ÆNERGY POWER

RTG
Rubber Tyred Gantry Cranes

POWER SOLUTION

OUR MISSION

Redefining the use of renewable energy for a more sustainable tomorrow

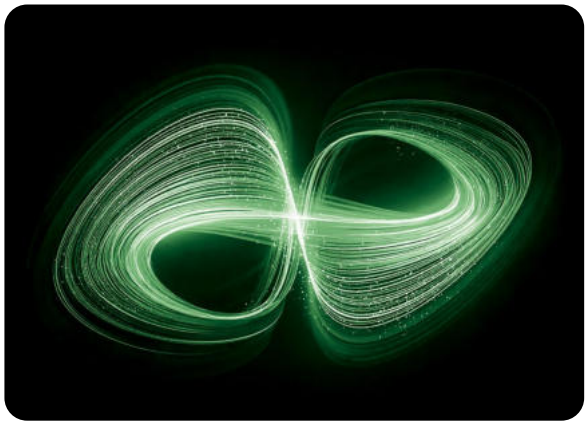
Towards a sustainable future

ÆNERGY POWER provides a concrete solution to make the construction industry more responsible and future-oriented. By integrating our system into ports and construction sites, our clients actively contribute to the green transition while improving their competitiveness and environmental impact. The future of ports and construction is efficient, sustainable, and innovative.
With ÆNERGY POWER, sustainability is not a cost—it's a smart investment.

- Sustainable Innovation
- Energy Efficiency
- Smart Technology
- Environmental Responsibility
- Reliability & Collaboration

Our story

ÆNERGY POWER was born from thirty years of **engineering expertise in industrial lifting and the design and construction of high-power mechanical systems**, with a clear vision: to revolutionize the way the world stores and reuses energy, through transformative solution with a lasting impact on the renewable energy market.
At the heart of our company is a **team of engineers, designers and innovators** driven by a deep passion for **sustainability and an unwavering commitment to innovation**.



What we do

We design gravitational storage systems that capture and store energy normally dispersed in seaports, construction sites, industrial plants and energy communities. We generate energy from the kinetic movement of large lifting machines, storing it to be available precisely when needed.
Our solutions include **Temporary Microgrids for construction sites and Stable Grids for maritime ports**, ensuring constant energy and maximizing the efficiency of renewable sources such as wind and sun.

Energy waste in the port and construction sectors

The construction and port logistics industries are among the largest sources of energy waste, with a major environmental impact. Key data highlights the scale of the issue:

36%

Global energy consumption

The construction sector consumes over one-third of the world's energy.

40%

CO_2 emissions

The construction industry is responsible for nearly 40% of energy-related emissions.

70%

Energy lost on construction sites

A significant portion of the energy used in lifting and transport systems is wasted.

80%

Consumption reduction

The ÆNERGY POWER system can recover up to 80% of the energy used.

Why choosing us

Cost cutting

Reduce costs with our energy recovery and storage system. Forget about excessive fuel consumption—our technology optimizes efficiency, delivering tangible savings.

Sustainability

Power your project without harming the environment. Our solutions cut CO_2 emissions and promote a cleaner future by regenerating energy that would otherwise be wasted.

Energy efficiency

Maximize energy use with our advanced software. Through intelligent energy management, we minimize waste and ensure continuous power, even in critical situations.

BPG – Battery Power Generator

BPG SYSTEM

The BPG system is designed to recover and reuse energy lost from cranes and elevators.
This innovative system utilizes nextgeneration lithium batteries to store and redistribute energy, reducing or eliminateing the need for diesel generators and lowering CO2 emissions.

The BPG-R systems are properly studied and personalized for RTGs to fully power the cranes and replace the existing diesel power genset.

HOW IT WORKS

The descent of cranes and elevators generates kinetic energy.
Our intelligent software captures and converts it into electricity.
The stored energy is then used to power the crane.

BENEFITS

Reduction of CO2 emissions
Less dependence on fossil fuels
Continuous energy availability

KEY FEATURES

- **Standard input/output voltage**: 400/480V-50/60Hz ±10% (other voltages available upon request).
- **Modular battery pack system**: In case of a battery pack failure, the affected unit can be isolated and replaced without halting operations.
- **Remote monitoring**: Real-time tracking of charge levels, system status, and fault alerts.
- **Advanced charge/discharge balancing**: A patented balancing system drastically reduces charge leveling time between battery cells—40 times faster than other market solutions.
- **Optimized charge/discharge balancing system**: Ensures consistent battery discharge times and extends battery life.
- **Predictive maintenance & AI-driven fault detection**: Anticipates necessary interventions, preventing machine downtime.
- **Cloud data center for data collection.**
- **Battery pack lifespan:** Over 10 years.
- **Maintenance-free system.**
- **Noise emission reduction.**

STANDARD MODELS

BPG 580-R

The BPG 580-R is properly studied and personalized for RTG cranes with movements up to 50.000 per year.

N	5	batteries number
Capacity	1150,0	Ah
Energy	588,8	kWh
Energy @80% DOD	471,0	kWh
Power	588,8	kW
Power @80% DOD	471,0	kW
Peak power	942,1	kW
Constant discharge capacity	1150,0	A
Peak discharge current @60 s	2300,0	A
Constant charge current	575,0	A
Peak charge current @30 min	920,0	A
Costant charge current after @30 min	402,5	A

Battery minimum life	13,0	years
Maximum continuous feeding duration	11,8	hours
Standard charging time with 40 kW of available power*	11,5	hours
Fast charge - 40% of system capacity - (need more power in input)	30,0	min
Duration after fast charge	4,0	hours

* SHORE POWER needed energy included

BPG 1050-R

The BPG 1050-R is properly studied and personalized for RTG cranes with movements up to 100.000 per year.

N	9	batteries number
Capacity	2070,0	Ah
Energy	1059,8	kWh
Energy @80% DOD	847,8	kWh
Power	1059,8	kW
Power @80% DOD	847,8	kW
Peak power	1695,7	kW
Constant discharge capacity	2070,0	A
Peak discharge current @60 s	4140,0	A
Constant charge current	1035,0	A
Peak charge current @30 min	1656,0	A
Costant charge current after @30 min	724,5	A

Battery minimum life	12,0	years
Maximum continuous feeding duration	21,2	hours
Standard charging time with 120 kW of available power*	6,1	hours
Fast charge - 40% of system capacity - (need more power in input)	30,0	min
Duration after fast charge	8,0	hours

* SHORE POWER needed energy included

ÆNERGY POWER

Advanced Solutions for Energy
Regeneration and Storage, without Waste.

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