



GE Power

POWERING EVERYONE

Why reciprocating gas engines for the European Power Industry?

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The EU has set ambitious targets to build a more secure and cleaner energy future

Cut greenhouse
gas emissions



20 percent by 2020;
40 percent by 2030

Boost
energy efficiency



20 percent by 2020;
27 percent by 2030

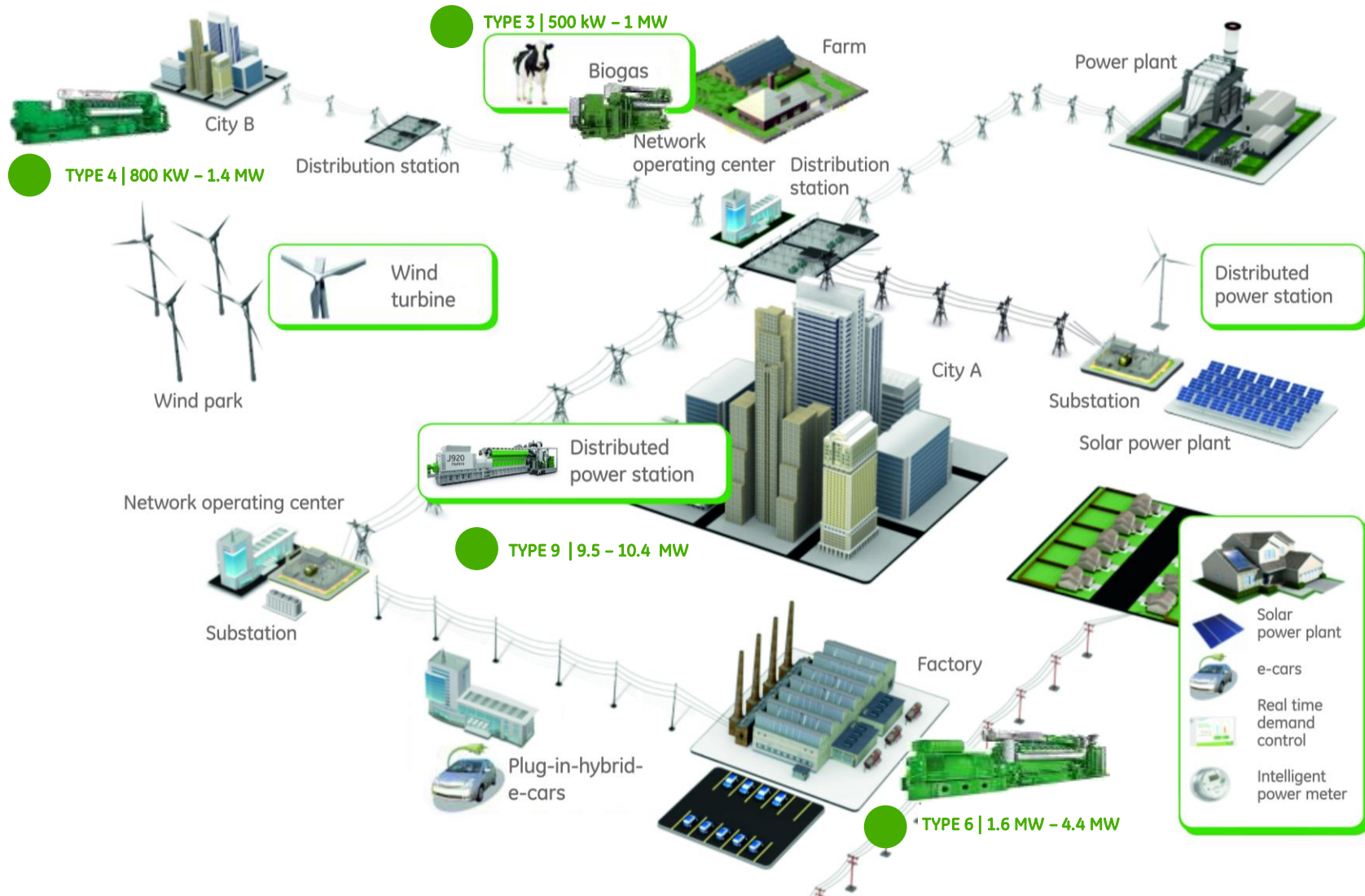
Increase
renewable share



20 percent by 2020;
27 percent by 2030

A key path to reach Europe's energy goals is to find efficiencies in the flexible production and delivery of heat and power.

Moving to more decentralized, flexible power



Distributed power is power generated at or near the point of use

GE's Distributed Power provides customers of all types the ability to generate reliable, sustainable power whenever and wherever it is needed.

Greenhouse



IPP & Utilities



Oil & Gas



Grid firming



Steel



Agriculture & Food Processing



Mining



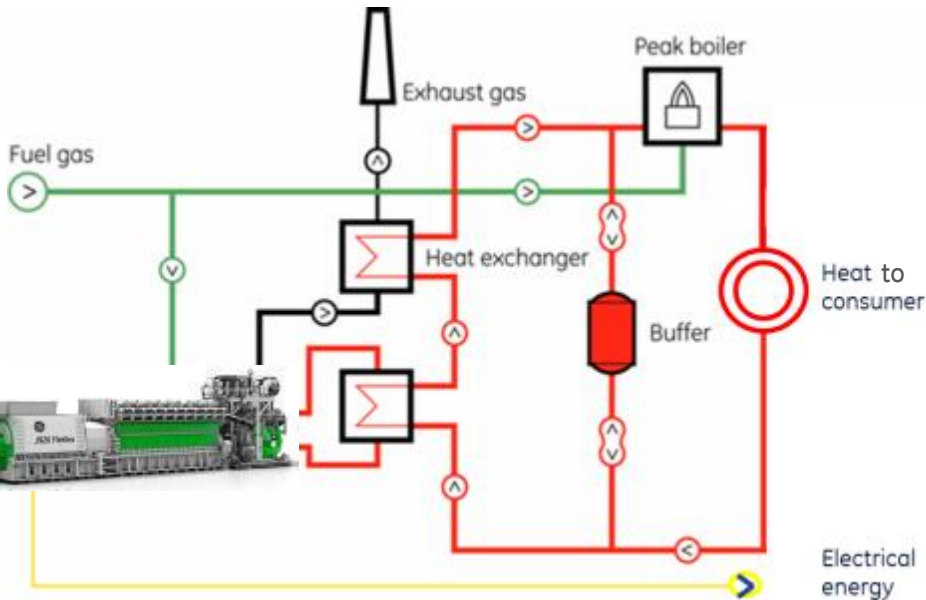
Waste-to-Power



Commercial & Industrial Buildings



J920 CHP Concept for Combined Heat & Power



1 x J920 FleXtra: 8.5 to 11 MW_{th} heat

Stapelfeld, Germany



1 x J920 FleXtra
9.51 MWe_l
>10 MW_{th}
95 % tot eff. with Heat Pump

Kiel, Germany



20 x J920 FleXtra
190.4 MWe_l
191.8 MW_{th}
91 % tot eff.
1.3 M tons less CO₂ than coal plant

Maximum fuel efficiency over 90-95 %

Now is the time to choose continued Combined Heat & Power leadership in Europe



Reliability

More than 11 GW CHP plants proven in installations around the globe



Resilient power

IBC compliance for additional energy security



Energy cost savings

More than 90 percent overall efficiency can be achieved through our highly effective CHP solution



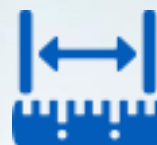
Environmental sustainability

Lower emissions, enhanced cost effectiveness, excellent efficiency



Flexible power

Reduced system risk, improved return on investment



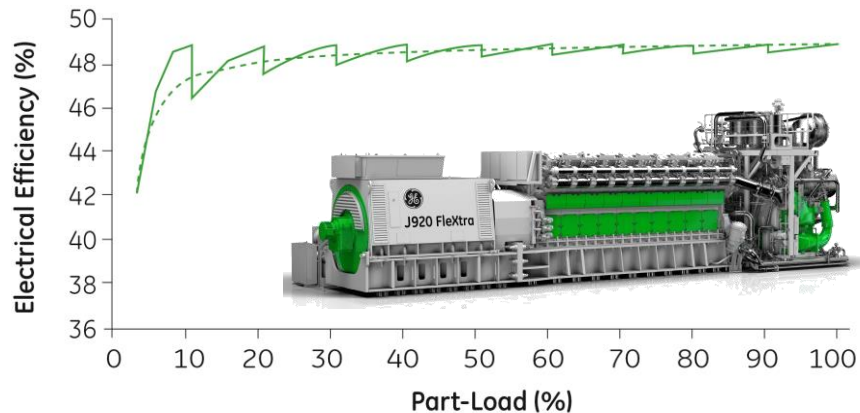
Standardized design

Smaller footprint, scalable to your unique requirements



Full plant flexibility with multiple engines

Constant high plant efficiency



Flexible power for intermittency management

Features

- Short installation time
- Scalable for any plant size
- Low installed costs
- Stable power supply
- Low water usage

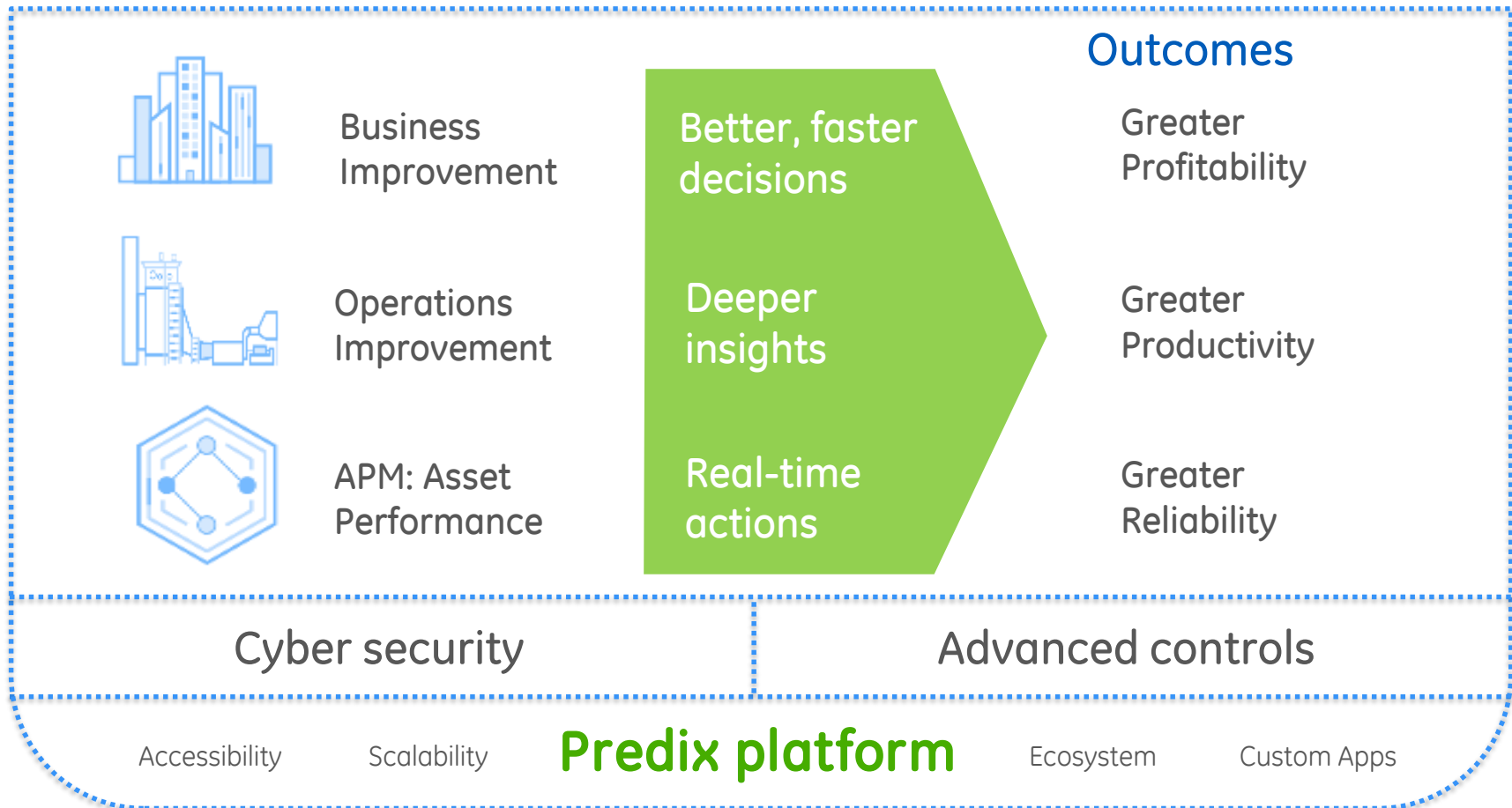
Customer benefits

- Fast start: 5 min or less
- Multiple engine starts capability
- High part load efficiency
- Outstanding load following ability
- Grid stability (Ancillary services)
- Up to 49.9% el. efficiency



Energy is going digital ...

Gas engines on a powerful platform





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Thank you!

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