

The logo for METIS POWER. 'METIS' is in blue, and 'POWER' is in black. The 'O' in 'POWER' is replaced by a blue circular icon with a white stylized 'P' inside.

**METIS  
POWER**

# **COMBINED HEAT & POWER**

**SOLUTION**

## **Paper & Pulp Industry**

Powering Progress, Maximizing Efficiency

# PAPER & PULP INDUSTRY



## Energy Intensive

One of the most energy-intensive industries, relying on a stable and substantial energy supply for pulping, drying, and finishing. Consistent energy availability is crucial to maintain operational efficiency, productivity, and competitiveness.



## Continuous Operation

Uninterrupted energy is essential to power the industry's energy-intensive processes. Any disruption can halt production, causing downtime and inefficiencies, making continuous energy supply vital for seamless operations.



## Energy Efficiency

Energy efficiency is vital to reduce costs, lower emissions, and minimize reliance on grid. By adopting advanced technologies, optimizing processes, and recovering waste heat, the industry can enhance sustainability, meet regulations, and improve competitiveness.



## High Steam Demand

The paper and pulp industry depends on steam for critical processes like pulping, bleaching, and drying. Steam breaks down raw materials, aids chemical reactions, and removes moisture. Reliable steam supply is essential to avoid disruptions, maintain product quality, and ensure efficient, continuous production.

## Efficiency Driven Operation

# ADVANCED POWER GENERATION

METIS  
POWER  
MPG-6000

## MPG PRODUCT LINE

5.0 - 8.5 MW

Over  
**34%**  
Efficiency

Highest Efficiency  
In Class

Up to  
**14**  
Ton/hour

Saturated Steam  
Production per unit

**<9** ppm  
NOx Emissions

Lowest Emissions  
In Class

**DUAL  
FUEL**

Switch on the Fly

Capable to Start  
On Liquid/Gas Fuel

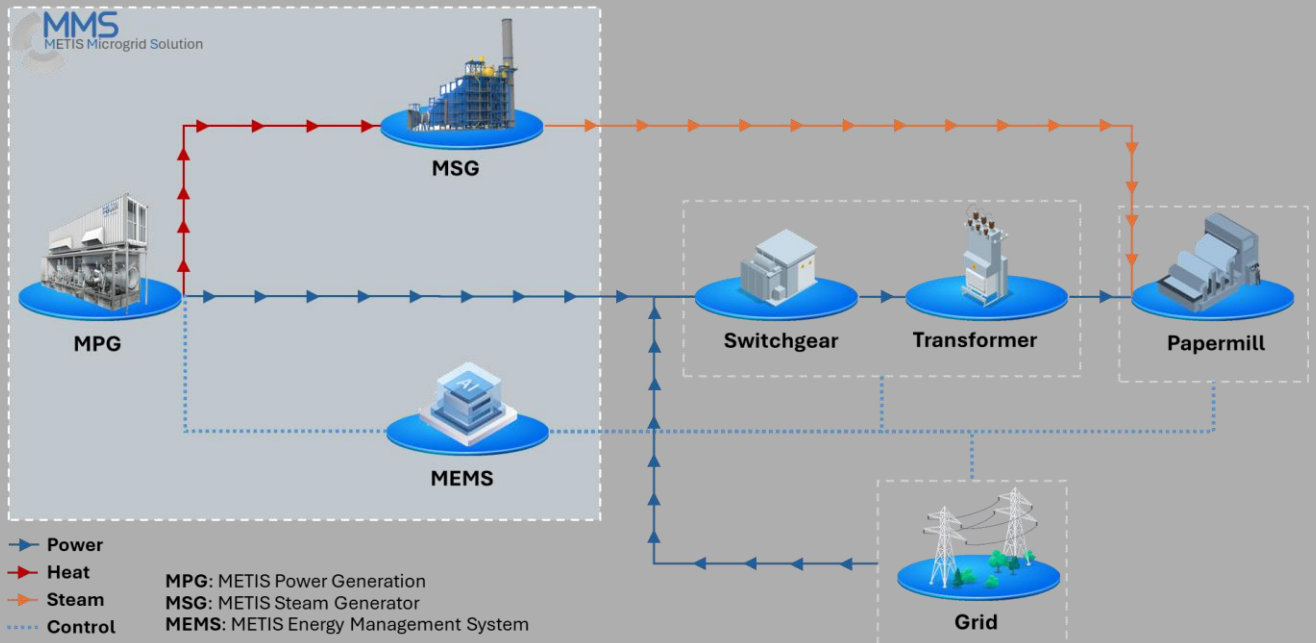
**40,000  
HOURS**

Major Overhaul

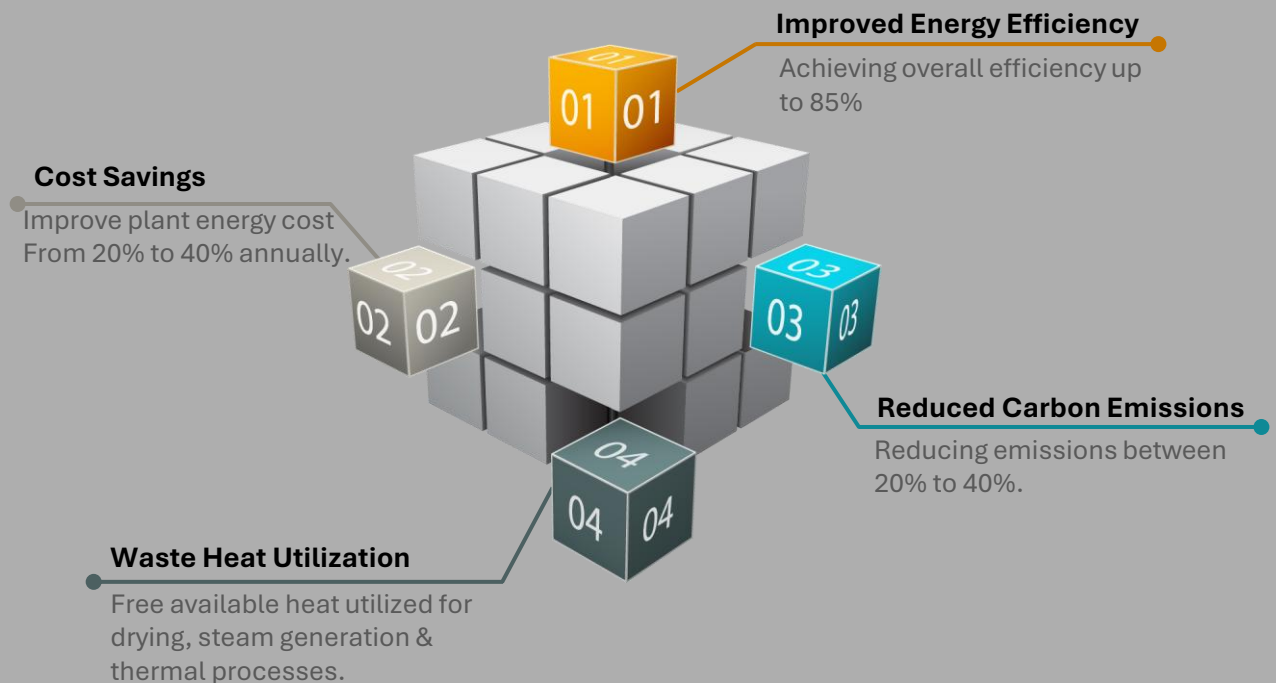
Lowest Maintenance  
Cost in Class

**PARALLEL**  
to Grid  
**OR**  
**ISLAND**  
Mode

# SMARTER SOLUTION for a Sustainable Future



## Key Advantages of Our Solution

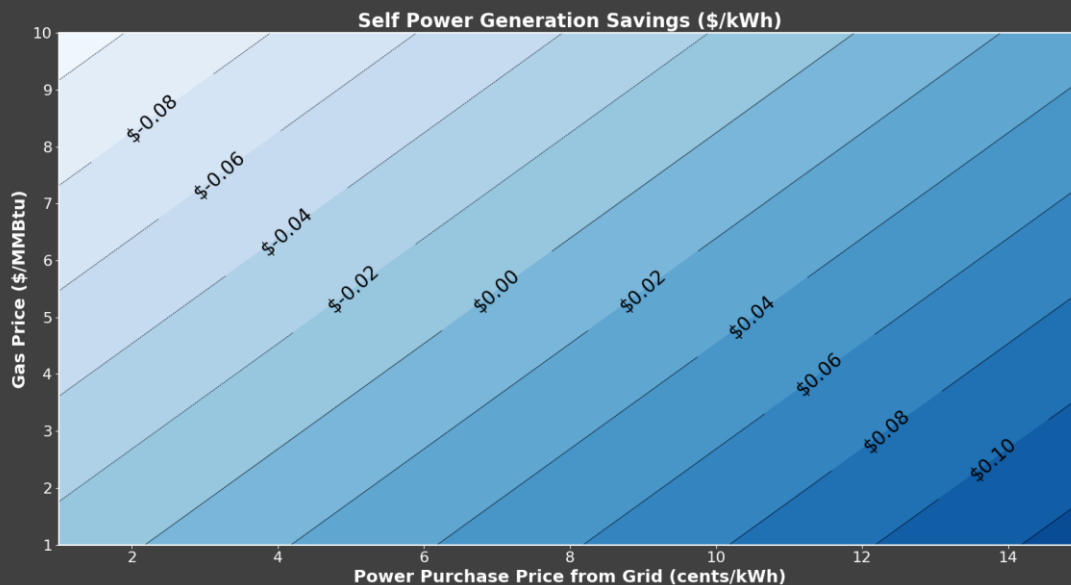




# COMBINED HEAT & POWER

## EFFICIENCY & COST SAVINGS

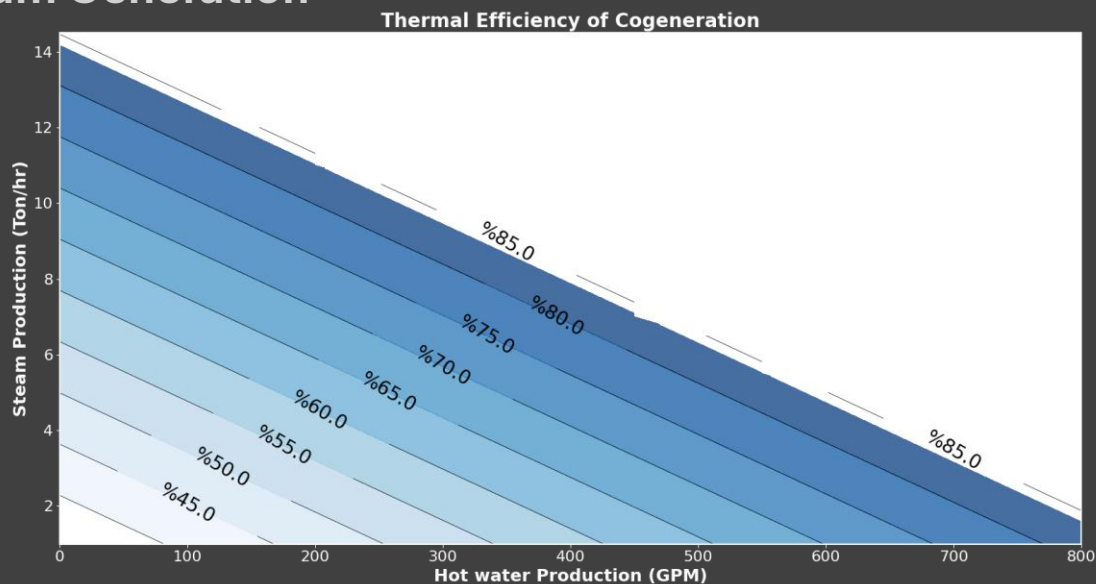
### Power Generation



The plot above illustrates the cost savings achieved by the MPG power generation units in terms of electricity expenses.

- All results are based on full-load operation @ ISO Conditions.
- The results include maintenance cost of the unit (minor and major overhauls rates in USA).

### Steam Generation



The plot above demonstrates the thermal efficiency of MPG power generation units when integrated with MSG steam and hot water generation units, as influenced by the volume of steam and hot water produced.

- All results are based on full-load operation @ ISO Conditions.
- Steam Saturated@150PSIG, Hot water at 140F, Supply water at 59F.

# Typical Arrangement Layout

