



## Heating your homes from Deephams Sewage Treatment Works

### What work are you doing?

We're working with our partners in the gas industry (SGN) to install a biomethane upgrade unit at Deephams Sewage Treatment Works.

Installing this new technology means we can give back to our communities by using the leftover gas from our sewage treatment process to heat local homes with renewable energy. It will also be a big help in our plans to become a carbon negative business by 2040 with the first milestone: net zero 2030.

The installation will involve some minor work in a small area in the southeast corner of the site.



An example of the biomethane unit to be installed

### What is biomethane and how is it used?

When we treat your wastewater we separate the solids from the liquids and treat them in digesters to break them down. This treatment process creates sustainable biogas.

Typically, this biogas is made up of methane, carbon dioxide (CO<sub>2</sub>) and other left over gases. We already use the biogas we create to help us generate power for the site and some local homes. However, if we have more gas than we can turn into energy we need to burn it on site.

The new biomethane unit will allow us to treat the biogas so it's clean enough to put directly into the gas network – helping us heat local homes with renewable methane.



An example of the inside of the unit.

## Why are you doing the work?

We've been producing our own renewable power since the 1930s. However, to help protect the environment for future generations, we need to completely transform the way we create and use energy. This upgrade project is the first of many similar projects at our sites to help us do just that.

The Deephams biomethane unit is expected to help us reduce our carbon emissions by over 8 kilotons of CO<sub>2</sub> per year. That's about 3% of our 2019/20 net carbon deficit and will play a huge part in helping us reach our net zero carbon target by 2030.

The unit will also help us improve our environmental impact by significantly improving air quality around the site and reducing the need to burn excess gas.

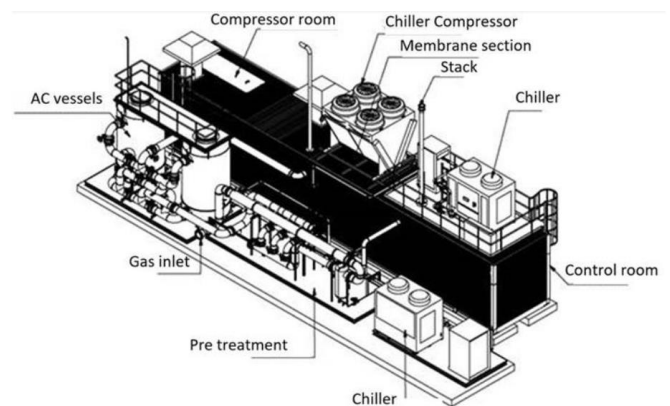
We hope to install similar units to some of our other sites in the future to give back to our communities and potentially help us power our site vehicles.

## How will it work?

Biogas produced on site will be split between the existing gas engine and our new biomethane unit.

The new unit will process up to 1150 m<sup>3</sup> of biogas an hour, removing the carbon dioxide and some other natural impurities, to produce around 700 m<sup>3</sup> of biomethane an hour. That's enough to heat around 3,500 homes.

Once the gas is cleaned, we'll add the standard methane gas smell. This is what's done in the national gas network to keep everyone safe by making it easier to identify gas leaks.



An example of the biomethane unit to be installed

## Where are you working?

We'll be working in a small area in the south eastern corner of the site.

To reduce disruption to our neighbours and allow for a quick and safe installation, the equipment will be built off site and then delivered in large pieces to install.

A map of our work area is shown on the next page.

# Where we'll be working



Map of **work area** in Southwest corner of site. All **vehicle access** for the project will be via Ardra Road.



## When are you working?

Our work to install and test the unit will take around 8 months to complete.

We'll start work in August 2021 and be finished in spring 2022.

- Installation work will be carried out between August 2021 and January 2022
- The new equipment will be tested from January 2022

Our usual working times will be between 7.30 am and 4.30 pm on weekdays. We're not intending to work any weekends during installation. However, there may need to be some weekend working between January and March 2022, when we test the new equipment.

If there are any changes to these working hours or if we need to do one-off weekend work for any reason, we'll get in touch in advance to let you know the details.

## Will this work impact my service from you?

No, our site will continue to function as usual, and we'll work around existing processes on site to provide your wastewater services as normal.

## Will this work impact me?

We'll do everything we can to minimise any disruption to you while we carry out this work.

All of our work will be carried out within the boundary of our site and although we are working close to the southern boundary of the site we don't expect our work to affect any of our neighbours.

The work may cause a slight increase to traffic in and around the site and along Adra Way. However, construction traffic for this project will be unlikely to pass through the main site entrance on Pickett's Lock Lane.

## Can I find out more?

You can find all the information about our work on our website at:

[thameswater.co.uk/deephams](https://thameswater.co.uk/deephams)

If there are any changes to the information in this pack, we'll write to you to let you know.

If you have any questions about our work and can't find the information on our website, you can reach us using the contact details below.

## Get in touch

Find out more on our website:  
[thameswater.co.uk/deephams](https://thameswater.co.uk/deephams)

Call us and quote reference number  
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