



POWER + COOLING

ECCOMAX[®]

MODULAR ENERGY FOR

data
centers

The grid can't keep up.
Your data center can.

Power beyond grid limits

To accelerate timelines and reduce reliance on a constrained grid, data center developers are increasingly turning to gas engines for **continuous and reliable on-site generation**.

BUSINESS IMPACT FOR U.S. DEVELOPERS & OPERATORS

CUT CRITICAL PATH DELAYS

On-site power is now the fastest way to energize new AI/Cloud capacity.

CONTROL YOUR OPERATING COSTS

Reduced electric usage for cooling = lower PUE, lower energy.

DE-RISK YOUR BUILD

Avoid interconnection queues.

MEET SUSTAINABILITY EXPECTATIONS

RNG-ready, H₂-ready, lower CO₂ and improved KPIs.



MEET ABBY AND DISCOVER HOW DATA CENTERS POWERING AI CAN RUN EFFICIENTLY AND RELIABLY.

↓ WATCH THE VIDEO



Data center energy usage is defined by high-density computing loads that demand large amounts of electricity and the highest levels of reliability to ensure continuous operation.

Power + Cooling in one integrated plant

TRIGENERATION = ELECTRICITY + HEAT + COOLING

ECOMAX[®] doesn't just generate electricity. It recovers engine waste heat and converts it into chilled water via absorption chillers.

KEY KPI IMPROVEMENTS ENABLED BY ECOMAX[®]

PUE (POWER USAGE EFFECTIVENESS)

Waste-heat-to-cooling reduces overall electricity demand.

WUE (WATER USAGE EFFECTIVENESS)

With hybrid/dry-cooling options, WUE can drop significantly. In cold U.S. climates → **near-zero water usage**.

CO₂ EMISSIONS

Higher total efficiency.
Compatibility with **RNG** and **Hydrogen-ready** platforms.
CO₂ reduction vs. grid + mechanical chillers: 10–30% depending on grid carbon intensity.

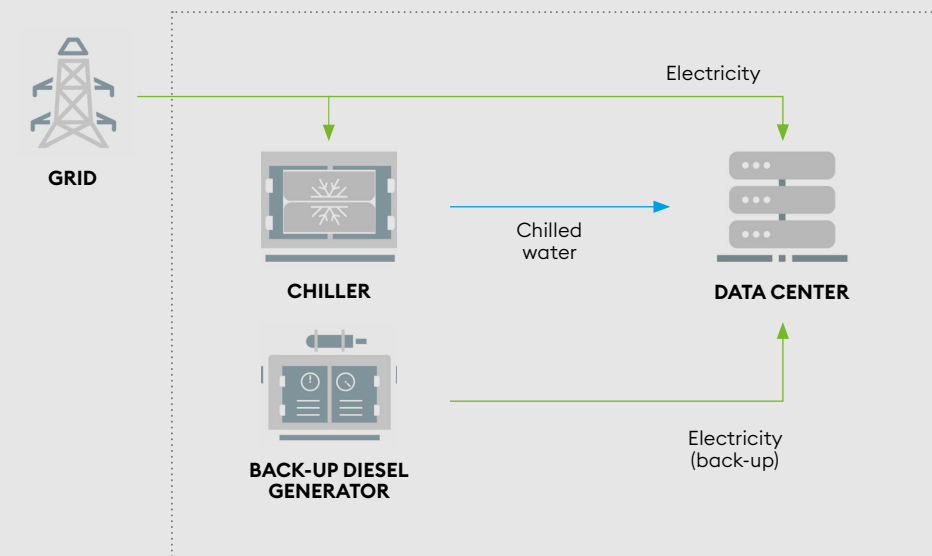
ENERGY SAVING

Combines prime power + cooling in one high-efficiency system.
Cuts electric power demand by **30–60%** for base cooling.
Reduces grid consumption and peak demand charges.

Standard VS Trigeneration

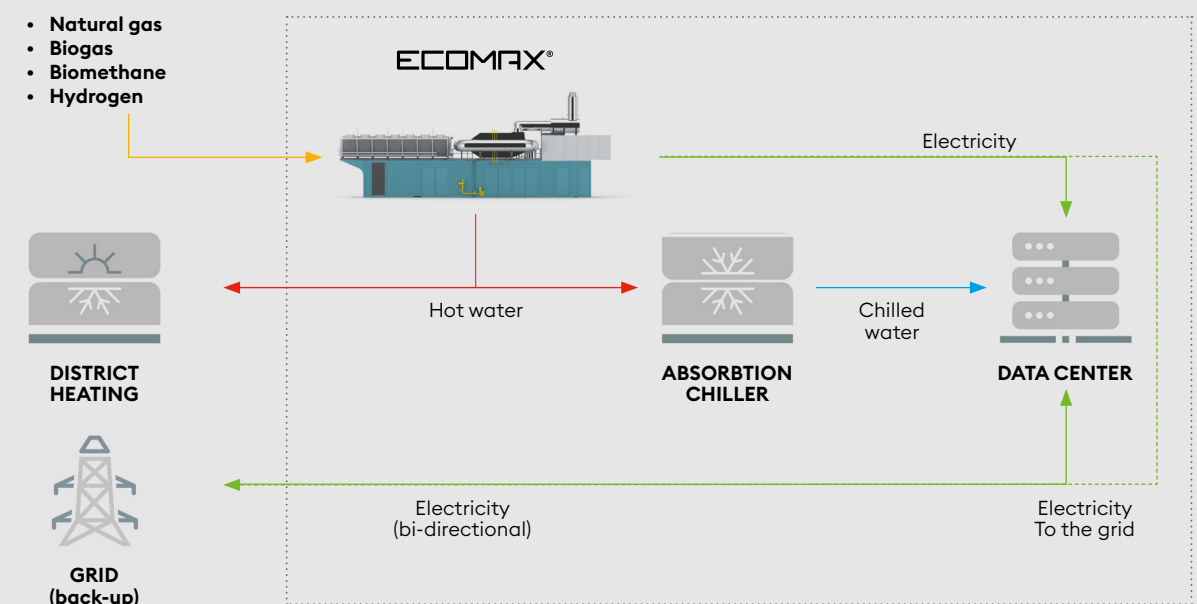
STANDARD SOLUTION

CONVENTIONAL POWER SUPPLY VIA THE LOCAL GRID



TRIGENERATION SOLUTION

SECURE, DECENTRALIZED ELECTRICITY PLUS HEAT AND COOLING SUPPLY



ECOMAX[®] Modular. Scalable. Repeatable.

Standardized 10–500 MWe
+ Power Blocks

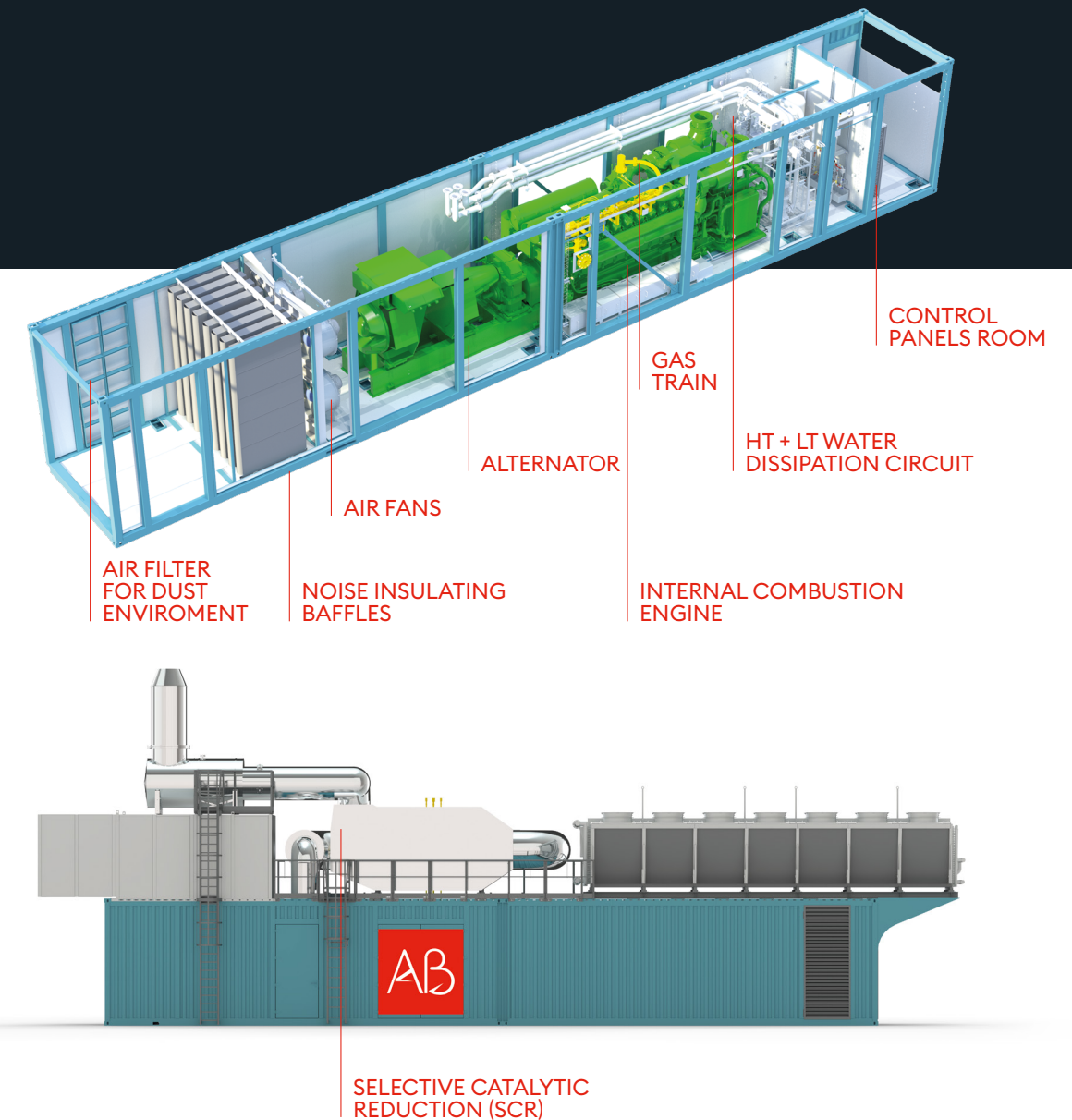
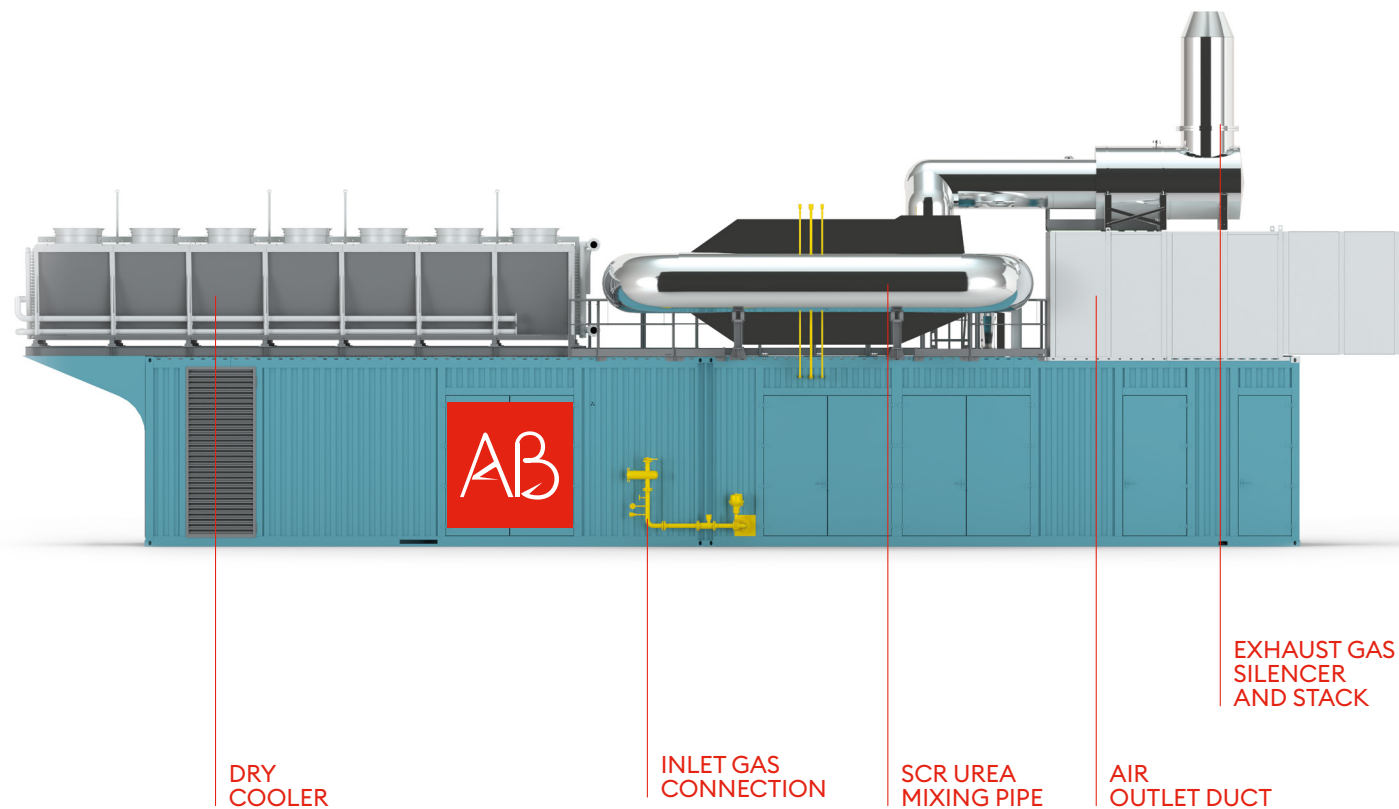
Indoor or outdoor containerized solutions.
Single-vendor responsibility (AB handles engineering,
EPC support, commissioning, lifecycle service).
Multi-site replication for hyperscale roll-outs.

The Fastest Path to Power

FACTORY-ASSEMBLED, TESTED, AND
DELIVERED AS MODULAR BLOCKS

RAPID PERMITTING THANKS TO ULTRA
LOW EMISSIONS

PERFECT FOR PHASED BUILDS AND
FAST-GROWING AI CAMPUSES



Engineered for the U.S. Data Center Market

BUILT FOR AI LOADS, HIGH DENSITY & TOUGH CLIMATES

- Handles extreme **ambient temperatures**
- **Dry-cooler** options for water-constrained regions
- Fast-start configurations
- Designed for microgrid operation in full integration with **UPS, flywheels** and **BESS**

RESILIENCE

ECOMAX® becomes the continuous prime power layer, delivering:

- **Island mode**
- **Black-start options**
- **On-site firm capacity** independent of grid availability
- **Fuel flexibility:** Natural Gas, Biogas, RNG and H₂

A FUTURE-READY PATH TO DECARBONIZATION

ECOMAX® supports low-carbon fuels without major redesign:

- **RNG (Renewable Natural Gas)**
- **Hydrogen blends**
- **100% Hydrogen-ready options** for long-term energy strategy.



FROM ZERO TO POWER:
THE MAKING OF A
DATA CENTER
ENERGY SYSTEM

↓ WATCH THE VIDEO



Operation and service

AB Energy USA guarantees constant support of each plant installed throughout its life cycle, provided by specialized AB technicians in the U.S and backed by AB's global service organization.

AB Service Advantages

SINGLE SOURCE OF RESPONSIBILITY

24/7 REMOTE MONITORING SUPPORT AND ONLINE DIAGNOSIS

FULLY IOT-ENABLED PLANT

AVAILABILITY AND SUPPLY OF ORIGINAL SPARE PARTS

GLOBAL SERVICE ORGANIZATION WITH U.S.-BASED PLANT SUPPORT

GLOBAL NETWORK OF SPARE PARTS WAREHOUSES

FAST TURNAROUND FOR REPAIRS, UPDATES AND OVERHAULS



Ready to power your next data center?

Let's design your ECOMAX[®]-powered site and cut years off your critical path.

Contact us to evaluate how ECOMAX[®] modular power plants can deliver reliable, high-efficiency power, tailored directly to your next project.

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AB Energy USA is the American commercial subsidiary of AB, a global leader in energy sustainability solutions. The company delivers high-efficiency cogeneration and renewable natural gas systems.

About AB Energy USA

Backed by AB's more than 40 years of experience, **AB Energy USA** supports the growing demand for reliable, lower carbon power across industrial, commercial and data center applications in the U.S. AB Energy USA manages every stage of combined heat and power (CHP) and renewable natural gas (RNG) projects in-house, reducing risk, and accelerating results.

The company helps partners meet today's performance needs while supporting long-term sustainability goals. Globally, AB employs more than 1,500 people across 22 countries, with primary engineering and manufacturing operations based in Orzinuovi, Italy.

Together, AB and AB Energy USA combine global expertise with local execution to deliver world-class energy solutions. For more information, visit:

gruppoab.com



