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# *Can Heat as a service (HaaS) drive heat pumps into the mainstream?*

## Heating Business Service

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# *Our Services - knowledge areas*

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## New Energy Business Models

Identify and understand the alternative and new business models for the energy transition

**Global Hydrogen Intelligence Service** An emerging pillar of the new energy sector

**Distribution network Service** Working with network companies, regulators and Electricity OEMs to make better decisions at the network level

### Local Energy Systems

Energy communities, microgrids and local energy markets

### Flexibility & Energy Storage

The opportunities emerging from an active demand side

- Flexibility Service
- Energy Storage Service

### Heat

- Gas Heating Service
- Electrification of Heat Service
- Heat Business Service

### Distributed Power

Identifying and understanding the alternative and new business models for the energy transition

### EV Charging Service

The opportunities and challenges from sector coupling between electricity and transport

### Digital Energy

The opportunities in the growing connected home market and how to capture them

- Connect Home Service
- Energy Insights + Service

# *Heating Business Service*

**Market research and analysis exploring how new value propositions, changing routes to market and new entrants are disrupting the heating sector.**

**What 'new heat' business models are emerging across Europe and how do they capture value?**

digitalisation, connectivity, smart controls, optimisation, heat services, decentralisation

**Which 'new heat' propositions are proving most successful with customers and why?**

customer preferences, willingness to pay, segmentation analysis, behavioural science

**How fast are heating business models evolving and what factors affect the rate of transition?**

customer attitudes, decarbonisation policy ambition, regulatory environment, energy prices

**Who are the new entrants threatening heating industry incumbents?**

start ups, energy suppliers, tech giants, oil majors

**How significantly will the transition to 'new heat' impact the heating value chain?**

online sales channels, logistics, installers

## Helping subscribers to:

- Make strategic decisions about what customer propositions to offer today.
- Develop successful customer propositions for different segments based on independent customer research and analysis.
- Track the evolving competitive landscape for heating propositions and decide how to position your business.
- Navigate changes in sales channels and the impact these have on the heating value chain.
- Keep on top of important industry developments and understand how they impact your business.

# *What is Heat as a Service?*

# *Introducing Heat as a Service*

## "Project And Protect"

- **Not strictly HaaS but often a precursor to it.**
- A complete HP solution, from design & installation to finance & service. It is not strictly an "as a service" offer as the customer owns the HP in full after paying off the loan.

**Active players*:**

British Gas

ENGIE Home Services

## "Normal" HaaS

- **Heat pump leasing with a service and maintenance wrapper. Provider owns the appliance.**
- May come with longer guarantee where provider accepts some technology risk beyond manufacturer warranty.

**Active players:**

EWE

## "Full" HaaS

- **Provider owns appliance and only charges customer for the heat used.**
- Typically would include a heat meter to measure appliance output. Payments may be smoothed across the year to avoid winter peaks.

**Active players:**

OK

*Increasing supplier risk* ▶

# *Market landscape: Active players and examples (1/3)*
## British Gas

British Gas

**Full HaaS**

**Normal HaaS**

**Project & Protect**

**British Gas launched an air source heat pump (ASHP) proposition in Jan 2022.**

The company leads in the UK's boiler installation, finance, repair & maintenance markets but is new to ASHPs.

- Initial launch in South-West of England, with other regions as far north as West Scotland to follow during 2022.
- The company is targeting 1,000 installations in 2022, increasing to ~20,000 a year by 2025.
- It plans to train 3,500 apprentices over the decade. The company has 7,500 heat technicians today, mainly in gas.
- Installed prices start at £4,999, after applying a government grant of £5,000.
- Has announced plans to incorporate Hive heating controls later in the year.

### Highlights

| Low '10s | 5 years HP +1-year system | 5-year loan, 0% interest | £5000-10000 |
|---|---|---|---|
| Domestic installations to date | Warranty & support | Finance offer (provided by third party) | Installed price (depends on work needed to upgrade insulation, pipework and emitters) |

### Delta-EE View

**Straightforward proposition from the most recognisable brand in the UK domestic energy services space.**

Although a new player in the ASHP marketplace, the company's track record should stand it in good stead. UK householders are generally unfamiliar with HP technology, which may well cause them to buy from a trusted provider.

If British Gas manages to attract the level of demand it is targeting, it is likely to produce a response from competitors, accelerating growth of the UK's HP sector. Long-term Government subsidy support is not a given, however.

# *Market landscape: Active players and examples (2/3)*
## EWE

**Full HaaS**

**Normal HaaS**

**Project & Protect**

**In May 2022, EWE's HomeHeat lease offer was extended to include HPs.**

The mid-sized supplier's new proposition is based on its existing boiler rental deal.

- Typical contracts last for 15 years, with an option to buy at the end of the term.
- The new air-to-water HP offer can be combined with solar thermal for hot water heating and/or with a solar photovoltaic system for power.
- A service and maintenance contract is offered as an extra, but the customer is free to arrange an equivalent deal with a different provider if they prefer.
- Government subsidies of up to 35% are available, with all required paperwork being handled by EWE.

### Highlights

| HPs: Very low. Homeheat: 25k | 2 years, with auto renewal | 15-year lease deal | €175 / month |
|---|---|---|---|
| Domestic installations to date | Warranty & support | Finance offer | Typical rental |

### Delta-EE View

**EWE's lease proposition has gained ~25k gas boiler customers over a number of years. The new heat pump offer is now designed to work in a similar way.**

Fixed pricing, 24/7 support and a total service package all point in the same direction: the customer simply need not worry about their heat pump.

Sales may, however, be constrained by the sheer length of the contractual commitment. Even after a 15 year lease, the customer must buy the appliance from EWE if they wish to assume ownership. And hefty Government subsidies are still needed to make the financial proposition attractive.

# *Market landscape: Active players and examples (3/3)*
## OK Heat on Subscription

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OK

- **Full HaaS**
- **Normal HaaS**
- **Project & Protect**

**OK's Heat Pump on Subscription is a rare example of full HaaS.**

OK is a Danish co-operative with a focus on petrol and oil sales that, in the 2010s, entered a government competition to build a contract heat proposition. Of the ~7 competitors, OK was the most successful in commercialising its offer.

- Subscription offer built around a single HP model from Vølund (NIBE).
- There is a single upfront payment of ~35,000 DKK (~ €4,700) followed by a fixed monthly payment based on household consumption. Instalments cover all costs including electricity, which must be purchased from OK.
- Customers receive DKK 1,500 (~€200) in bonuses in their cooperative member account.

### Highlights

| Low '000s | 15 years | 15-year lease deal | ~280 - 350€ per month |
|---|---|---|---|
| Domestic installations to date | Warranty & support | Finance offer | Typical monthly fee (though depends on 1st year usage) |

### Delta-EE View

**OK's innovative offer provides complete peace of mind. However, it can prove to be expensive for customers, depending on household consumption levels.**

For the first 12 months of the contract, OK charges a flat 'fair use' fee per month (e.g., €350), then, at year-end, actual energy use is reviewed. Starting in year 2, a new contract is agreed, based on kWh's consumed in over year 1.

A heat meter is installed to ensure that actual usage remains within an acceptable range. Customers are encouraged to check consumption monthly.

# *Heat as a service – the customer perspective*

# *Making it interesting for customers*
## What are the customer drivers?

**Removing the upfront cost barrier:**

- removing the need for upfront spend altogether and
- spreading the cost across the contract period.

**But…**

- HaaS is not the only way to eliminate major capital spend.
- Depending on the interest rate, conventional bank debt will often be cheaper for the customer than HaaS, and contract times shorter.

**Helping customers reduce their energy bills:**

- In the last year, the economics of heat pumps have improved and in some countries it is now cheaper to heat your home with a heat pump than with a natural gas boiler.

**But…**

- However, we don't expect that many, if any, providers will bundle energy supply into a monthly fee.
- This approach does leave the customer with price risk but, as a benefit, they remain free to choose their own supplier.

**Providing customers with peace of mind:**

- Service providers offer customers a single point of contact for any issues and questions related to their heating system .
- This becomes increasingly interesting as **more components are added to the service**, for example combining a heat pump installation with PV and a battery – essentially Energy as a Service.
- HaaS helps customers install a heat pump without the worry.

# Customer economics

**Customer economics for three alternative purchase methods:**

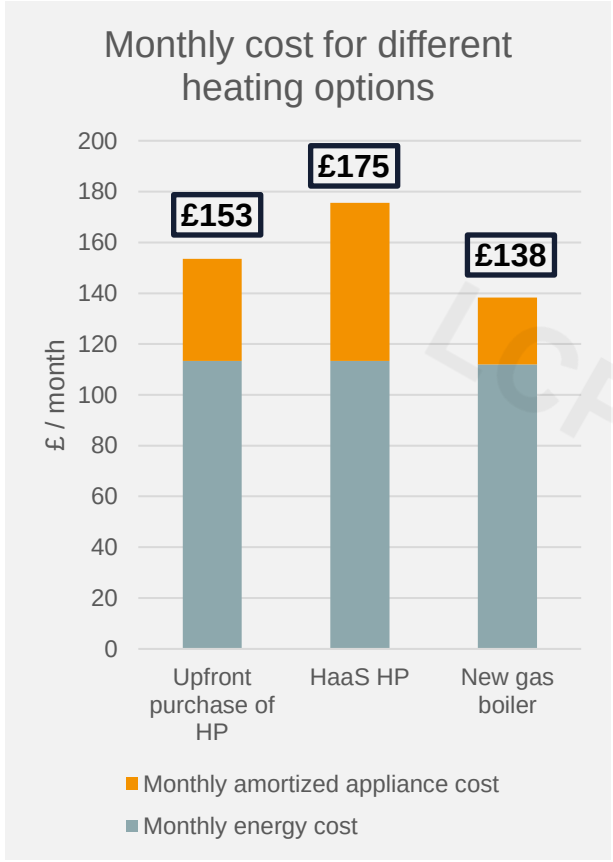
| | | | | | | |
|---|---|---|---|---|---|---|
| **1. Upfront purchase + annual service** | Capital spend | **£10,000** | ✚ | **£150/ year (15 years)** | = | **£12,250** |
| **2. Project and Protect** | 5 year loan | **£185/ month** | ✚ | **£150/ year (15 years)** | = | **£13,350** |
| | 15 year loan | **£85/ month** | ✚ | **£150/ year (15 years)** | = | **£15,750** |
| **3. 'Normal' HaaS (15 year contract)** | 15 year lease | **£90/ month** | ✖ | **15 years** | = | **£16,200** |

**More expensive for the customer**

To incentivise customers to choose HaaS instead of other financing offers it will therefore be important to deliver additional benefits that would not be included in a Project and Protect proposition.

**Assumptions**:
1. Upfront cost of the HP is £10,000 and annual service is £150.
2. Same assumptions as 1. Interest is 4% a year on end-of-year balance.
3. Monthly payment based on upcoming offer by Heatio in the UK at £90/month.

# *Customer economics – United Kingdom*




*Based on new energy price cap from October 2022.
For full assumptions, see Annexe.

- While it may open up a new route to market for those who are able and willing to pay more for more sustainable heating, HaaS is unlikely to result in mass uptake of heat pumps under these conditions.

- However, there are other ways of changing the customer economics. For example, the introduction of green mortgages, where the bank reduces the mortgage interest as a reward for improving household energy performance, for example, by installing a heat pump. The table gives an illustration for a 25-year mortgage of £300,000..

| | Interest | Monthly instalment | Monthly heating cost |
|---|---|---|---|
| **Regular mortgage** | 3.50% | £1,507 | £138 |
| **Green mortgage 1** | 3% | £1,427 | £175 |
| **Green mortgage 2** | 2.50% | £1,350 | £175 |

**Saves £43 / month**

**Saves £120 / month**

# *Heat as a service – the provider perspective*

# *Comparing upfront purchase vs HaaS*

## Revenue

**Upfront purchase + 15 years of maintenance**

**£12,250**

**Heat as a Service for 1 years (£90/month)**

**£16,200**

**Difference**

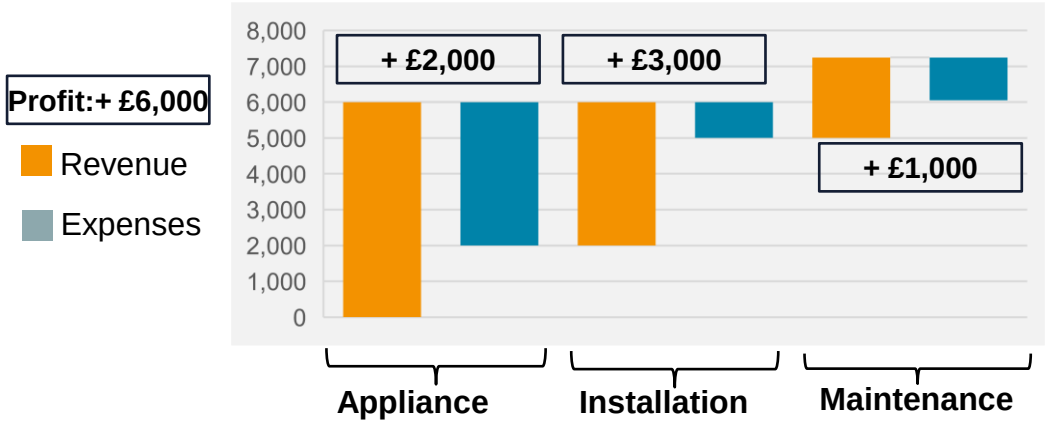
**£3,950**

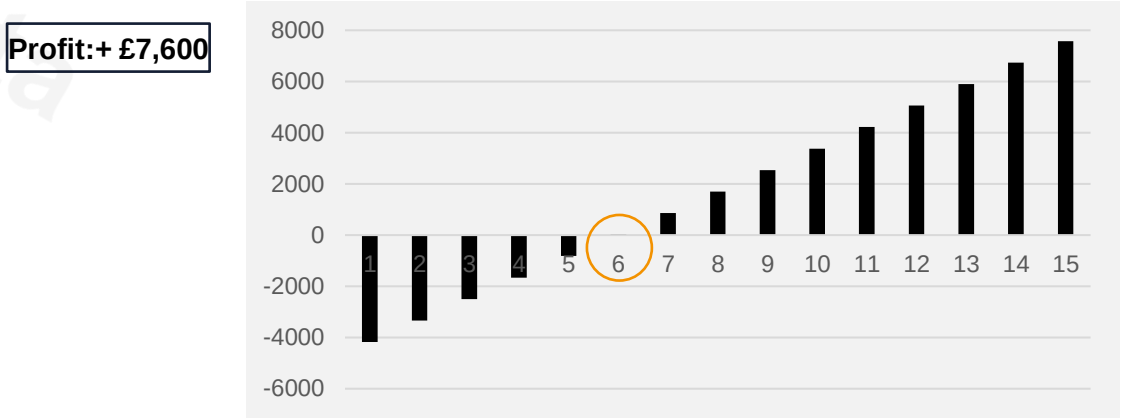
## Expenses

- Appliance
- Installation
- Maintenance

- Same as above +
- Remote diagnostics
- More customer service
- Interest on finance

## Profit



# *Improving customer benefits through innovation*

As a service" works best when fixing 2+ problems. HaaS solves just one.

'Whole-home' solutions, like energy as a service, are emerging, where the provider acts as systems integrator.

Innovative finance solutions offer another way forward, including salary sacrifice and green lending schemes.

**Example: WOAB (NL)**

- It offers a whole house solution "as a service", covering building fabric, appliances etc.
- Work is done by local contractors then quality assured by WOAB.
- The company services and maintains all equipment.
- Repayments can be structured either with or without a loan, depending on the customer's situation.
- The aim is to ensure that (repayments + new energy bill) <= (old energy bill).

**Example: HaaSHeat**

- Customers pay for their heat pump either from their gross salary and/or by sacrificing annual leave days, with a further option to finance the deal with a government loan at 2% interest.
- The average, effective cost to the employee, after taking into account the tax savings and holiday trades, is an installed price of ~€5,000.
- The scheme enables employers to offer an attractive staff benefit and to extract CSR‡ value, at no additional cost.

# Thank you!
# Any questions?