

Decarbonisation and affordability of heat - a phased approach

A guide for social housing



BAXI






We're at the forefront of the residential energy transition

We're guiding social housing and new build housing providers towards achieving net-zero carbon emissions by 2050. Ours is a multi-strand, phased approach, combining our complete range of heating and hot water solutions with expert advice, to ensure a smooth, cost-effective route to the decarbonisation of housing stock.

Today's challenges

The ongoing cost-of-living crisis, compounded by rising fuel prices, is making life difficult for everyone – not least the housing industry. Social housing and new build providers are facing a tricky balancing act, as they battle fuel poverty whilst forging ahead towards decarbonisation.

Key factors in this dilemma include:

-  Evolving legislation, such as Part L of Building Regulations
-  Evolving timelines, as we all journey towards net-zero 2050
-  Limited budgets, affecting the feasibility of immediate upgrades
-  Existing housing stock, often inefficient to heat
-  The needs of potentially vulnerable end-users

Our response

We're here to ensure that decarbonisation doesn't cost the earth in more ways than one.

We have a four-dimensional, systematic approach that tackles these challenges from all angles, whilst catering for the individual needs of each project.

We'll help you plan ahead, weighing up budget considerations and the needs of the end-user, to decide on the right solutions at the right time.

We understand that immediate system upgrades may not be possible, due to limited budgets and the needs of different property types.

So, it may be a case of maximising what you already have, finding intelligent ways of reducing costs and emissions across your housing stock, without having to make major investments right now.







Our phased strategy

Approach one:

Get your properties' fabric up to standard

A fabric-first approach is a fundamental way of bringing down emissions and energy bills, by making sure existing heating systems work more efficiently and the properties themselves are as efficient as possible.

Key points to consider include:



-  Are the windows modern, well-insulated and draft-free?
-  Are the walls and loft properly insulated?
-  Is the water quality in existing heating systems being maintained?
-  Does the end-user know how to use the controls and TRVs?

Approach two:

Start planning ahead and get properties ready for low-temperature heating

When properties have maximised building envelope performance, prepare for upgrades that align with Part L of Building Regulations – new legislation that requires flow temperatures of no more than 55°C.

We'll advise you to:

-  Make small upgrades now, which may mean you won't need to make larger upgrades later
-  Make end-users aware that, according to the Energy Saving Trust, a 1°C increase in thermostat temperature could increase heating costs by up to 10%*




* energysavingtrust.org.uk

Approach three:




Upgrade what you have today with add-ons that help to reduce energy usage

Upgrade what you already have without having to make big, wholesale changes. Improve the efficiency and SAP ratings of existing systems, with simple accessories that reduce the strain on a home's heating system.

Our range includes:

-  Flue Gas Heat Recovery (FGHR)
-  In-Flue Outdoor Sensor (IFOS)
-  Shower Heat Recovery Unit (SHRU)

Baxi's accessories are:

-  Non-serviceable
-  Very easy to use
-  Guaranteed to reduce emissions and running costs

Take a look at the potential savings - a little improvement can make a big difference:

Single dwelling, semi-detached 3 bed, 2 wet rooms, 87 sq metres	Total gas fuel cost + standing charge	Extra kg CO ₂ per year savings
Baxi Assure 36 Combi	£420.10	196
Baxi Assure 36 Combi + IFOS	£414.20	213
Baxi Assure 36 Combi + FGHR	£400.42	268
Baxi Assure 36 Combi + VSHRU	£384.06	301
Baxi Assure 36 Combi + VSHRU + IFOS	£378.16	319

Source: SAP 2012

Our phased strategy

Approach four:

When the time's right, make bigger long-term improvements to your heating and hot water systems




Whether specifying future-ready heating and hot water solutions for new properties or replacing existing systems, we'll help you select the right options every time and support you at every stage of the process. One size never fits all, and only a comprehensive mix of technologies, implemented at scale, will answer the net-zero challenge.

Ultra-efficient air source heat pumps (ASHPs)

ASHPs extract heat from the air, converting it into usable heat in the home, and are a future-proof solution and best used in properties that have modern building standards of insulation and air permeability.

ASHP systems need to be correctly designed and installed in order to maximise performance and efficiency. That's where our expertise plays a key role, as we offer ongoing support for developers and installers, and will also help to educate the end-user on how to get the best out of their ASHP system.

Benefits of ASHPs include:

-  Long-term reliability and convenience
-  Flexible configurations to suit the needs of each property
-  The option to combine ASHPs with gas boilers, as a hybrid solution for hard-to-heat properties




Here comes hydrogen

Repurposing the gas grid to transport clean hydrogen will offer a low-disruption means of decarbonising the existing building stock – and we're at the forefront of this innovation.

We're actively involved with a number of projects that are demonstrating how it's technically possible, safe and convenient to replace natural gas with hydrogen in residential and commercial buildings and gas appliances.

Our Baxi Assure boilers are certified to run on a 20% hydrogen blend, and we also have 100% hydrogen boilers in development.

Benefits of hydrogen include:

-  Zero carbon emissions at the point of use
-  Zero risk of carbon monoxide poisoning
-  A smoother energy transition, due to hydrogen boilers being similar to conventional gas boilers in how they're installed and operated




The power of heat networks

Heat networks can offer a cost-efficient solution to multi-occupancy applications, whether small apartment blocks or city-scale districts.

We can offer centralised and decentralised bespoke plant rooms, providing a central energy source that combines Baxi's low-carbon heating and hot water systems infrastructure.

We also help with distribution and usage within each designated space in the property, via Baxi heat interface units (HIUs) or packaged frame solutions.

Benefits of our heat network solutions include:

-  Optimum performance and efficiency
-  Flexible configurations to suit any property
-  Reduced material waste, installation time and cost



We're your partner on the road to decarbonisation

With over 150 years' experience behind us, customers don't just come to us for a product; they come to us for experience, guidance and expertise.

We understand your needs and sustainability targets, and will help you choose the right solution for the right application, every time.

We're committed to supporting you at every step of the journey, from consultation and design, through installation and commissioning, right through to servicing, maintenance and aftercare – and all supported by technical advice and bespoke warranty plans.

**Ready to start the decarbonisation journey?
Get in touch with us today**



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Residential and commercial heating and hot water solutions

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