

SCARF is a company limited by guarantee (No 94819) and a registered charity (No: SCO 006901)

## Fact Sheet

### REF: 405 Home Heating from Combined Heat and Power (CHP)

An Aberdeen City Council initiative to efficiently generate electricity and heat is now in operation. The combined heat and power scheme in Stockethill supplies 288 homes at Woodhill Court, Oldcroft Court, Castleton Court and Beechwood Court.

CHP achieves an efficiency of around 85% for the combined production of electricity and heat at the point of use. This compares with around 35% efficiency from electricity produced in large remote power stations. Maintenance costs are lower for a community heating system than for conventional gas heating systems because of the reduced amount of equipment involved. Overall this CHP system will achieve affordable warmth for you as well as reducing CO<sub>2</sub> emissions.

A not-for-profit company - **Aberdeen Heat and Power Company Limited** - has been set up to develop and manage the CHP schemes, keeping costs low for customers.

#### The main features of the scheme are:

- A new building housing the main plant and equipment
- A gas turbine generator which is fuelled by natural gas and produces electricity
- A waste heat boiler connected to the gas turbine exhaust, which produces hot water
- Two standby condensing boilers to provide hot water during routine maintenance periods
- New flow and return supply pipes feeding hot water to and from each multi -storey
- New radiators to provide heating and heat exchangers to provide hot water to every home in the scheme
- A new heat with rent deal offering much lower running costs to most householders
- Electricity connections to the grid
- A chance to buy cheaper electricity
- Reduced impact on the environment

#### How the system works in your home

There is little difference between a home linked to community heating and one with a conventional gas central heating system; there is a central boiler instead of one per home, however this is very different to an electric heating system.

In place of electric storage heaters in the rooms there are **radiators containing hot water** pumped up from the new CHP building. The radiator may not be as hot to touch as you expect but will still achieve the required room temperature.

The radiators are fitted with **thermostatic valves**, which control the temperature in the rooms. There is also a **programmable room thermostat** in the hall to automatically adjust the temperature in your home to your requirements.

Instead of a hot water tank with an electric immersion heater there will be a small, high efficiency **heat exchanger** in the hall cupboard, which will provide all the hot water you require. **Plentiful hot water** is available at the turn of a tap.

#### Mission Statement

SCARF aims to work through partnership to promote sustainable use of energy, eradicate fuel poverty and create sustainable employment and training opportunities.

#### Core Objectives

- + To provide free impartial and accessible energy efficiency advice and information services to help save energy, save cash and help save the environment.
- + To encourage investment in energy efficiency and renewable energy measures and grant take up for property improvements to achieve affordable warmth.
- + To create sustainable employment and training opportunities.

#### SCARF Provides

**One Stop Energy Advice Shop** offers free impartial advice and information:

- + Energy efficiency in the home, business and the community
- + Renewable energy in the home, business and the community
- + Grants for loft and cavity wall insulation
- + Grants for draughtproofing
- + Grants for central heating
- + Grants for renewable energy installations
- + Paying for fuel and fuel suppliers
- + Choice and operation of heating and hot water systems

#### SCARF also offers:

- + Home visits
- + Home energy checks
- + Presentations and informal training
- + NVQ and City & Guilds Qualifications



## How the programmable room thermostat works

### The Danfoss TP5

The TP5 is a combined time switch and room thermostat. The set temperature can be changed up to six times a day.

### Setting the Clock

- Slide the battery cover to the left to reveal the programming buttons
- Press the PROG button once
- Use the + and – buttons to set the time
- When the time is correct, press PROG to start the clock



➔ Battery Cover

### Setting the Day

- Select a day number 1-7 (Monday to Sunday), using the + and – buttons
- When the day is correct, press PROG to accept

### Pre-set times

This table shows the manufacturers pre-set times.

Monday to Friday			Saturday and Sunday		
Setting	Time	°C	Setting	°C	°C
1	06.30	20	1	20	20
2	08.30	15	2	21	21
3	11.30	20	3	15	15
4	13.30	15	4	15	15
5	16.30	21	5	15	15
6	22.30	15	6	15	15

To accept these times just shut the front cover for 2 minutes

It is recommended that you do adjust the pre set times and temperatures.

For the time periods you are at home pre set the temperature for 25°C. You can then control the temperature in each room with the thermostatic valve.

- Press PROG 3 times
- Adjust the time using the + and – buttons
- Adjust the temperature using the □ and □ buttons, minimum = 15 °C, maximum = 30 °C
- Press PROG to move to the next pre set time and temperature and so on.
- When all 6 settings have been set for Mon – Fri and Sat – Sun, press the PROG button again. The time set has 2 dots, which flash to show the system is running.

### Temporary overrides

If you feel too hot or too cold, use the □ and □ buttons to change the temperature up or down. The temperature will change back with the next pre set temperature change.

If you require help with your new heating system contact SCARF's Duty Advisor 0800 512012

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