

Rebuilding for Resilience

Energy efficiency's offer for net-zero compatible stimulus and recovery

June 11, 2020

About the EEIG



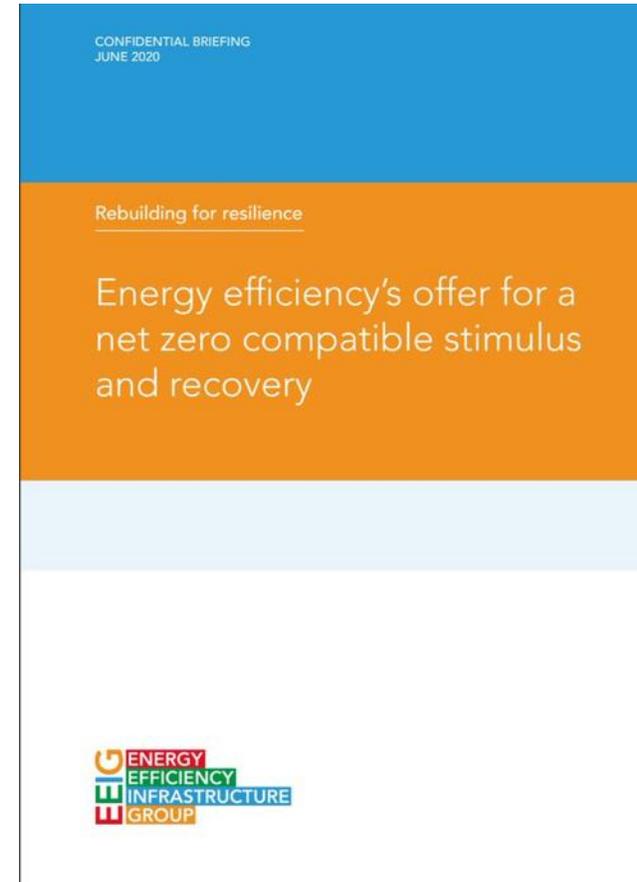
The EEIG is a growing and broad-based coalition of over 25 industry groups, NGOs, charities and businesses asking for rapid improvement in energy efficiency for UK homes and buildings.

About the report

The report released on June 11 sets out [energy efficiency's offer for net-zero compatible stimulus and resilient recovery](#).

It sets out a 2-year stimulus proposal of £2.8bn public investment, unlocking £3.4bn from homeowners, social landlords and the public sector.

It would support 42,500 jobs for the first 2 years, while 1m households would save £270 on their bills. It dovetails into a programme that puts homes on track for net-zero.



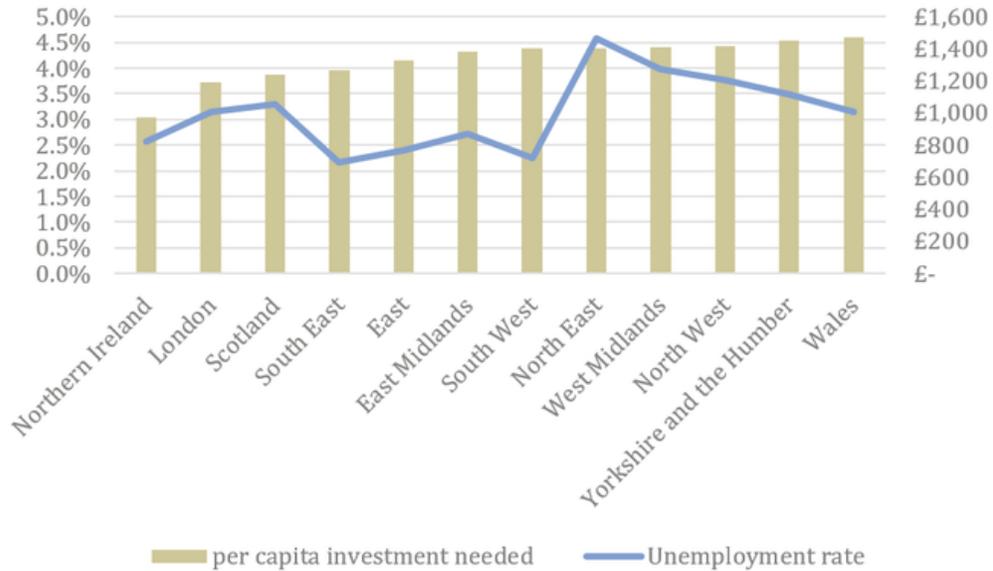
Jobs, infrastructure and resilience 1



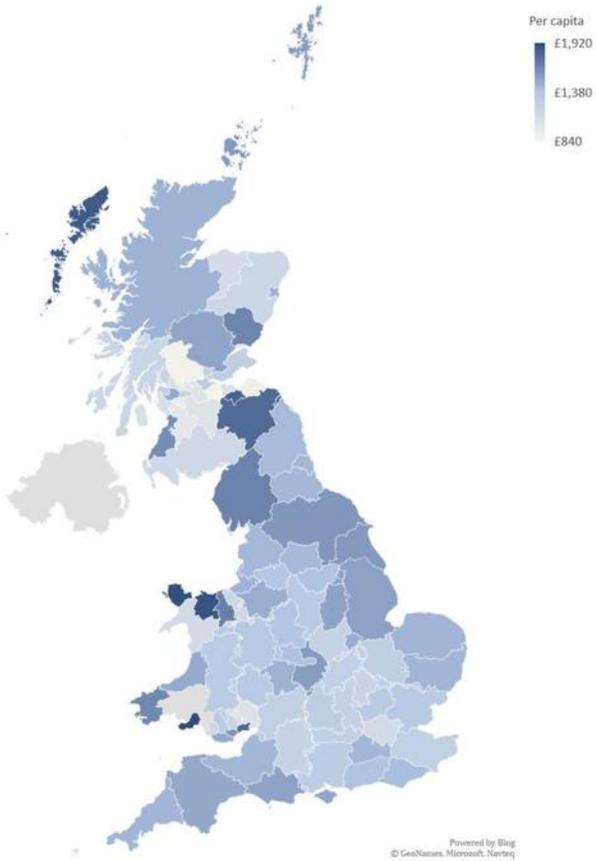
Renovating homes is labour-intensive and mostly done by SMEs. Energy efficiency investment can level up opportunity – supporting over 150,000 skilled and semi-skilled jobs over the period to 2030 (FTEs) – in every part of the country, doing more in the regions that need it most.

Jobs, infrastructure and resilience 2

The per capita investment needed and associated FTEs required to improve our homes in different parts of the country correspond well with regional unemployment levels. (note: late March unemployment figures).



Jobs, infrastructure and resilience 3



Energy efficiency investment for homes levels up infrastructure and resilience, delivering benefits for all. It is needed most in areas outside of London, the Home Counties and the South East.

Jobs, infrastructure and resilience 4

There are significant disparities in the incidence of fuel poverty across the country, to which inefficient homes are the main contributor. Energy efficiency investment can level up energy affordability by supporting households in or at risk of fuel poverty – and end it by 2030

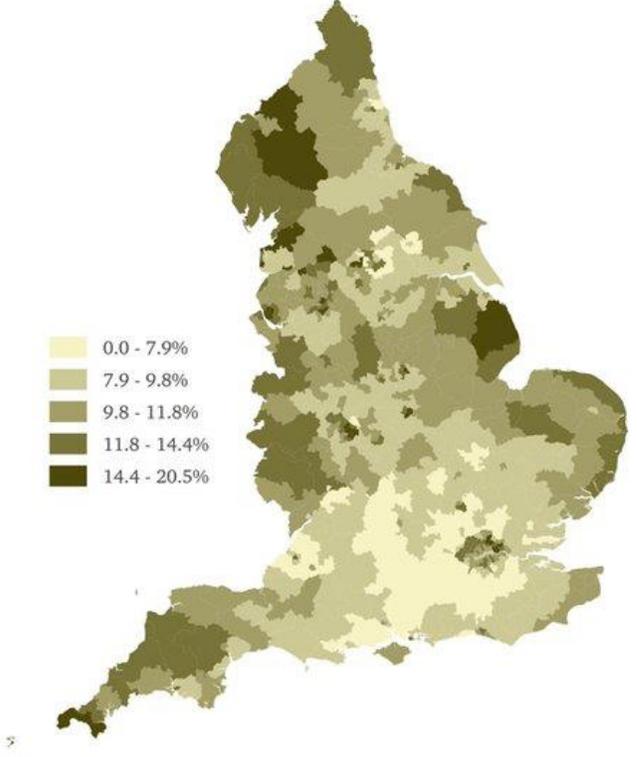


Figure 5: Incidence of fuel poverty in England in 2018, mapped by Westminster Parliamentary Constituency

Jobs, infrastructure and resilience 5

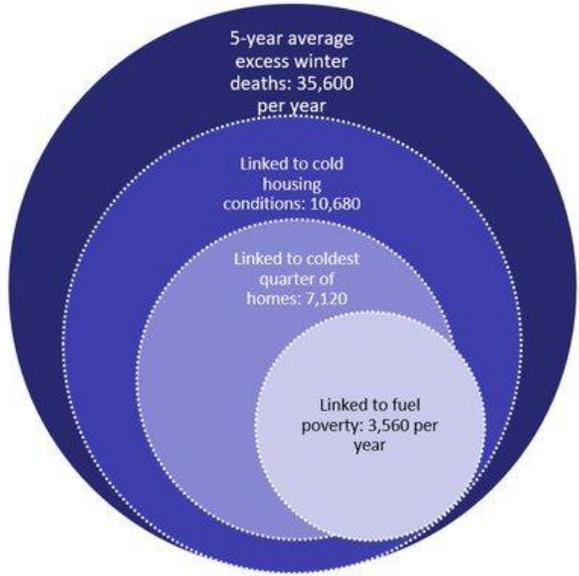


Figure 6: Schematic relationship between total excess winter deaths (EWDs) and different measures of EWDs attributable to cold housing⁴⁰, based on the five-year moving average

Improving energy efficiency is an opportunity to reduce health inequalities, level up resilience to health and wellbeing risks, and permanently reduce pressure on the NHS – risks which will be heightened if lockdowns extend into colder months.

Jobs, infrastructure and resilience 6

Energy efficiency, combined with low carbon heat, is an opportunity to level up rural-urban infrastructure disparities across the UK in the near term.

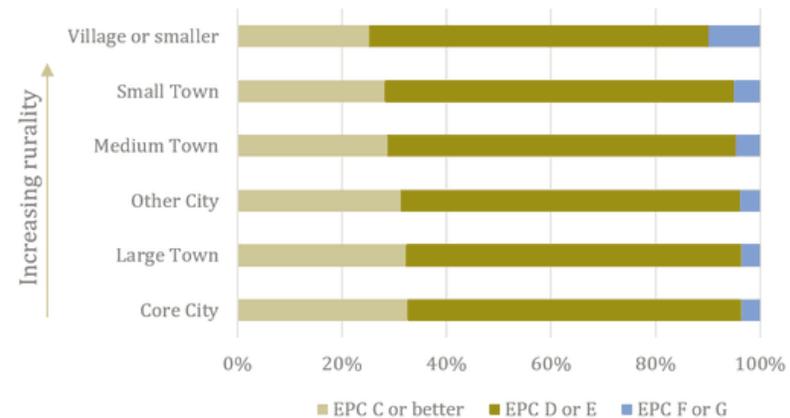


Figure 7: prevalence of best and worst EPC ratings by Westminster Constituency classification on the urban to rural spectrum in England and Wales⁴⁷

Economy and spending 1

Table 1: annual energy cost savings by UK region and nation

Region	Annual energy cost savings
East	£ 690,000,000
East Midlands	£ 540,000,000
London	£ 910,000,000
North East	£ 320,000,000
North West	£ 850,000,000
South East	£ 1,020,000,000
South West	£ 660,000,000
West Midlands	£ 650,000,000
Yorkshire and the Humber	£ 620,000,000
Northern Ireland	£ 200,000,000
Scotland	£ 670,000,000
Wales	£ 370,000,000
UK	£ 7,500,000,000

After ‘direct rebound’ – such as a household choosing to maintain a warmer home – long-lasting home energy efficiency improvements secure energy cost savings and increase disposable income, resulting in a *persistent* boost to consumer spending and *accelerated* economic recovery.

Economy and spending 2

There's a direct boost to spending: for every €1 invested by Germany's national infrastructure bank KfW to incentivise energy efficiency renovation through interest rate and capital subsidies in 2016, building owners were motivated to borrow and spend €6. Public outlay is recouped by VAT revenue alone.

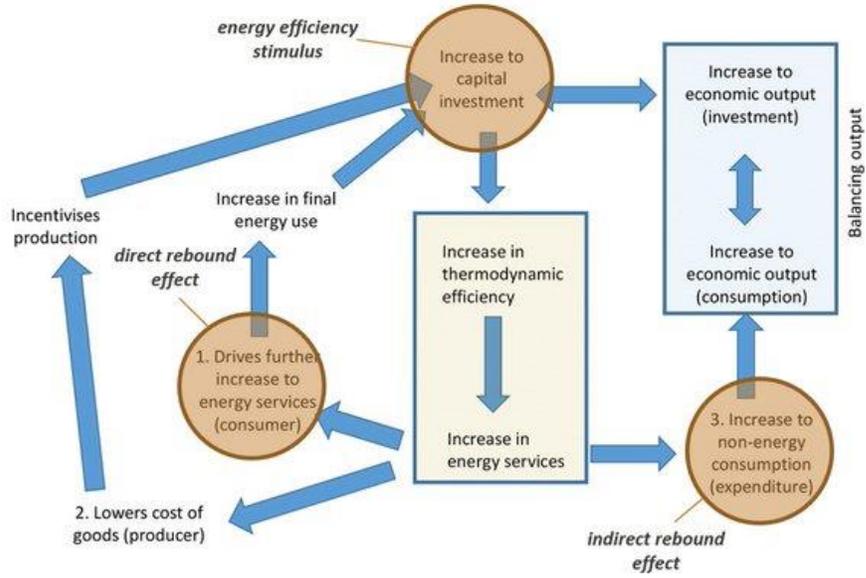


Figure 8: author-annotated schematic – circles highlight role of energy efficiency stimulus households – of the ‘efficiency-led growth engine’ mechanism; the numbered processes indicate routes through which energy efficiency accelerates growth

Economy and spending 3



At the macro-level, lower energy demand for heating also reduces gas imports by 26% by 2030, redirecting spending onto goods and services with a stronger domestic component and therefore improving the balance of payments.

Quick and reliable stimulus

Stimulus packages have to provide support where it is needed and to deliver economic impact quickly and reliably. Existing delivery capacity and capability across the renovation supply chain – spanning policy through to installers – can meet these criteria.



Quick and reliable stimulus: what we have 1



Energy efficiency stimulus is a good fit with immediate need. The wider construction sector – which accounted for 2.3 million people in work (6.4%) at the end of 2019 – is among the hardest-hit by the crisis and is historically a ‘first responder’ to economic stimulus.

Quick and reliable stimulus: what we have 2

Resilient construction recovery must mean that health, safety and livelihoods are at the heart of the government's response: protecting workers now and in future. This is a chance to skill up workers unable to return to sites and to invest in on-site productivity for those who can.



Quick and reliable stimulus: what we have 3

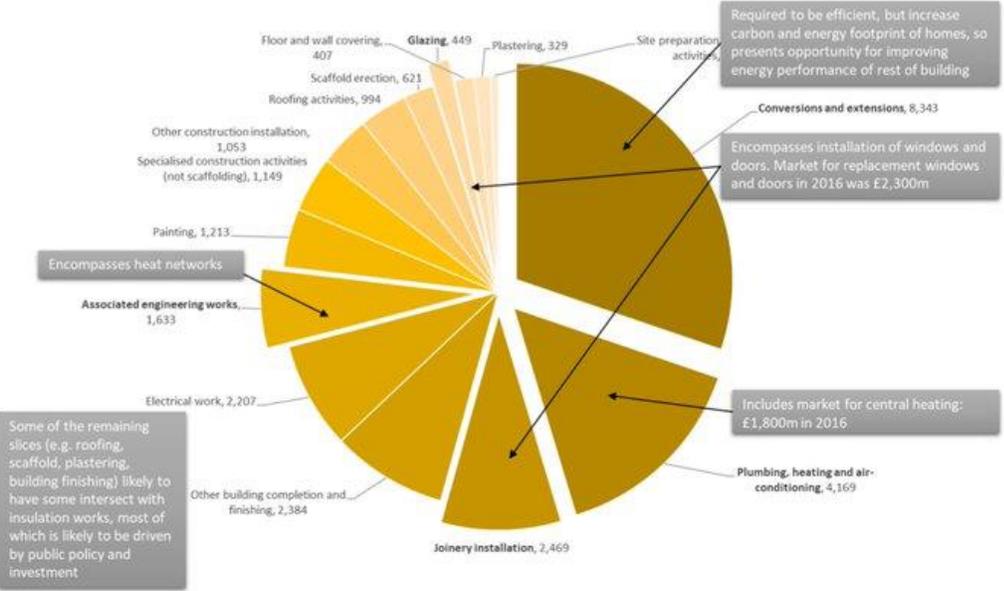


Figure 3: Breakdown of the UK housing repair and maintenance market, 2016 turnover [£m]

Energy efficiency stimulus would drive activity in a broad spectrum of local trades, which can support the overall construction sector's recovery and resilience while hedging the risk of stimulus failing to achieve impacts swiftly.

Quick and reliable stimulus: what we have 4

Stimulating demand for energy efficiency improvements will also boost UK manufacturing - the largest segment of the Low Carbon & Renewable Energy economy.



Figure 9: Manufacturing sites for insulation and cladding systems (yellow), glass and glazing (orange), and heating and controls (red) across the UK

Quick and reliable stimulus: what we have 5

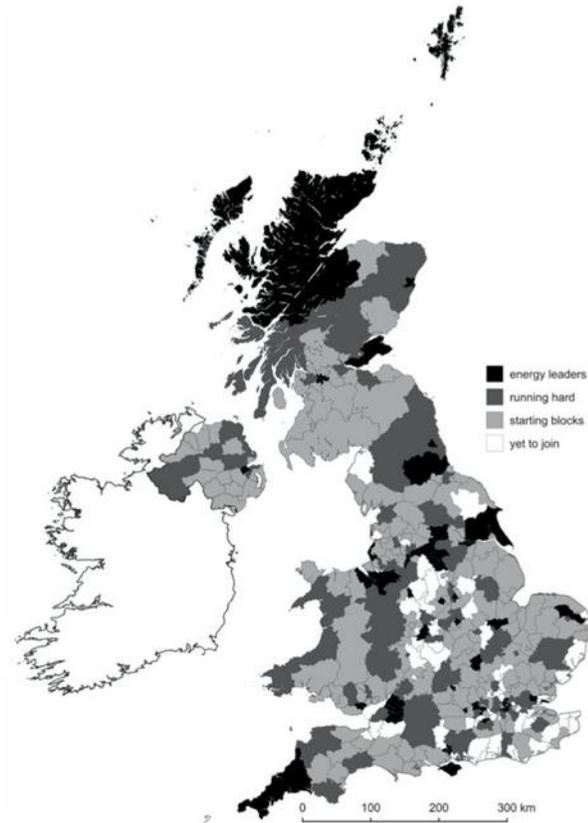


Figure 10: laggards and leaders among UK local authorities (Tingey & Webb, 2020)

ECO is already there. 39% of the UK's 434 local authorities are actively delivering clean energy transitions (and 2/3 have declared climate emergencies).

Quick and reliable stimulus: what we have 6

Local authorities often work together. Worth noting LGA report out today on their role in delivering green skills and jobs.

Table 3: joint and individual statements of intent to use ECO flexible eligibility (BEIS, 2019b)

Coverage	Detail	Number of local authorities
East Sussex	East Sussex Energy Partnership	6
Gloucestershire	Severn Wye Energy Agency on behalf of Warm & Well scheme member authorities	6
Greater Manchester	Greater Manchester Combined Authority and/on behalf of its local authorities, covering four energy efficiency schemes	10
Kent	Kent County Council on behalf of the Medway Sustainable Energy Partnership	3
Lancashire	Cosy Homes in Lancashire Partnership	12
London	Greater London Authority on behalf of Warmer Homes Advice Service member boroughs	4
North Yorkshire	Ryedale District Council on behalf of its neighbours	4
Northamptonshire	Northants Warm Homes partnership	8
Norwich	Norwich City Council on behalf of its neighbours	4
Suffolk	Suffolk Climate Change Partnership	8
Surrey	Surrey County Council on behalf of authorities	10
Warwickshire	Nuneaton & Bedworth Borough Council on behalf of its neighbours	4
West Sussex	Arun District Council on behalf of West Sussex Fuel Poverty Partnership	6
Worcestershire	Worcestershire County Council on behalf of local authorities	6
Sub-total joint statements of intent		91
Additional individual local authority statements across Great Britain		165
Total number of local authorities with statements of intent		256

Quick and reliable stimulus: what we have 7



Leading social housing providers and their supply chains are a key delivery route for energy efficiency stimulus. Just housing associations, in England alone, invested £10.9bn in their housing since 2010. And they increasingly look to branch out into private housing.

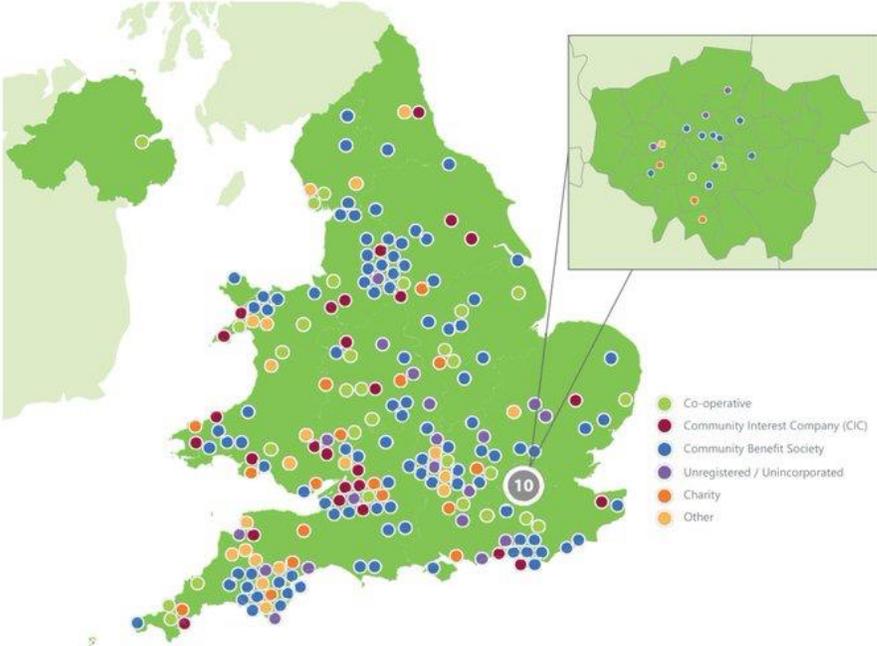
Quick and reliable stimulus: what we have 8

In crafting regionally appropriate stimulus, there is a significant role for the dozens of excellent independent energy agencies in the third sector around the UK who are often regionally or nationally active.



Quick and reliable stimulus: what we have 9

The UK Government has begun the process of setting up Local Energy Hubs across 5 regions of England. It is hoped that the support, leadership and knowledge provided by these hubs may support the growth of community energy across each of these areas into 2019 and beyond. In October 2018, the Welsh Government launched the new Welsh Government Energy Service, which will provide financial and technical support to help public sector and community groups across Wales to develop their own renewable energy schemes.



And community energy groups should engaged in the Government's response, to take a forward-looking perspective on enhancing social acceptance of net-zero work, regional resilience and energy security.

Quick and reliable stimulus: what we have 10

The financial sector stands ready to support and augment stimulus deployment. The [Green Finance Institute](#)'s Coalition for the Energy Efficiency of Buildings is the key platform for government-finance industry dialogue on deploying energy efficiency stimulus



Energy efficiency policy pipeline

£9.2 billion worth of commitments to energy efficiency investment made in the government's 2019 election manifesto need to be treated as instrumental to an energy efficiency stimulus package, financially and programmatically.

For rapid stimulus, HUG, SHDF and PSDS should be launched immediately. For reliability, they must require stringent end-to-end quality assurance and performance conditions to be met. Programme design can be adjusted, in collaboration with local supply chains, over time. They can deploy investment on the ground quickly and reliably by building on the delivery network already in place.

Energy efficiency policy pipeline: SHDF

First, the Social Housing Decarbonisation Fund (SHDF) can build on registered social landlords' (RSLs') already front-runner status in managing high quality housing and energy efficiency improvement works at scale.

Development of the social housing supply chain can be accelerated further by a complementary government-backed loan guarantee for large-scale, ambitious social housing renovation projects that encompass neighbouring private homes.

Energy efficiency policy pipeline: HUG

Second, the Home Upgrades Grant (HUG) can initially be deployed for instant impact in areas of local authority leadership on energy efficiency and heat, prioritising where the need amongst low income households is greatest, schemes are already on the go and broadly aligned with the HUG's eventual objectives.

Considering the longer term, the HUG can be leveraged alongside the SHDF and ECO to build out capacity and capability for delivery across the country.

Energy efficiency policy pipeline: PSDS

Third, the Public Sector Decarbonisation Scheme (PSDS) can achieve immediate impact by funding schools' and hospitals' existing energy efficiency plans through tried and tested delivery architecture.

The Scheme can be delivered reliably by using the network of supply chain and project delivery partners clustered around the successful Public Sector Energy Efficiency Loans scheme, led by Salix Finance, which supported 400 clients in 2018/19.

Additional measures: to 2030

Major policy gaps remain in the realms of stimulating demand for energy efficiency and heat decarbonisation amongst able-to-pay owner-occupiers and landlords. These need to be urgently addressed to ensure that energy efficiency stimulus can lead to a net zero outcome and crucially lever in private finance.

To 2030, this means:

- Clarity on the long-term Minimum Energy Efficiency Standard (MEES) requirements for the rented sectors
- New MEES for owner occupied homes, applicable at point of sale and major renovation, announced early and introduced after...
- ...a programme of fiscal incentives, worth an average of £0.5 billion per year for energy efficiency – designed to unlock at least £5 of private investment for every £1 of public spending and pump-priming the nascent market for low carbon home finance products
- A standardised methodology and data framework for Building Renovation Passports
- Compressing and boosting innovation investment and timescales in the sector, leveraging the Transforming Construction Challenge

Additional measures: for next two years

Many aspects of the measures on the previous slide can contribute stimulating demand to help short-term post-pandemic recovery – and evolve to become part of the longer-term regulatory and fiscal landscape.

Over the next two years, this means:

- Making stimulus support conditional on supply chains having end-to-end quality assurance processes in place
- Publishing the long-awaited proposals for the long-term MEES trajectory for the private-rented sector
- Reinstating the Landlords Energy Saving Allowance
- Restoring the 5% rate of VAT on energy saving products
- Introducing a Stamp Duty rebate on the purchase of efficient homes
- Offering low or no-interest loans, or government-guaranteed private sector lending, for energy efficient renovation and low carbon heating systems
- Bringing forward the two-year £100 million Clean Heat Grant scheme to now, alongside and as an alternative to the Renewable Heat Incentive

Summary of the two-year stimulus proposal

Table 5: indicative estimates of public and private investment and expenditure of proposed stimulus package; totals over 2020-2022 period

Element of stimulus package	Detail	New and additional UK government investment / revenue foregone / cost	Private and other investment
Social Housing Decarbonisation Fund	Brought forward by one year to this year	£300m	£300m
Home Upgrades Grant	Launched this year	£410m	£100m
Public Sector Decarbonisation Fund	Launched this year	£810m	£200m
Clean Heat Grant	Launched this year	£100m	£150m
Landlords Energy Saving Allowance	Reintroduced, average worth equivalent to 20% of renovation cost for EPC C	£100m	£500m
Stamp Duty Rebate	Introduced at £800 for homes at or renovated to achieve EPC C or better	£600m	£1,200m
Low, zero-interest and/or government guaranteed loans	Additional £600m from loans assumed to be used in conjunction across other private housing schemes	£100m	£400m
5% VAT available to all households	Assumed to apply to 75% of the additional investment, across all housing schemes	£360m	£540m
Total, of which		£2,780m	£3,390m
...direct investment in homes		£810m	£3,190m
...incentives for homes		£1,160m	-
...investment in public sector		£810m	£200m

Training and innovation boosts come in alongside this (see next slides):

This is key to the stimulus package having an exit strategy that ensures the economic activity boosted can be sustained and continues to deliver long-term objectives – statutory targets for net zero and fuel poverty, levelling up jobs, infrastructure and resilience, increased household spending and GDP – after stimulus is withdrawn. The report sets out stimulus transitions into clean and resilient recovery at the end.

Turning stimulus into recovery (1/3)

Table 4: turning energy efficiency stimulus into recovery

Realm	Stabilisation (now) →	→ Stimulus (next two years from now) →	→ Recovering and resilient economy that delivers long-term goals (beginning late 2022)
Social housing	Measures in place to protect tenants include £500 million hardship fund for Council Tax relief, increases to Universal Credit, Housing Benefit and Local Housing Allowance rates, and three-month notice period	£3.8 billion Social Housing Decarbonisation Fund brought forward by one year, funding EPC C renovation activity in social housing with £300 million over the next two years and leveraging in a further £300 million from RSLs.	Social housing gets on track for net zero. Energy costs reduce, higher living standards for tenants and lower rent arrears for landlords
Local governance and services delivery	£3.2 billion of support to local authorities to manage COVID-19 pressures across all the services they deliver	At least £410 million of funding over next two years, provided from £2.5 billion Home Upgrade Grants scheme, enables leading local authorities and their partners to support low income households via existing, shovel-ready and aligned heat and energy efficiency schemes, conditional on supporting delivery capacity in the communities around them	Local governments are prepared for scale-up of Home Upgrade Grants scheme – expected to reach over £1.1 billion in 2024/25. Scheme extended at that level to 2030 to meet fuel poverty targets. Levelled-up local capacity supports delivery of energy efficiency, heat decarbonisation and other elements of the net zero transition, beyond the households Home Upgrade Grants will support, in every part of the country.
Public sector estate and contractors	Cabinet Office guidance for public sector payments to suppliers for Contingent Workers aligned with Coronavirus Job Retention Scheme	A proportion of Contingent Workers can be reassigned to support the deployment of the Public Sector Decarbonisation Scheme – worth £810 million over the next two years – with Salix Finance’s delivery	Development of high-quality supply chain that extends into commercial real estate sector. Taxpayers’ money expended on energy costs brought under control, freeing up resource for frontline services. Public sector procurement,

Turning stimulus into recovery (2/3)

Realm	Stabilisation (now) →	→ Stimulus (next two years from now) →	→ Recovering and resilient economy that delivers long-term goals (beginning late 2022)
		network. Salix Finance loans enable public sector organisations to go further.	energy and carbon performance inspires by example.
Households and housing market	Support for households from Coronavirus Job Retention Scheme, Self-employment Income Support Scheme, increased access and level of benefits, additional Council Tax relief Three-month notice period for tenants, suspension of housing possession action, increases to Housing Benefit and Universal Credit, guidance to mortgage lenders for 3 month payment holidays, emergency funding for rough sleepers and homeless people	MEES proposals and Landlords Energy Saving Allowance introduced for private-rented sector, stimulating investment towards EPC C. Stamp Duty rebate on purchase of efficient homes also supports housing market. Low, no-interest or government-guaranteed loans scheme for home renovation incorporating energy efficiency and low carbon heat. £100m Clean Heat Grant Scheme brought forward to now, offered as an alternative to RHI. 5% VAT on energy saving products restored for all households.	Stimulus lays ground for longer-term structural incentives (e.g. revenue-neutral Stamp Duty variation linked to EPC; Council Tax reduction linked to EPC) and long-term regulation (MEES trajectory for all tenures at point of sale, rental and major renovation) that pump-prime demand for energy efficiency and heat improvements over the long-term. £500 million needed per year for structural incentives, designed to lever in 5x private financial contribution, to meet EPC C by 2030 and to be on track for net zero, also laying necessary foundations for upcoming Heat and Buildings Strategy to build on long-term.
Skills base / workforce	Furloughed employees supported by Coronavirus Job Retention Scheme; laid off employees with increased benefits; others unable to work through Self-employment Income Support Scheme	Furloughed and other workers unable to return to construction sites are offered training for low carbon skills, Quality Mark accreditation and on-site productivity. Returning workers supported with advanced on-site productivity training, helping to protect safety at work.	Skills and productivity gap for net zero construction and renovation closes. To meet EPC C by 2030 for all housing, energy efficiency renovation alone supports at least 150,000 average annual FTEs to 2030.

Turning stimulus into recovery (3/3)

Realm	Stabilisation (now) →	→ Stimulus (next two years from now) →	→ Recovering and resilient economy that delivers long-term goals (beginning late 2022)
Research and innovation	Support for innovative start-up SMEs raising private equity through Coronavirus Future Fund; accelerated and additional support from Innovate UK grants and loans for R&D-intensive SMEs	Compressed and additional innovation investment in the sector, by diffusing products and techniques for enhanced productivity on construction and renovation sites, and challenging and supporting participants in the Industrial Strategy’s Construction Sector Deal to halve the energy use of new buildings and halve the cost of renovating to that performance by 2025 instead of 2030.	Innovation in technologies and techniques drives down cost of net zero construction and renovations across the supply chain, enabling them to be deployed at scale sooner, opening up competitive advantage for trade opportunities in related materials, products and services.
Business support / role of banks	Government-guaranteed Coronavirus Business Interruption Loan Scheme for SMEs and large businesses, and small Bounce Back Loan Scheme provided through accredited lenders	Banks deliver subsidised low, no-interest and/or government guaranteed loan scheme for home energy efficiency and low carbon heat renovation. Introduction of a loan guarantee mechanism for large-scale, quality neighbourhood renovation projects anchored to social housing, dovetailing with Social Housing Decarbonisation Fund.	Banks and other finance providers accumulate experience to bring multitude of attractive financial products for energy efficient construction and renovation to market at scale, backed by institutional investors and capital markets. Development of supply chain capable of delivering investable high quality energy performance renovation at scale beyond social housing.

What else is needed alongside stimulus decision?

Need to map shovel-ready projects national level, e.g. via:

- Local Enterprise Partnerships and BEIS Regional Energy Hubs
- City Regions and Combined Authorities
- Energy Company Obligation projects (e.g. households identified but not eligible)
- Large installers and contractors
- Large private landlords (20% own 80% of stock)
- Social housing providers (Councils / ALMOs and Housing Associations)
- 2019 Local Authority Home Energy Conservation reports to BEIS SoS
- Association of Local Energy Officers and its regional chapters
- BEIS Supply Chain Pilots
- Heat Networks Investment Project and Delivery Unit pipeline
- Devolved Governments and their Local Authorities

Methodology?

EY is surveying actors in EU27 for shovel-ready clean energy transition projects, including energy efficiency, ahead of Council approval of EU recovery fund by end-2020.



This survey has been developed as part of a project that aims to give shovel-ready green recovery projects visibility at European and National level, to support the transition to a climate neutral economy. Please help by responding!

The EU Green Deal placed climate change and circular economy in the centre of the future vision for Europe. Further, as EU and Member States shape their recovery and resilience plans for economic sectors impacted by covid-19, it is critical that **we focus on raising the visibility of projects that have the potential to stimulate jobs, generate new markets and deliver environmental value.** A large part of the **€750 billion New Generation EU recovery fund** will support and accelerate the transition to a sustainable carbon neutral economy, and we need to together ensure green projects are visible and competitive.

In this context, 27 national teams at EY are compiling a **list of 1,000 “shovel-ready” projects** in the Energy, Transport, Buildings, Industry or Land Use sectors, across all EU Member States. The objective is to **promote a selection of flagship projects** and to engage in **high-level discussions with authorities**, at EU and at Member State level, on key actions required to accelerate the deployment of these projects. This survey offers you the opportunity to add your relevant projects to this list!

<https://bit.ly/2YqvC61>

About the EEIG

The Energy Efficiency Infrastructure Group is a growing and broad-based coalition of over 25 industry groups, NGOs, charities and businesses asking for rapid improvement in energy efficiency policy for UK homes and buildings. Massive improvements in energy efficiency are the litmus test for a credible pathway to net zero emissions and ending fuel poverty. The EEIG is calling for energy efficiency to be treated as a national infrastructure investment priority, with a commensurate target – achieving an Energy Performance Certificate (EPC) rating of C (on a scale from A (most efficient) to G) for all homes by 2030 – and clear governance arrangements, a long-term plan and a pump-priming capital budget to achieve it.

More information is available at www.theeeig.co.uk