

PROFITABLE OPTIMIZATION OF THE CO₂ BALANCE OF THE ENERGY SUPPLY



PEAK SHAVING AND LOAD DISTRIBUTION

The innovative system caps high consumption peaks and thus minimizes expensive external power purchases. Load peaks lead to increased power prices and thus to higher electricity bills.



HIGHER AUTARKY

The economic profitability and the degree of self-sufficiency of the local energy supply is improved by optimized self-consumption and the flexibility offered by storage systems.



ENERGY TRADING

NEWTRON trades urgently needed grid services that aims at stabilizing the public grid. This generates an additional profitability margin for NEWTRON.

Highly efficient energy production plants that use the cogeneration principle, reduce CO₂ emissions by up to 20 % per kilowatt hour compared to the conventional separate electricity and heat generation plants.

Powered by renewable energy sources, such as PV, eco-gas (e.g. bio-methane or green hydrogen), NEWTRON can ensure a 100% CO₂-neutral heat and power supply.

The system is also designed to be used with hydrogen (H₂) in the scope of industrialization, that in the future explicitly H₂ can be used for power and heat generation. (H₂ ready).

Your individual NEWTRON energy supply will sustainably reduce the CO₂ emission factor in the European electricity mix through the use of heat pumps or CHPs. With the regenerative heat supply, the NEWTRON already makes an important contribution to CO₂ reduction in the heating sector.



ENERGY STORAGE

Advanced storage technology Batteries and thermal energy storages are used in appropriately designed size and capacity.



CONNECTION OF REGENERATIVE ENERGY

The NEWTRON integrates already existing or planned renewable energy generators such as photovoltaics for a coordinated energy supply.



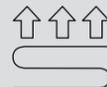
E-MOBILITY

E-charging stations can be integrated when desired. Slow or fast charging stations can be supplied with the needed power.



CHP WITH ECO-GAS

Highly efficient decentralized generation of electricity and heat through a combined heat and power plant.



POWER-TO-HEAT

Use of heat pumps for heat acquisition.



ENERGY RELIABILITY

The NEWTRON and its HEC3 intelligence increase the degree of self-sufficiency in order to continue supplying important consumers even in the event of a power failure.

IMPLEMENTATION PROCESS



NEWTRON



REFERENCE LOCATION

Centrotherm Systemtechnik GmbH
Am Patbergschen Dorn 9, D-59929 Brilon



REFERENCE LOCATION

WOLF POWER SYSTEMS GMBH
Unterm Dorfe 8, D-34466 Wolfhagen
www.wolf-ps.de

ARE YOU INTERESTED?

Please contact us.

We will be happy to provide you with further details on the NEWTRON concept or prepare a personalized offer for you.
info@newtron.energy, www.newtron.energy

NEWTRON

SHAPING THE FUTURE OF ENERGY



DECENTRALIZED, MODERN HEAT / POWER GENERATION

1

DEMAND-ORIENTED SUPPLY

The demand for electricity and heat must be available in sufficient quantities and at the required times.

2

PREDICTABLE COSTS

Energy costs must remain foreseeable and within the individual budget.

3

REDUCE CO₂ BALANCE

The energy supply is significantly responsible for CO₂ emissions. To achieve the GHG neutrality target, the focus should be on a holistic transformation concept according to BAFA EEW (up to 50%).

YOUR ENERGY UNDER CONTROL

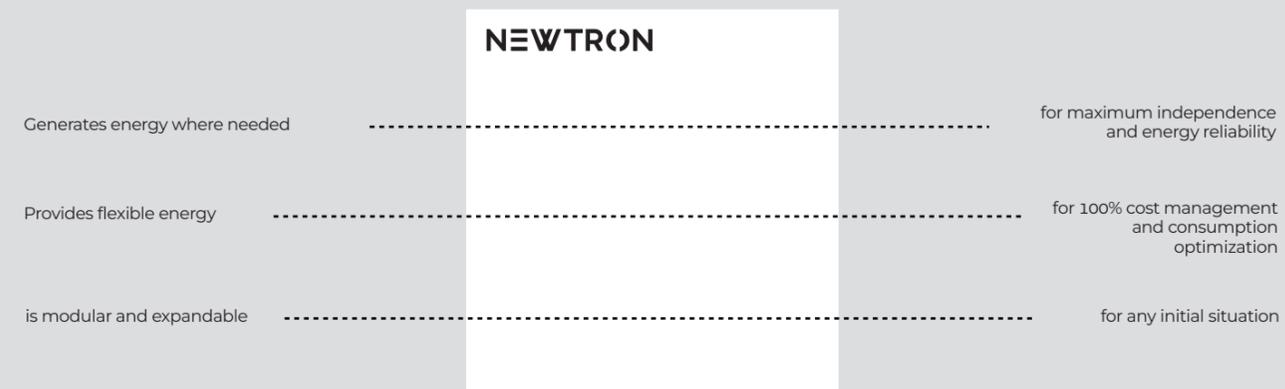
Companies need innovative solutions for securing and supplying their electric and heat energy demands, for example, the electricity demand of E-Mobility charging stations.

Take the initiative now and benefit 3-folds!



NEWTRON - THE ENERGY FUTURE

Avoid costly grid expansions while increasing your electric consumption through modern E-mobility



DEMAND-ORIENTED SUPPLY

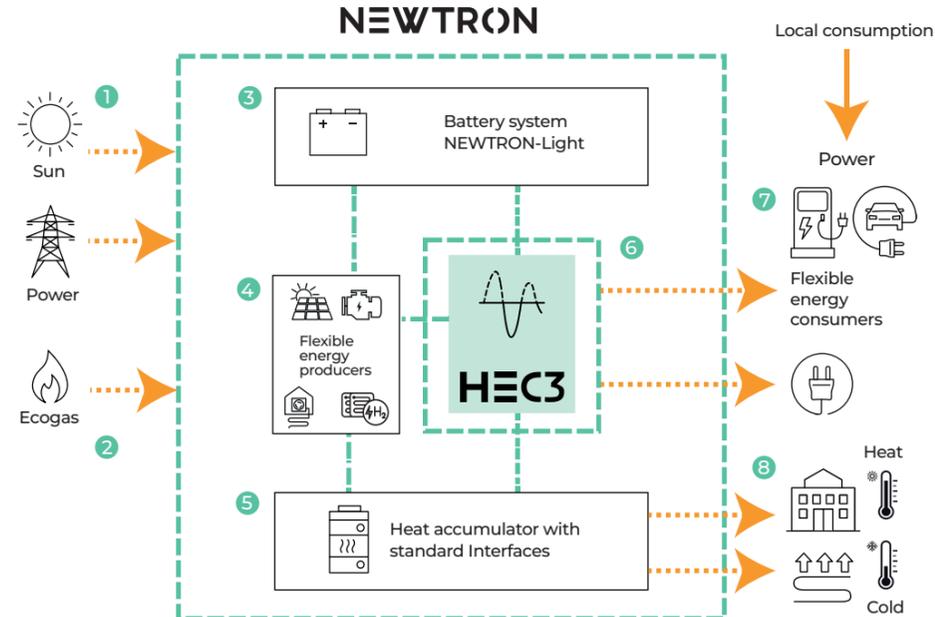
The required flexibilities and needs are synchronized through digital networking of the individual components and the intelligent energy distribution.

NEWTRON controls your energy supply comprehensively and complementarily. Heating and power supply are ensured for a commercial usage as well as for a charging infrastructure or process cooling & heating, if required. All energy requirements are monitored as a whole and supplied by a comprehensive energy automation system.

As an energy source, NEWTRON combines self-generation units such as photovoltaics with suitable grid-supporting components and intelligent energy storage system. In this way, a cost-optimized and carbon-neutral energy supply can be achieved. The site can be further expanded in the future.

We accompany you on your journey, from the design of your individual NEWTRON energy solution based on real data simulation, throughout each phase from the realization till the utilization phase. It goes without saying that we at NEWTRON provide comprehensive advice on subsidies, including BAFA modules 1-5 "Energy Efficiency in the Economy", as well as the necessary application for subsidies.

May we prepare your energy supply for the future?



HYBRID ENERGY CONTROLLER HEC3

The HEC3 management is the core and the standardized interface to the energy components, which are individually configured and requested demand. With the HEC3 energy management system, energy flows are identified and flexibilities are actively traded on the electricity market.

- 1 Already existing or planned regenerative energy generators such as photovoltaic systems can be easily integrated into the intelligent HEC3 control system.
- 2 NEWTRON can also work exclusively with renewable energy, free of fossil resources, for example, with biogas CHP.
- 3 NEWTRON battery storage systems consist of state-of-the-art and safe lithium iron phosphate battery modules.
- 4 Flexible energy generators can be:
 - PV
 - Combined heat and power plants
 - heat pumps
 - Fuel cells
- 5 The most common and frequently used heat storage systems are above-ground buffer tanks. Surplus heat is integrated into buffer storage tanks or into the local district heating network.
- 6 HEC3 is the intelligent control system that coordinates the energy flow from producers and to consumers. It consists of:
 - Plant control
 - Energy management
 - Centralized system
- 7 Flexible energy consumers such as:
 - Power-to-Mobility (e.g. e-charging stations)
 - Power-to-Heat (e.g. storage heaters, heat application, refrigeration machines)
- 8 Adjacent buildings are flexibly supplied with hot or cold thermal energy.

PROFIT CONTRIBUTION THROUGH MULTI-USE

The focus is placed on the cost effectiveness of your energy supply. Each individual function of the NEWTRON creates its own profit contribution, which is why the NEWTRON is configured for multi-use.

