New generation of thermal energy storages.

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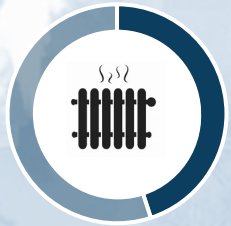
A Spin-off of:

HSLU Hochschule Luzern

Building stock today:

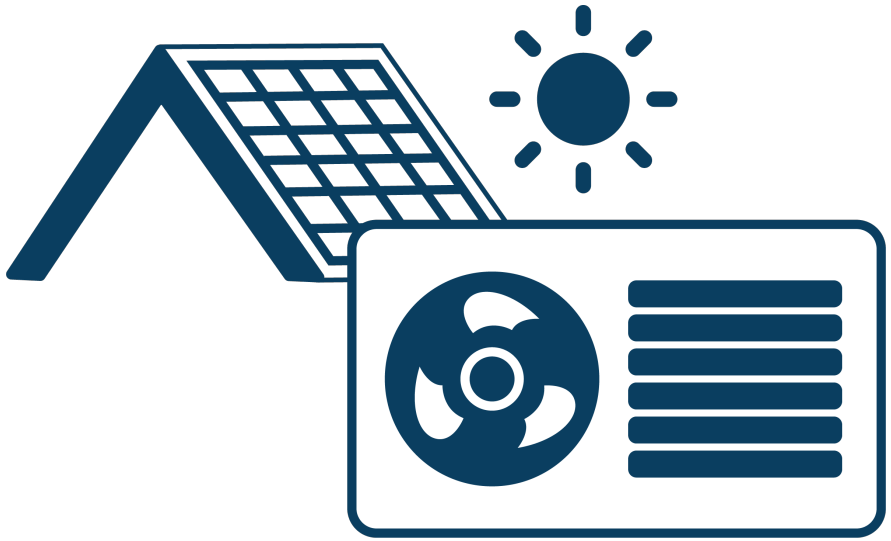


45% of total energy demand

70% driven by fossil fuels

40 % of total CO_2 emissions

Decarbonisation of heating starts now:



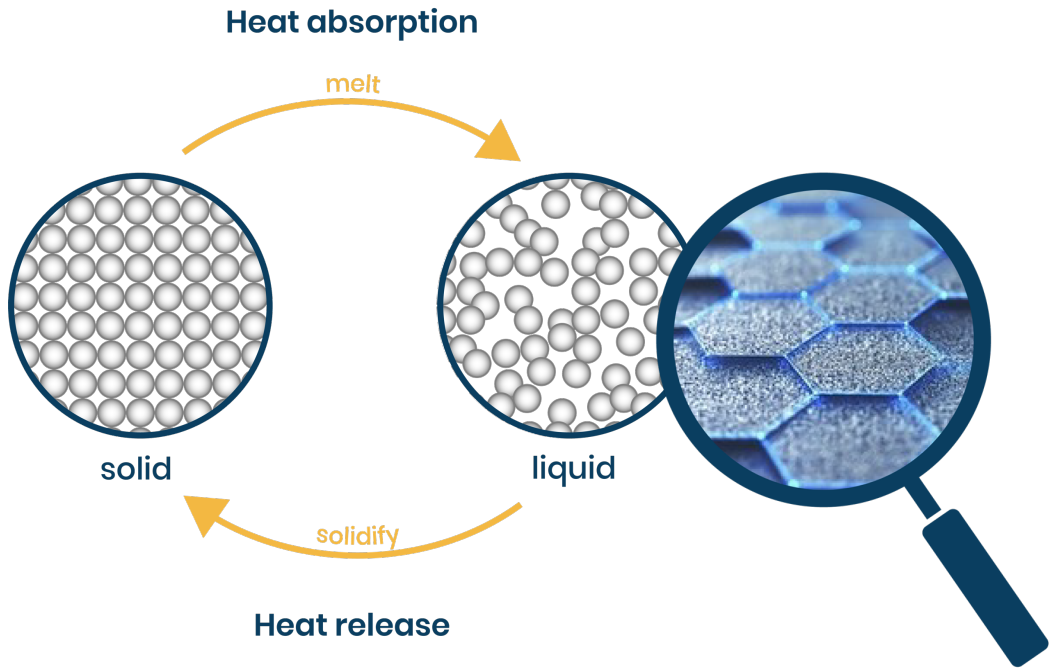
Heat pumps and **PV** are becoming the standard in buildings.

600 million heat pumps expected to be installed until 2030.

Thermal **energy storage** is key for these systems!

Core Technology:

High energy density thermal storage materials



3-4 x higher storage capacity.

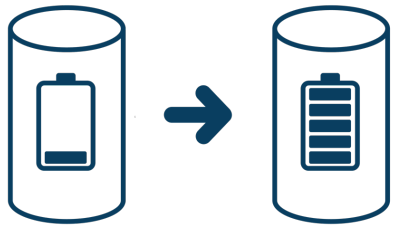
Material based on salt hydrates:

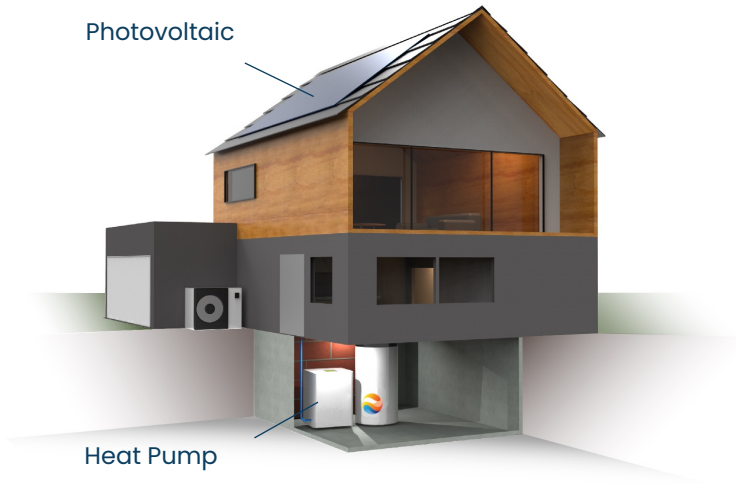
- Non-toxic food additives
- Cost effective
- Recycable, Lithium and Cobalt-free

PCM 35 | PCM 45 | PCM 58

Applications & Business Cases for latent storages in the building

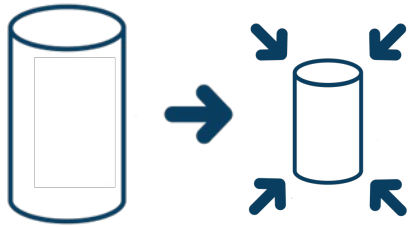
Increase Storage Capacity





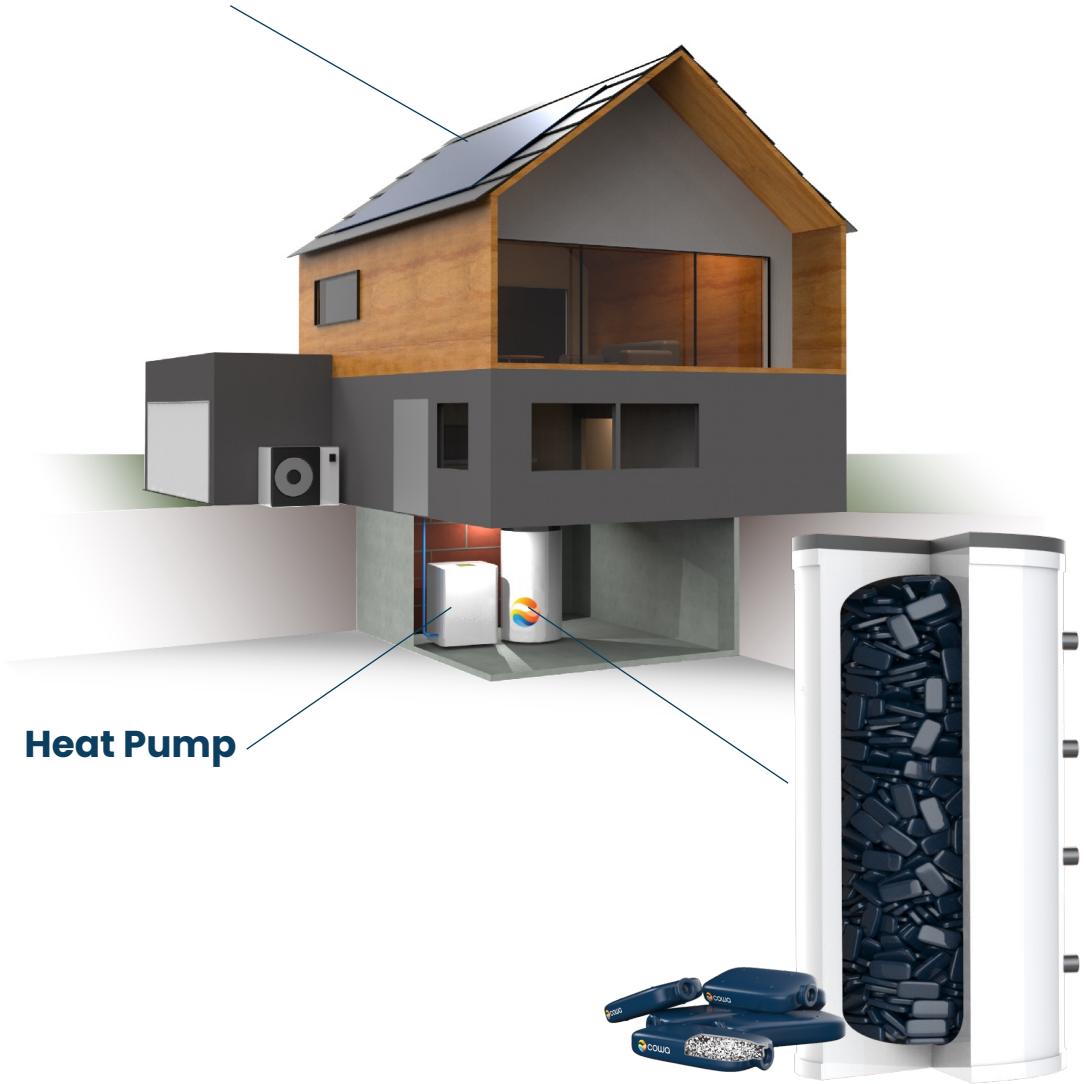
PV Self Consumption

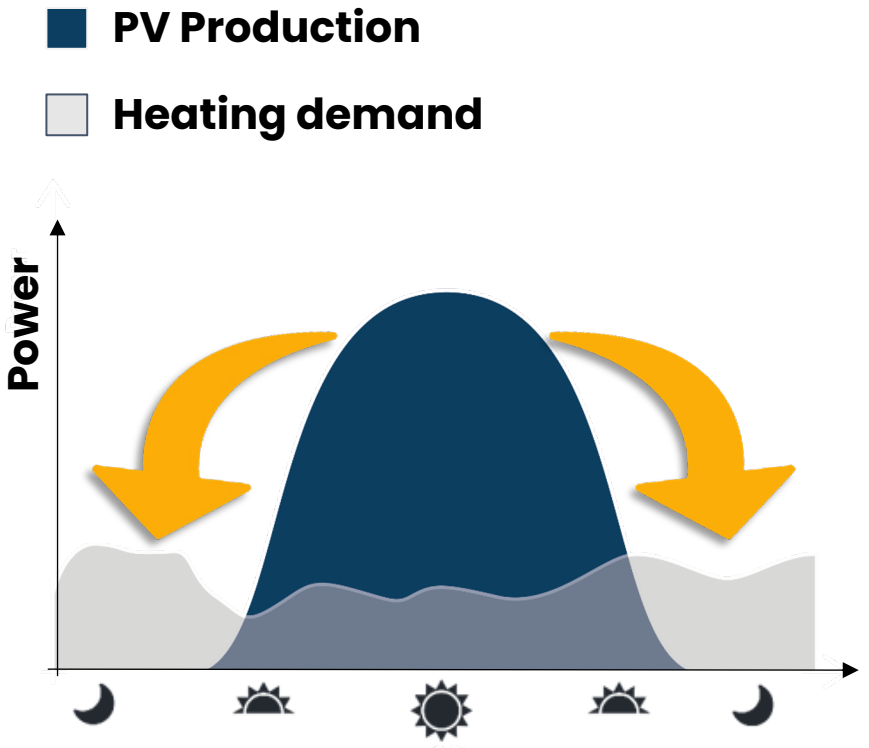
Reduction of the Storage Volume



Replacement of decentralized Gas Heaters.

Photovoltaic





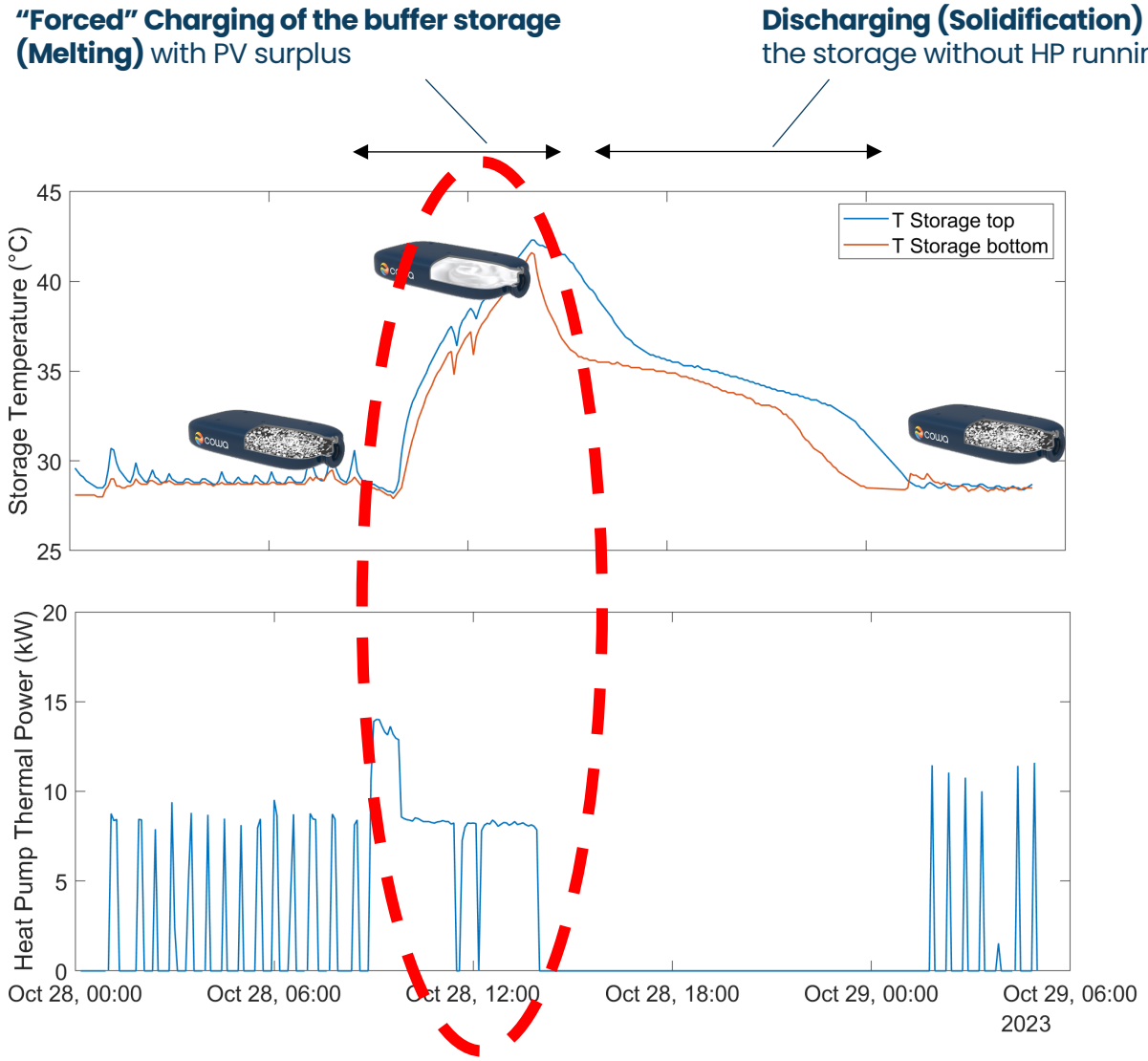
Day/Night Storage: Store Excess PV power in thermal storage through the heat pump.

Pilot: 800 Liter with Macro Capsules

Example PCM 35: 800 Liter Storage, ca. 45 kWh

PCM 35

- Location: Zürich
- PV-Power: 13 kWp
- Heat pump: BS2 (20 kW)
- Floor heating ≈ 28-32°C required



Enabling the energy transition
through compact thermal
energy storage.

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