

## Technical Considerations

The design work and planning application process is being supported by a range of technical assessment and analyses to ensure that the effects of the proposed development are minimal and the benefits enhanced. A number of key issues are highlighted below:



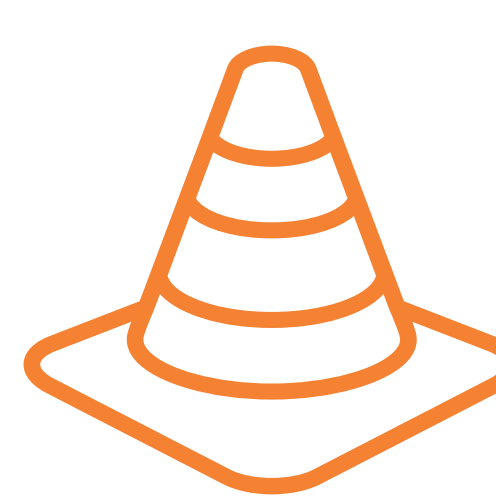
### Emissions

The CHP Energy Centres is fuelled by natural gas. Whilst highly efficient, like all forms of carbon based fuels, generating heat and electricity from natural gas produces Green Houses Gases and other emissions. An Environmental Impact Assessment is being undertaken and will be submitted alongside the planning application.



### Managing Construction

A Construction Environment Management Plan will be provided with the planning application and will present details of the intended method of construction and various safeguards for ensuring the temporary effects of construction activity are minimised. Large elements of the project will be manufactured and assembled off site, such as the pre-insulated pipes for the heat network and sections of the Tower of Light. This will reduce the construction programme and further minimise disruption.



### Traffic

The development site will have no impact on traffic conditions when in operation. The only vehicles to be associated with the site during day-to-day running will be occasional network and operational vehicles.

During the construction process, it will be necessary to close or partially close some roads for short periods of time and / or to temporarily divert traffic. Details will be presented within a Construction Traffic Management Plan details of which will be agreed with the local Highways Authority.



### Noise

Existing noise levels in the surrounding area have been measured and the energy centre designed with appropriate acoustic attenuation to ensure that its emissions do not exceed current noise levels in the area or disturb neighbouring properties.



### Ecology

The location of the proposed energy centre and flue minimises risk to local wildlife by avoiding habitat features. The distribution network has also been designed to avoid the removal of existing trees.



### Heritage

The proposals involve direct work to a number of listed buildings, including Manchester Central, the Midland Hotel, Central Library, the Town Hall and Town Hall Extension. The position of the connection points and associated pipework has been carefully considered to ensure they follow existing service routes where possible. Works to create new openings or pipework will be sensitively undertaken to ensure that features of architectural or historic interest are not affected. The proposals are being informed by heritage assessments and consultation with Manchester City Council and Historic England.