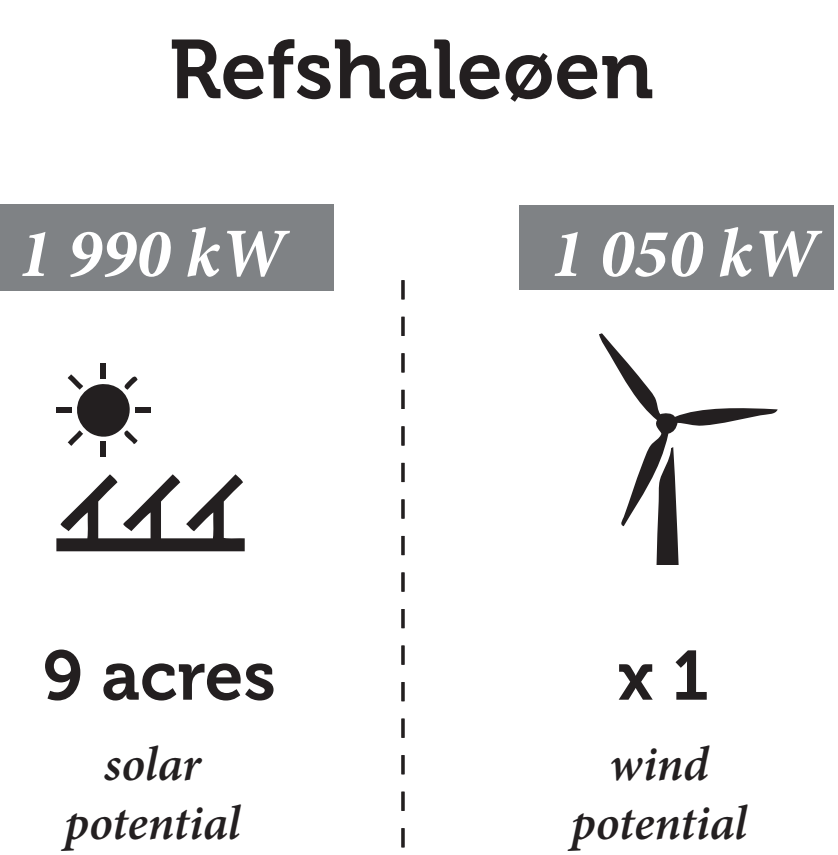
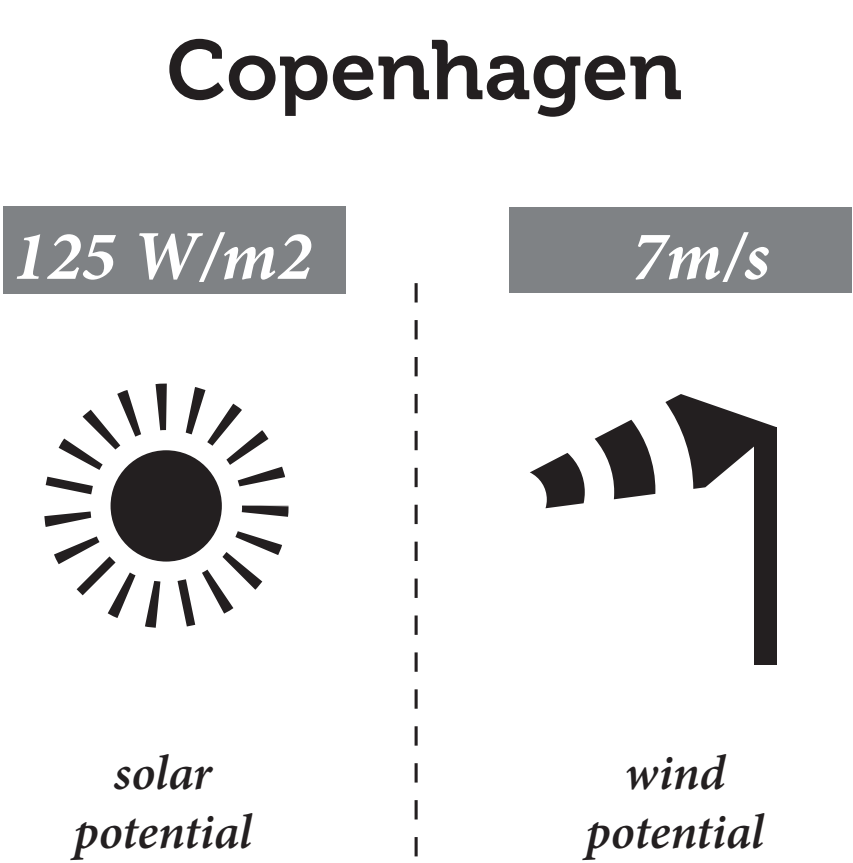
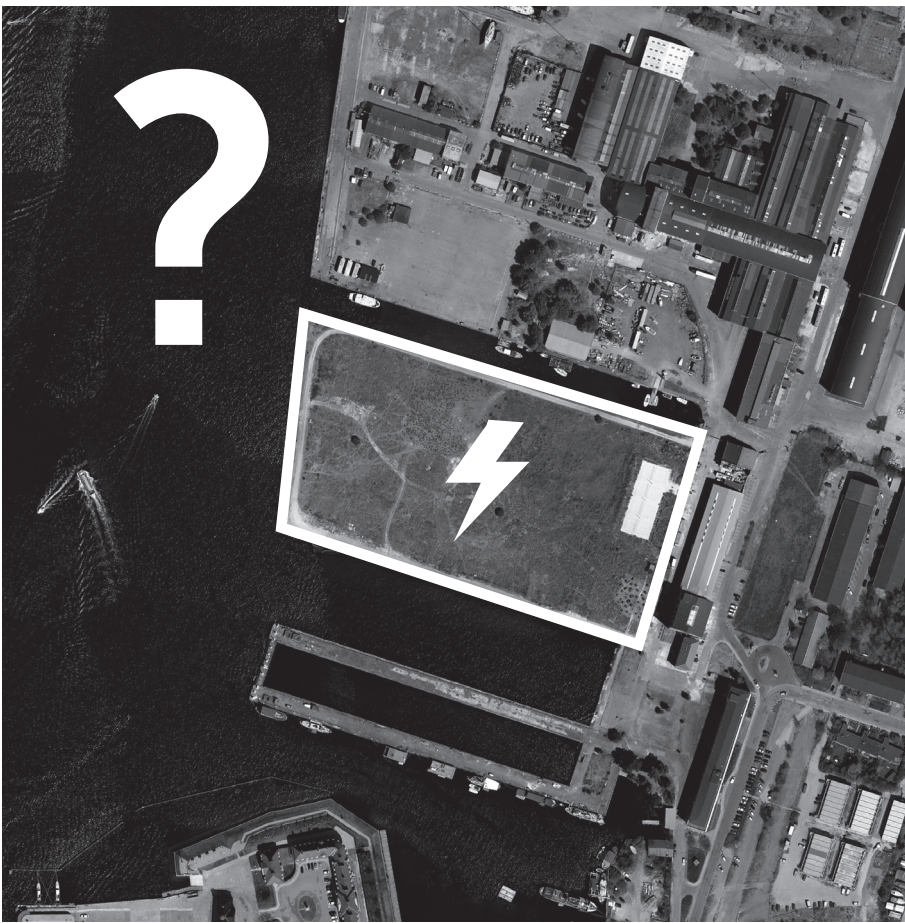
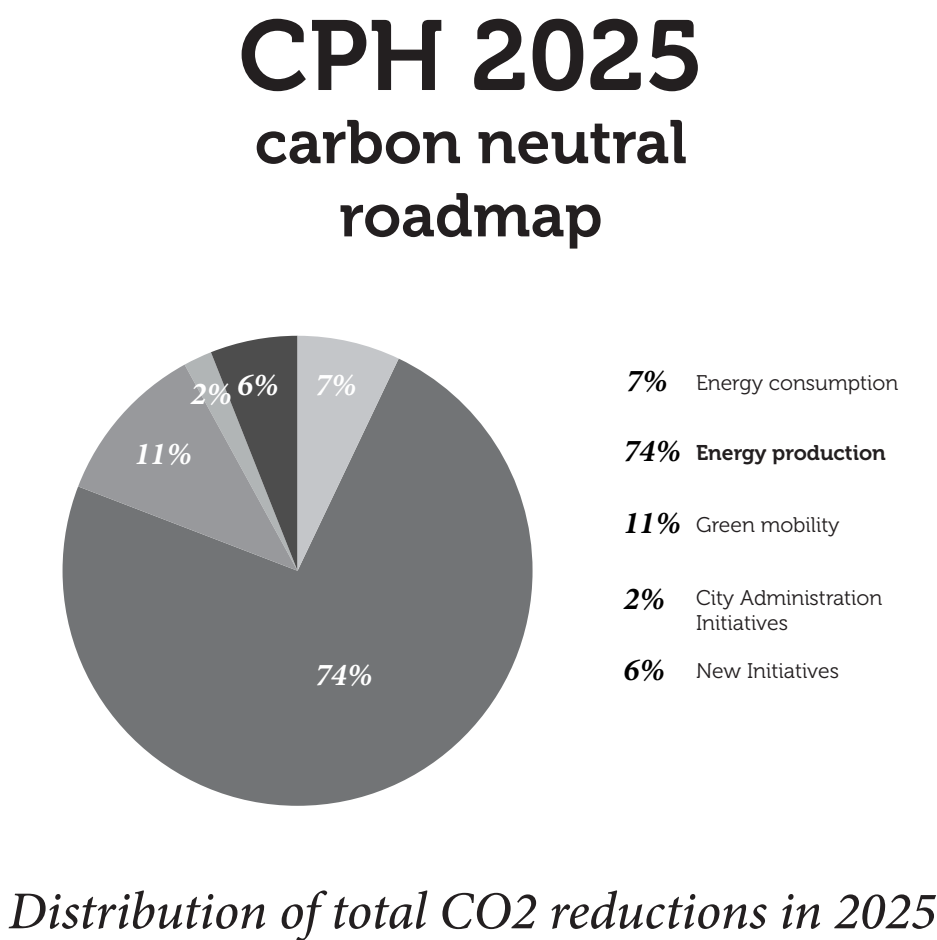


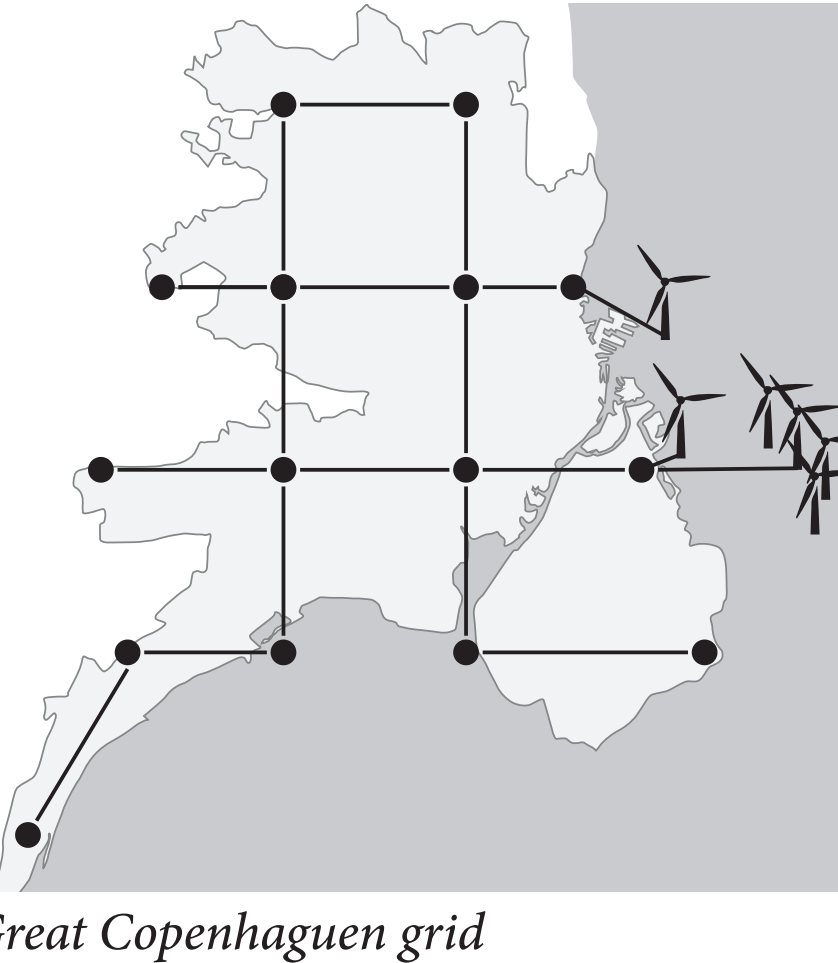
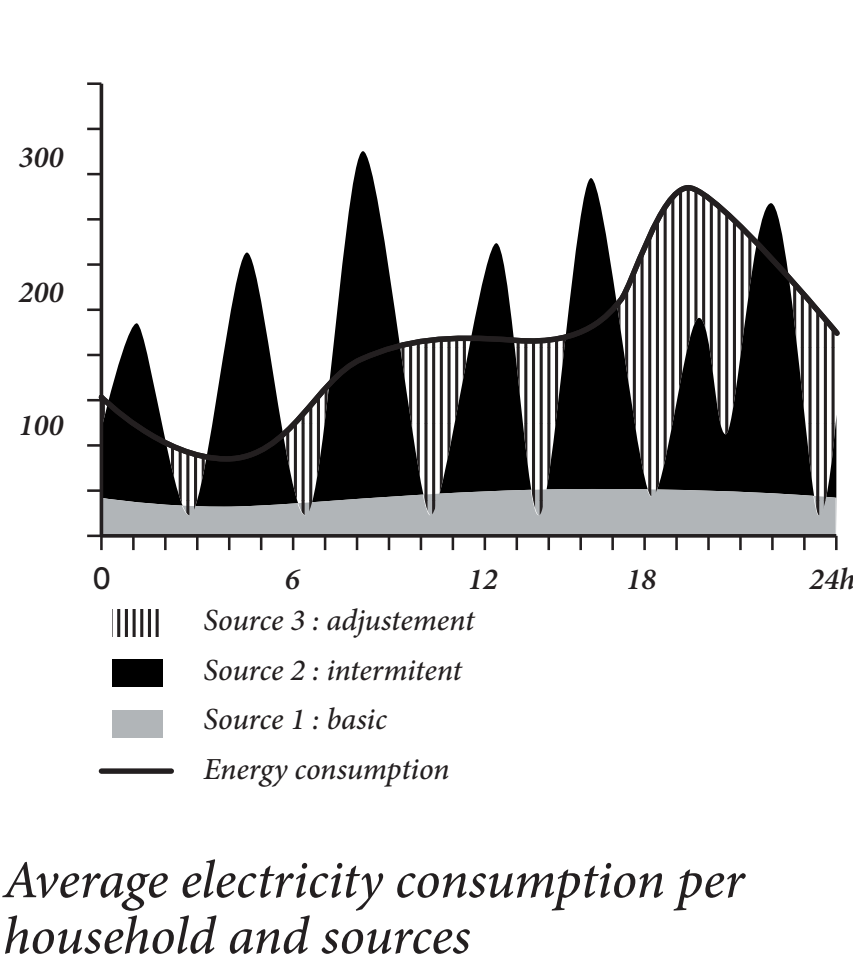
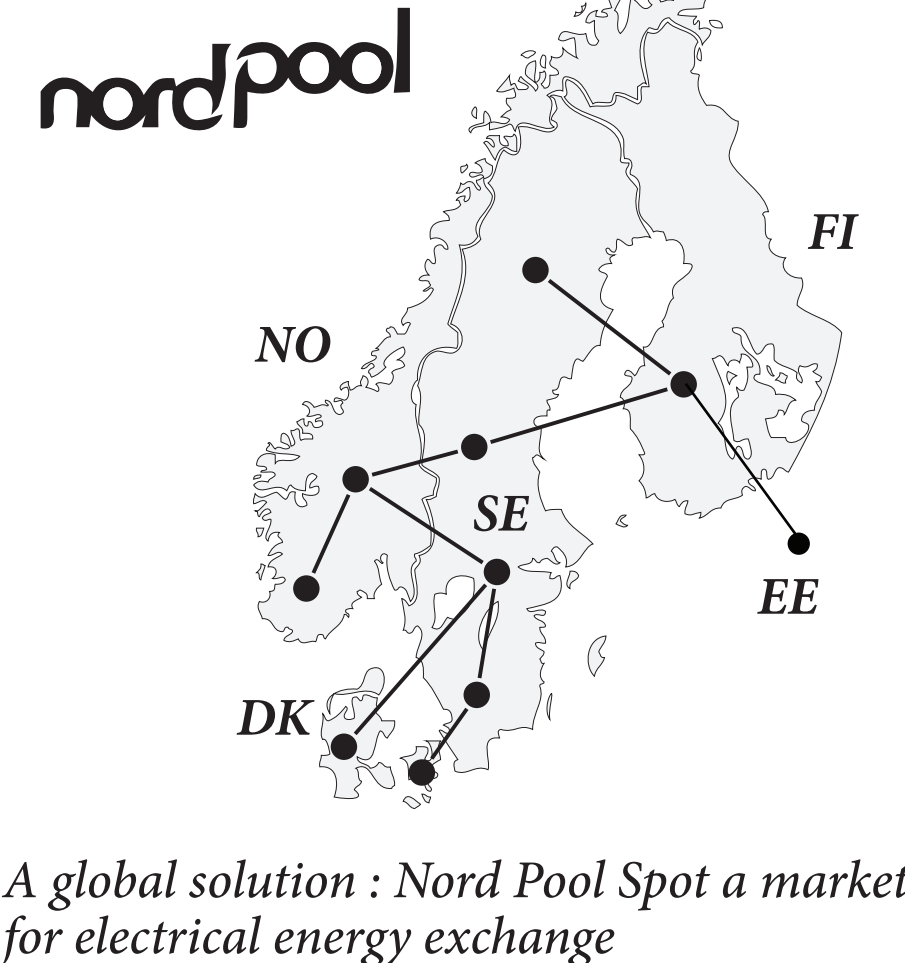
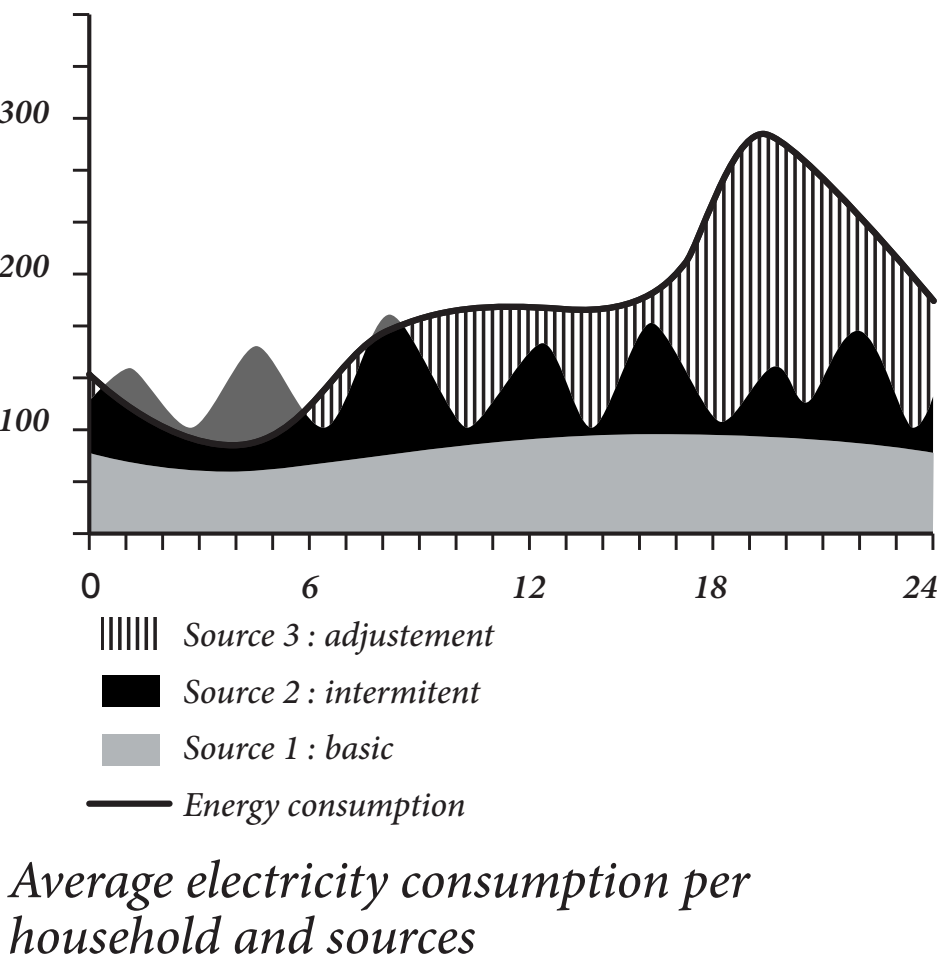
ONE POLICY
-
100%
RENEWABLE
ENERGY BY 2050

Denmark is the only country in the E.U. that produces more energy than it consumes. In 2025 Copenhagen will become carbon neutral. In the state of the art, hydro-electricity, wave energy, tidal and geothermal energy have a very low potential on the site. Refshaleøen site has a limited potential of renewable energy production. In the particular context of Denmark - ahead in terms of energy policy - the project symbolic significance seems to depend on a certain level of efficiency.



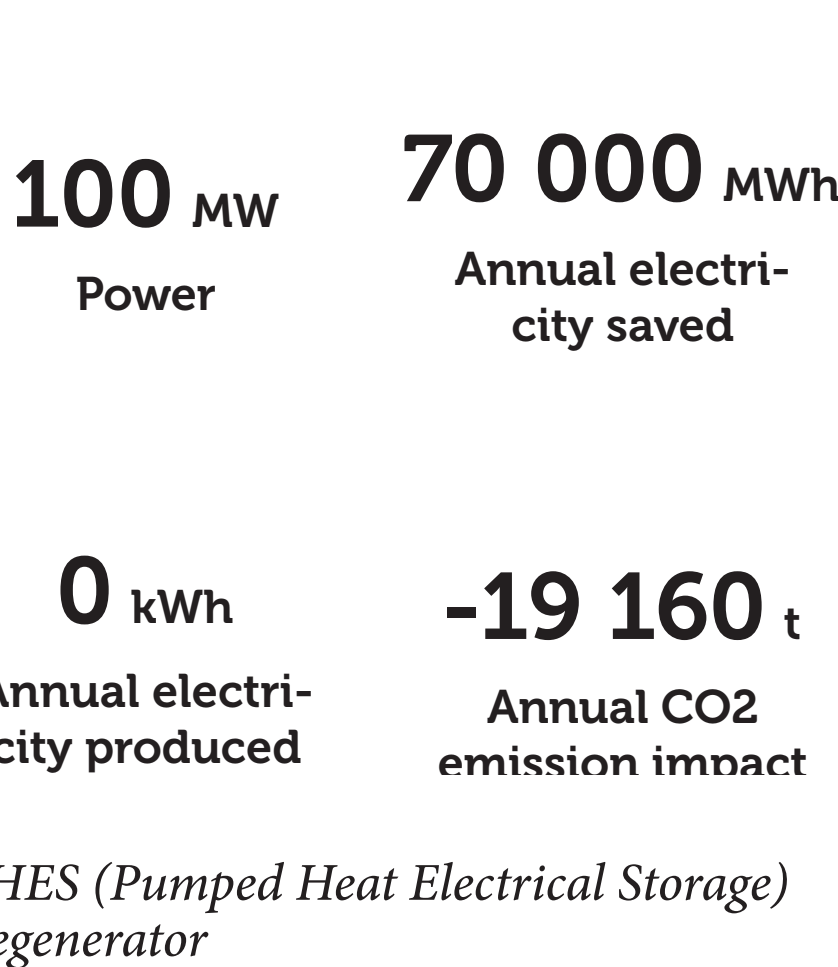
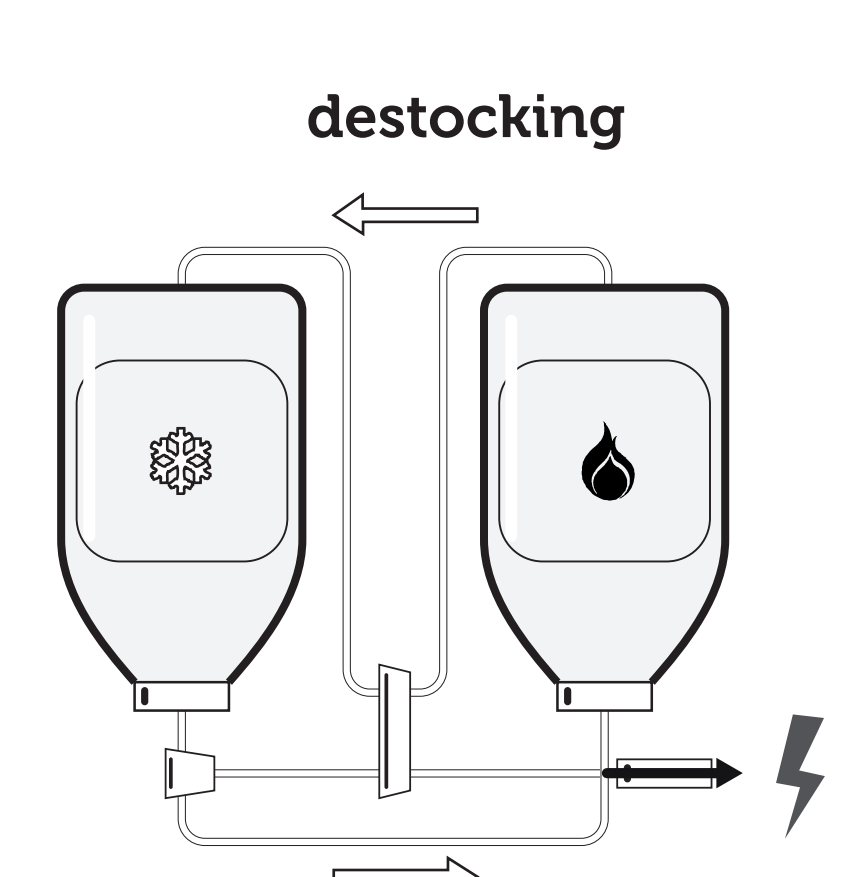
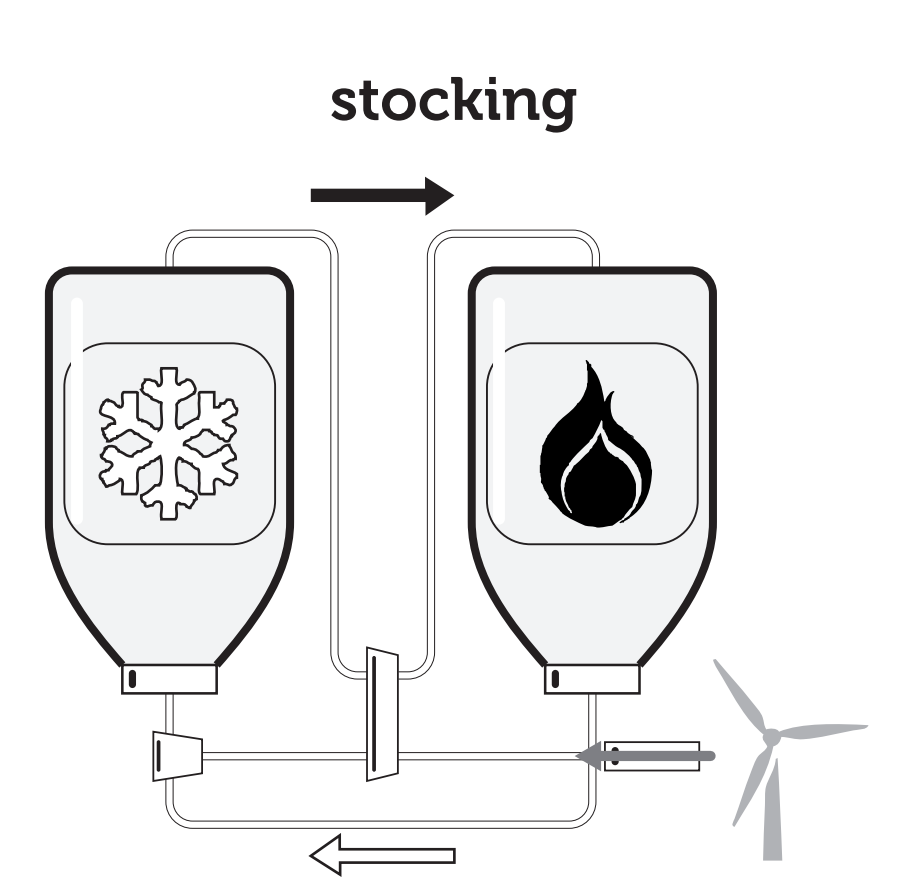
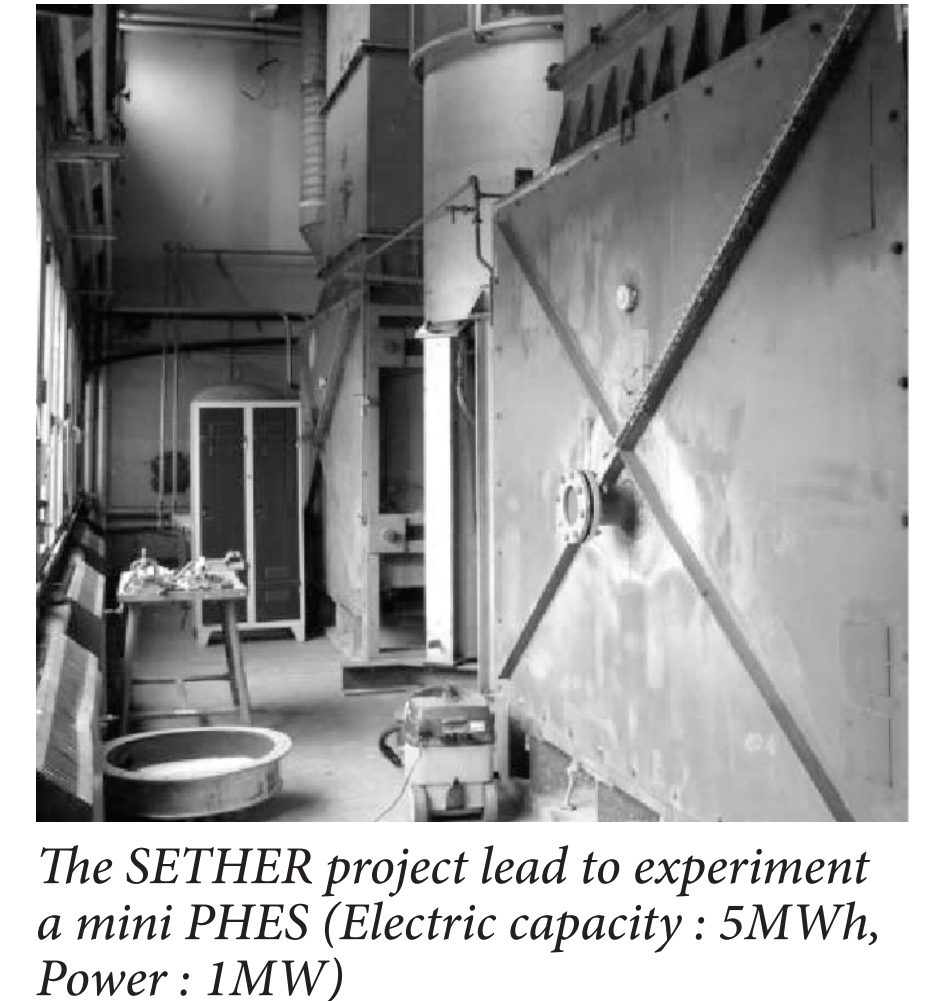
MORE RENEWABLE
ENERGY NEEDS
FLEXIBILITY

The development of renewable energies leads to connect to the network many intermittent generators whose production period does not correspond to schedules energy consumer demands. In Denmark the integration of a high proportion of wind power is possible thanks to the ability of control provided by the Scandinavian hydropower. Ultimately, increasing the share of intermittent sources encourages considering additional means of regulation.



HOW
?

“PHES” process (patented) - Pumped Heat Electrical Storage - is an electricity-stocking device on a large scale developed through SETHER project. The general operation of PHES method is based on the use of an inert gas as a transfer medium (Argon) in a Brayton thermodynamic cycle. The principle is based on compression and expansion of a gas circulating in a closed cycle through boundaries with different temperature levels. It allows to achieve efficiencies, capacities and power similar to gravitational hydraulic systems without geographical constraint.



ENERGY STORAGE
SYSTEM IS A
URBAN
OPPORTUNITY

At first, the implementation and the study of a demonstrator at a semi-industrial scale should help to refine and adapt the device components. In a second step, we can consider the implementation of an industrial scale plant. The primary purpose of the device is to clip peak demand and limite the extra use of thermal heat using fossil fuels. A SEPT doesn't produce energy but limit fossil energy uses. In a third time, the building of 7 others regenerators can theoretically afford to replace the emergency and peak load facility of Kynsby

In parallel to the research, the demonstrator can supply a small public equipment.



We offer an outdoor pool, which allows swimming in summer ...



.. and ice skating rink during winter.

