



FERNBANK HEATING SYSTEM MANUAL

A guide to the heating & hot-water in your home

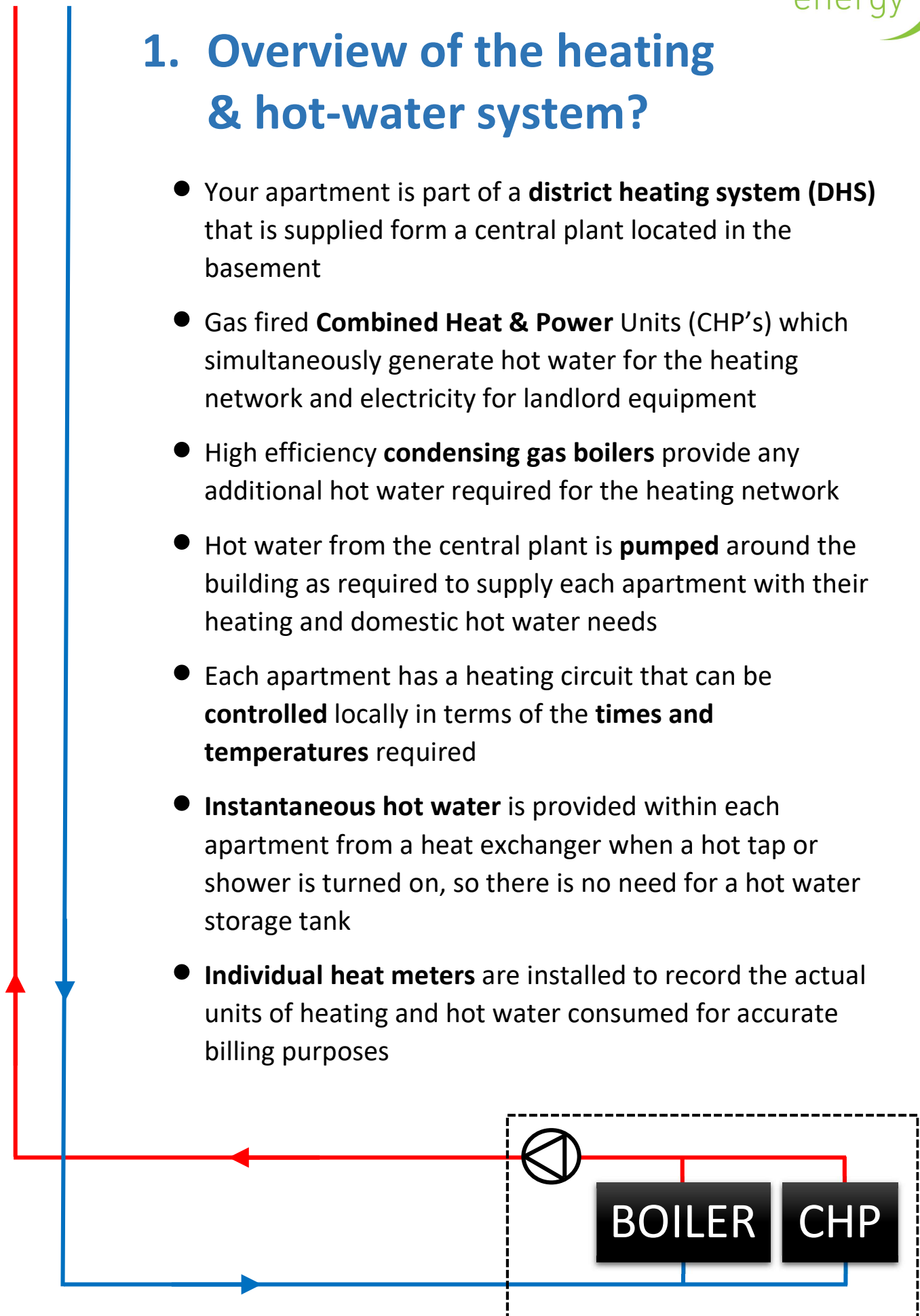


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1. Overview of the heating & hot-water system?

- Your apartment is part of a **district heating system (DHS)** that is supplied from a central plant located in the basement
- Gas fired **Combined Heat & Power** Units (CHP's) which simultaneously generate hot water for the heating network and electricity for landlord equipment
- High efficiency **condensing gas boilers** provide any additional hot water required for the heating network
- Hot water from the central plant is **pumped** around the building as required to supply each apartment with their heating and domestic hot water needs
- Each apartment has a heating circuit that can be **controlled** locally in terms of the **times and temperatures** required
- **Instantaneous hot water** is provided within each apartment from a heat exchanger when a hot tap or shower is turned on, so there is no need for a hot water storage tank
- **Individual heat meters** are installed to record the actual units of heating and hot water consumed for accurate billing purposes



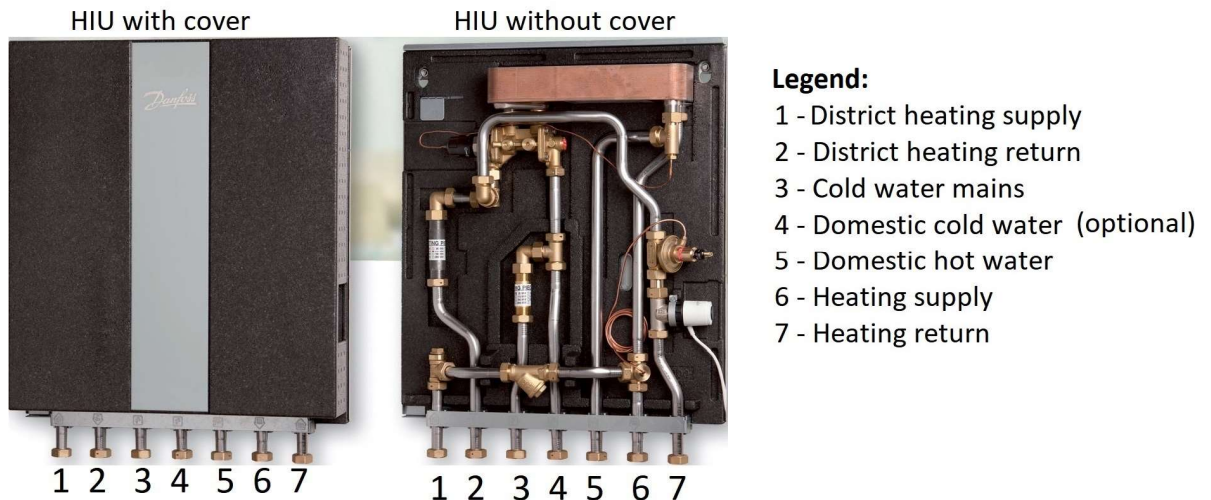
2. What difference does district heating make to me?

- The district heating system (DHS) is generally more **efficient** than a conventional heating system (gas/oil/electricity) and is more **economical** to run and better for the **environment**
- The system is **safer** and **quieter** as there is no combustion or waste gases flues inside the apartments
- The apartments achieve a high score under the Building Energy Rating (**BER**) procedure operated by Sustainable Energy Authority Ireland
- As new, more efficient heating technologies become available it is possible to incorporate them easily which **future proofs** the ongoing viability of the system

3. How is the DHS managed?

- The district heating system is fully owned & controlled by the Development Owner and Kaizen Energy has been selected to operate, manage, maintain the system on behalf of the development Owner.
- Each apartment is owned by the apartment owner who maintains the apartment equipment on behalf of the apartment residents.
- Apartment controllers are installed in each apartment which makes it easy for residents to management their individual heating & hot water usage and costs.

4. How does the DHS provide heat heating & hot-water to my apartment?



- The DHS supplies low pressure hot water to the Danfoss Heat Interface Unit (HIU) within your apartment (pipes 1 & 2)
- The HIU provides domestic hot-water when you turn on your hot taps or shower. This is provided instantaneously via the heat exchanger in the HIU (pipes 3 & 5) so there is no storage tank required
- The HIU provides heating to your radiators/underfloor heating circuit (pipes 6 & 7) when you request it via your Danfoss controller/thermostat
- The individual apartment heat meter is also located within the HIU on the supply and return pipework.

5. How do I control my heating?



Heatmiser TM-1

- Your apartment is fitted with a Heatmiser TM-1 controller to control your heating.
- A copy of the user manual for the controller should be in your apartment or can be downloaded from the Customer information section of the Kaizen Energy website www.kaizenenergy.ie

You can download a PDF version of the user manual using the following link:

<https://www.heatmiser.com/en/download/211/english/7477/tm1-tm1-n-manual.pdf>

You can view an instruction video on programming your timeclock using the following link to Youtube:

<https://www.youtube.com/watch?v=LHuwCan0ZvI>

6. Trouble Shooting Guide

If you have a problem with your heating or hot-water, please follow these simple checks, starting at the top:

Problem	Check	Result	Action
No Heating AND No Hot Water	Is there a power cut or some other central problem affecting all apartments?	No	Continue checks
		Yes	Check the Customer information section of the Kaizen Energy website or contact us (as the main system pumps and boilers may be down)
	Is the temperature of Pipes 1&2 into your HIU Hot?	Yes	Contact your landlord/plumber (likely a local apartment issue)
		No	Contact Kaizen Energy
	I've tried all the above and I still have the problem	Yes	Contact Kaizen Energy
Have Hot Water BUT No Heating	Is there heating in any radiators	No	Continue checks
		Yes	Check the radiator TRVs are open (e.g. setting 5)
	Are the radiators cold at the top and hot at the bottom	No	Continue checks
		Yes	Contact your landlord/plumber (likely to be air trapped in the radiator that requires bleeding)
	Is your timeclock controller scheduled on and at a high temperature (e.g. 21°C)	Yes	Continue checks
		No	Follow the user guide to schedule your heating times and temperatures
	I've tried all the above and I still have the problem	Yes	Contact Kaizen Energy
Have Heating BUT No Hot Water	Do you have any water?	Yes	Continue checks
		No	Contact the management company
	Is there water hot in any of your taps or shower?	No	Contact Kaizen Energy
		Yes	Contact your landlord/plumber (likely a local issue with the tap/shower)
	I've tried all the above and I still have the problem	Yes	Contact Kaizen Energy
I have a leak INSIDE my apartment			Turn off all the valves on your HIU and contact a plumber

7. General - Frequently Asked Questions (FAQs)

Do I need to schedule my hot-water on?

- No; Hot water is supplied instantly through a plate heat exchanger in the HIU so there is no need to schedule your water use.

How do I operate the heating system?

- The underfloor heating system is operable via the controller and thermostats located throughout your apartment. There are a number of separately controlled heating zones in the apartment. The operating instructions for the controllers can be found on our website within the Customer information section.

How do I register for my heat supply?

- When you sign your lease, please download the Kaizen Energy Selfcare app on your phone or use the Selfcare Portal on our website on your PC. Then, sign up as a new customer. Once you complete this process, our team will validate your information and activate your account within a few days.

What is involved in the billing process?

- Bills will be issued bi-monthly based on the kWh energy consumption per apartment at the current heat tariff rates. Bills will be issued to tenants as named on the apartment lease. The amount on each bill is due for payment 14 days from when the bill is issued.

How are the heating charges structured?

- The heat tariff is set by the Development Owner and is reviewed at least annually; it consists of three charges:
 - The usage charge - calculated daily using the kWh metered at your premises and the usage rate that is set based on the cost of gas and the efficiency of the main system.
 - The standing charge - a fixed daily charge that relates to the fixed costs of providing the heat service regardless of usage.
 - Sinking Fund – a contribution to the long term replacement cost of the heating system plant and equipment

How are meter readings taken?

- Meter readings are automatically taken for each apartment via a central processing unit located within the central plant of the apartment complex

How do I get my heat deposit back?

- A refundable heat deposit is taken upon registration for your supply. You will receive an invoice for this which can be paid upfront or can be included within your first heat bill. You will receive your deposit back in full upon closing and settling your Kaizen account.

How do I contact Kaizen Energy with a request or query?

- Contact Kaizen Energy by email to
 - billing@kaizenenergy.ie
 - moves@kaizenenergy.ie
 - payments@kaizenenergy.ie
 - or by phone on **(01) 685 3516** during normal working hours, Mon-Fri.

How do I contact Kaizen Energy in an emergency outside of normal hours?

- For emergencies that cannot wait until the next working day, please contact Kaizen Energy's emergency number on **086 057 5607**.