

A low-angle photograph of several modern glass skyscrapers reaching towards a grey sky. A faint, white network of lines and dots is overlaid on the image, suggesting a digital or energy grid. On the right side, there are three vertical bars of color: cyan, red, and yellow.

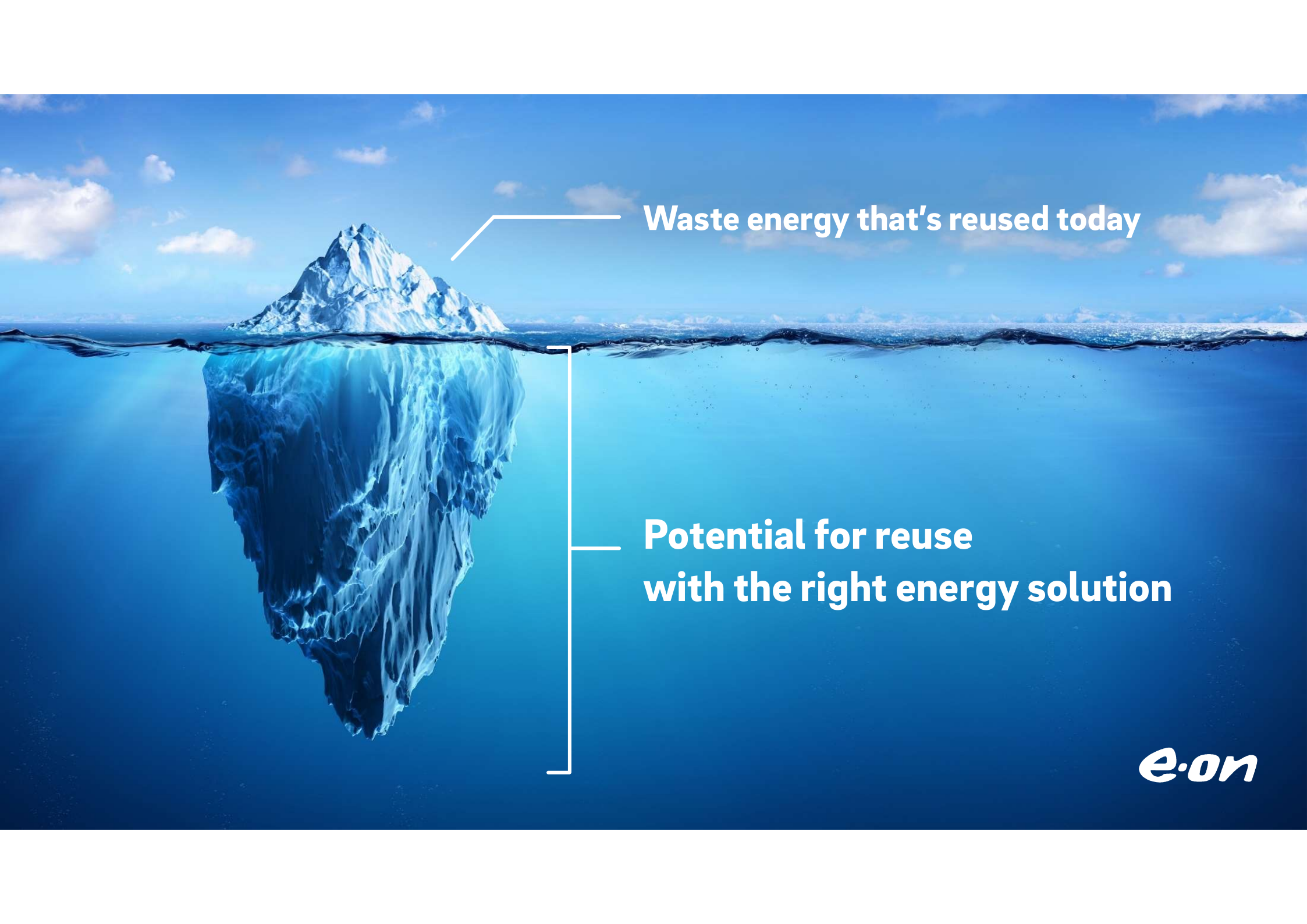
E.ON ectogrid™

**A revolutionary energy solution
for heating and cooling**

e.on

Challenges

- ✓ Urbanization and electrification are driving the development of the new energy landscape
- ✓ Sustainability and energy efficiency are issues of growing importance
- ✓ Energy costs are rising
- ✓ Today's energy systems produce a high volume of waste heat



Waste energy that's reused today

**Potential for reuse
with the right energy solution**

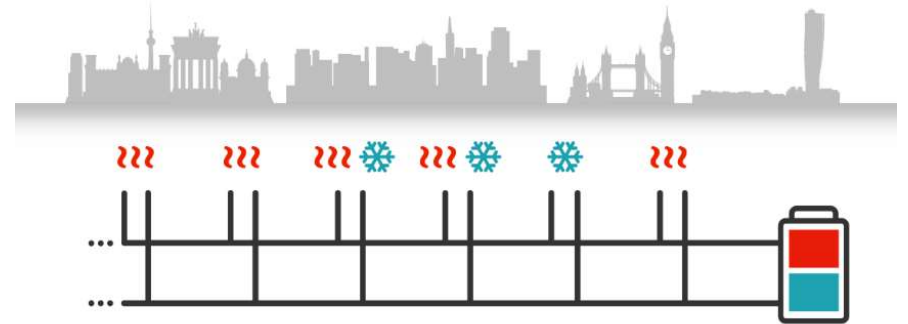
e-on

E.ON ectogrid™ solves several problems

- ✓ Maximizes energy reuse within the system
- ✓ Powered by 100% renewable energy
- ✓ Reduces strain on the power grid through smarter electricity usage
- ✓ Minimizes CO₂ emissions with electrified heating and cooling, instead of fossil fuel combustion



e.on



E.ON ectogrid™

- ✓ One energy system for both heating and cooling
- ✓ Automated with innovative cloud technology – reduces operating costs
- ✓ Utilizes standard components – flexible and simple to scale up
- ✓ Low temperature network reuses low-level waste energy to enable energy sharing between buildings, reducing the climate footprint

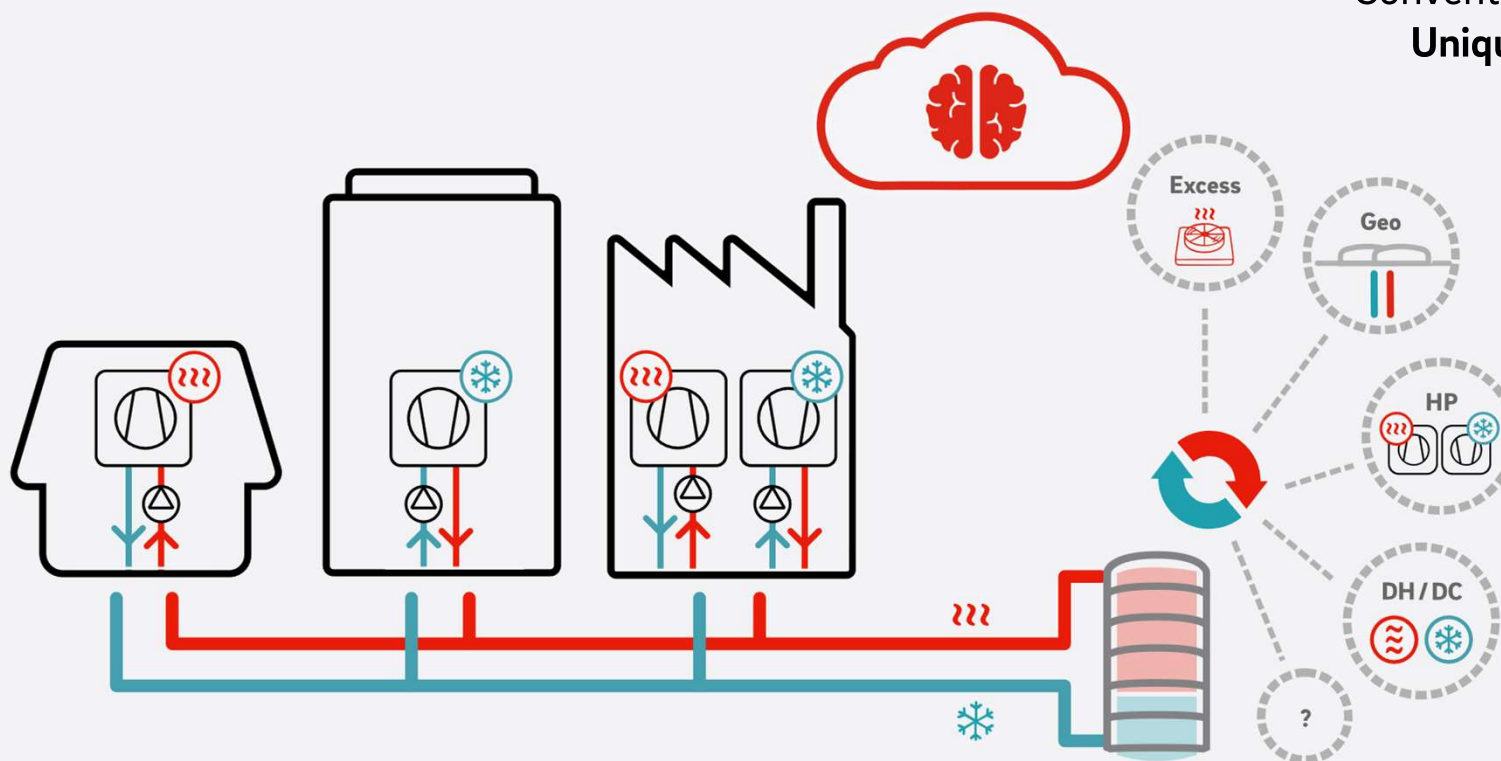




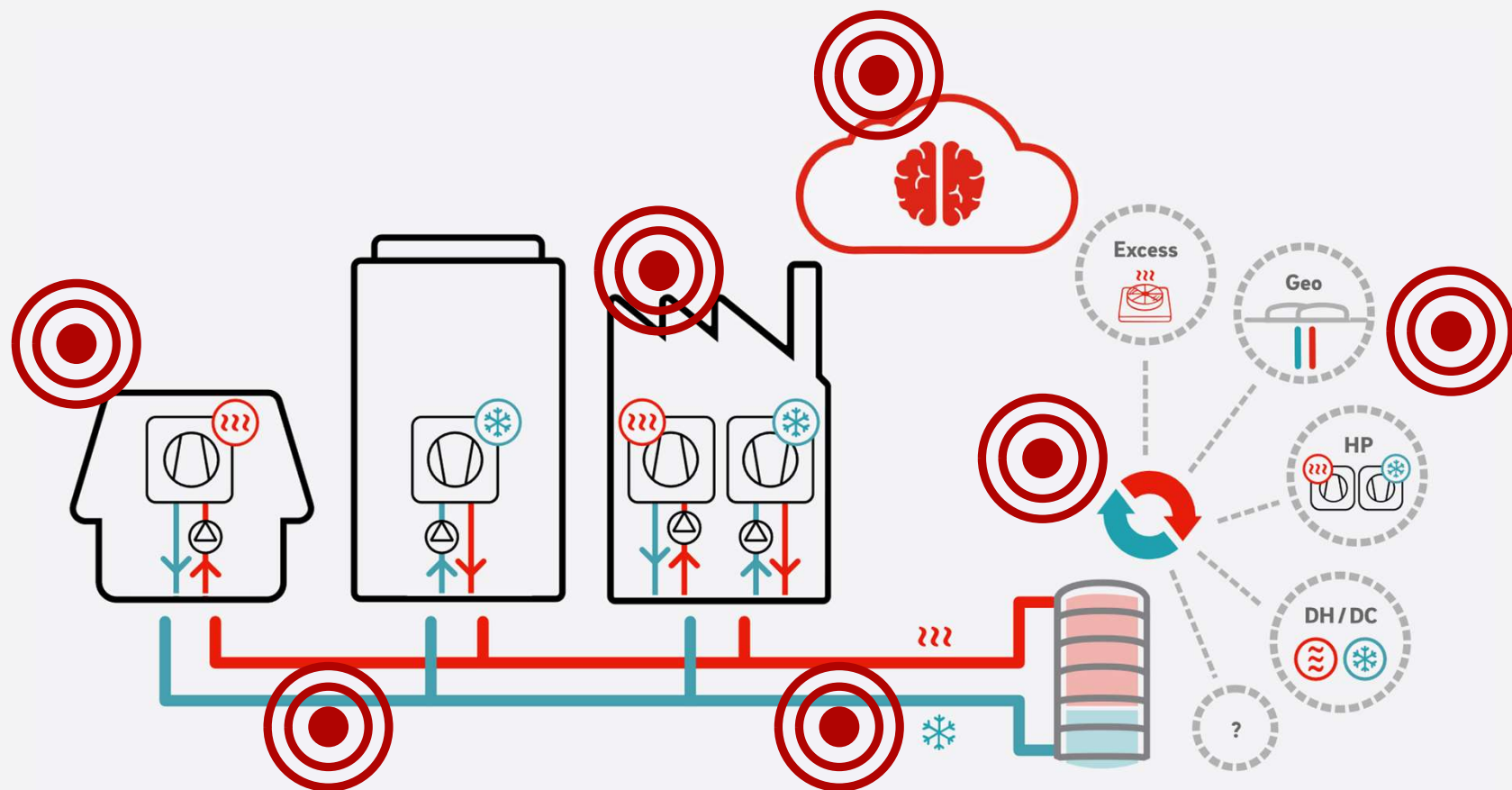
ectogrid™

How does it work?

Conventional equipment.
Unique configuration.

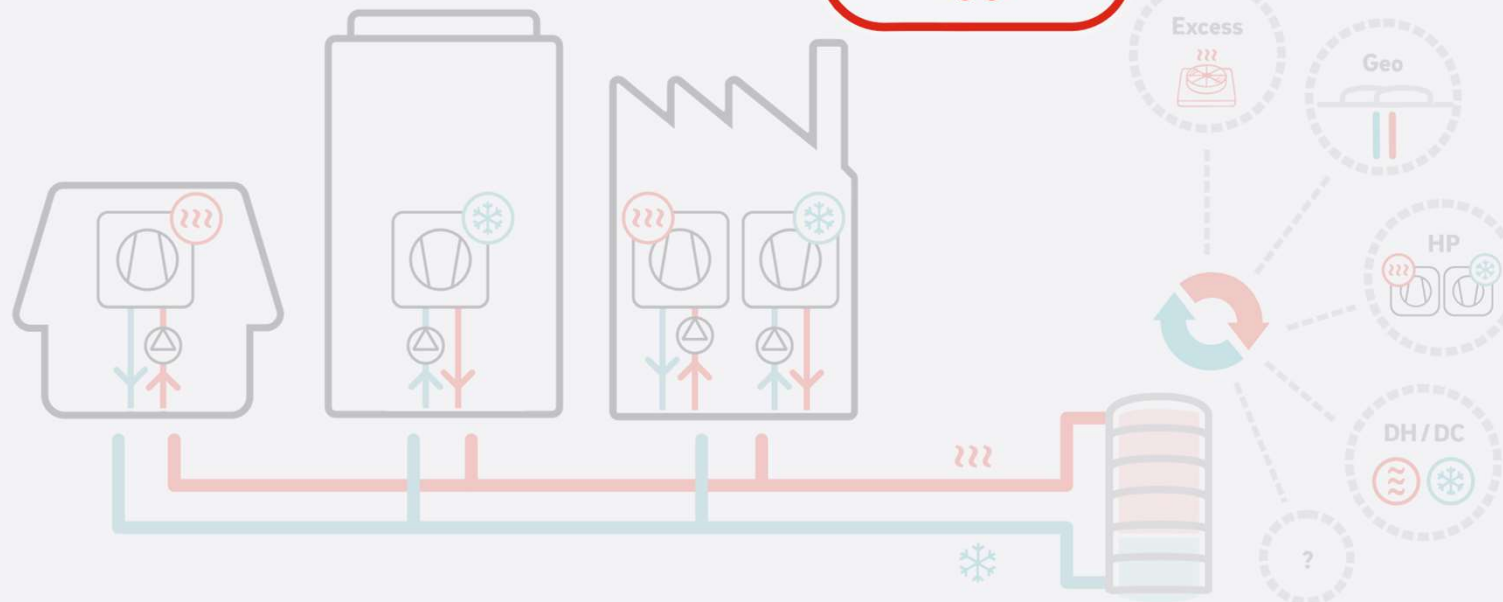


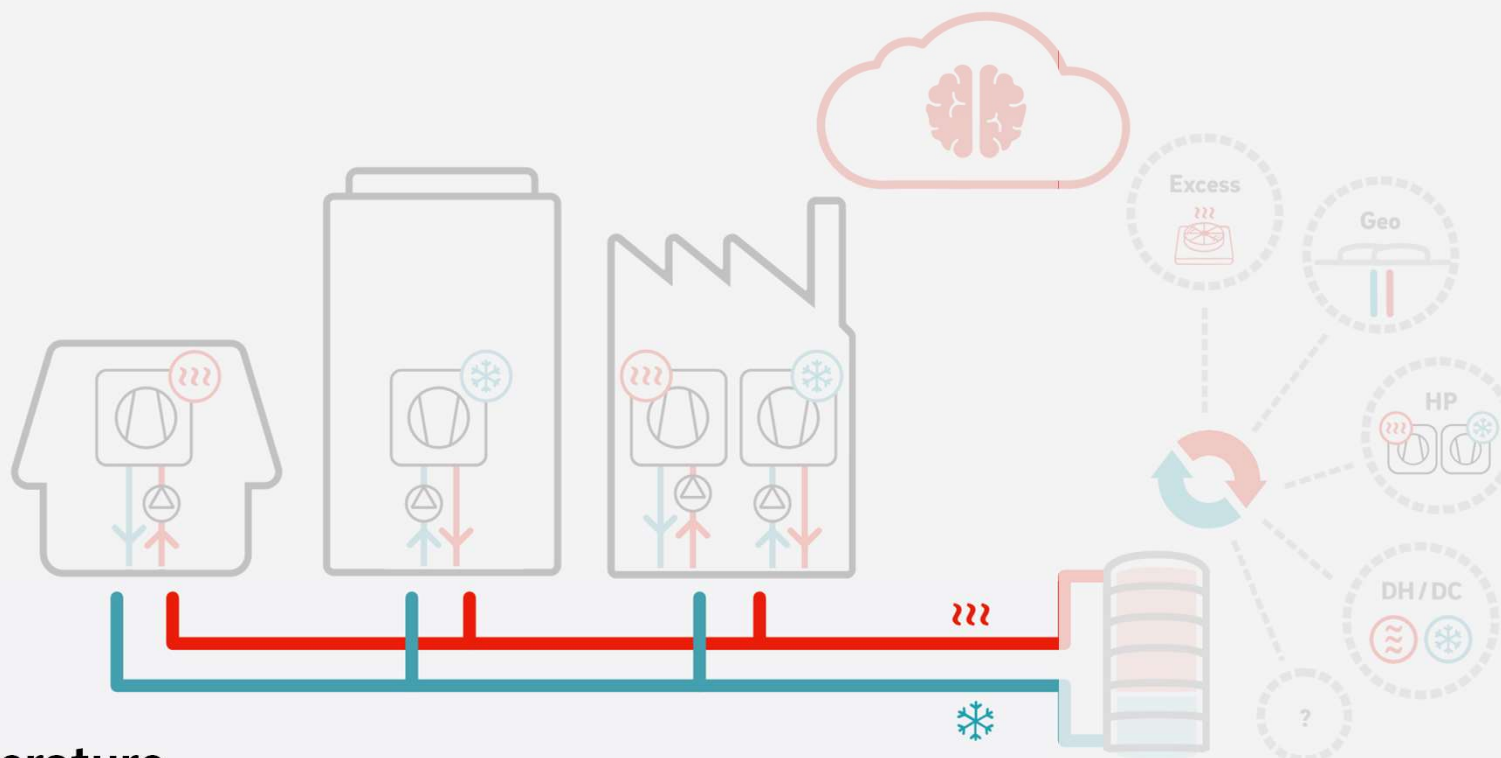
e-on



e-on

× Close





Low temperature network

× Close

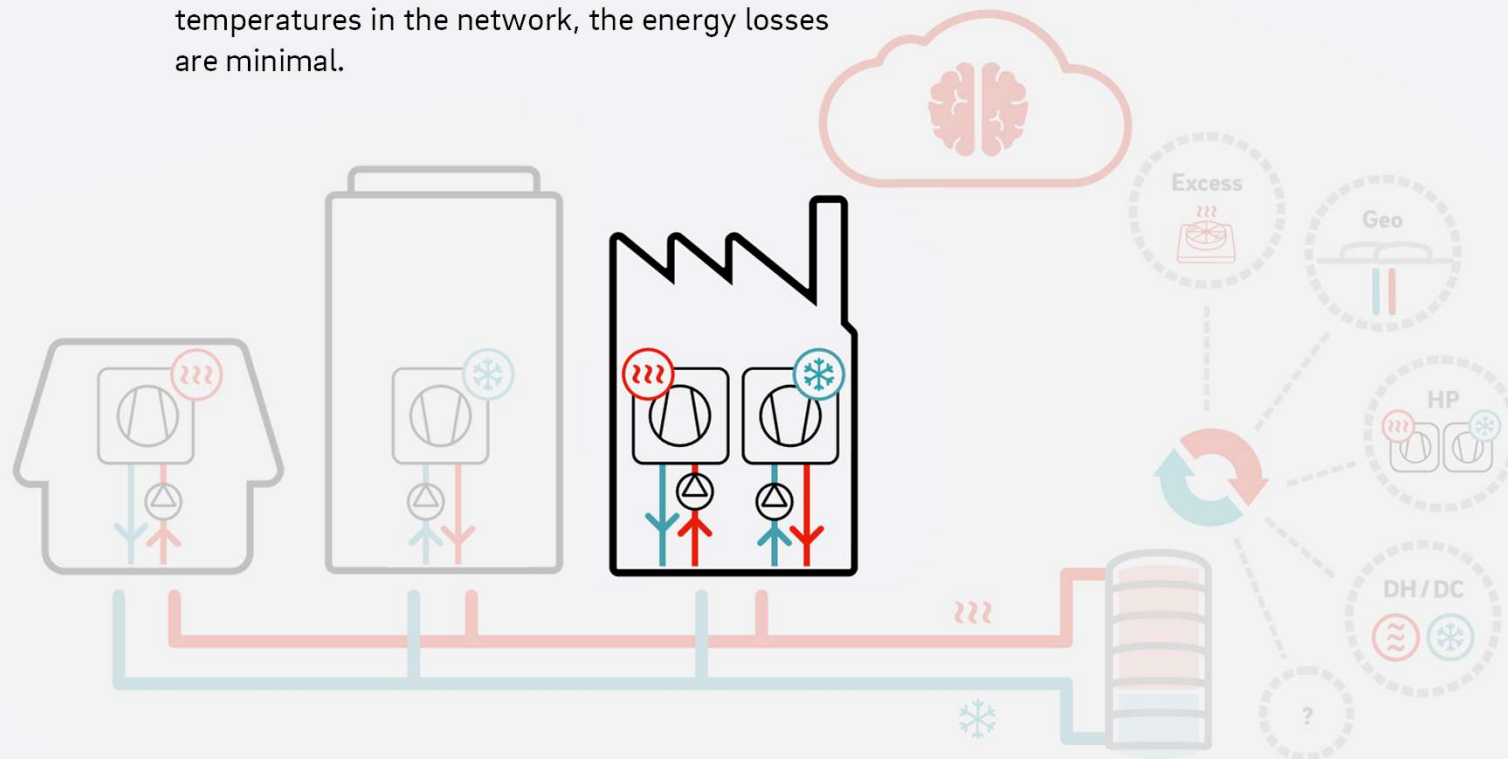
Two uninsulated plastic pipes for warm and cold water, with temperatures ranging between 0° and 40°C. Distributed pumping enables a bi-directional flow.

e-on

Shared energy

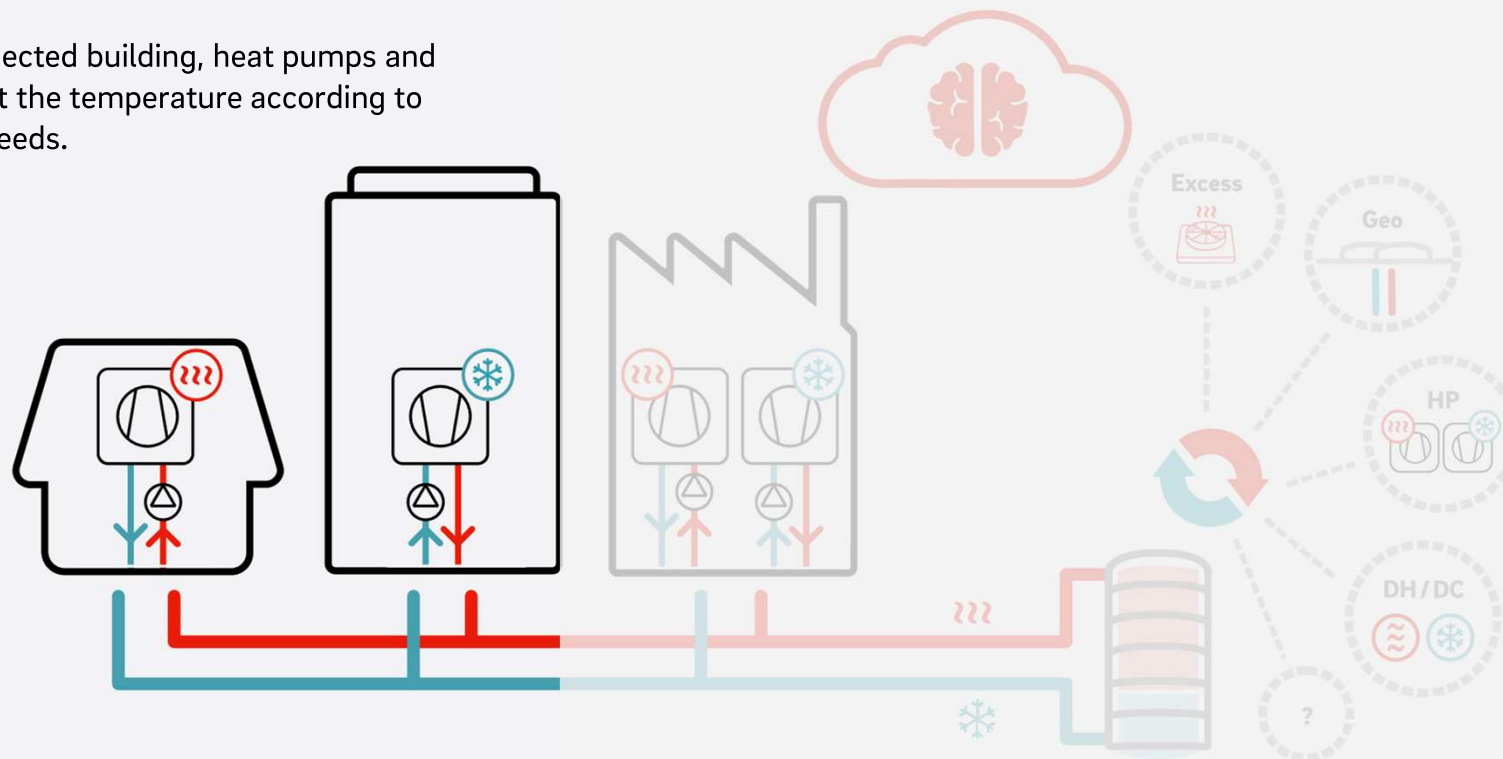
✕ [Close](#)

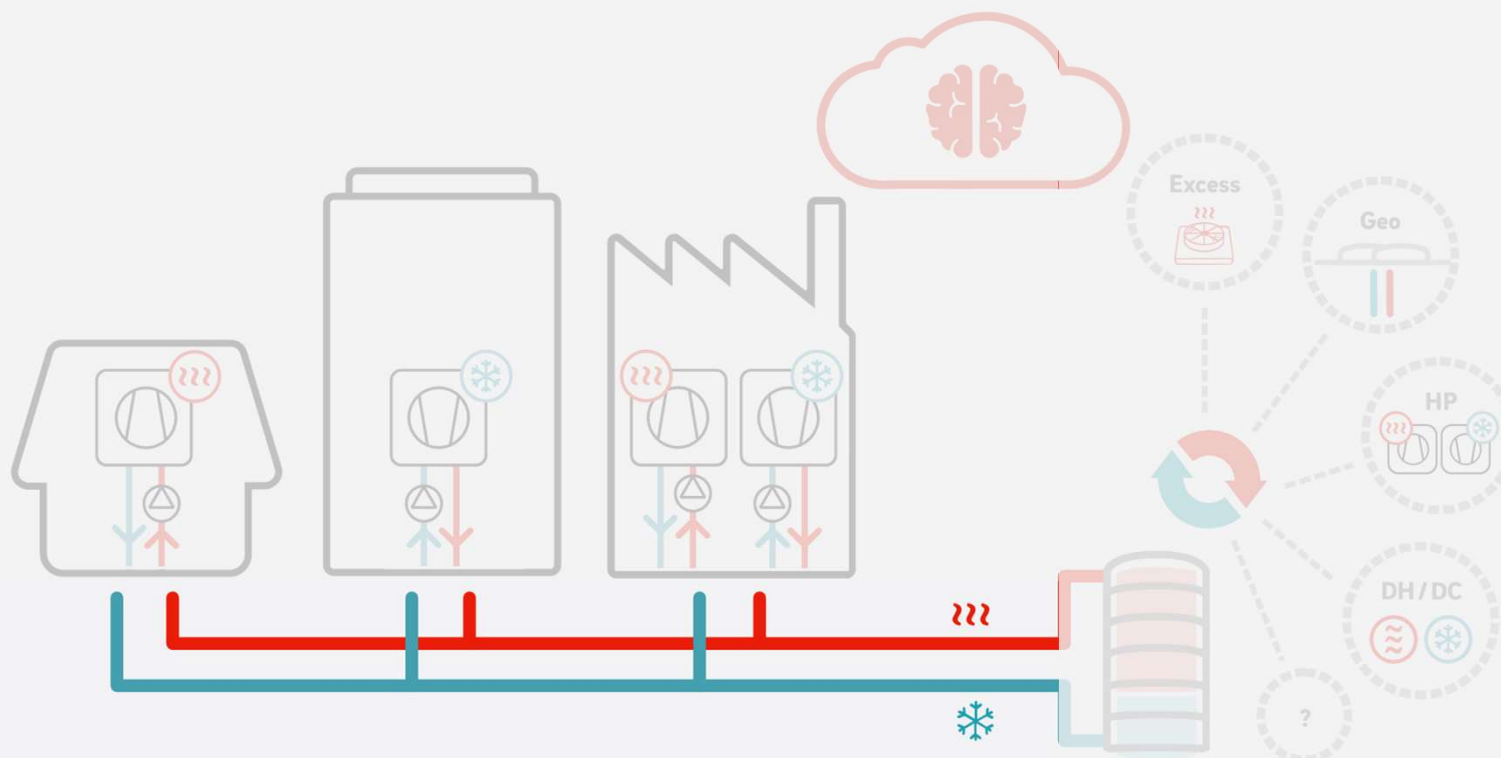
Buildings in the system share excess energy with each other. Thanks to the low temperatures in the network, the energy losses are minimal.



Heat pumps and chillers × [Close](#)

In every connected building, heat pumps and chillers adjust the temperature according to the space's needs.





Thermal storage [× Close](#)

The ground surrounding the network stores thermal energy, which can then be used to manage variations in supply and demand, reducing the need for supplied energy.



Passive balancing × Close

A water storage tank balances the warm and cold water levels, maximizing the re-use of energy in the grid. New energy can be supplied at the right moment from intermittent, renewable sources.

Active balancing

✕ [Close](#)

When all available energy is balanced, new energy can be supplied from various sources, including: district heating and cooling, geo-energy, reversible air-to-water heat pumps, or waste heat from e.g., industry, data centers, hospitals or big-box stores.

