



GARBAGE AS A FORCE MULTIPLIER



Dave Robau
Chief Garbologist





Pioneering a revolutionary technology to end the practice of landfills for communities around the world.





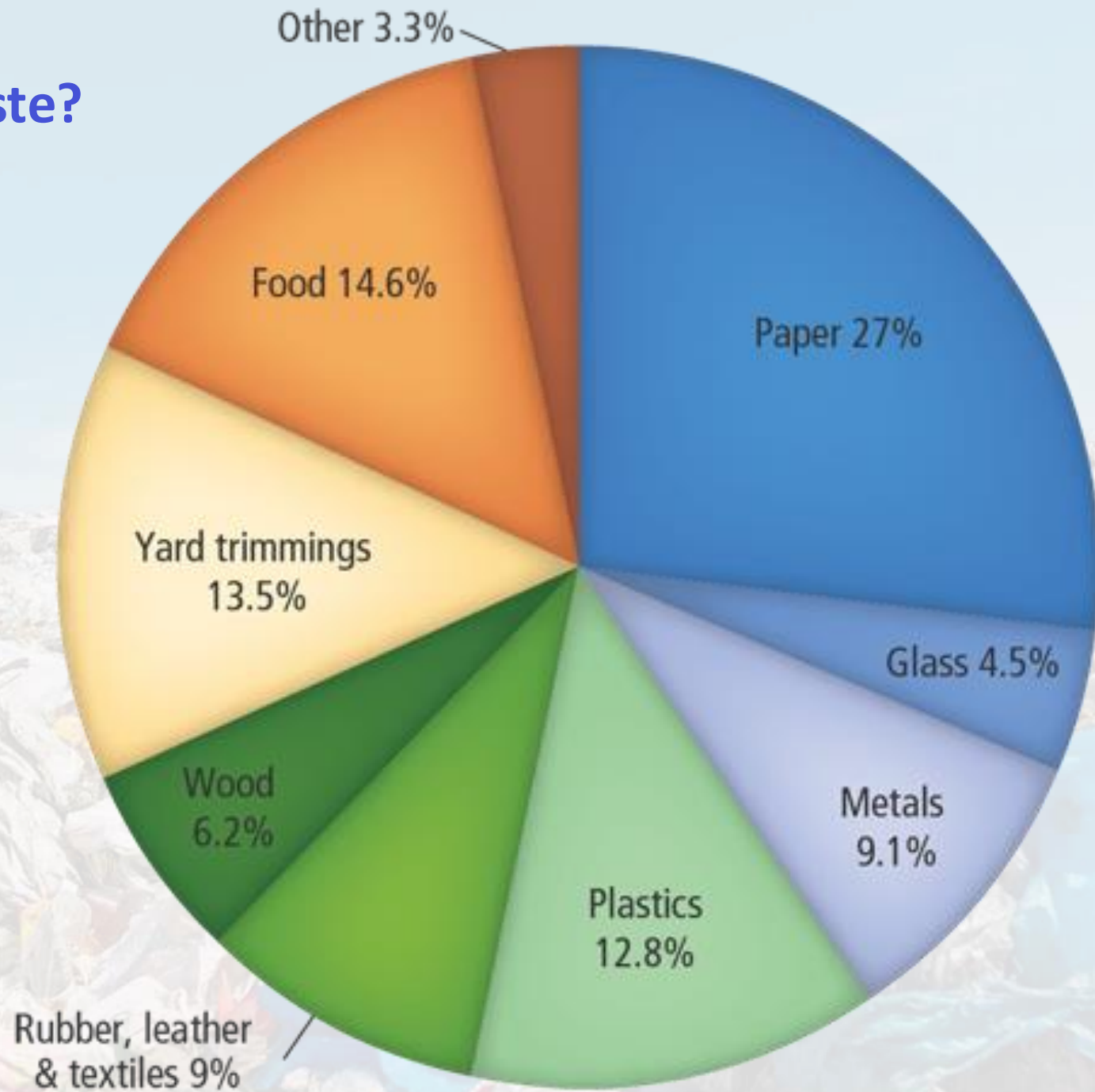
Pioneering a revolutionary technology to end the practice of landfills for communities around the world.



What's In Your Waste?



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recycling is broken



The New York Times

**Recycling Is Broken.
Should I Even Bother?**

Addressing the global garbage crisis with a radical approach and **breakthrough technology**



2 Billion Tons

The world generated over 2 billion tons of municipal solid waste in 2024, with a **projected increase of 70% by 2050.**

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National Energy's **Waste-Powered Energy Microgrid** provides onsite, **baseload power** for military, municipal and commercial customers interested in increasing energy security.



Battle-Tested Founder Solving Critical Challenges to Protect Our Warfighters

Developing First-of-a-Kind ground-breaking
gasification technology for Air Force Special
Operations Command using the world's most
under-utilized resource: **GARBAGE**



Our Team of Experts



Dave Robau, CEO
Environmental Scientist
"Garbologist"



John Switzer
Chief Financial Officer
U.S. Navy Veteran



Emily Carlisle
Environmental Scientist
TRUE Advisor



John Klose
DOD Business Development
Manager / U.S. Navy Veteran



Sandy Jennings, PE
Senior Project Engineer



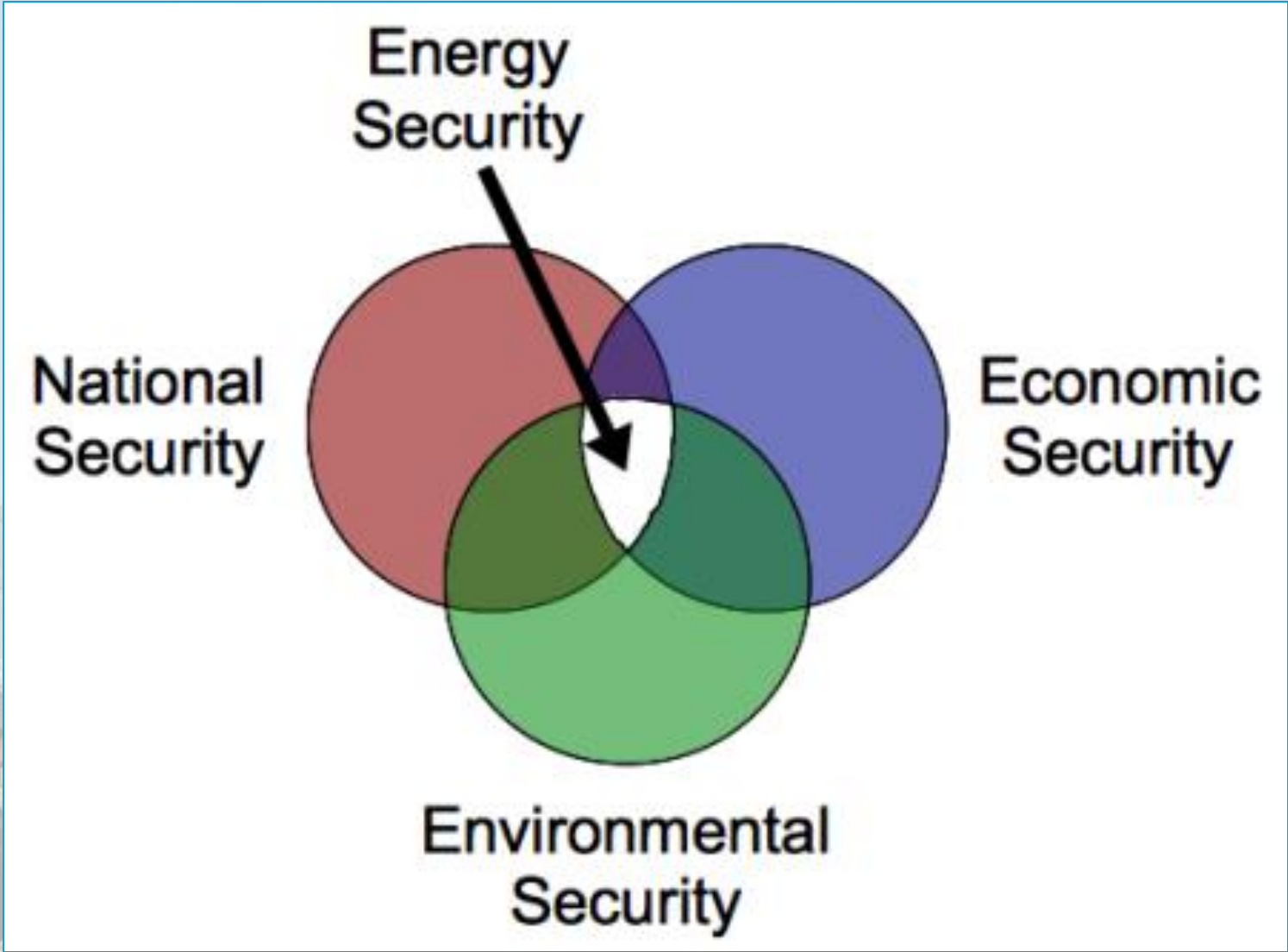
Gen. Wesley Clark
Board Advisor
Ret. U.S. Army

Team Experience & Background



A B-52 bomber aircraft is shown in flight against a dark, cloudy night sky. The aircraft is viewed from a low angle, showing its wings and tail. A bright green laser beam is emitted from the nose of the plane, extending towards the bottom of the frame. Other lights, including a red light and a yellow light, are visible on the aircraft's undercarriage. The text "Energy Security = National Security" is overlaid in white, italicized font across the center of the image.

Energy Security = National Security



***Energy
Resilience in the
Department of
Defense***

Key Targets for DoD Resilience and Renewable Energy

2025

All Navy Defense & Task
Critical Assets must have 14+
days of off-grid resilience

2030

All U.S. Army installations
globally will be carbon-free

2035

All U.S. Army installations
globally must have microgrids

What if garbage could be **reimagined** as **force multiplier** to support **the Warfighter**?



We Start with Unsorted Municipal Waste

01

02

03

04

05



Machine Learning Robots Extract High- Value Materials

01

02

03

04

05



Machine Learning Robots Extract High- Value Materials

01

02

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Organic Fraction Converted into an Engineered Fuel

01

02

03

04

05

Clean, Renewable Baseload Power

01

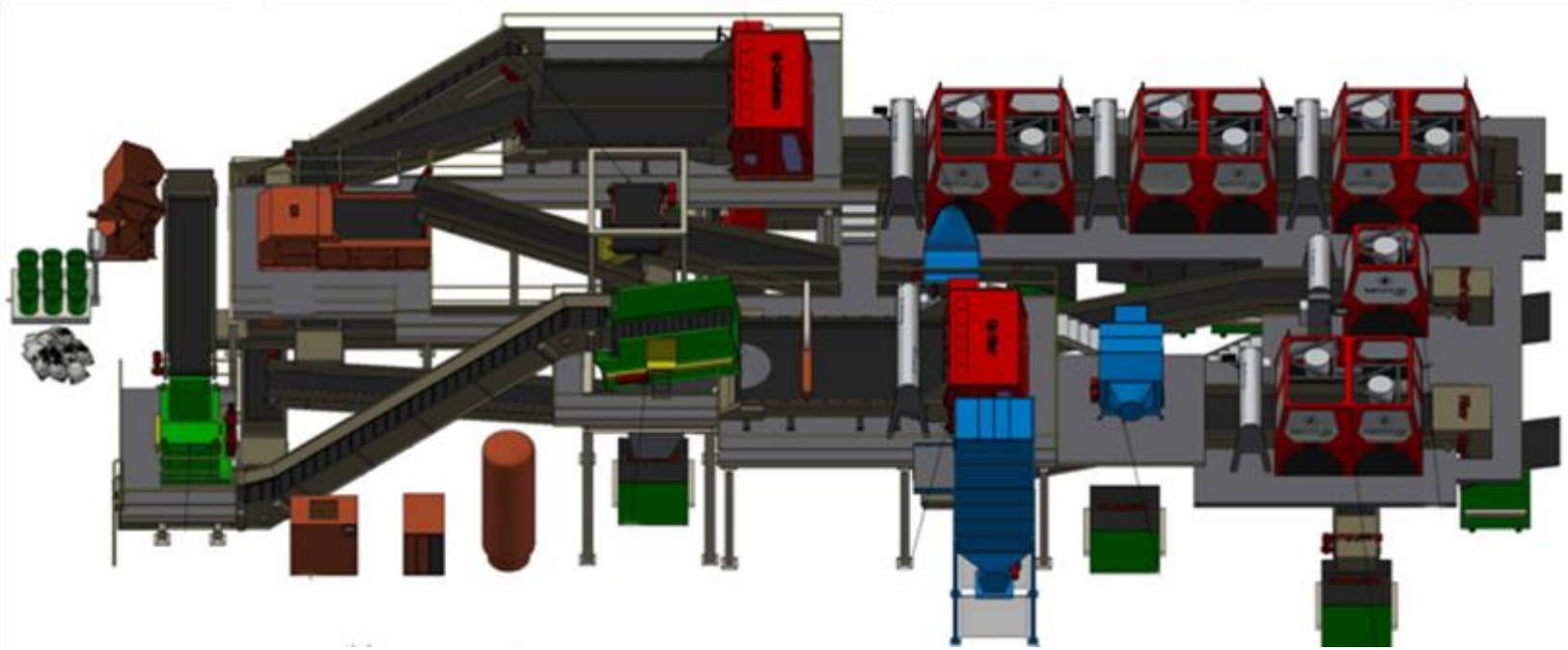
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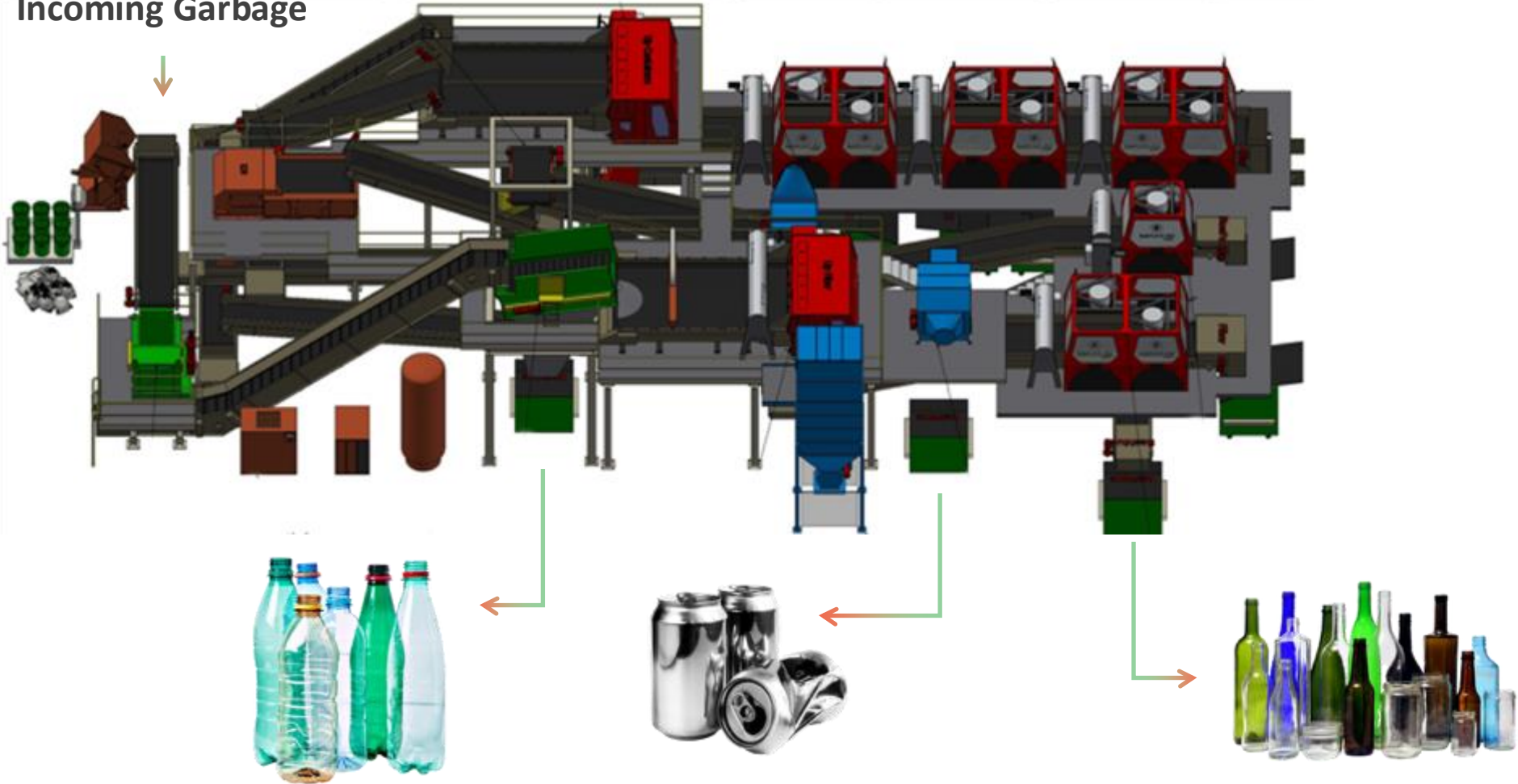
From Waste to Power



From Waste to Power



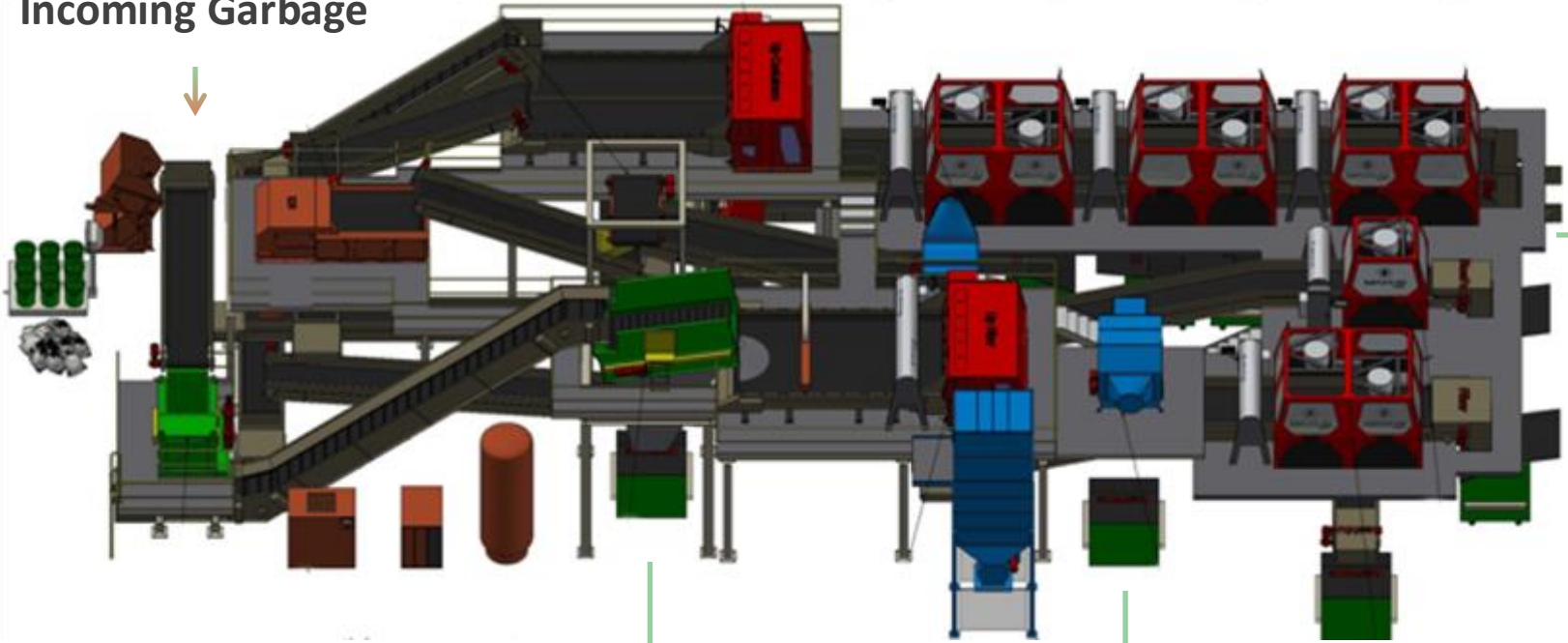
Incoming Garbage



From Waste to Power



Incoming Garbage













Food & Yard Waste,
Paper, Cardboard
(Converted Biomass)



Biomass: Abundant and Extremely Versatile

Bioenergy is the greatest, untapped source of clean, renewable, and dispatchable energy to meet baseload power requirements to support the mission-critical infrastructure.



Renewable Energy Technologies	Meets Baseload Power Demand
 Solar	
 Wind	
 Geothermal	
 Hydro	
 Biomass	

Biomass: Abundant and Extremely Versatile

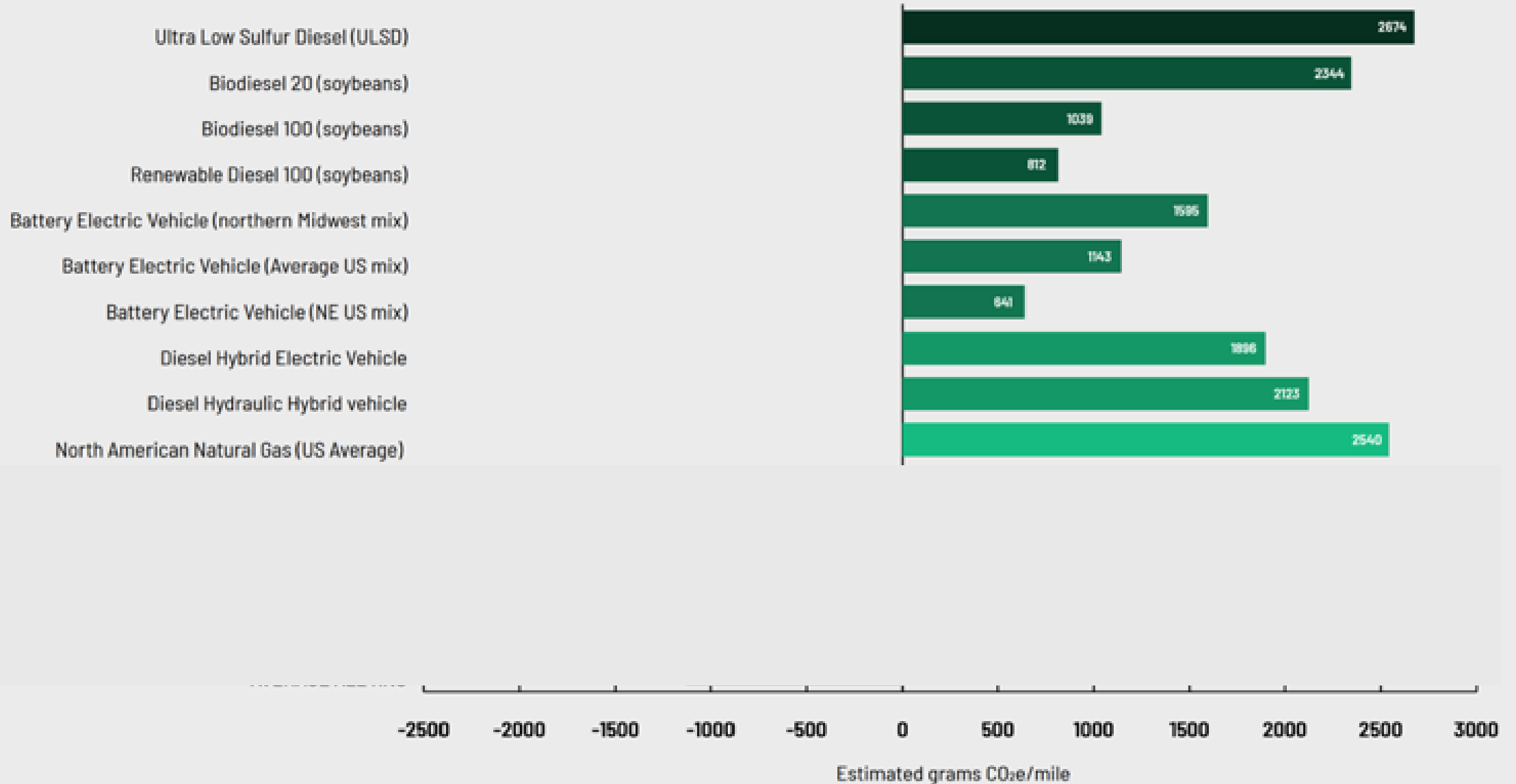


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Renewable Energy Technologies	Meets Baseload Power Demand	Able to Produce Heat	Able to Produce Electricity	Able to Produce Gas Fuel	Able to Produce Liquid Fuel (SAF)
Solar	✗	✓	✓	✗	✗
Wind	✗	✓	✓	✗	✗
Geothermal	✓	✓	✓	✗	✗
Hydro	✓	✗	✓	✗	✗
Biomass	✓	✓	✓	✓	✓

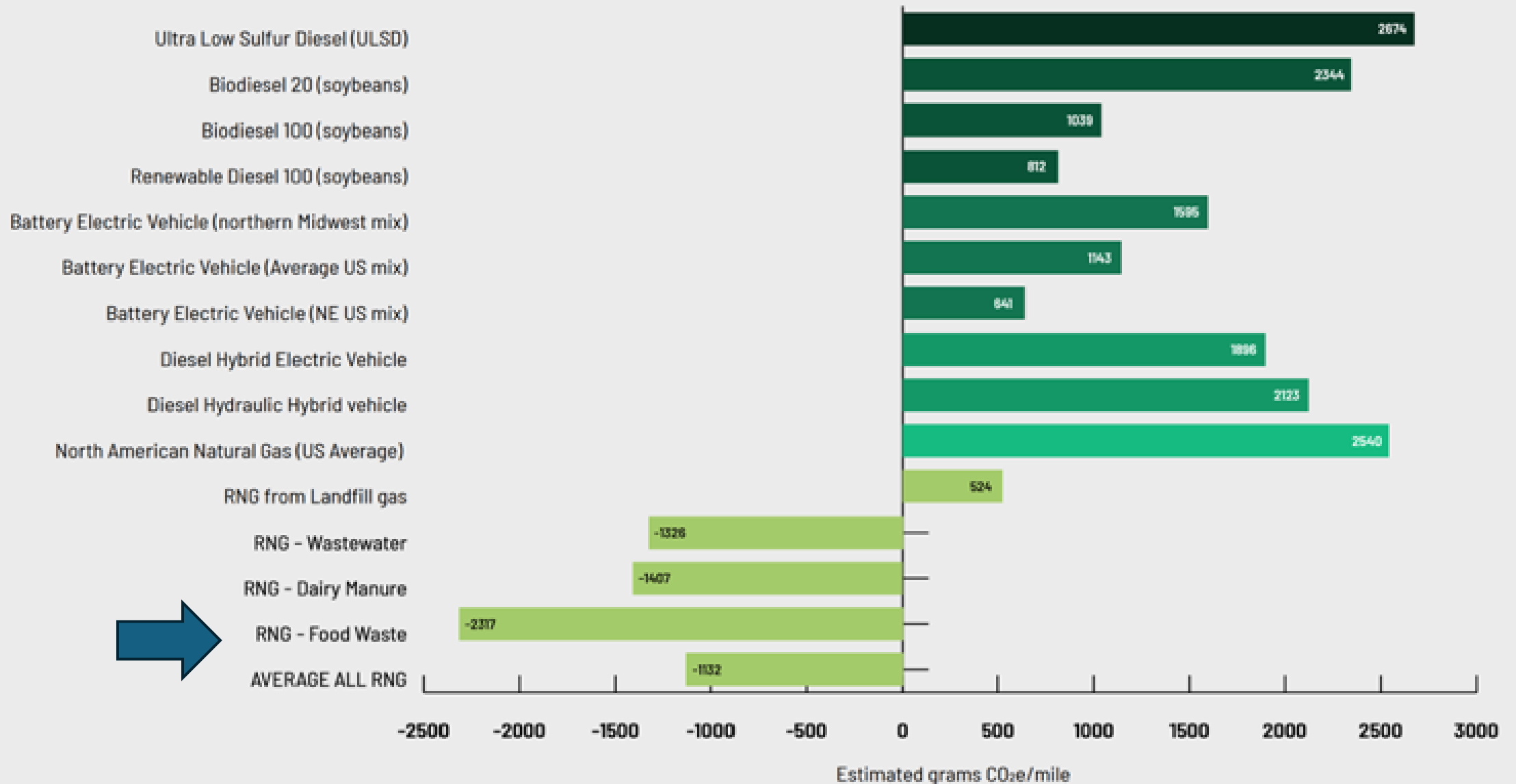
Comparative Lifecycle GHG Emissions of Various Transport Fuels

Source: Derived from Argonne GREET (2022)



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From Waste to Power



Delivering Energy Security for Military Installations Using Available Feedstocks



The DOD spend millions of dollars, annually, to move waste off Base into sanitary landfills, and millions more purchasing energy from a vulnerable grid.

National Energy's **proprietary technology** converts the organic fraction of various waste streams into **mission-critical energy**.

The Waste-Powered Energy Microgrid **solves two critical problems with one innovative solution**.



Our “Energy-As-A-Service” Business Model

Our Ideal Customer spends over \$9M/year in purchased energy and waste removal expenses. The sale of recyclables adds a third revenue stream of \$1M/year.



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Ideal Customer

Sale of Energy

Waste Disposal Fees

Our “Energy-As-A-Service” Business Model



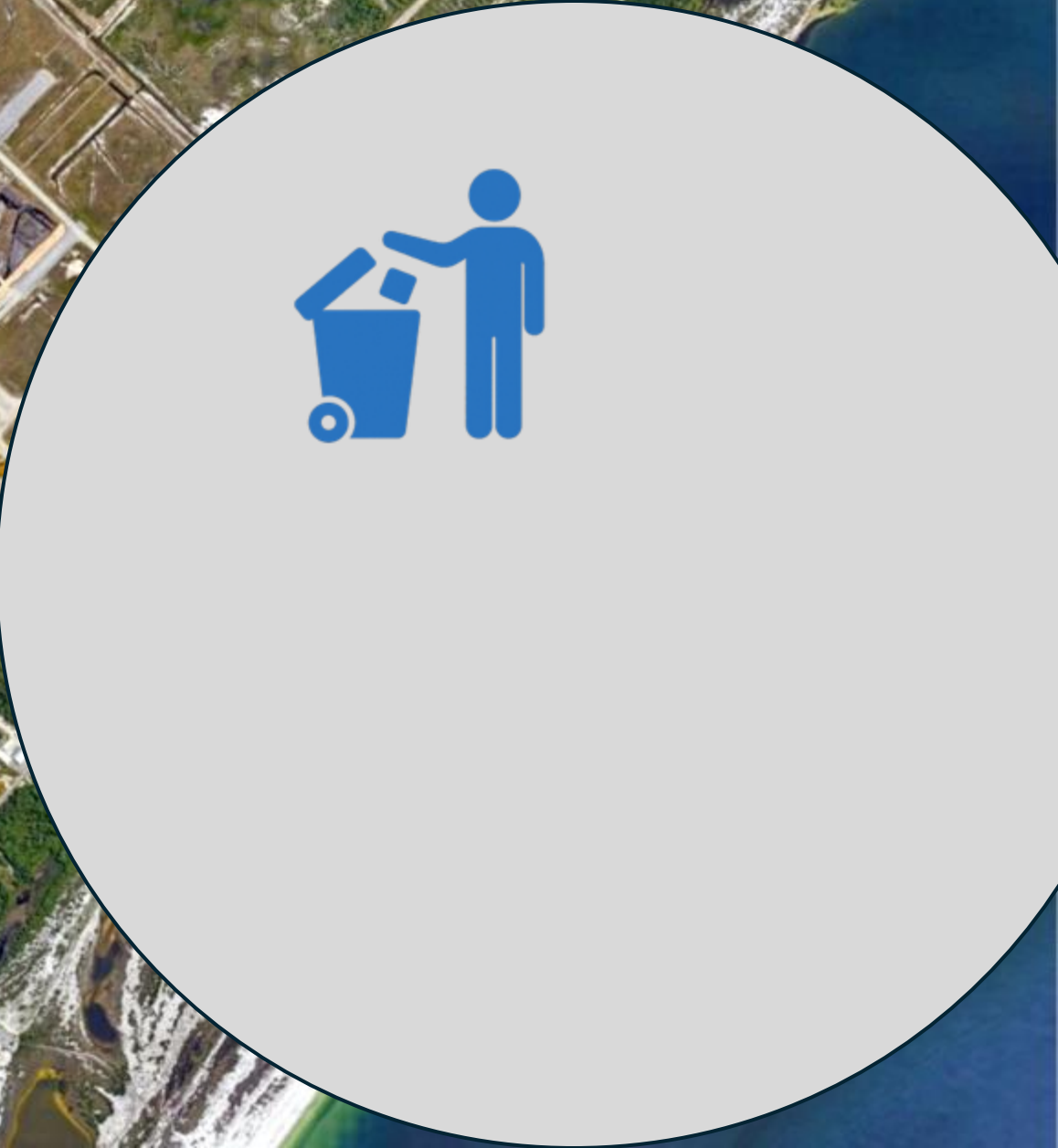
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Smart Solutions for Smart Bases







Bold Ideas, Global Impact



*A minority-owned,
veteran-owned small business*

NationalEnergyUSA.com

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Pensacola, FL 32502



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