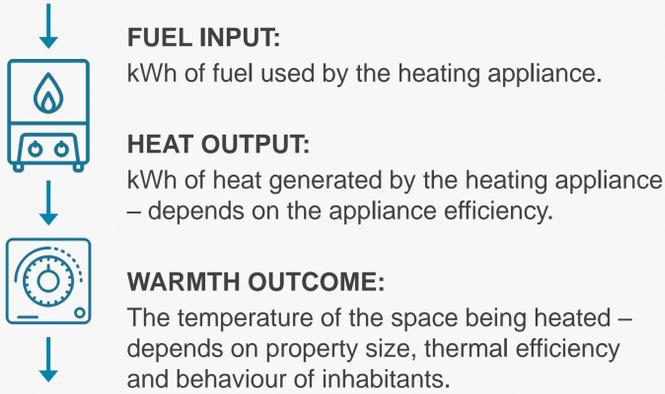


HEAT AS A SERVICE

WHAT IS HEAT?



Heat as a service is about providing heat **outcomes** rather than **inputs**, but there are also service offerings on the market today that sell heat **output** in kWh.

WHAT IS A SERVICE?



FOR THE HEATING APPLIANCE:
Service provider charges a recurring fee to lease and maintain the heating appliance, rather than selling the product as a one-off.



FOR HEAT USE:
Instead of charging for units of fuel consumed, the service provider charges for the heat or warmth generated. The monthly fee might be fixed or usage-dependent.

Often it is implied that the heating appliance and heating will be supplied by a **single provider**, but product and service provision could also be **separate**.

WHAT IS HEAT AS A SERVICE?

We define heat as a service as a business model where the service provider takes on the following five risks, all of which (other than energy price risk) have historically been borne by the customer:



FINANCIAL RISK

The credit risk of provide a heating appliance for little or no upfront payment.



TECHNICAL RISK

Routine maintenance and repairs for the heating appliance.



PERFORMANCE RISK

The efficiency of the heating appliance, the heat distribution system and the customer's property.



BEHAVIOUR RISK

The impact of customer behaviour on quantity and timing of heat demand.



ENERGY PRICE RISK

Fluctuations in wholesale energy prices.

OTHER VARIANTS:

ENERGY AS A SERVICE:

Service includes the supply of both **heat and electricity**, for uses other than heating such as lighting and electric vehicle charging.

COMFORT AS A SERVICE:

Service includes both **heating and cooling** in order to maintain a customer's home within a set temperature range, e.g. 20±2°C, all year round.

WHAT'S ON THE MARKET TODAY?

Many service-based offerings on the market or in development today only take on some of these risks:

BUSINESS MODEL	RISKS	HOW IT WORKS
ASSET LEASING	£, wrench, heartbeat, person, graph	Service provider charges a fixed monthly fee to lease the heating appliance. The fee includes routine maintenance and repairs. For example, Feenstra offers boiler rentals in the Netherlands and OK offers heat pump leasing in Denmark.
EFFICIENT ASSET LEASING	£, wrench, heartbeat, person, graph	Like asset leasing, except with some kind of performance guarantee. For example, Danish service provider Best Green reimburses customers for electricity used by its heat pumps.
ENERGY PAYMENT PLAN	£, wrench, heartbeat, person, graph	An alternative way of paying for energy, which does not include the heating appliance. For example, Spanish energy supplier Naturgy bundles together energy supply and maintenance services for a fixed monthly fee. And the Energy Systems Catapult is trialling a "warm hours" model in the UK.
HEAT (OUTPUT) AS A SERVICE	£, wrench, heartbeat, person, graph	Service provider leases heating appliance and also supplies the fuel consumed. Customers are charged per unit of heat generated. Several German energy suppliers offer this kind of service with gas boilers, as do Thermondo and Viessmann.
HEAT (OUTCOME) AS A SERVICE	£, wrench, heartbeat, person, graph	Like heat (output) as a service, except customers are charged for warmth rather than heat generated. For example, energy supplier Eneco is trialling offering 20°C for a fixed monthly fee with heat pumps in the Netherlands.