ISLINGTON

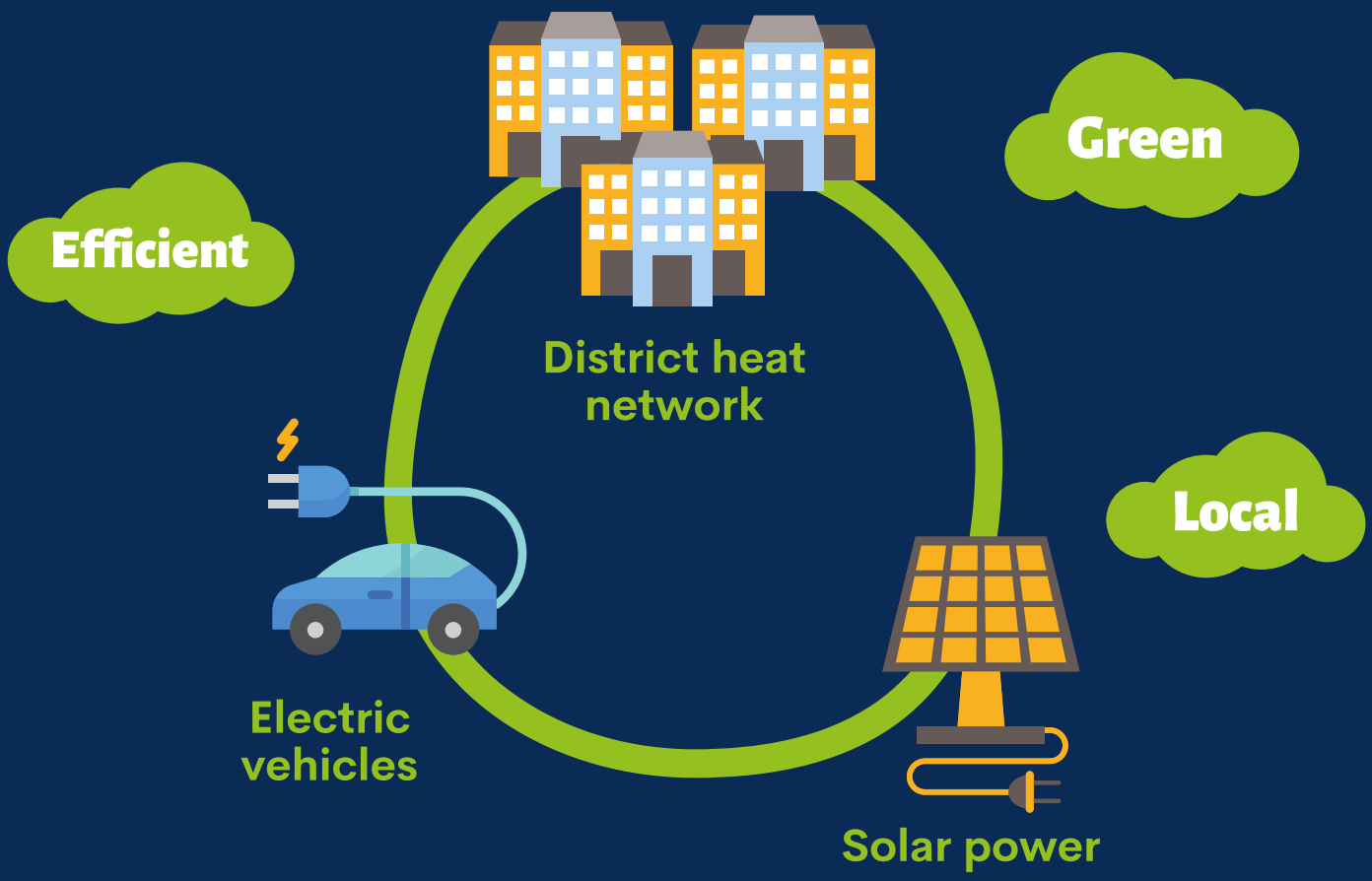
smart
power
mobility
thermal
greenSCIES
Green Smart Community Integrated Energy Systems

REPOWERING LONDON

CULLINAN STUDIO

a new energy system

for Islington residents and businesses

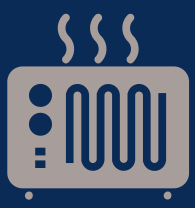


Zoom in on the heat network

A district heat network is a system of pipes which transport heat from a source to multiple buildings, who can then use it in their heating systems.

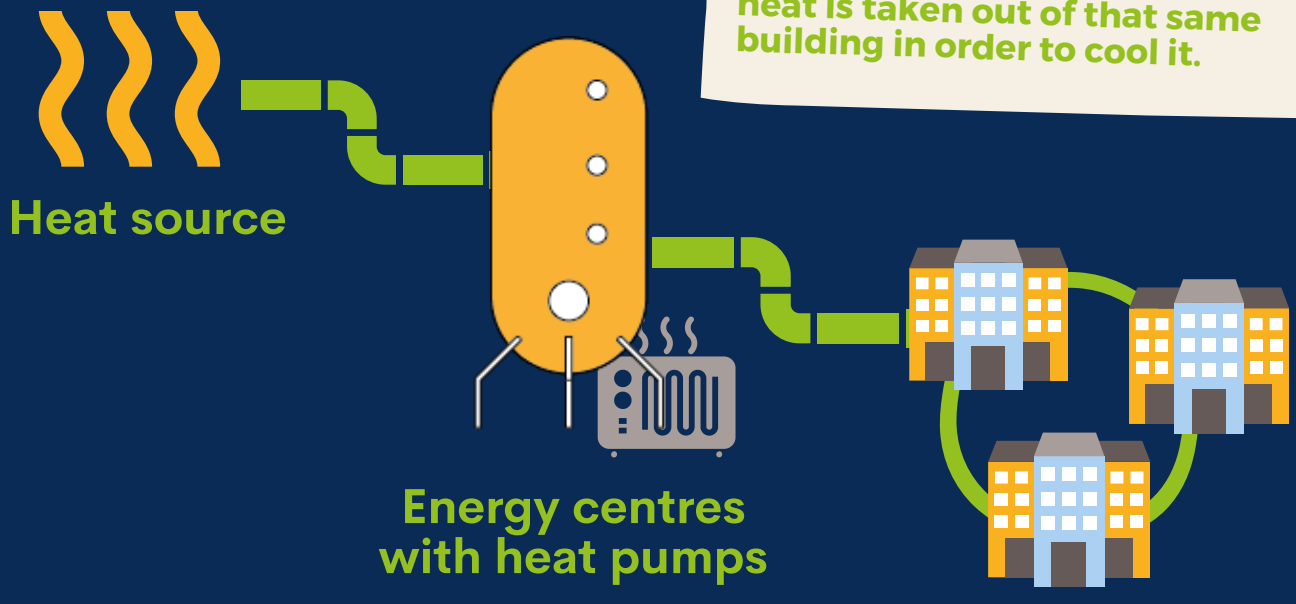
Our heat sources will be waste heat from the local area, and the groundwater under our feet. The waste heat can come from data centres, or the tube.

In local energy centres, we will use heat pumps to increase the temperature of the waste heat.

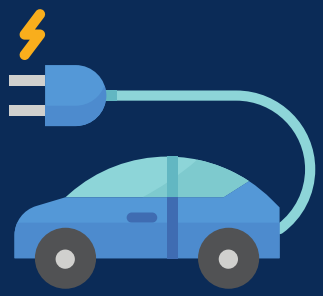


Heat pumps are powered by electricity and can change the temperature of heat through **compression**.

In the Winter, low temperature heat is captured from sources such as air, water and ground in order to heat a building. In the Summer, high temperature heat is taken out of that same building in order to cool it.



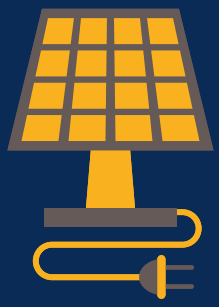
Zoom in on the electric vehicles



Our energy system will include **electric vehicle charging points**, connected to the local **energy centres**.

This way, users will be able to charge their electric vehicle from the grid, but also be able to sell the electricity stored in their vehicle back to the grid.

Zoom in on solar power



Solar panels use photovolatic cells to absorb the energy from the sun and transform it into **clean, green electricity**.

We will put solar panels on local buildings to power the heat pumps and the electric vehicle charging points.

We will use a **smart control system** to integrate all the elements of the system (panels, EV, heating) and manage them to minimise the energy costs and maximise the carbon savings.

The New River scheme

We have selected an area in Islington to develop a first **detailed design**, the **New River** scheme.

New River is located in the Angel area. Its heat source will be a **local data centre**, which houses computers that produce a lot of heat. It will also use heat from local **groundwater**.

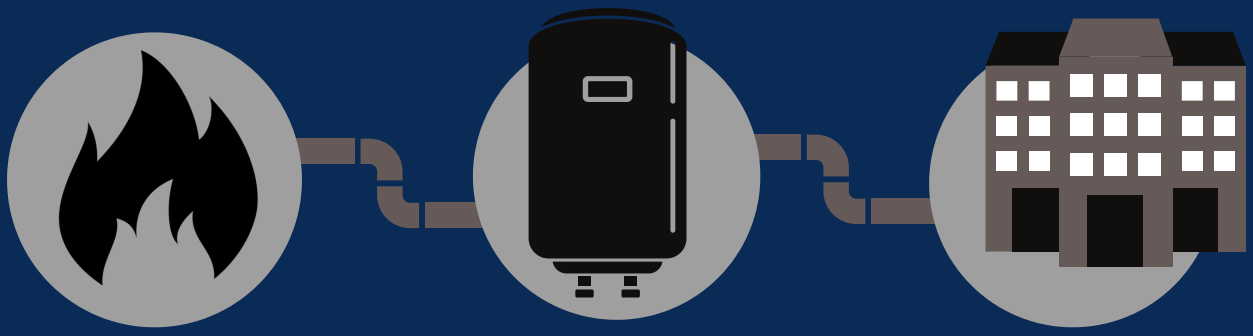
The map shows the sites we are considering including in the New River scheme.

The aim of GreenSCIES is to produce a **detailed design**. This means creating plans and estimating costs for our new energy system. Once finished, the design will be available to Islington Council, who will decide whether to build it and how.

The New River scheme

What will change for New River residents? Instead of burning gas, we will use renewable heat sources from the local area to heat water for your heating system.

How your home gets warm today

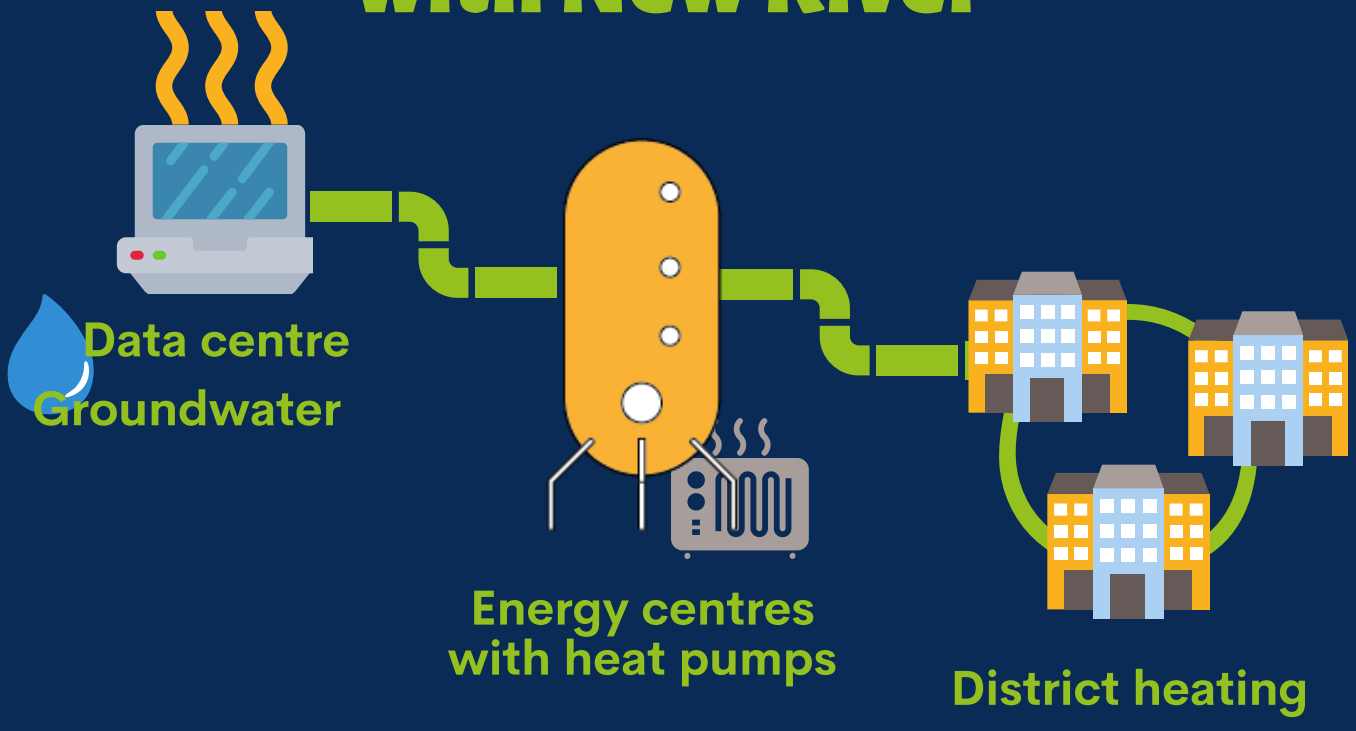


Gas

Gas boiler

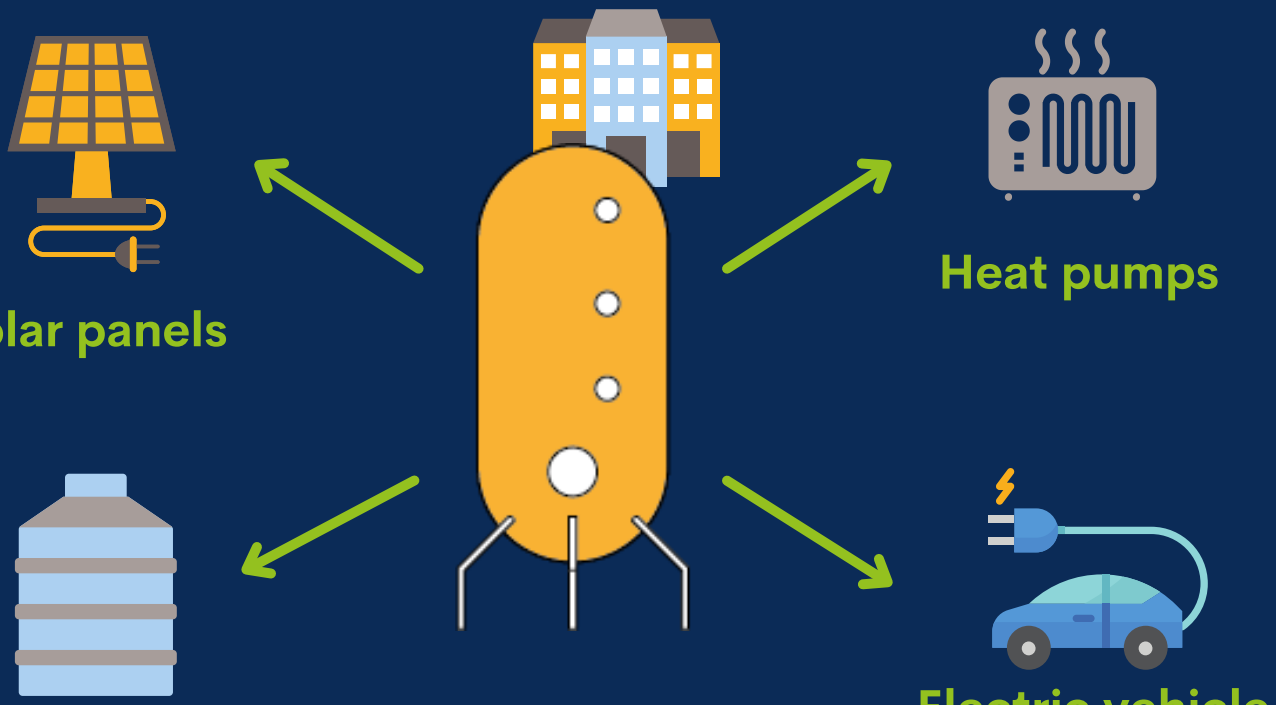
Communal heating

with New River



Zoom in on the energy centres

Each New River building will have an energy centre, which will include:



Solar panels

Heat pumps

Hot water storage
(to store the water heated by the heat source)

Electric vehicle charging

The benefits

For New River residents

- Affordable low-carbon heat
- Electric vehicle charging
- Public space improvements

For Islington

- Improved air quality
- Co-creating our future energy system
- Pride and innovation
- Energy resilience

For everyone

- A replicable model for a fair low-carbon future
- Tackling climate change

Community engagement

GreenSCIES is being co-created with the Islington community. Residents are being invited to have their say in how we design the system (what will it look like, what will it do) and how we run the project (how we raise awareness, how we collaborate).

Islington

We are organising regular workshops to invite thoughts, ideas and feedback. We are keen to gather a wide variety of opinions and would love to hear from you.

New River residents

If you live in Brunswick Close, Finsbury or Spa Green estate, we would be happy to run tailored workshops for you and your neighbours.

To find out more, email greenscies@repowering.org.uk or call Eva on 07 549 874 906

www.greenscies.com