

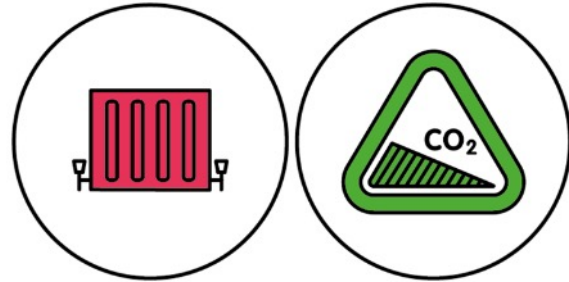
9. Extracting low carbon heat from sewage



Situation

There is opportunity to reduce operational costs and reduce carbon emissions by investing in low carbon heat. We use thermal energy to protect treatment assets and for administration buildings. This thermal energy is currently generated either via fossil fuel or electrical power, however there are lower carbon and higher energy efficiency technologies available.

Technology is also available to extract low grade heat from raw sewage flowing in our trunk sewers. Heat pumps could convert this into useful heat for third party applications like residential district heating, swimming pools and for other industrial users of heat.



Action

We plan to improve our understanding of low carbon heat in multiple key areas:

- Thermal energy assets: a study of our thermal energy needs are proposed and greater understanding of asset condition.
- Heat from sewers: development of a hotspot model for heat and sewers is proposed, and assessment of the commercial viability of selling third party heat in Northern Ireland.

Results

The additional Opex investment of £0.25m will deliver insight into the potential savings and revenue streams available from adopting low carbon heat strategies. This investment will be used to create future business cases, and if these are approved, the initiatives will deliver energy savings and potential additional revenue streams.