Work Package 2.5

Integrated cooling, heating and storage

Research student: A. Revesz

Supervisors: I. Chaer, G. Maidment, J. Thompson, M. Mavroulidou
Overall project aim

Investigate the thermal interaction of ground heat exchangers with the London Underground network.
Deliverables

• List of parameters which influences the thermal interaction between the two schemes.

• Develop a model that will
  ➢ Determine the regions of interactions.
  ➢ Quantify the scale of the interactions.

Potential use of the outcomes

• The outcomes may enable...
  ➢ To inform decision makers about the interaction of GSHPs with the LU network.
  ➢ The formation of potential policy.
  ➢ Various design options to be considered that may enhance efficiency of heat pumps.
  ➢ To provide detailed data for stakeholders who have an interest in utilising the waste heat from the tunnel environment.
Key progress to date

Time plan development
- Overall schedule to carry out the project has been set by listing a number of different stages with a given time frame. The project currently under the background research stage.

Background research
- Subject areas required to investigate were listed and exploration of topics has started.

Induction with London Underground
- In order to familiarize with the underground railway environment and the engineering challenges involved, industrial induction with London Underground has been agreed, which is currently under progress.