



## Environmentally friendly hotel and spa in the heart of the Tuchola Forest



In the heart of the Tuchola Forest, a new hotel has been created that offers superb services and attractions of the highest standard while making strenuous efforts to support sustainable development and the natural environment.



The hotel seen from the lake

**Notera Hotel**

The Notera Hotel SPA is a newly built hotel, designed with a strong focus on environmental and health-promoting concepts. The name of the hotel comes from the word “nõtëra”, which means “nature” in the local Kashubian dialect. Featuring an ideal blend of design and nature, the facility offers a captivating view of Lake

Charzykowskie, modern architecture and innovative solutions. The hotel is situated in the heart of the Tuchola Forest, just 125 km from Gdańsk and 110 km from Bydgoszcz, just to the northwest of Chojnice. 78 comfortable rooms and suites, a spa area with a swimming pool, jacuzzi, dry sauna, steam bath and infrared sauna, a restaurant and banqueting hall and a rich array

of local attractions make it the perfect place for a family break, romantic weekend or for hosting a conference.

**Environmentally friendly hotel**

The Notera Hotel made sustainable development and environmental friendliness a central part of its concept from the very beginning. A range of innovative environmental solutions has been



Hotel room

deployed at the hotel to minimize any adverse impact on the surroundings. Among other things, these include ground-source heat pumps, rainwater recovery, heat recovery from swimming pool water, energy-efficient lighting throughout the facility and UV lamps for pool water treatment. The hotel also works hard to minimize waste generation and operates a waste sorting system.

**“Green” technology that cools and heats**

Because it operates throughout the year, the Notera Hotel needs both heating and cooling. Right from the start, the developer planned to use renewable energy sources. As a consequence, the hotel features state-of-the-art ground-source heat pumps with inverter technology, which constantly adjusts heating output according to real-time demand. Heat pumps use renewable

**Project data:**

**System commissioning:** 2019

**Location:** Charzykowy near Chojnice

**Building characteristics:**

- Usable area of the building: 7,371 m<sup>2</sup>
- Calculated thermal load of the building: 461.6 kW
- Cooling demand of the building: 160 kW

**Solution deployed:**

- Three Thermia Mega XL (21-88 kW) ground-source heat pumps
- Hot and cold buffer tanks, each of 1,500 liters
- Heat distribution:
  - floor heating in corridors and common areas (55°C / 45°C)
  - radiators in rooms (55°C / 45°C)
- Cooling distributed by the air-handling unit (12°C / 17°C)



Swimming pool

“The Notera Hotel is an ideal place for anyone who wants to take a break or hold a conference in comfortable conditions and close to nature, especially those who are environmentally aware and want to use services that have a low impact on the environment”

said Sławomir Sawicki, Technical Director, Notera Hotel



energy from vertical ground collectors placed in boreholes. Heat is distributed through the building via a floor heating system in corridors and common areas, and by radiators in individual rooms. Process heat is also supplied to the air-handling unit. Heat pumps provide general heating to the building, warm the swimming pool and deliver hot water for the whole facility. The entire complex uses passive and active cooling, with cool air being distributed to the air-handling unit. “Thanks to passive cooling, we can achieve a comfortable temperature at low operating costs and regenerate the brine before the next heating season. Using active heating, we can transfer energy from an area that needs cooling – like the conference room – to one that needs heating, such as the swimming pool or spa area. Using renewable energy and smart energy transfer is the most economical way of managing heating and cooling energy”, explained Jakub Gorlik, Managing Director of the Termowent Group, who were responsible for installing the heat pumps in the hotel’s technical room.

#### Energy efficiency and low CO<sub>2</sub> emissions

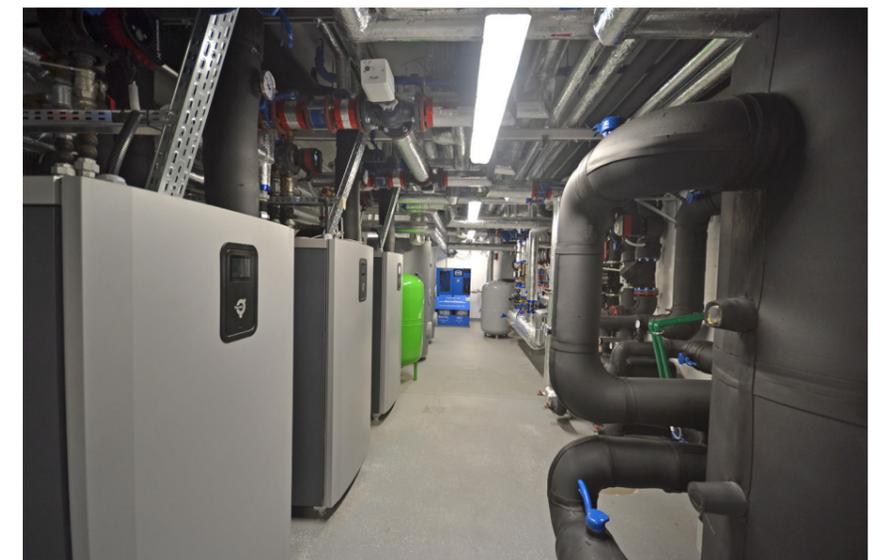
The new energy management solution enables the Notera Hotel’s owner to offer services of the highest standard and at low operating costs while maintaining a clear focus on environmental protection.



Exercise room



Restaurant



Technical room with Thermia Mega ground-source heat pumps

Nowatermia was established in 2018. The company represents the Thermia brand in the Polish market and is its sole distributor. “We have the necessary knowledge, experience, proven logistics and appropriate warehousing space. The most popular products are available from stock. We specialize in heat pumps and are able to handle both small and large projects or complex facilities that require design, co-financing, commissioning and aftersales service”, explained Marcin Nowak, President of Nowatermia. Nowatermia is an official member supporting the Polish Organization for Development of Heat Pump Technology (PORT PC).



Nowatermia headquarters

TERMOWENT was founded in May 1989. We are a family business that has always sought to promote the latest technologies and innovative solutions in the installation of heating systems. Since 2006, we have been actively involved in tendering processes for the installation of systems in major projects in both the public and private sectors. In addition, we began working with the commercial sector in 2012. As a company, we have all necessary formal qualifications and certificates and can undertake complex projects. We have a proud record of successful system installations in large-area facilities, public utility buildings and manufacturing plants. We offer our customers turnkey solutions using proven, top-quality equipment and materials from leading manufacturers.



Jakub Gorlik, Managing Director of Termowent

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## Pioneering heat pumps

For the last 50 years, we have dedicated all our resources and knowledge to developing and endlessly refining one product: the heat pump. Our focus on geothermal energy has given us world leading knowledge in heat pump technology.



## Engineered with passion

Developing truly sustainable renewable energy solutions can only be achieved with passionate, dedicated, and uncompromising experts. Some of Europe’s most highly qualified engineers can be found in our own R&D center.



## Born in Sweden

All our products are designed, manufactured, and tested in Sweden using the latest technology and the highest quality components. All components inside our ground source heat pumps are made in Europe by world-leading industry specialists.

