

LME's head office new construction



Building specific energy concept:

Through an interview with the LME managing director, Michael Leitner, requests and specifications that may influence the choice of the building's energy system have been obtained. Based on the needs, BES created a custom-made energy concept for this building, which includes energy generation using solar thermal, photovoltaic and heat pump technology. The BES EnergyRoutingSystem (see diagram below) optimally connects the individual subsystems, improves energy supply and transfer, increases performance and thus reduces heating and cooling operating costs as much as possible. Guaranteed energy efficiency.

The project

The construction project in Walding, Austria, has an investment volume of around € 4 million. Its area is approx. 4,000m². Of this, approx. 300 m² are offices, approx. 700 m² are production area and approx. 1,300 m² are storage space. The area to be heated and cooled is approx. 2000m². In order to achieve the zero energy standard, the energy for heating, domestic hot water and cooling should be done using solar thermal, photovoltaic and heat pump technology.

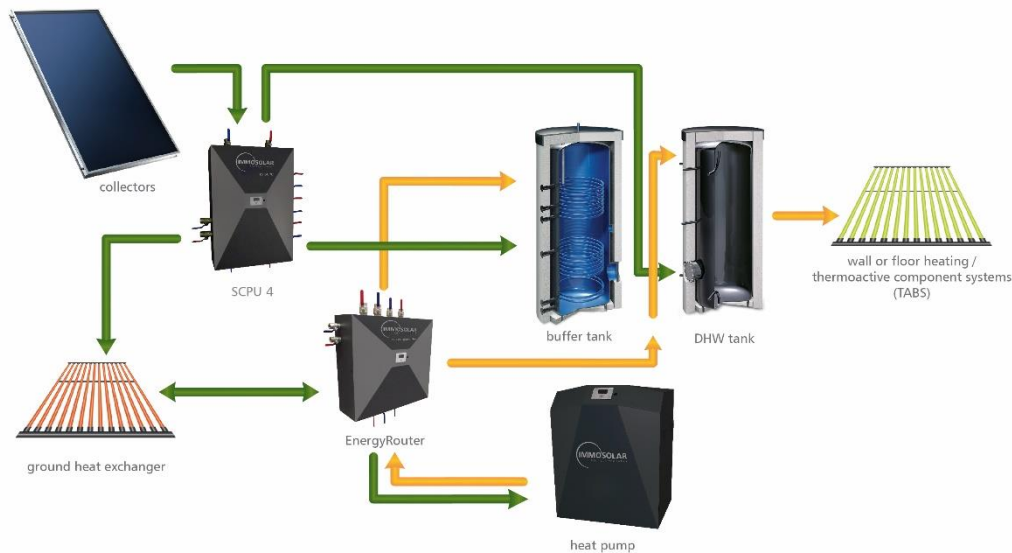
The client

LME GmbH, Austrian manufacturer of energy-saving heating systems

The key data

Thermal collector area	110m ²
Photovoltaic system	50 kW
Solar yield	approx. 100.000 kWh/year (solar+photovoltaics)
Estimated consumption	approx. 80.000 kWh/year
Groud source storage	1.200 m ²
Ground source heat pump	120 kW(IS-SW 117)
Wood gasification boiler	75 kW
Cooling function	55 kW
Share of renewable energy	100%
Operating cost savings	60%
Buffer storage	15.000 liter
Temperature level	17 to max. 23°C

The EnergyRoutingSystem



The interview with LME founder and managing director Ing. Michael Leitner (here in the new LME boiler room):



Mr. Leitner, what were the main requirements you placed on the energy system of your new building?

Zero energy and quick amortization of investment costs thanks to low operating costs with maximum use of renewable energies.

With your LME products, you stand for renewable energies and energy saving. What made you decide to follow the energy concept drawn up by BES?

The BES energy concept gave me the security of choosing the energy system that has now been implemented. For a quick realization of my building project it was important to get quick results also in the planning, so the support from the BES planning department was of enormous help here. Our environment is very important to me, so it made sense to combine solar and wood energy with a heat pump. I am very proud to contribute to a better environment with the zero energy standard.

Where do you see the main advantages of the EnergyRoutingSystem

Here, the individual parts of the energy system are connected and controlled in such a sensible way that the energy generated is even better utilized and more energy is available for heating and cooling. For example, the solar energy produced can charge up to four temperature levels and can be used for domestic hot water or for different energy tanks, depending on the temperature and needs. Another important advantage is the use of the BES ground source storage system. Generated excess heat is evenly distributed in the building foundation via the welded register mats of the ground heat exchanger and stored there, until it can be used again immediately when there is a heat demand. Excavations in the garden and parking lot area or the geothermal boreholes, which are often forbidden because of their hazard potential, can thus be avoided.

If you could choose: would you choose the BES EnergyRoutingSystem again today?

Yes, of course. The system is constantly being monitored and the results speak for themselves. The energy savings are even slightly higher than what was expected.



The interview was conducted by Sebastian Ager, Head of Sales at BES GmbH (left picture).

Ing.BA Sebastian Ager has been with BES GmbH since 2006.
Certified heat pump planner
Certified EIB-BUS planner

He studied building and energy technology at the HTL Jenbach and European energy economics at the FH Kufstein.

Would you like to know how we can make your building project energy-efficient and fit for the future?

Contact us!