2032	2040	2050
MSW	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%
Total Waste Stream	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%

[2] New York State Solid Waste Management Plan: Building the Circular Economy Through Sustainable Materials Management (2023 – 2032)

Waste-to-Energy's Role in Energy Generation

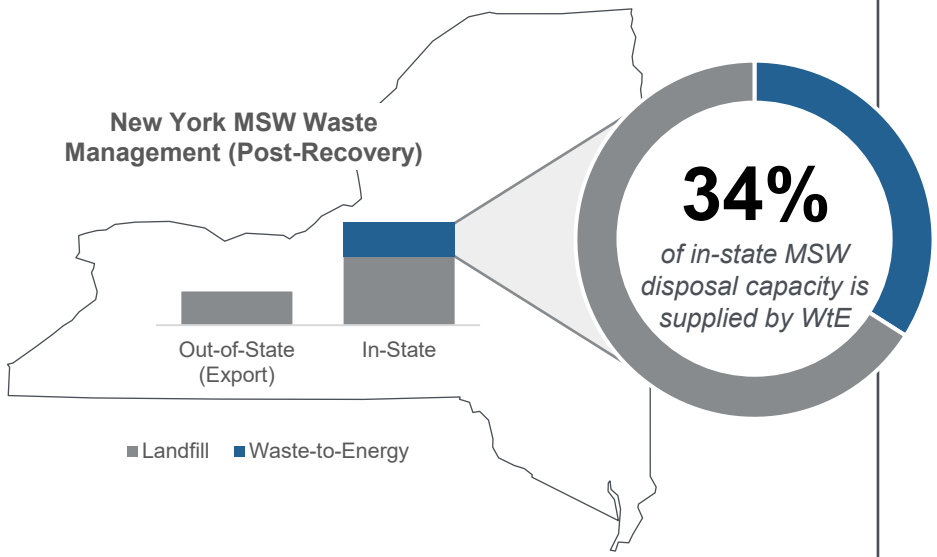
Waste-to-Energy is not a power generation operation. It is a waste management operation that produces electricity as a byproduct of sustainable waste processing, by **converting waste into a renewable attribute**.

Waste-to-Energy plays a critical role in waste management for New York, accounting for a third of the in-state MSW disposal capacity.

Diverting **4.1M** tons of municipal solid waste away from landfills

Reducing greenhouse gas emissions by **6.5M** metric tons of CO_2e

Producing over **285** MWh of renewable energy



Source: Waste Business Journal

Sustainable Waste Management

U.S. EPA WASTE MANAGEMENT HIERARCHY

Source Reduction and Reuse

Recycling and Composting

Energy Recovery

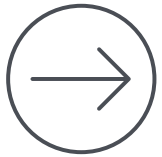
Treatment & Disposal

Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy | US EPA

Providing a Net Climate Benefit

EPA-PREFERRED FOR DISPOSAL

WTE is endorsed by the U.S. EPA as a preferred method of end disposal and renders material inert.

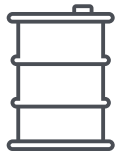


LANDFILL DIVERSION

Converting waste into power reduces the volume of waste going to our landfills by 90%.

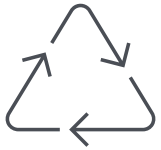
REDUCES TRUCK MILES

In-market waste management outlet reduce waste exports, which reduces semi-tractor traffic and air pollution.



FOSSIL FUEL AVOIDANCE

Renewable energy from waste reduces coal, oil, and natural gas from power generation & long-range transportation.



RESOURCE RECOVERY

WIN Waste recovers & recycles more than 140k+ tons of metals each year from processing post-consumer recycled waste.

GHG EMISSION REDUCTION

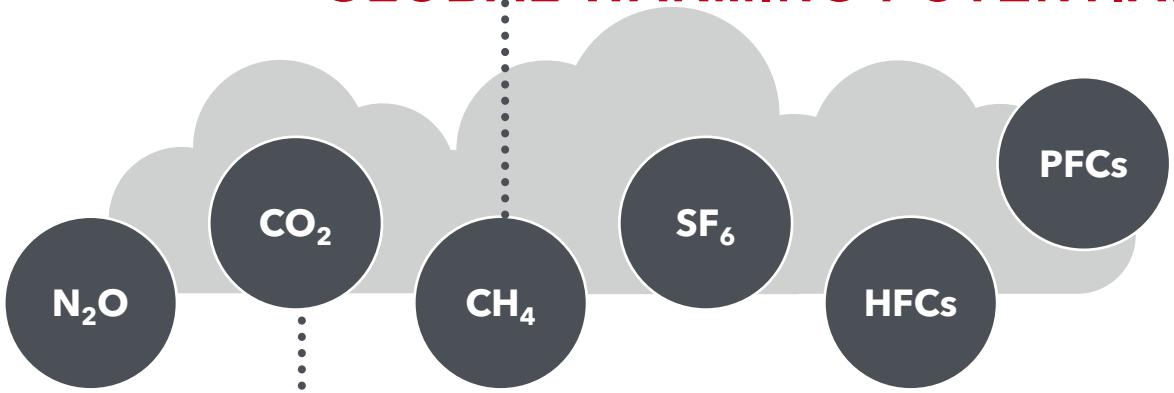
Reduces greenhouse gas emissions by up to 1 ton of net carbon equivalent for every ton of waste processed at our facilities.

Measuring the Impact: Greenhouse Gases

METHANE

GREENHOUSE GAS PROTOCOL

GLOBAL WARMING POTENTIAL = 84 X CO2



CARBON DIOXIDE

GLOBAL WARMING POTENTIAL = 1

Global Warming Potential (20-year time horizon)

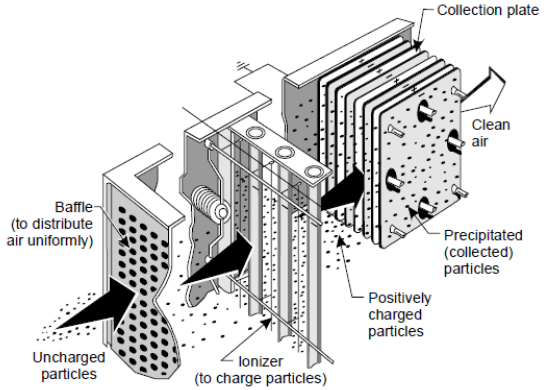
Environmental Compliance

WIN's Waste-to-Energy Operations

AIR QUALITY CONTROL

BOILER GAS IS TREATED

Gas is treated with carbon and lime to remove mercury and trace organic compounds, and to neutralize acid gases.



ELECTROSTATIC PRECIPITATOR

Gas passes through an Electrostatic Precipitator, where particulates and remaining pollutants are removed.

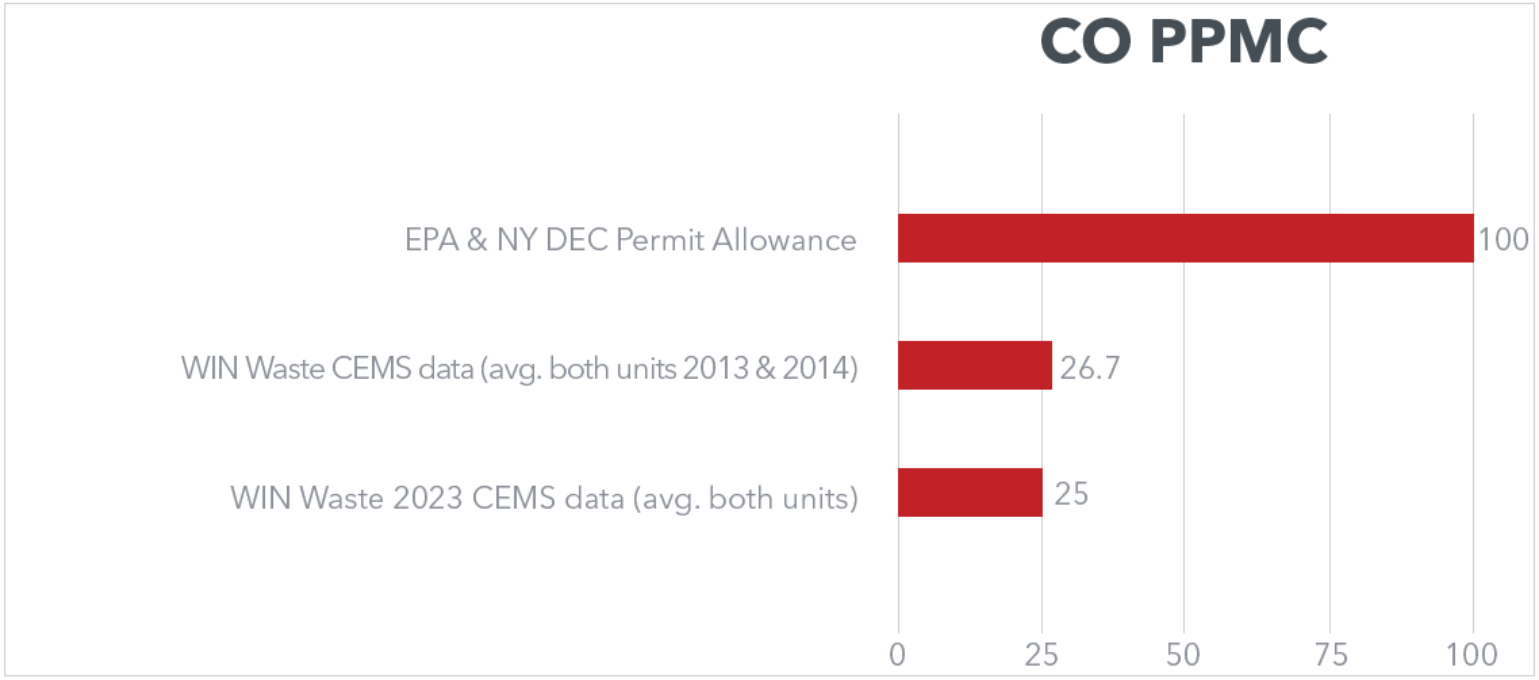
24/7 MONITORING

Cleaned gas exits through the stack after a series of continuous emissions monitors analyze and record levels, which are closely monitored by plant engineers.

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Carbon Monoxide

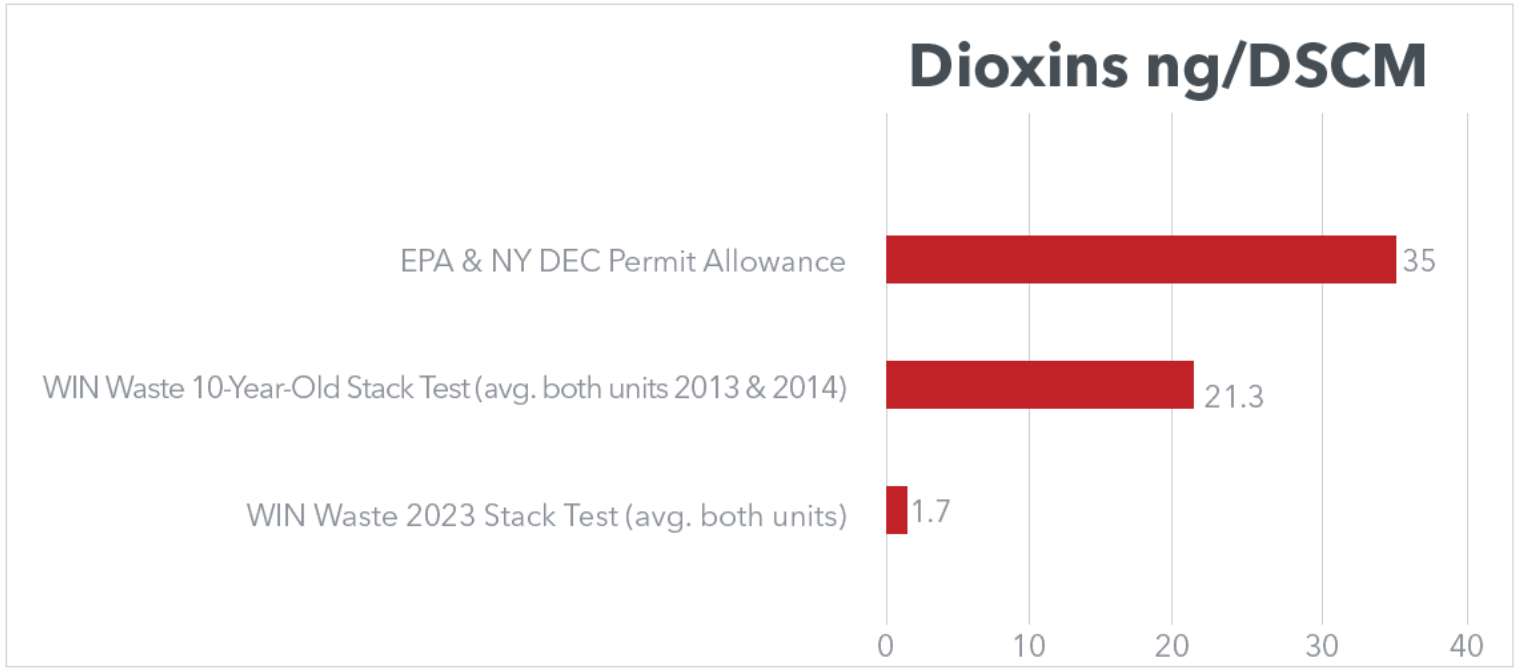


75% below permitted levels

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Dioxins

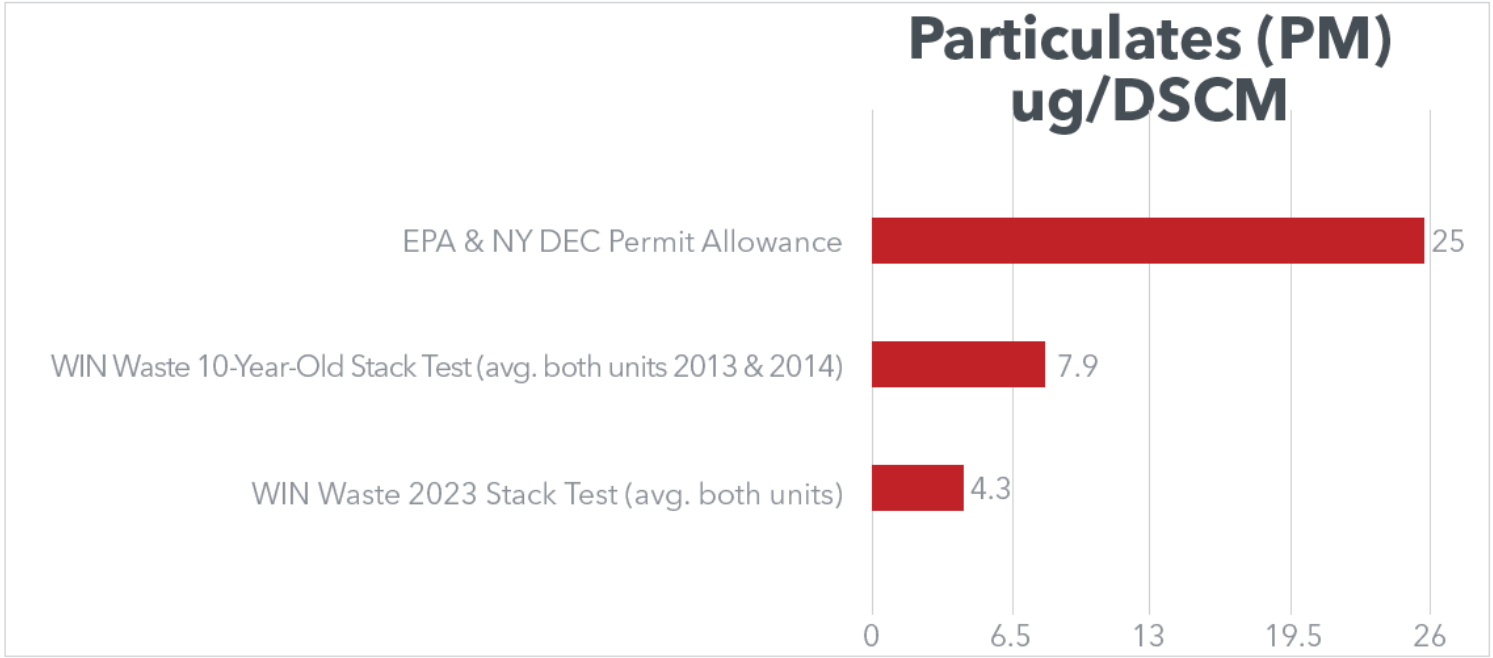


95% below permitted levels

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Particulates

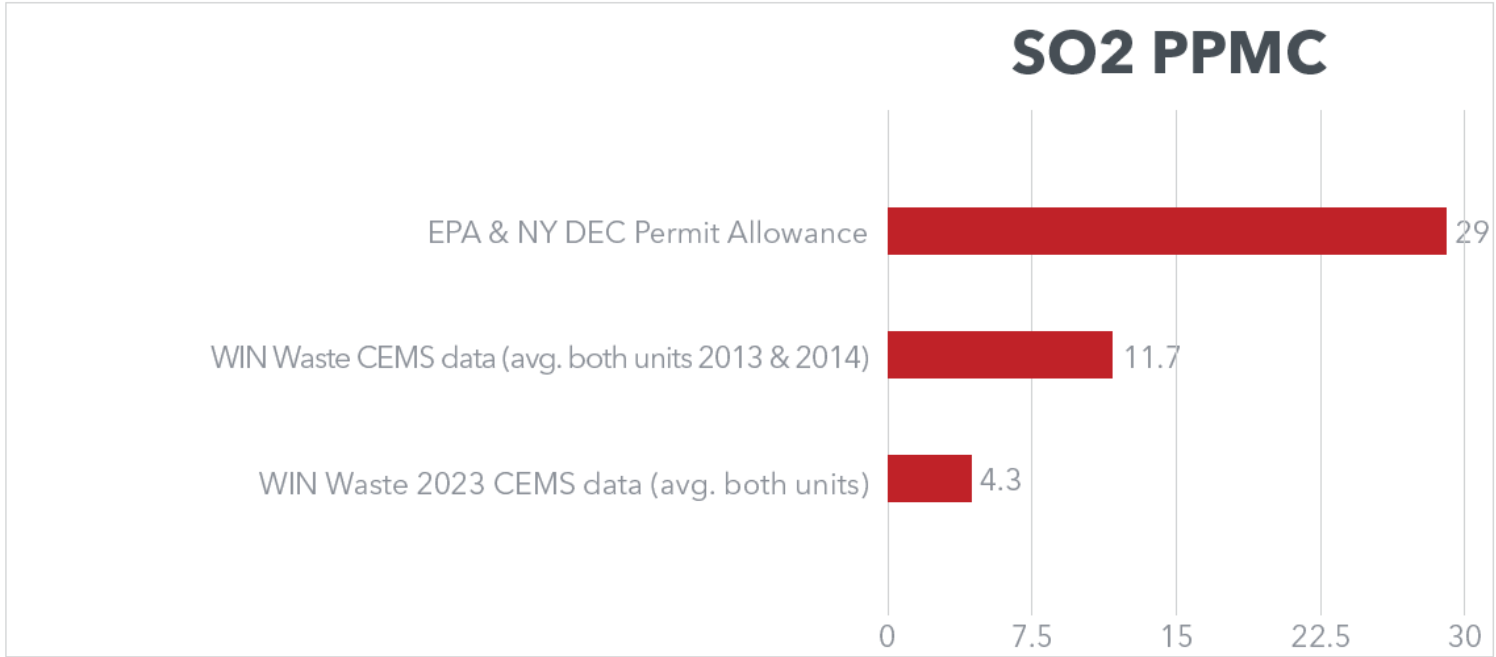


83% below permitted levels

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Sulfur Dioxide

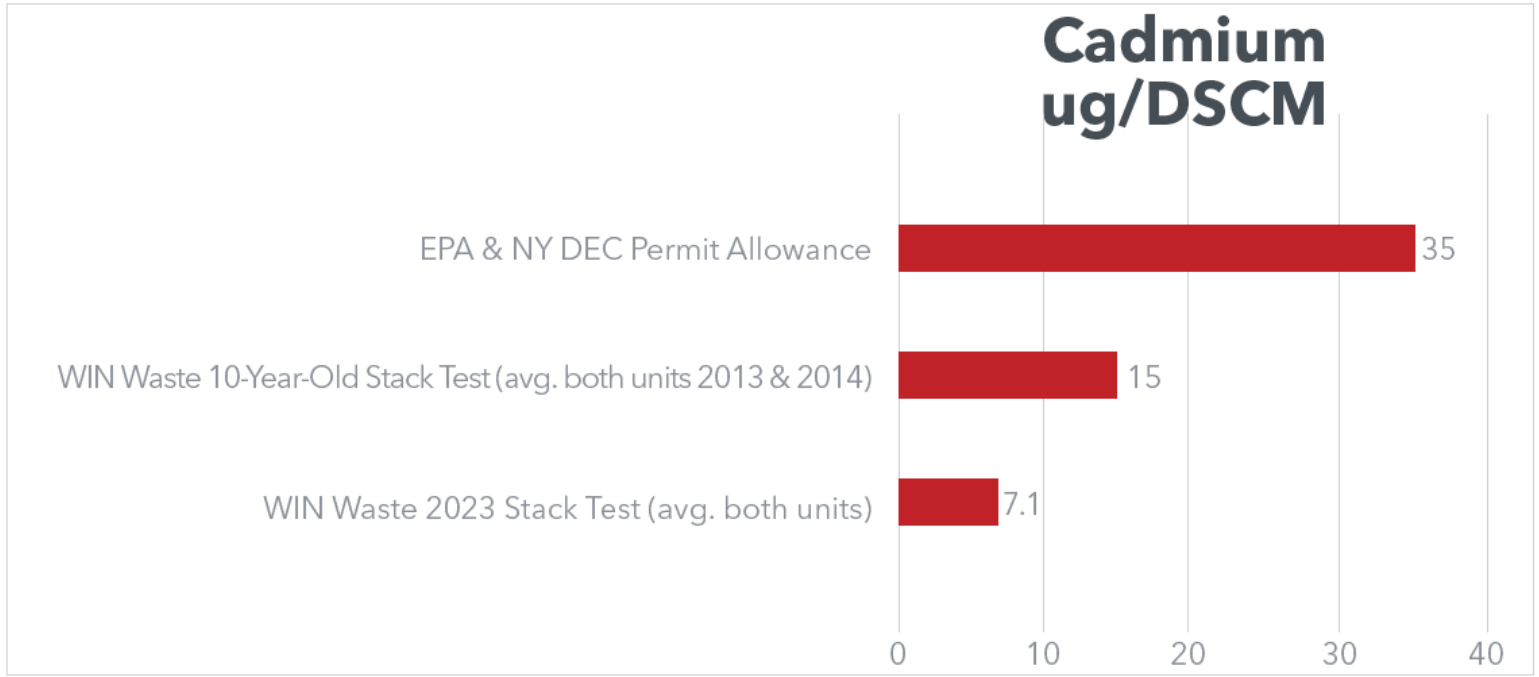


85% below permitted levels

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Cadmium

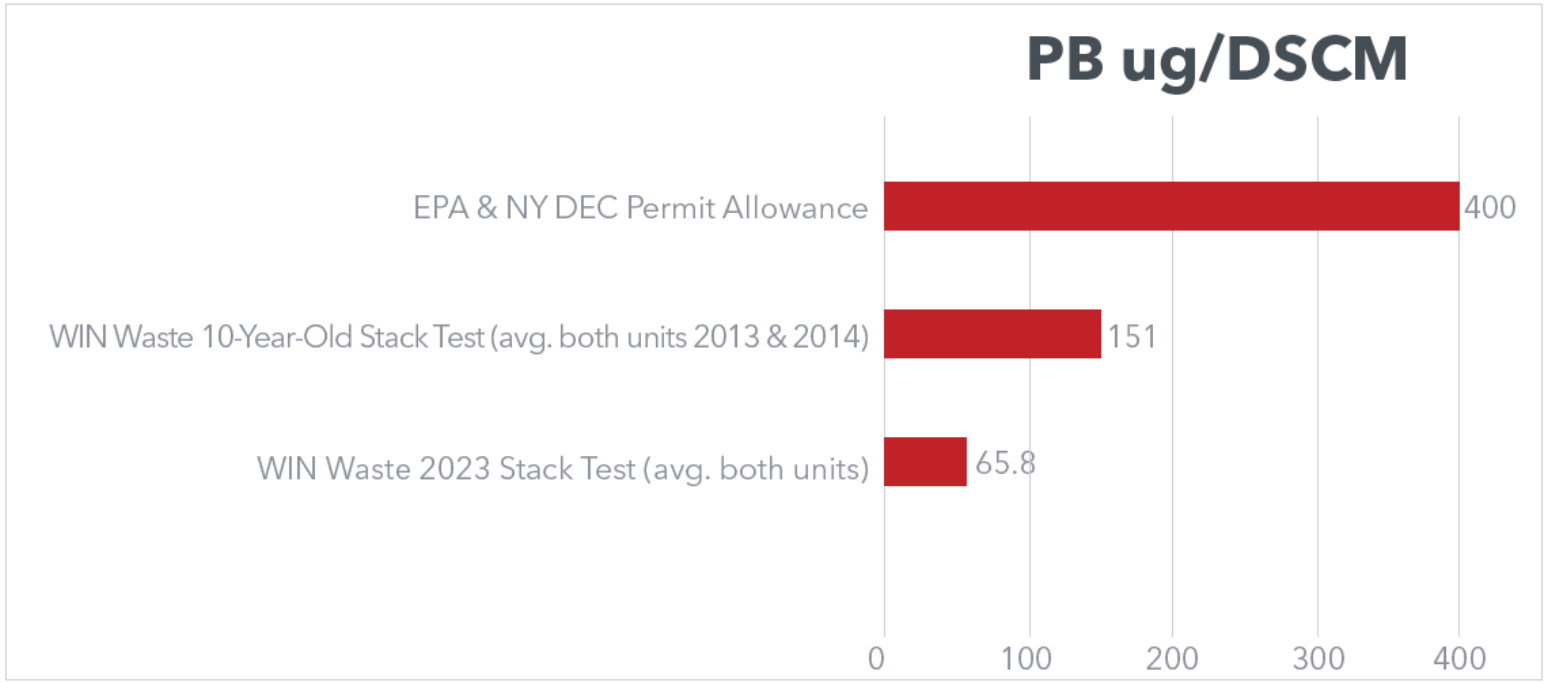


80% below permitted levels

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Lead

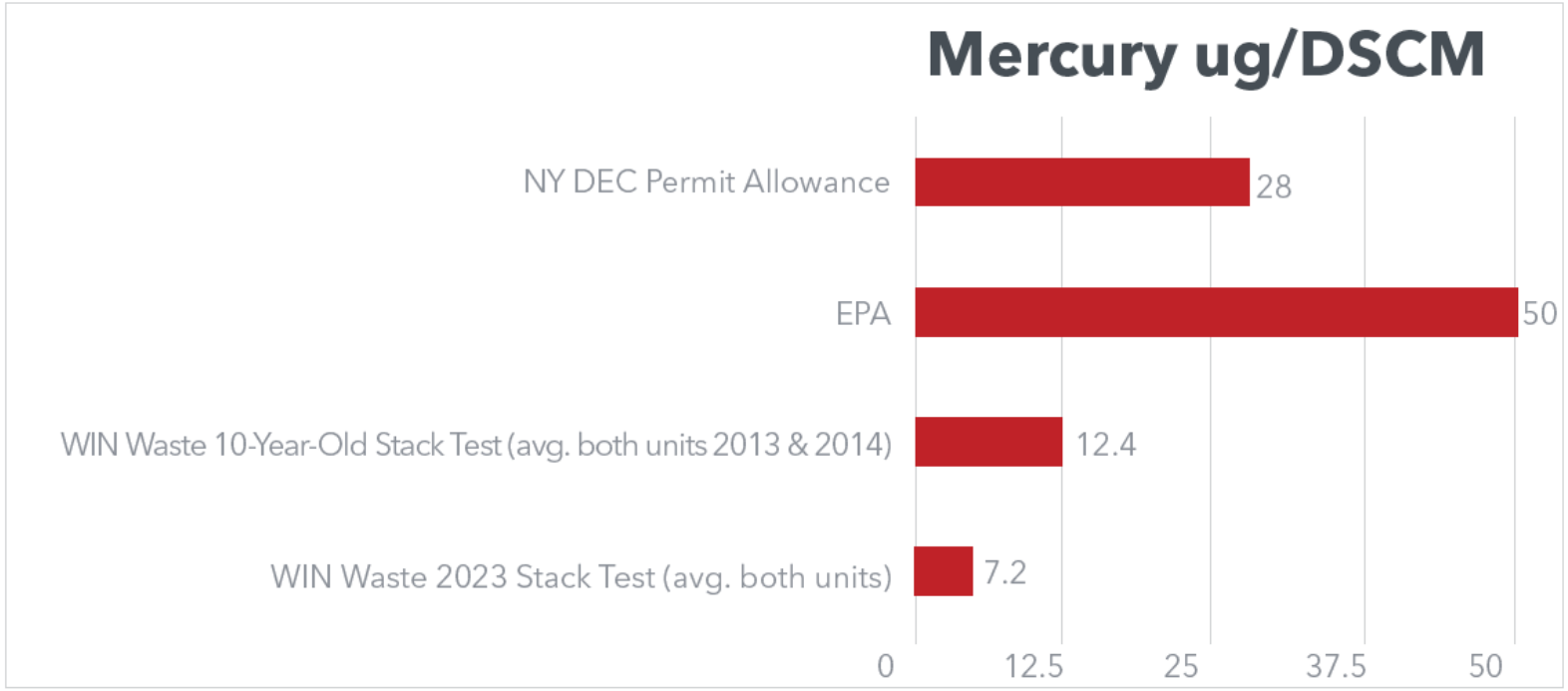


84% below permitted levels

Permissible vs. Actual Emissions

Wheelabrator/WIN Waste Hudson Falls regularly operates at or below permit emissions requirements – and we continue to innovate and improve

Mercury



74% below permitted levels

Waste Types & Origins

Origin of waste processed at Wheelabrator Hudson Falls in 2023

- 89% of waste processed at Hudson Falls is post-recycled municipal solid waste
- A small percentage 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

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%

Waste Types & Origins

Origin of waste processed at Wheelabrator Hudson Falls in 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

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

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 are on a five-year permit renewal schedule
- Wheelabrator Hudson Falls LLC has submitted an application to the NYSDEC for a Title V Air Operating Permit renewal

About Title V

Title V renewal is a multi-year process resulting in an 84-page submission for review

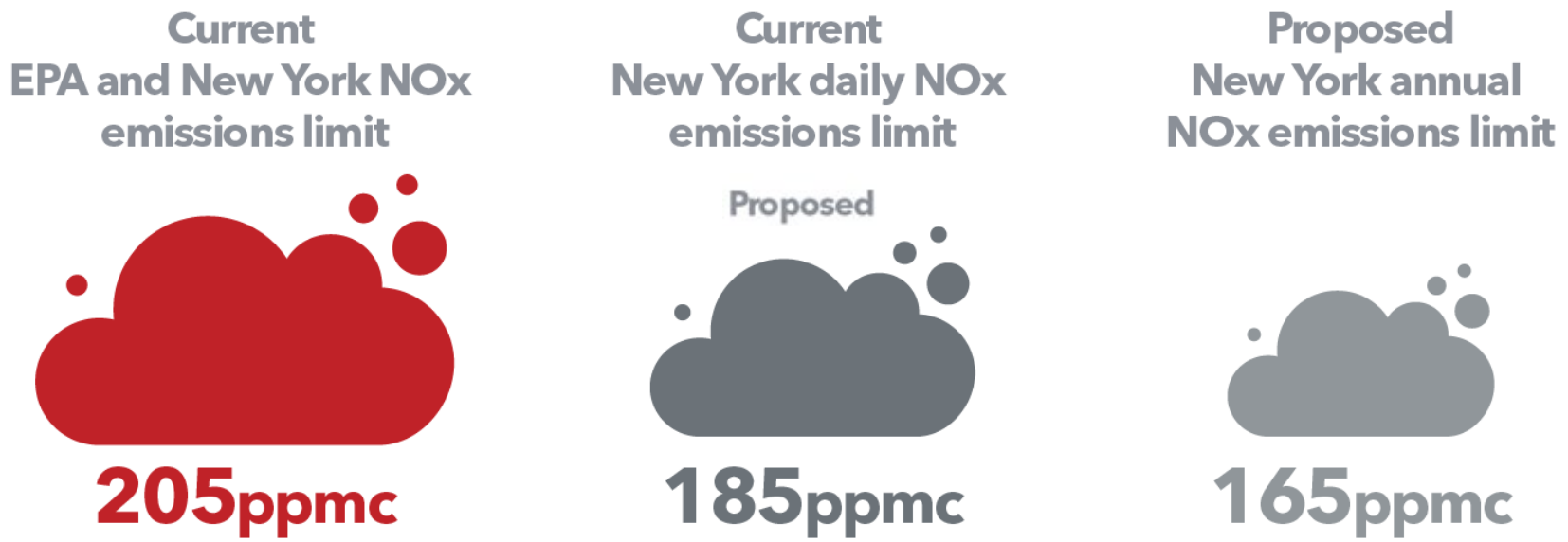
EXAMPLES: COMPLIANCE POINTS REQUIRED UNDER TITLE V PERMIT

- 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

About Title V

The new permit limit reflects a 20% NOx reduction from the previous NOx permit limit

- The NYSDEC has set new limits on NOx emissions that are lower than the current EPA limit



ppmc = parts per million corrected

WIN's Waste-to-Energy Operations

Air Quality Assessment Conducted for Title V Renewal Application

- We voluntarily contracted with a 3rd party expert to conduct an air quality analysis on the potential impacts of Greenhouse Gas co-pollutants on Disadvantaged Communities including the City of Glens Falls, the Village of Hudson Falls and others.

- The analysis was conducted in accordance with the latest USEPA AERMOD air quality model and Division of Air Resources (DAR)-10[1] “NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis” as documented in an air dispersion modeling protocol approved by NYSDEC.

- The air quality analyses results demonstrate that impacts of GHG co-pollutants are significantly below NYSDEC’s air quality guidelines averaging less than 1.2% of the guidelines.

[1] NYSDEC, DAR-10: NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis, https://www.dec.ny.gov/docs/air_pdf/dar10.pdf

Title V Permit Renewal & Modification

Next Steps:

- NYSDEC to issue draft Title V permit for public review
- Public comment period will commence through NYSDEC which could include a public hearing
- All project updates and documents will be posted to project website as they become available:
  - winwastehudsonfalls.com

Questions?

For more information and to access project documents, visit www.winwastehudsonfalls.com

Project Contact:

Matthew Hebert – Plant Manager
(207) 615-4330
mhebert@win-waste.com
93 River Street, Hudson Falls, NY 12839