



Marine Corps

Logistics Base

Albany Georgia



Innovative Partnerships to Advance Energy Resilience

MCLB Albany – DoD’s First Electric NetZero Installation

Colonel Matt McKinney, USMC

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24 May 2022, MCLBA became the first Net Zero "Electricity" installation in the Department of Navy

ENERGY EFFICIENCY UPGRADES



Energy Savings Performance Contracts (ESPCs) allow federal agencies to procure energy savings and facility improvements with no up-front capital costs or special appropriations from Congress. MCLB Albany implemented several ESPCs to improve base infrastructure, resulting in both cost savings and increased energy efficiency.

The base upgraded its steam distribution, compressed air and heat recovery, lighting, geothermal heat pumps outside housing units, infrared heat, web-based energy management systems, HVAC equipment and landfill gas generators resulting in close to

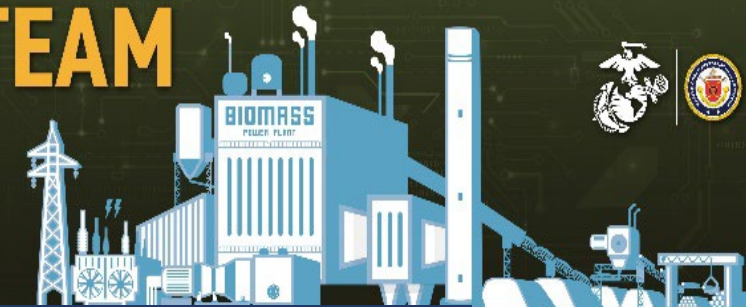
\$3 million in annual savings



Landfill Gas To Energy



MCLB ALBANY NET ZERO BIOMASS GENERATED STEAM



Efficiency & Optimization

- Base-wide HVAC Repairs
- Geothermal Storage Heat Pumps
- Borehole Thermal Energy Storage
- Lighting Retrofit (100K+ bulbs)
- Industrial Air Compressor Upgrades (x4)
- Transformer Replacements (x68)
- Boiler Install (x3)

Generation & Resilience

- 1.9MW Landfill Gas Generator (methane)
- 2.1MW Landfill Gas Generator (methane)
- 8.5MW Biomass Steam Turbine Generator
- Electric Grid Controls/ SCADA

Energy Efficiency, Security, Resiliency, & Redundancy



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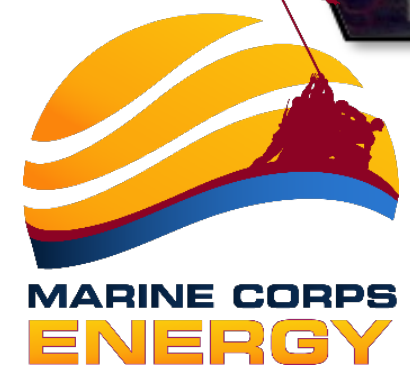
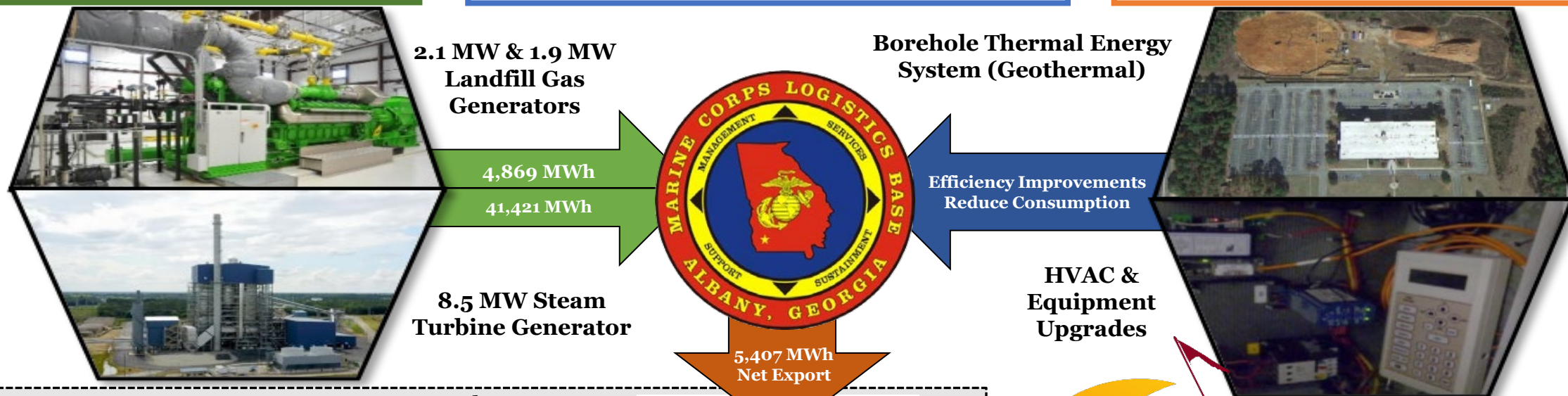
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Net Zero Electric: “generating an annual amount of electricity from on-site renewable sources equal to or greater than the amount of electricity consumed.”

**FY 2022*

$$\text{Renewable Generation (46,290 MWh)} - \text{Energy Consumption (40,883 MWh)} = \text{Net Electricity Export (5,407 MWh)}$$





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Electric Vehicle Supply Equipment (EVSE)

- Public-Private Partnership initiative
- Utilized Georgia Power Company Make Ready Program
- Contracted through GSA Areawide Exhibit A
- Install 18 Level 2 & 3 Level 3 chargers throughout the installation
- Purpose: GOV fleet electrification

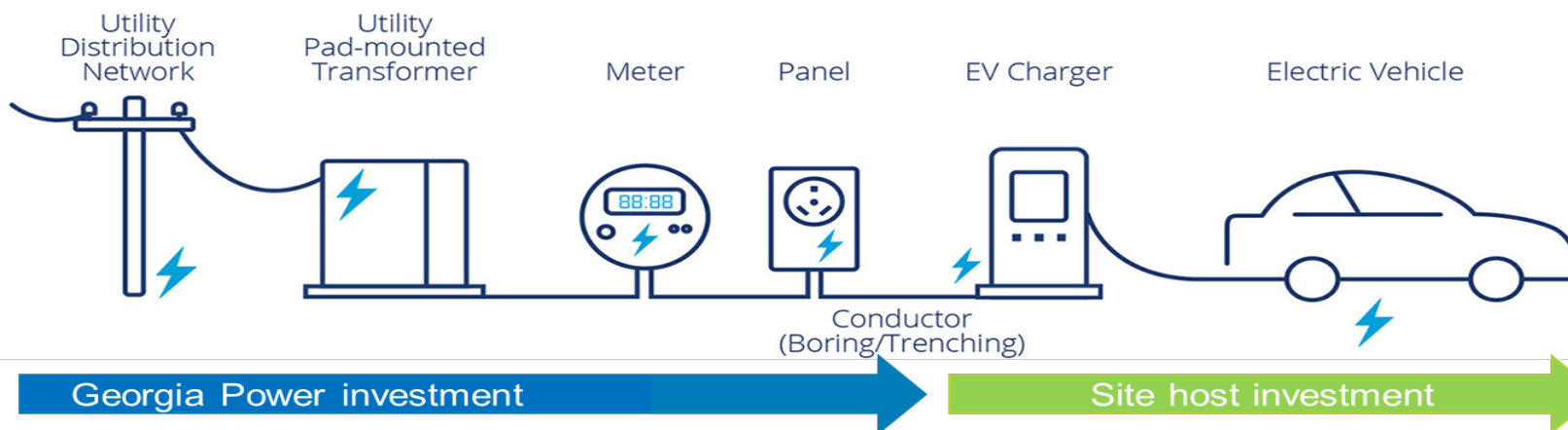


"This modernized energy infrastructure will support our mission and lessen our dependence on fossil fuels."—Hon. Meredith Berger

EO 14057



GPC Make Ready





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Targeting Net Zero Energy

Marine Corps Logistics Base, Albany:
Assessments and Recommendations

Final
November 2011
WE03-N62470-10-D-3009

Prepared for:



Best Practices

Innovative Contracting/ Financing

- Use all available contracting mechanisms and funding sources available with limited appropriations

Public Private Partnerships

- Partner with local entities to make use of other resources not normally available to military installations and create business case opportunities

Long Term Commitment

- Empower champions to sustain the net zero commitment over many years to plan, design, and implement multiple projects and initiatives



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Questions?

MCLB ALBANY NET ZERO

Operational effectiveness is dependent on our investment in renewable energy and alternative fuels.



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