

# EC POWER

Your partner for sustainable energy solutions



# Leading the way through experience and expertise

EC POWER is the leading manufacturer of cogeneration plants (CHP) in Europe, shaping the entire industry as a developer of energy system solutions.

## THE MARKET LEADER

Our company was founded in 1996 near Aarhus in Denmark – a country that pioneered the energy revolution and in particular combined heat and power generation. Therefore, the company's pioneering spirit and unique innovative strength come as no surprise, and this is also reflected by more than 25 patents. We are the technological market leader in the 3-80 kWel performance range.

## THE DRIVING FORCE

We offer our customers and partners the world's best combined heating and power plants. With the XRGI®, we have a cogeneration plant that offers straightforward and safe installation, reliable operation, maximum efficiency to protect the climate and the environment and also the sustainable use of resources.

## THE PRODUCT

The XRGI® is based on the continuous development of incredible technology: combined heat and power generation. Thanks to its unique design and flexible uses, this technology represents an important cornerstone of the modern energy revolution, which guarantees the decentralised energy supply of the future.

## THE QUALITY

Our XRGI® CHP plants are compact, quiet, economical from the very start, and are inexpensive to maintain – requiring very few man-hours thanks to long intervals between maintenance. Numerous awards confirm our promise to deliver quality, and external independent experts confirm that XRGI® has the highest degree of efficiency on the market.

## THE PEOPLE

We owe our success to our more than 100 employees from production, service, research and development, and sales.



To safeguard and optimise our quality, they operate in constant dialogue with everyone involved - from the supplier to the end client.

## THE PROMISE

Our customers, quite rightly, expect first-class advice, reliable operation, and the best possible service. We provide this without any compromise – through a network of specialist partners throughout Europe and our EC POWER After Sales service.

## THE SUCCESS

of our XRGI® series speaks for itself: over 12,000 units are already in use in more than 27 countries. This is something we are proud of. We are even more proud of the trust our long-standing delighted customers continue to show us. We are committed to them – and have been for 25 years.

# Milestones

Powerful in Europe – for more than 25 years.

## 1996

EC POWER A/S is founded in Denmark.  
Market launch of XRGI®, initially with diesel engines.



EC POWER's headquarters in Hinnerup – near Aarhus in Denmark, is home to production and the central warehouse, as well as the research and development department.

## 1998

Expansion of distribution into other European countries.

## 2004

Development of the first XRGI® with a Toyota gas engine.

## 2007

XRGI® 15 model launch. Fuel switch to gas.

## 2008

EC POWER GmbH founded.  
Award for the XRGI® as CHP of the Year.

## 2011

XRGI® 20 model launch.

## 2013

Model introduction of XRGI® 6 and XRGI® 9.

## 2015

Founding of the EC POWER ACADEMY in Berlin with seminars and certifying training courses in Germany and Europe.



The EC POWER ACADEMY in Berlin offers a comprehensive range of information – from basic CHP courses to certification for commissioning and maintenance.

## 2016

Award for the XRGI® as CHP of the Year.

## 2018

Founding of American EC POWER INC in Brooklyn, USA.

## 2019

Market launch of the EC POWER POWER HOUSE.

## 2020

EC POWER ACADEMY expands its curriculum with webinars.

## 2021

Market launch of the EC POWER ENERGY CENTER.  
XRGI® with battery system permits isolated operation and replacement supply.  
XRGI® operation optionally with green gas.



# The CHP

## XRGi® cogeneration units: The most efficient solution

The XRGi® from EC POWER is a highly efficient, compact and multi-award-winning cogeneration unit. It runs on gas – including climate-neutral green gas – and simultaneously generates electricity and heating to supplement the building's heating.

### THIS IS WHY THE XRGi® IS THE MARKET LEADER

- Reliable fulfilment of the legal requirements for new construction and refurbishment
- Flexible and easy installation in almost any property
- Easy installation and integration thanks to ready-to-connect operating strategies
- Whisper-quiet operation thanks to sophisticated design
- Supremely climate-friendly and cost-effective
- Highest certified efficiency on the market
- Constantly high efficiency, even in the partial load range
- Maintenance intervals of up to 10,000 operating hours



### XRGi® MODELS AND CASCADES

XRGi® are currently available in four sizes and can be easily and economically cascaded to higher outputs. All models and performance data can be found at [www.ecpower.eu](http://www.ecpower.eu)

XRGi®		6	9	15	20	15 15	15 15 15	20 20	20 20 20
Electrical output	kWe	3 - 6	4 - 9	6 - 14	10 - 20	6 - 29	6 - 49	10 - 60	10 - 80
Thermal output with condensing technology	kWth	9 - 14	13 - 23	22 - 37	29 - 45	22 - 74	22 - 119	29 - 135	29 - 180

### ALSO AVAILABLE AS AN OUTDOOR SOLUTION

The POWER HOUSE is an all in one plug-and-play solution. It accommodates the complete energy centre in a compact design to be placed next to the building or on the roof. Our experts configure it according to individual needs.

More information about the POWER HOUSE can be found at [www.ecpower.eu](http://www.ecpower.eu)



# Our mission: a sustainable future

The XRGI® is a central building block for the energy revolution

Transforming the energy supply in the building sector in a sustainable and climate-neutral way is perhaps the most important task of our time. EC POWER takes this task seriously: our XRGI® cogeneration units offer everything today that will be needed on tomorrow's energy market.

## MAXIMUM EFFICIENCY

XRGI® cogeneration units from EC POWER operate according to the principle of cogeneration and are the most efficient way to supply buildings with decentralised heat and power. They make almost full use of the fuel used – with overall utilisation rates of up to 106 % net – and achieve even higher efficiency levels in combination with other technologies.

## MAXIMUM CLIMATE PROTECTION

A CHP unit uses gas – preferably low carbon green gasses. Every XRGI® can be operated with 100 % renewable energy. The already low CO<sub>2</sub> emissions – about 50 % lower than with conventional energy systems – can thus be reduced further.

## FUTURE SECURITY

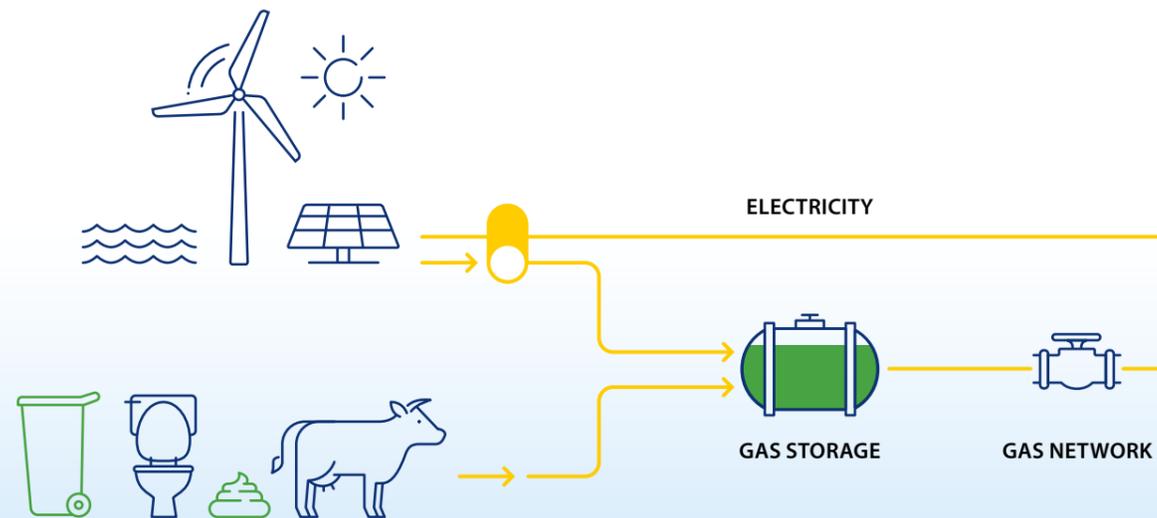
Gas ensures the power supply even without brown coal, because our gas network is becoming the power storage of the energy transition. In this network, we can transport green gas over long distances and store it without any problems. Gas-fired cogeneration units like the XRGI® remain a safe investment.

## STABILITY

The XRGI® is an excellent way to balance the natural fluctuations of renewable energy production from the sun and wind. Cogeneration plants are an important safety net for the energy supply in the event of power dips or even a blackout.

## FLEXIBILITY

The power-to-gas process converts surplus electricity from renewable sources into climate-friendly gas. Just like biogas from biogas plants, it is not only CO<sub>2</sub>-neutral, renewable and regional, but also just as versatile as conventional natural gas and is used by the XRGI® cogeneration unit exactly when energy is needed.



# EC POWER ENERGY CENTER

## Sector coupling that simply works

The ENERGY CENTER is the intelligent solution from EC POWER for sector coupling, one of the core principles of the energy revolution. In the ENERGY CENTER, rational power technologies and storage systems are combined based on the plug-and-play principle, with XRGI® at the core. All the modules are coordinated with each other, so they work perfectly together. This facilitates simple installation, automatic operation and hitch-free maintenance.



### XRGI® WITH BATTERY SYSTEM

The XRGI® with battery system safeguards the power supply in the event of a blackout of the public power grid (isolated operation, replacement supply). During other times, the use of power is optimised through peak shaving, the operation of e-charging stations with decentralised load management and an increase in consumption of in-house energy.

### XRGI® WITH BATTERY AND PHOTOVOLTAICS

A photovoltaic system for generating power is the perfect addition to the XRGI® with a battery system. In summer, when only a little or no heat is needed, the photovoltaic system takes care of power generation locally. In winter, when the photovoltaic system is generating virtually no electricity, the XRGI® takes care of the heat and power supply.

### XRGI® WITH HEAT PUMP

The XRGI® ensures the reliable supply of power to the heat pump, increasing its efficiency and delivering inexpensive heat and power.

### XRGI® WITH REFRIGERATION SYSTEM

Cold is generated with heat from the XRGI® system rather than with electricity. This means that the inexpensive electricity from the XRGI® is available for other power applications.

### XRGI® WITH E-HEATER

XRGI® produces heat and power simultaneously, and in instances where more heat is needed, the electricity produced by the XRGI® can be used to power the E-heater. The E-heater can also be used as a peak load boiler if no heating boiler is used for heat generation as a back-up or during peak load times.

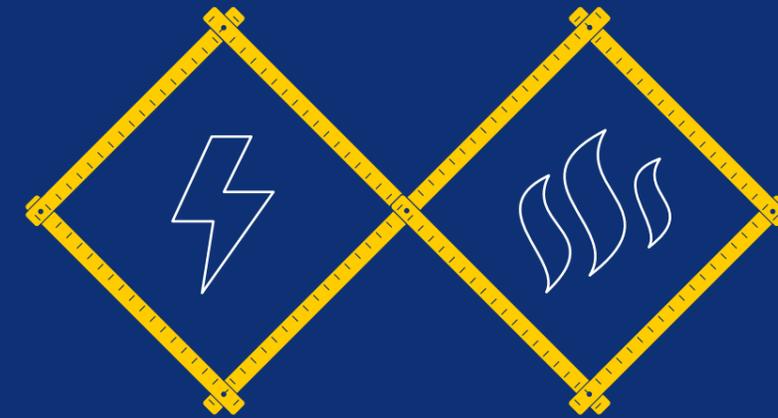
The configuration, setup and maintenance of the ENERGY CENTER are in safe hands with EC POWER. If supply demands change, the modular structure of the ENERGY CENTER means it can easily be adapted and expanded.

All the information about the EC POWER ENERGY CENTER can be found at [www.ecpower.eu](http://www.ecpower.eu)



# CHP projects in no time at all

Planners, installers, and operators know that EC POWER has simply thought of everything.



### SIMPLE AND QUICK TO INSTALL

In the power class from 3 to 80 kWel, the XRGI® is one of the most compact cogeneration units on the market. Its modular design allows for smooth and quick installation – in almost any building, even under difficult spatial conditions. The encapsulation of the engine and generator on all sides minimises operating noise.



Fits through any door



No additional noise protection measures



No additional ventilation



No foundation work

### PLUG-AND-PLAY CHP WITH SUCCESS GUARANTEE

XRGI® cogeneration units can be easily integrated into existing and new heating centres of buildings or into supply systems of neighbourhoods via plug-and-play. Our installation recommendations enable the safe and quick implementation of all cogeneration projects. Standard hydraulics are developed in close cooperation with boiler manufacturers and ensure the best possible interaction of the XRGI® and boiler system.

### SCALABLE TECHNOLOGY

The control of the XRGI® cogeneration units has all the functions fitted at the factory to operate them in cascades (several XRGI®s in one property), in virtual power plants (external control according to electricity market signals) and/or optimised for in-house electricity consumption with real-time modulation. This means that the economic efficiency can be increased even further without additional components.

### ALWAYS BY YOUR SIDE

For regular, quickly completed maintenance, standard remote monitoring and all questions relating to XRGI® cogeneration, installers and operators have access to the right contact at all times. This is made possible through close cooperation with our specially qualified partners. EC POWER also supports planners and installers with needs-based services, from the project idea and implementation to commissioning and subsequent service.

# EC POWER

Near you everywhere and at all times

Since EC POWER was founded a quarter of a century ago, we have been closely associated with the industry. As partners on an equal footing, specialist companies throughout Europe provide competent advice, sales and service for our products. For us, this cooperation is more than a business relationship – it is the mainstay of our success.

Thanks to this Europe-wide, specialised EC POWER partner network and our comprehensive factory customer service, a competent contact is available everywhere, at all times and for every concern.

## **GET IN TOUCH WITH US.**

Whether you are an operator, planner, energy consultant, commercial/industrial customer or municipality, we will find the tailor-made energy solution for your project.



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