

## **Officer briefing on reasons for choosing the three pilot heat pump networks**

Council officers were aware of the Renewable Heat Incentive (RHI) funding scheme and decided to review whether heat pump installations could be undertaken to deliver significant carbon savings in a financially neutral way. Air source heat pumps at significant scale can face noise issues and more conventional (closed loop) ground source systems require a lot of bore holes and therefore a lot of ground space. The London South Bank University had recently completed a very successful open loop ground source heat pump project, which draws water from the London aquifer. This approach is more space efficient but requires the right geology. Any ground source system carries the overhead cost of bringing drilling equipment to site and therefore works better at scale where the overhead cost is spread between a greater number of properties. With this background, officers reviewed the borough's heat networks to identify sites with:

- high heat load / lots of homes connected
- a certain amount of open space where bore holes could be sited
- not in an area anticipated for SELCHP network expansion
- not undergoing other works at the time

Eight sites were identified and site visits were undertaken to review plant room space and access and to review the space available for siting bore holes. A desk based review of geological conditions was also undertaken at this stage and based upon the visits and initial geology review, the list was whittled down to five sites – Brandon, Consort, Newington, Sydenham Hill and Wyndham. The council then commissioned one of its long-term technical consultant partners (Calford Seaden) to undertake a detailed feasibility study. This process looked deeper into the geological conditions of the site, the UKPN power availability, the space requirements and project costs. This process reduced the list down to just the three sites that were found to be suitable and therefore taken forward to installation. The other sites considered earlier in the process have not been determined as long-term unsuitable for heat pumps, and could still be brought forward for heat pump projects in future when economic and technical factors change.