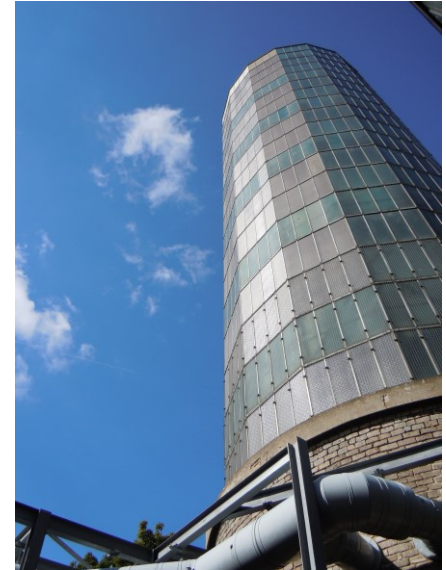


Heat storage in communities

- In some places it may become more efficient to generate heat for entire communities in district heating schemes- networks of pipes that carry heat to nearby houses and blocks of flats.
- If powered using solar or wind energy, this would require large heat stores that can be charged when demand for heat is low and discharged when it is needed.
- Large hot water tanks can be used to store heat for use during the evening when it is colder.
- It is also possible to store large amounts of water in deep pits or boreholes, where the warmth from the ground provides additional insulation. This allows heat to be stored for longer periods across days and seasons.

Hot water storage tower at Pimlico District Heating Undertaking, London. Kevan (2012)



Key facts

Technologies:

Water tanks, gravel pits, boreholes

Location:

Communities

Readiness:

Currently used

Environmental impacts, safety and resource use:

- Communal energy stores require a lot of space either above or below ground.

Applications

- Enables more renewables
- Storage across seasons (underground stores only)
- Storage across hours & days
- Less network upgrades