



BEAMA - From Policy to Practice: Unlocking Retrofit Opportunities in Smart Energy and Heating

September 2025

“From Policy to Practice: Unlocking Retrofit Opportunities in Smart Energy and Heating”

Slides

Retrofit is central to delivering net zero, and with 29 million homes requiring upgrades, UK policy is creating a clear pathway where commitments on heating, EVs, batteries and metering align to make retrofit the defining market for smart energy technologies – presenting both a challenge and a major opportunity for manufacturers. This session explores the key policy drivers and shows how they translate into real commercial opportunities across smart energy, heat, batteries and controls.

- Retrofit opportunity – general stats
- Investment
- Smart building (what does that mean – what the specific tech opportunities). Reference matrix
- - what the commercial opportunities
- Key policy drivers
- Flexibility
- How are beama supporting policy

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The trade association for
energy infrastructure &
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Leadership, expertise and independent influence in the areas of product safety, performance, energy efficiency, digital and sustainability.



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Retrofit in homes

Housing is one of the key
areas that needs addressing
to meet Net Zero target for
2050



UK TURNOVER
£14
BILLION

90,000
PEOPLE
EMPLOYED
IN THE UK

EXPORTING
£5
BILLION
WORLDWIDE

Electricity demand could grow by
70% by **2035...**
...Resulting in a tenfold increase in
product demand for some sectors

Net Zero could require private
investment of up to
£50 billion
per year by
2030

£1tn
GLOBAL MARKET
OPPORTUNITY

400,000
NEW UK JOBS
NEEDED BY 2050

Delaying action by
ten years could incur UK debt
23%
of GDP higher in
2050



The average household with flexible technologies
such as electric heating systems,
battery or EV could save

£115 a year
on their energy bills.²



Yet, just **5%** of homes
currently use low carbon heating.
That's a clear gap – and a big
opportunity.³

The National Infrastructure Commission
adds weight to this. It says the UK will need

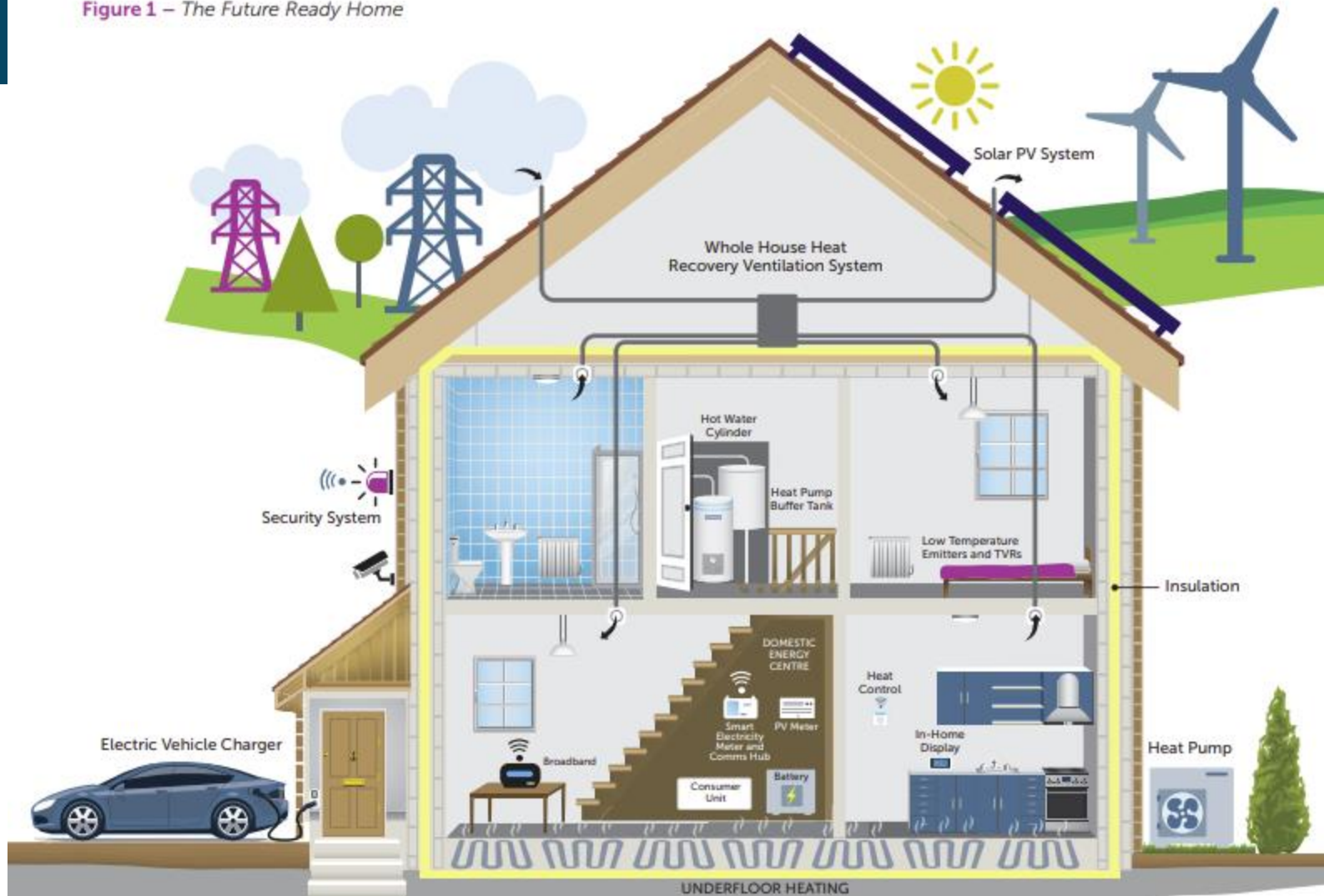
£37–50 billion of investment
in electricity distribution by 2050
to deliver flexibility.⁴



**What is the
investment
worth for Net
zero, Flexibility,
and Retrofit?**

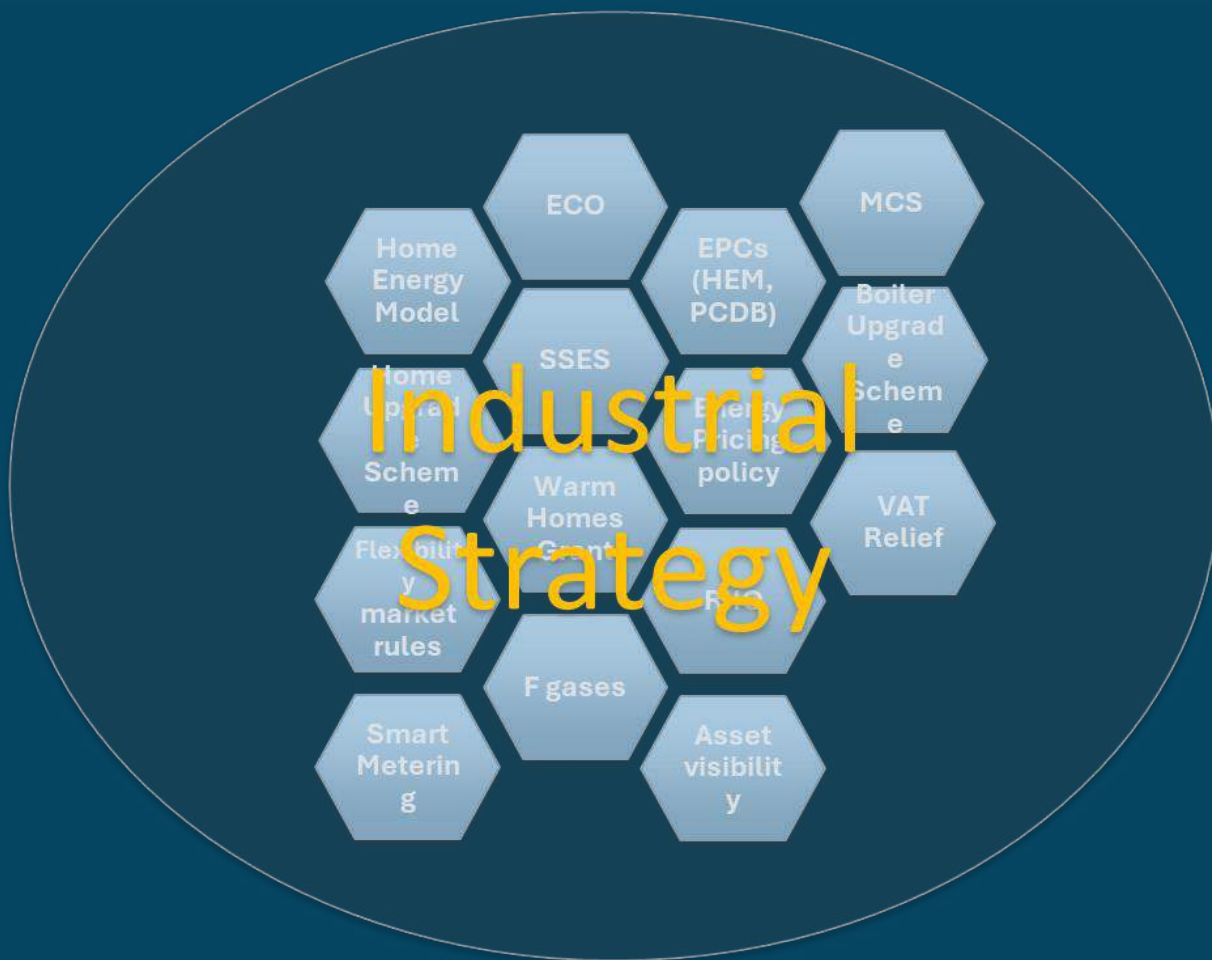
So what products are in scope when we talk about energy efficiency?

Figure 1 – The Future Ready Home



Policy Landscape

The interlinking
policies across the
board is tricky.
So how do we manage
this?



#ACCELERATING
ELECTRIFICATION



Policy Landscape – a Manufacturer's perspective

Challenges Facing Manufacturers in Achieving Net Zero Initiatives

- Manufacturers and industry stakeholders are currently navigating a complex landscape of evolving policies and legislation related to net zero initiatives.
- This environment requires them to piece together various requirements and frameworks to develop effective strategies for decarbonisation.

Policy Complexity:

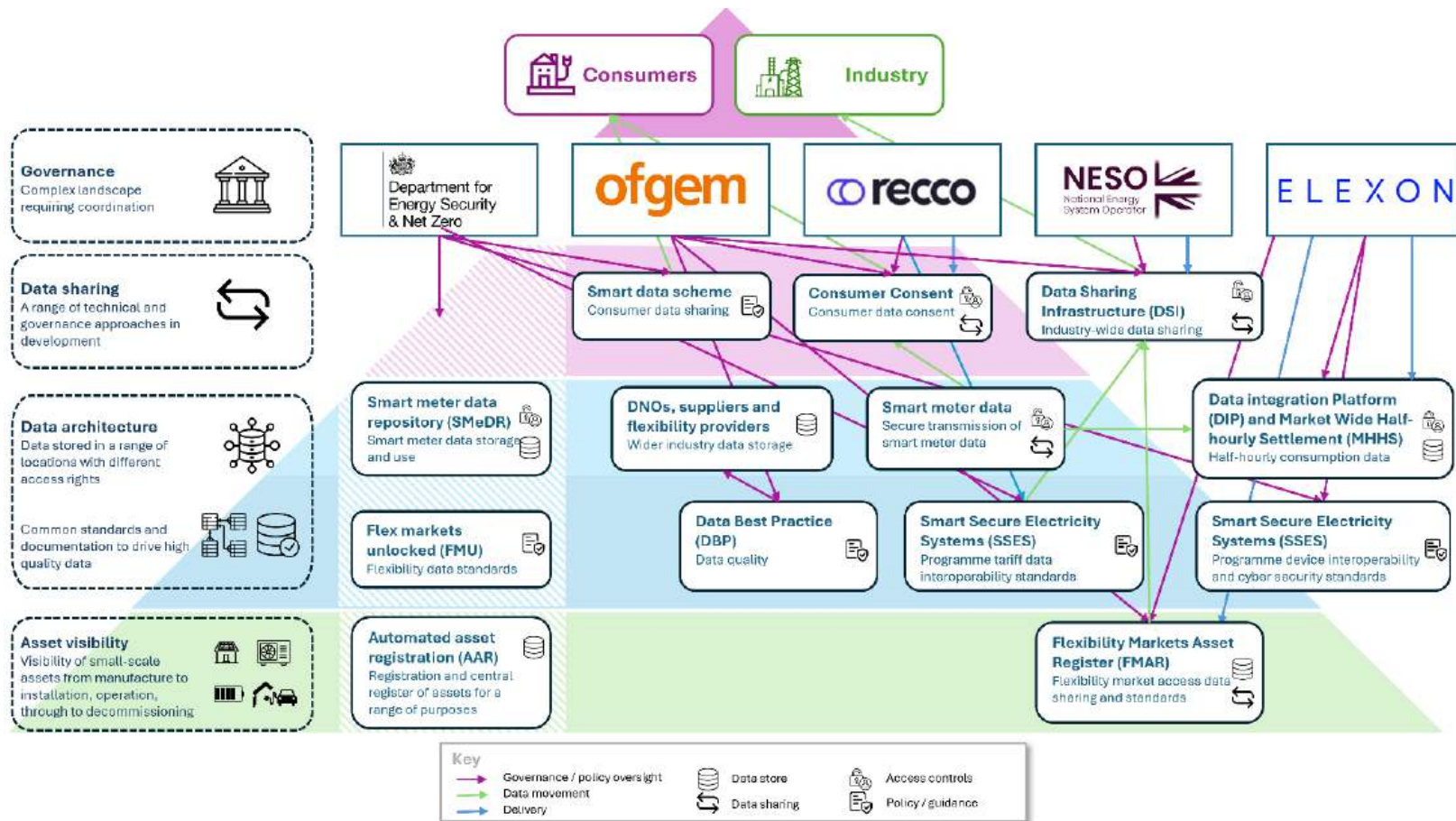
- Multiple, overlapping policy and legislative efforts are underway, making it challenging for manufacturers to understand how they interconnect and what is required for compliance.

Uncertainty in the Commercial Landscape:

- Manufacturers are eager to establish a clear commercial pathway, but progress is hindered by a lack of clarity in current regulations and guidance..

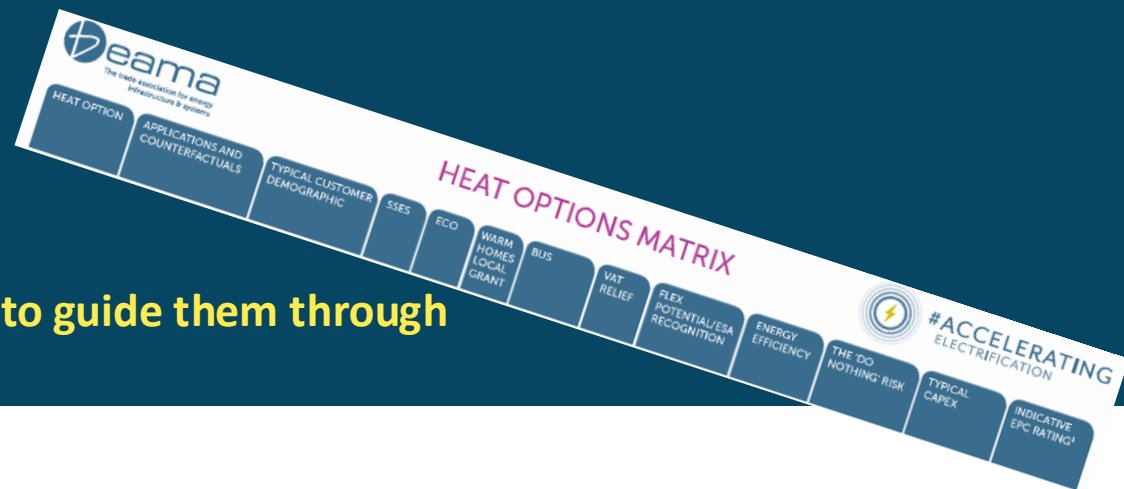
The Flexibility landscape – why is flexibility important?

Hitting the UK's Clean Power 2030 target depends on a huge scale-up of flexibility, especially from homes and small businesses.



What are the Consumer challenges?

How do we reach out to consumers to guide them through retrofit options?



BEAMA's guiding principles – customer first

- 1 Normalise electrification through the provision of clear guidance and customer choice.
- 2 Incentivise flexibility across all aspects of energy policy.
- 3 Boost customer confidence through high standards for safety and consumer protection.



What are the policy gaps?

Not an exhaustive list

BEAMA lobbying for a number of policy areas

Policy / Risk	Current Status	Gap / Risk
Workforce capacity & installer accreditation	Retrofit System Reform Advisory Panel created; skills programmes in progress.	Too few trained installers for heat pumps/retrofit demand – major bottleneck risk.
MCS certification & installer standards	MCS required for subsidies; main quality standard for low-carbon heat, solar, batteries.	Certification can be costly/complex for SMEs. Doesn't yet reflect integrated retrofits (heat + PV + storage + smart controls). Consumer recognition of MCS remains limited.
Cost competitiveness energy price signals	Electricity still carries higher levies than gas, despite subsidies.	Gas appears cheaper on paper, discouraging electrification.
Scale / pace of retrofit	5m homes targeted this Parliament. CCC says trajectory still too slow for net zero.	Major acceleration needed to retrofit ~29m homes by 2050.
Home Energy Model (HEM)	HEM set to replace SAP from 2025, designed to better reflect costs, carbon, performance.	Needs to properly credit smart controls, flexibility, and real-world heat pump performance. Risk of continuing to reward measures that "look good on paper" but don't deliver system benefits.
Consumer confidence, protection & redress	Moves to improve standards and advice services underway.	Weak enforcement and poor redress mechanisms undermine trust.
Electrical Smart Appliances (ESAs) & SSER programme	ESAs proven in SSER trials (smart washers, EV chargers, heat pumps, etc.). Interoperability standards emerging.	Policies still siloed; no consumer-facing incentives for ESAs. Flexibility benefit not embedded in retrofit policy.
Phasing out fossil fuel heating in existing homes	Boiler Upgrade Scheme offers grants, but no firm ban date for replacing gas boilers.	Risk of locking in new high-carbon kit for decades.

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Inform and Influence

Lobbying for policy,
standards, technical change

Extensive Political
Engagement with Ministers
and Departments



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