

**K R A F T  
B L O C K**

# **International Economic Symposium Hamburg, 23.05.2024**

Unveiling Kraftblock's groundbreaking high-temperature energy storage solutions, enabling a sustainable transition towards a decarbonized future.

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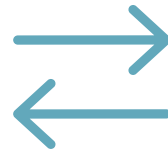
# All-in-One Solution

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## Integrated energy storage

Kraftblock's system charging-, storage- and discharging capabilities in one unit.



## Flexible System Design

Due to the modular approach Kraftblock can offer systems variations from heat-to-heat to power-to-power

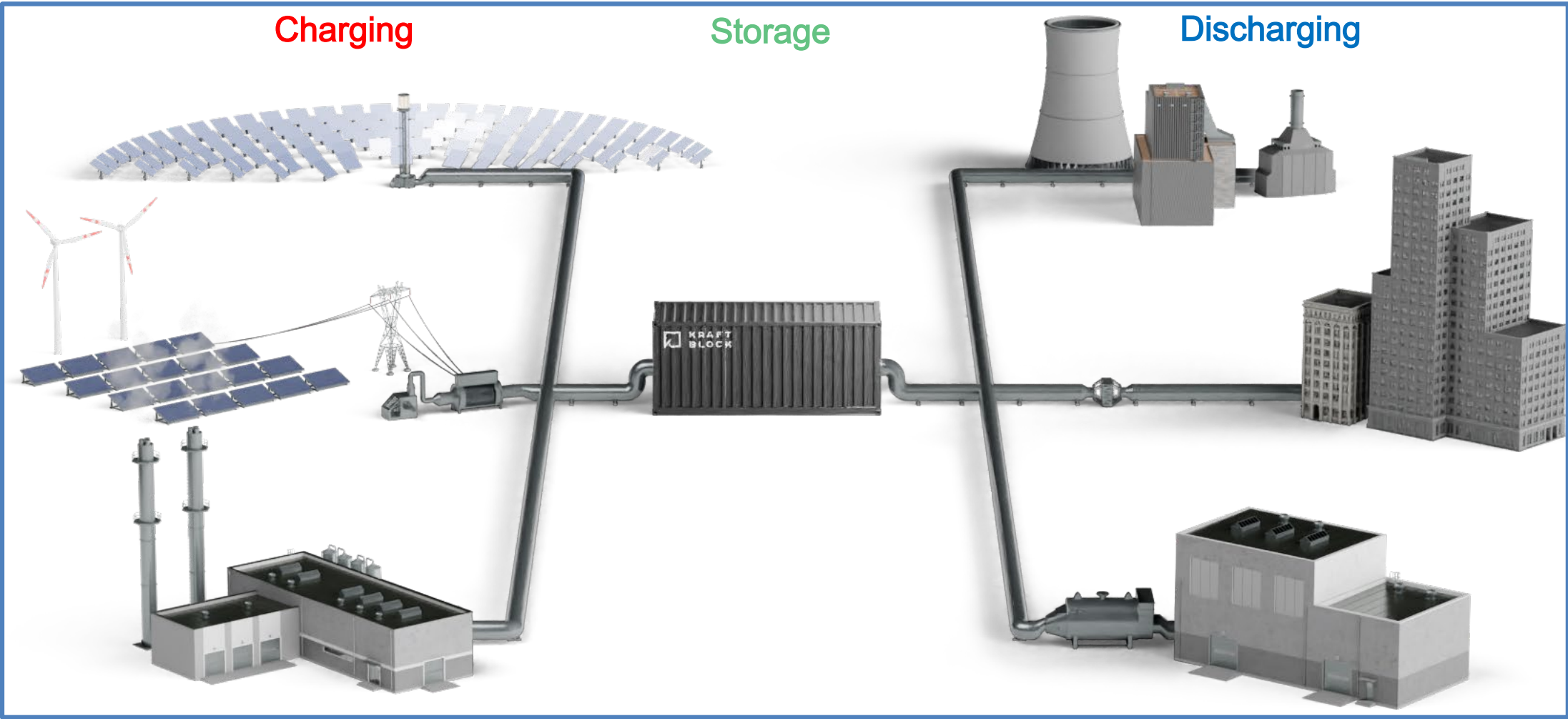


## High-temperature applications

Kraftblock's technology supports industrial processes requiring temperatures up to 1,300°C (2,400°F).

Kraftblock offers a comprehensive and versatile solution for managing energy needs in industrial settings, enabling efficient use of waste-heat or renewable energy sources.

# Flexible Input- and Output-Options due to **Storage Platform**



# Projects – up and running

## Ceramics Industry (2020)

### Waste Heat Recovery

A **4.2MWh capacity** system that captures waste heat up to 600°C, utilizing a batch buffer to avoid 330 tons of CO<sub>2</sub> emissions annually.



## Mobile Heat (2022)

### Waste Heat Recovery

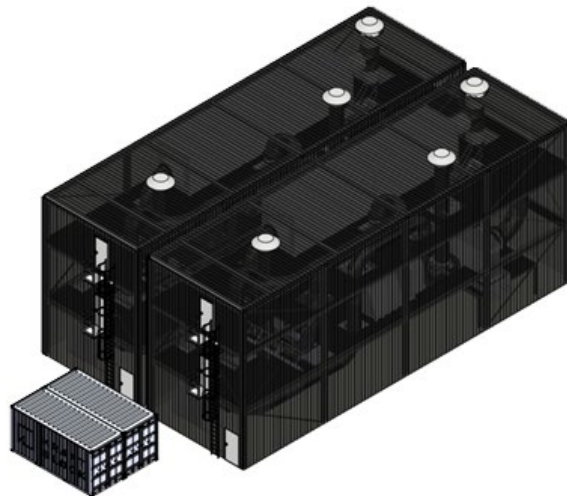
The mobile storage unit (**2.5MWh**) is charged (at 500°C) at a biogas plant and then loaded onto a truck to be transported to a customer's heat sink, where the heat it is fed into the heating and domestic hot water system. This creates a flexible heating network.



# Projects – commissioned in 2024

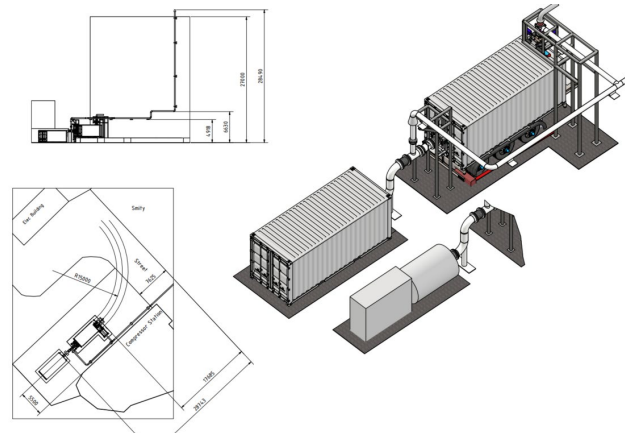
## PepsiCo/Eneco / Food Net-Zero Heat System

Saving 9 million m<sup>3</sup> of natural gas by replacing a 25MW gas boiler with renewable energy sources, avoiding 16,000 tons of CO<sub>2</sub> emissions per year – using a **150MWh** storage (last stage).



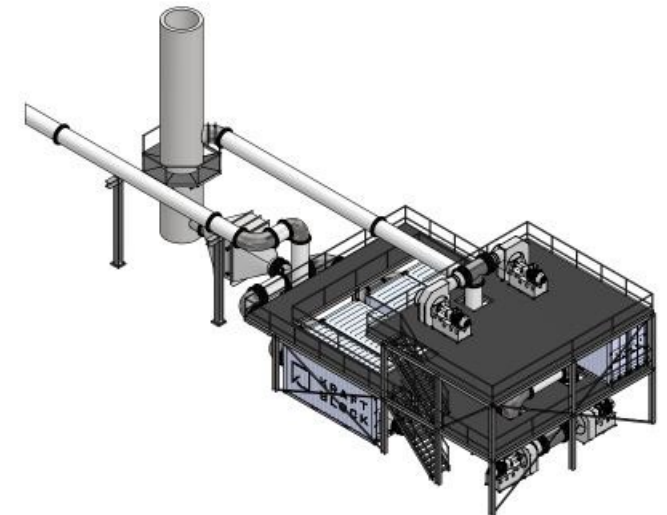
## Flare Gas Utilization / Steel Waste Heat Recovery

A **12MWh** system scheduled for commissioning in Autumn 2024, utilizing coke oven gas with a potential of 100 GWh/year, avoiding 9,300 tons of CO<sub>2</sub> emissions annually.



## Sinter Cooler / Steel Waste Heat Recovery

A **20MWh** capacity system with a maximum temperature of 500°C, recovering heat from the sinter cooler to increase throughput and avoid 20,000 tons of CO<sub>2</sub> emissions per year.



# Kraftblock – Integrated Storage Solutions

## „Small“

Capacity: up to **12MWh**  
Charge: up to **10MW**  
Discharge: up to **5MW**

No fixed c-ratio. Charging capacity AND discharging capacity are independent of storage capacity!



## „Large“

Capacity: up to **300MWh**  
Charge: up to **150MW**  
Discharge: up to **50MW**

No fixed c-ratio. Charging capacity AND discharging capacity are independent of storage capacity!



Small- and Large are our standard-system-sizes. Due to the fully modular and flexible approach specific systems can be designed on demand.



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