



CUSTOMER: Kropman
INDUSTRY: Installation industry
COUNTRY: Netherlands
ABOUT: Established 1934 with over 800 employees Kropman is active in office buildings, health care and industry. Kropman offer design, construction and maintenance in the field of facility installations.

KROPMAN
INSTALLATIETECHNIEK

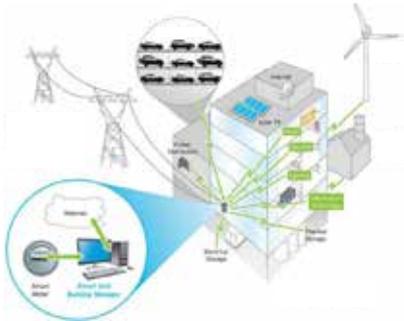
Energy storage for smart office building in the Netherlands

New breed of interconnected energy management solution for smart grid

When Kropman – a leading Dutch installation company – needed a new dynamic energy storage solution for a busy office building in the Netherlands, they turned to Nilar. An expert team comprising of members from each company, developed an interconnected energy management system to provide smart electric energy distribution throughout the building. Nilar's bi-polar battery technology enables surplus energy to be store, utilised or efficiently distributed back to the smart grid.



Nilar were able to provide Kropman with a fully functional energy storage system, including inverter and transformer, as well as the smart grid know-how to meet this exciting challenge.



Nilar AB
Headquarters and Sales
Stockholmsvägen 116 B
SE-187 30 Täby, Sweden
Phone: +46 (0)8 768 00 00
Email: sales.europa@nilar.com

Nilar AB
R&D and Production
Bönvägen 55, Box 8020
SE-800 08 Gävle, Sweden
Phone: +46 (0)26 960 90
Email: production@nilar.com

Nilar Inc.
R&D and Sales
10800 E. Bethany Drive, Suite 525
Aurora, CO 80014, USA
Phone: +1 720 446 0169
Email: sales.america@nilar.com

The Challenge: bring energy storage to an existing office building

Kropman is a full-service facility engineering company that provide everything from installation design and build to facility maintenance and management. In keeping with the company's strategy to be an innovation leader, they undertook a real-life project that would enable engineers to investigate and become knowledgeable on smart buildings and their control loads.

The project, which included a new smart interconnected energy management system, was carried out at a office building in Breda, in the southern region of the Netherlands. A sustainable energy storage solution that could store 40 kWh of energy and provide power to the building was required. On top of this, safety was a major concern, any solution had to be explosion-proof.

The Solution: Solar power and bi-polar battery storage technology

In the beginning of 2016 the battery storage was installed at Kropman. The collaboration with Nilar was initiated after hearing about the company's bi-polar battery technology and its smart grid application use cases. Following lengthy discussions between the two parties, Nilar were able to provide Kropman with a fully functional energy storage system, including inverter and transformer, as well as the smart grid know-how to meet this exciting challenge.

Solar panels were installed on the roof of the building. The captured solar energy was then transferred to Nilar's bi-polar storage solution. The Nilar system not only supplies the building with the surplus power from the solar panels, but also acts as a peak shaver for various loads in the building.

The Result: Local grid improvements

With the support of engineers at Nilar, Kropman was able to implement the smart energy management system at the office building. Additionally, the supply capabilities will also provide support to the local power grid.

The next stage of the project would be to add electric vehicle charging stations to the Nilar energy storage system. Thanks to the modular design of Nilar units, storage solutions can be customised to meet the demands of different sized buildings, homes or production plants.

About Nilar

Nilar was founded in 2001 as a research project by leading battery industry experts from Europe and the US. The company has been producing safe and environmentally-conscious Nilar Hydride® batteries for energy storage at commercial properties, private households, industrial plants and for use with the smart grid, since 2015. Nilar's Hydride® energy storage solutions are robust with non-flammable electrolyte and durable with a low lifetime cost. The modular design supports scalability to handle the energy requirements of everything from small residential systems to large-scale electrical installations. With R&D departments in the US and Sweden, and a manufacturing plant in Sweden, Nilar is revolutionizing energy and power supply technology, and is taking automated battery production to the next level. [Read more at: www.nilar.com](http://www.nilar.com)