



# GES MICROGRID 5MW-50MW

NEW TECHNOLOGY TO TACKLE CLIMATE CHANGE &  
RELIABLE ENERGY & POWER SUPPLY

# WHY GES MICROGRID TOWARDS 2030?



The energy situation in the USA is increasingly complex due to unpredictable fuel prices and limited access to reliable sustainable energy generation technologies. Additionally, electricity from the grid is becoming less dependable and costly.

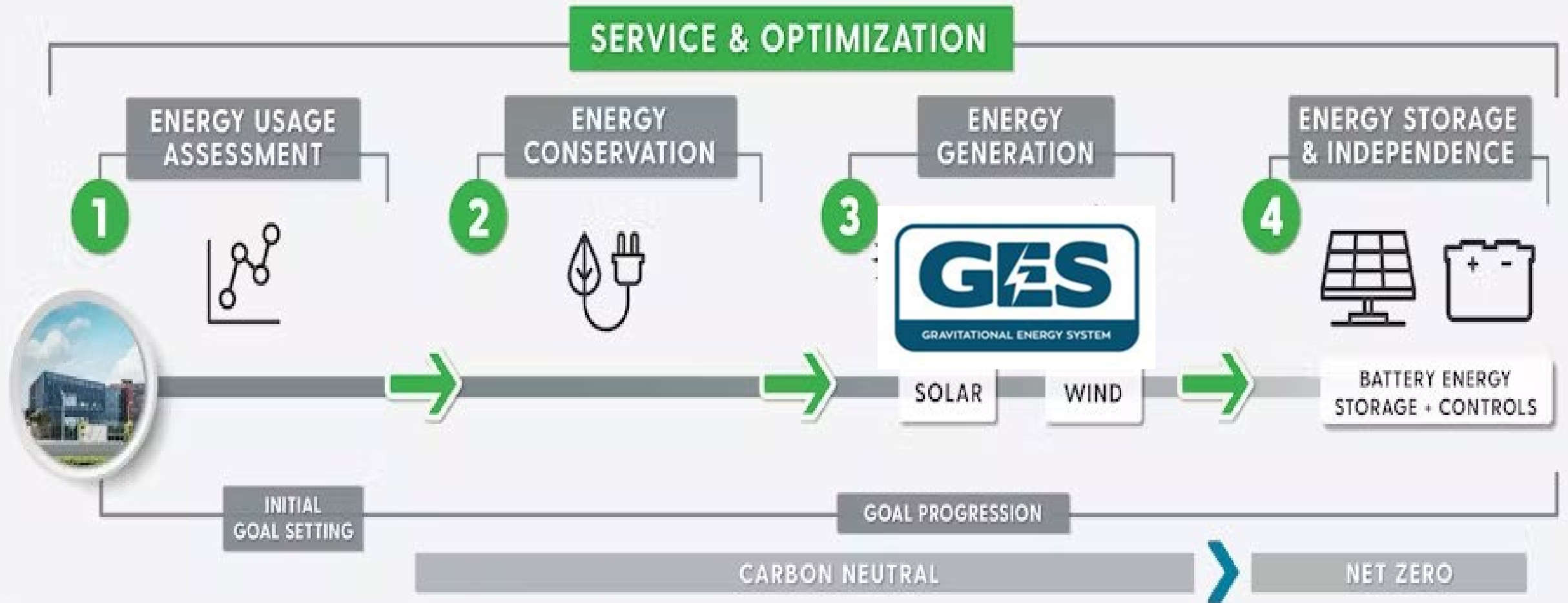


With growing ESG initiatives and government focus on environmental protection, there's a rising interest among corporations, communities, and citizens in assuming responsibility for their energy usage and new reliable generation technologies.



Key components of ESG initiatives in energy may include reducing carbon emissions, investing in renewable energy sources, promoting new technologies to generate clean energy next to the Industry point of consumption.

# OPTIMIZED OPERATIONAL INTEGRATION FOR MICROGRIDS.

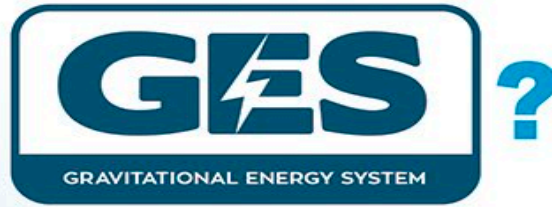


# CUSTOM ENERGY SOLUTIONS GES MICROGRID

- ▶ To develop customized energy solutions that meet financial, operational, and environmental objectives, follow these steps:
- ▶ **Assess Energy Usage:** Collect data on current energy consumption to identify areas for improvement.
- ▶ **Conserve Energy:** Implement measures to reduce energy use, like off-peak consumption and automation, which can quickly save costs.
- ▶ **Generate Energy:** Utilize the Gravitational Energy System MicroGrid to produce clean energy on-site without relying on renewable sources.
- ▶ **Store Energy:** GES Energy storage systems to ensure a stable energy supply for continuous operations.

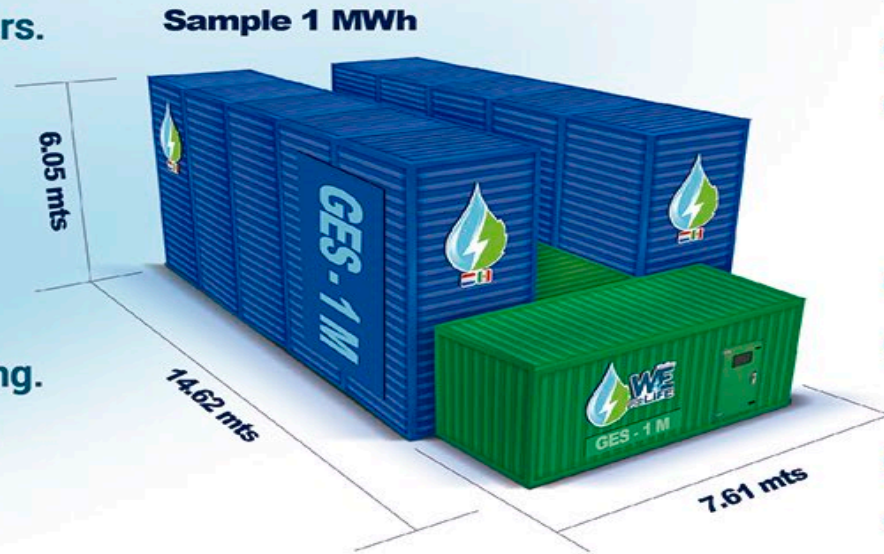


# What is



## Energy systems include:

- Gravitational to torque converter.
- AC synchronous alternators.
- Air transfer module.
- Off grid system start and control.
- Industrial control and system monitoring.
- Remote process monitoring.
- Modular system housing.
- 10 Year full GES system warranty.
- Clean
- Cost Effective



## Energy modules, benefits:

- Fixed cost energy savings.
- On demand energy 24/7.
- System ownership.
- Modular system can be expanded as your demand changes.
- Energy saving clean generator.
- Carbon free generation of energy.
- Supervision and tech support.
- 10 Year full GES system warranty.

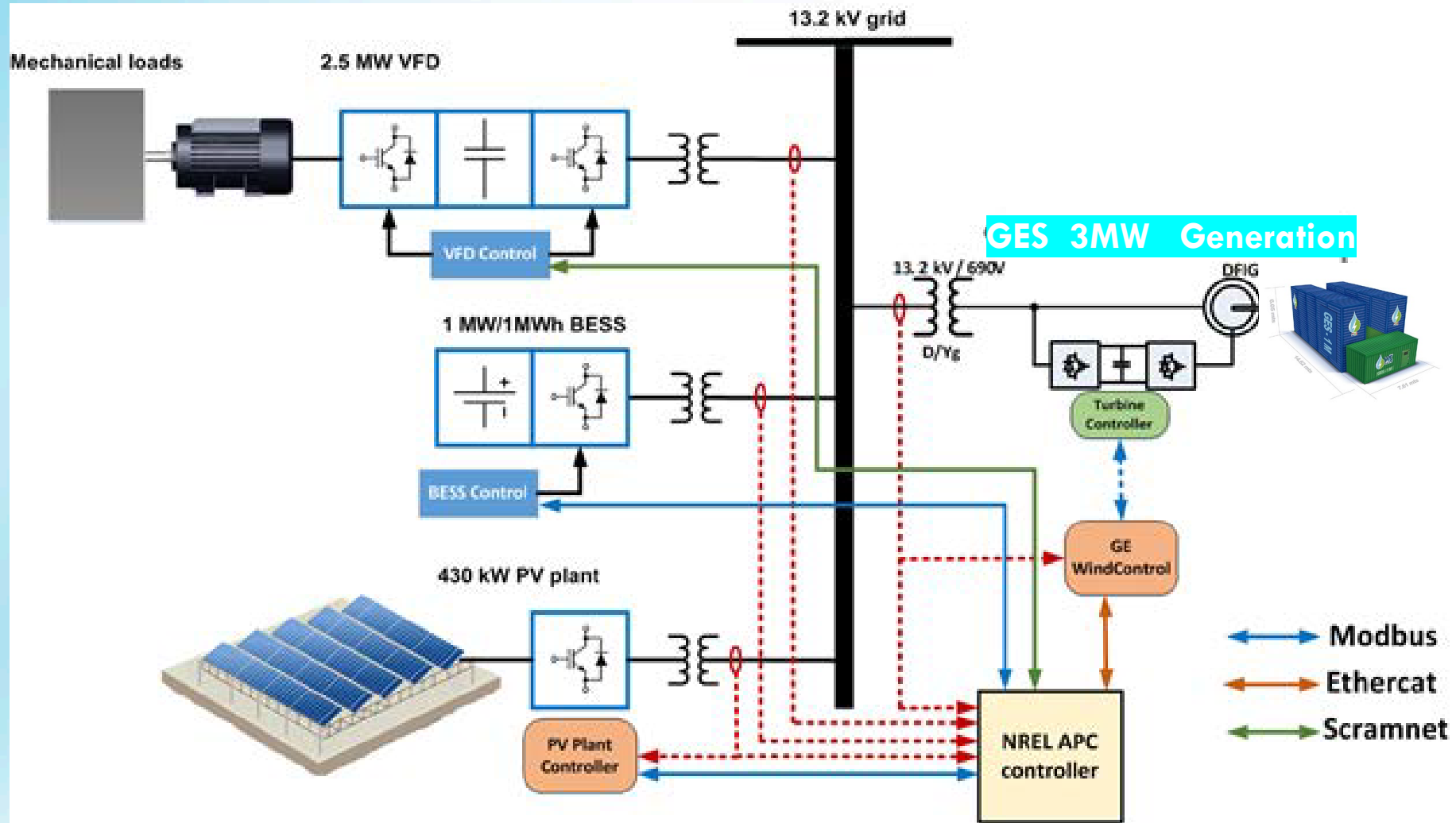


# Technologies Comparative Chart

	Wind	Solar	Nuclear	GES
Works 24/7	✗	✗	✓	✓
Inexpensive Electricity	✗	✗	✗	✓
Electricity production can be confined to a small area	✗	✗	✓	✓
Safe for the Environment	✓	✓	✗	✓



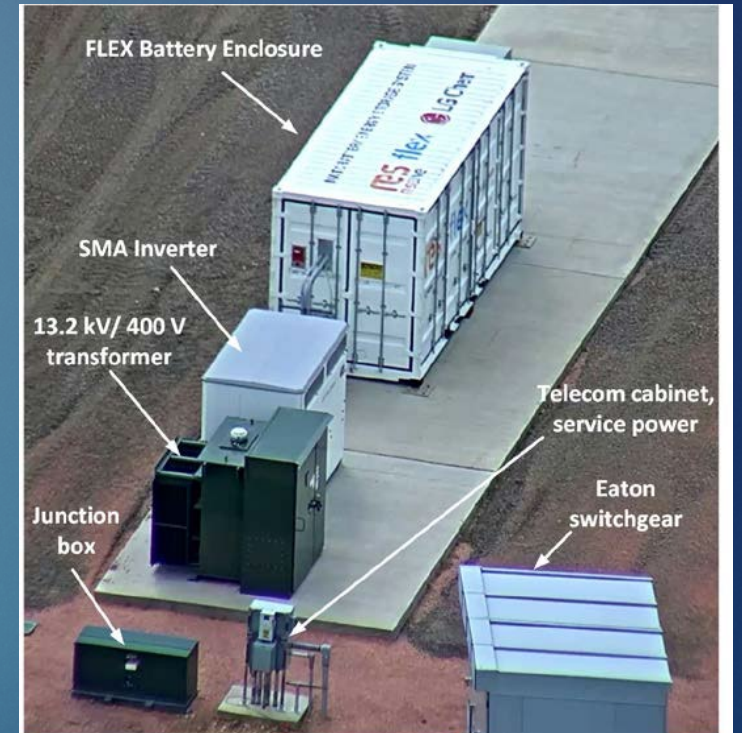
## Grid Interconnection with Renewables, GES & Energy Storage



► **GES MicroGrid Energy Storage System Benefits:**

► Utility-controlled and self-directed services, and distribution-level & customer energy management services available on site with GES Synchronous Generation Platform – MICROGRID.

- Peak load management
- Curtailment reduction
- Renewables variability smoothing
- Frequency regulation and area control.
- Primary frequency response (PFR), & fast frequency response (FFR)
- Supplemental Power reserves
- Electrical supply additional capacity
- Reactive power and voltage support
- Critical load support during outages (islanding), blackstart, etc.
- Advanced controls: power systems oscillation & damping controls
- Power Quality & Reliability
- Retail energy time-shift
- Demand Power Management or Energy Mgmt System (EMS).



# GES MICROGRID CAPABILITIES:



## Autonomous Generation System

- 500 KWh on-site generation
- Autonomous Gravitational Energy System - GES



## Energy Storage + Energy Management

- Intelligent Power Management Control System – EMS
- 2.5 MW Energy Storage Capacity (optional)



## Intelligent Autonomous Energy Management System with 3MW Instantaneous Capacity – GES MicroGrid

# MICROGRID GES FEATURES:

RELIABILITY & TECHNOLOGICAL REDUNDANCY

AUTONOMOUS OPERATION

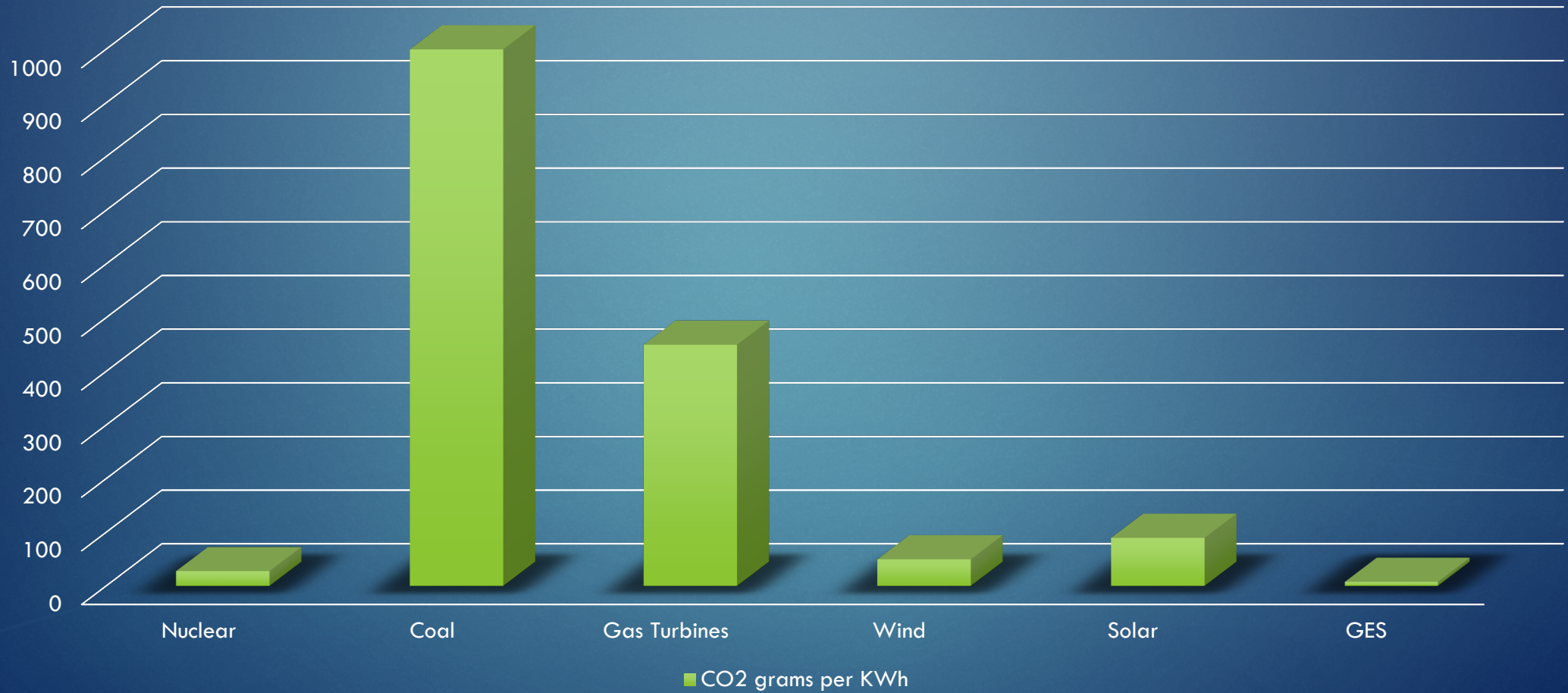
REMOTE SUPERVISION – STARLINK NODES.

YEARLY PREDICTIVE MAINTENANCE

LOCAL & CYBER SECURITY PROTECTION

# TECHNOLOGIES CARBON PRINT SUMMARY:

CO2 grams per KWh



# ENERGY SOLUTION FOR DATA CENTERS.

## Data Center Power Requirements

- **Power Demand:** Typical data centers require 500 kW to 100 MW, depending on size and operations.
- **Reliability Standards:** Data centers demand 99.999% uptime, equating to less than 5.26 minutes of downtime annually.
- **Energy Efficiency:** Power Usage Effectiveness (PUE) target of 1.2 or lower for modern facilities.





**Indoors & Outdoors MicroGrid Operation.**



**GES Operational / Power Delivery Monitoring Touch Panel Simatic**

# ENERGY SOLUTION FOR DATA CENTERS.

## GES Technical Capabilities

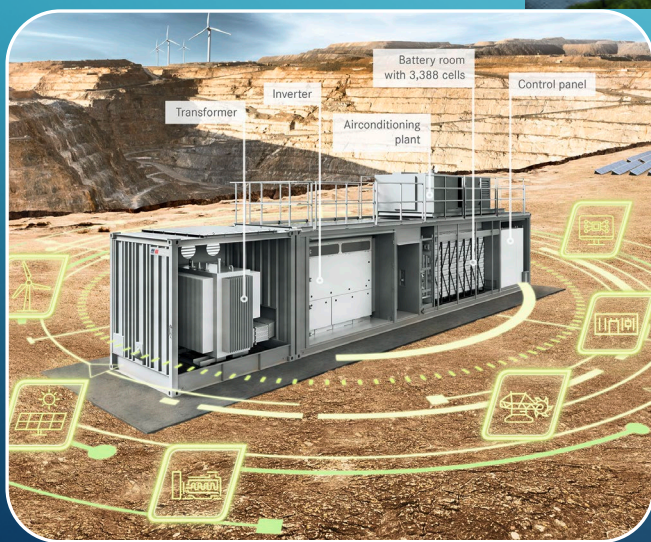
- **Steady Power Output:** GES provides consistent nominal power tailored to data center needs.
- **Longevity:** Engineered for a 20-year operational lifespan with minimal maintenance.
- **Scalability:** Adaptable to varying power demands, from small-scale to hyperscale data centers.

## Advantages of GES for Data Centers

- **Reliability:** Continuous power supply ensures compliance with uptime requirements.
- **Sustainability:** Zero-emission energy generation aligns with green data center initiatives.
- **Cost Efficiency:** Reduced operational costs over 20 years with minimal maintenance cost vs other technologies.



# DATA CENTERS – AUTONOMOUS ENERGY HUB



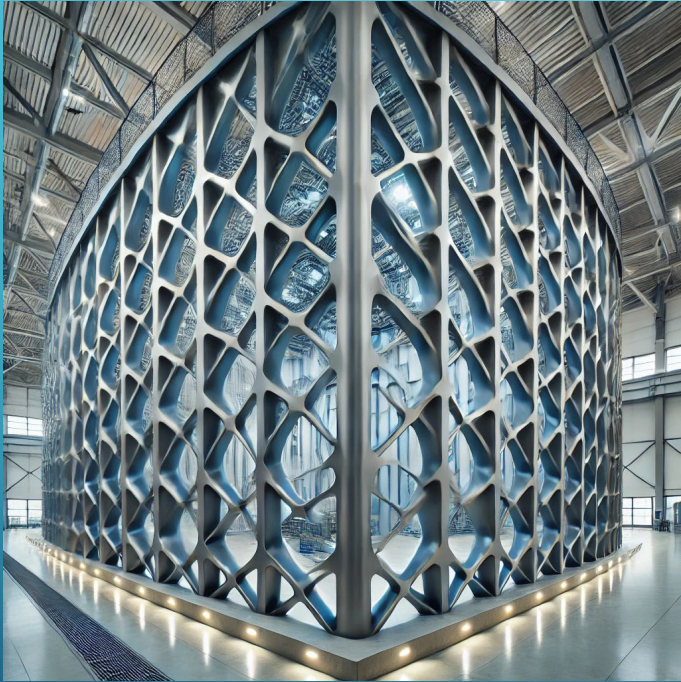
## **GES MICROGRID SOLUTION FOR A PROMISING FUTURE...**

- **Consider our company as your ideal partner in the advancement of Clean Electric Energy Generation, with the power to transform the world for a promising future.**

- **Luis Wintergerst, MBA / John Burke**



# GES MICROGRID HUB – DATA CENTERS



**GES NORTH AMERICA, INC - 2025**