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BOOST RETROFIT WITH THE SPRING STATEMENT – ANNEX

COSTING ESTIMATES

February 2023

This annex provides an overview of the sources used to establish government spending on energy efficiency and heat decarbonisation and the calculations used to estimate the investment need remaining for the 2020/25 parliament.

Estimates of spend on energy efficiency and heat decarbonisation over the 2020/25 parliament are based on government sources. Table 1 lists the relevant schemes and summarises the key information that the estimates are based on. The government sources are referenced from the table.

Table 1: Sources for government energy efficiency and heat decarbonisation programmes

| Grant overarching | Sub-programmes | Information | Estimated total spending between FY20/21 and 24/25 (£bn) |
|---------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Social Housing Decarbonisation Fund (SHDF)¹ | N/A | £3.8bn over a 10-year period. £62 million in 2020 followed by £160 million for FY 21/22. Wave 1, ran in FY 21/22, awarded £179m funding to 69 projects. Wave 2 worth £800 million over three years. | 1.04 |

¹ UK government, 2022, **SHDF Wave 2.1**



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| Grant overarching | Sub-programmes | Information | Estimated total spending between FY20/21 and 24/25 (£bn) |
|----------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Sustainable Warmth Competitions | Home Upgrade Grant (HUG) ² | £218m implemented to 42 projects (HUG1). HUG2 implements £700m, delivered from 2023 to 2025. | 0.92 |
| | HUG Consumer Led Route ³ | £100m allocated | 0.10 |
| | Local Authority Delivery (LAD) ⁴ | £500m allocated Phase 2: is £300m. Phase 1: 1a £74m, phase 1b £126m. | 0.50 |
| | Local Authority Delivery boost ⁵ | £287 million boost in 2021. | 0.29 |
| Boiler Upgrade Scheme (BUS) | BUS ⁶ | £450 million of grant funding is available over three years from 2022 to 2025. | 0.45 |
| Green Homes Grant (GHG) | Green Homes Grant Voucher Scheme ⁷ | Gov anticipates the scheme upgraded 47,500 homes and spent £256 million. | 0.26 |
| Renewable Heat Incentive | Domestic Renewable Heat Incentive ⁸ | £144.6 million payments in FY20/21, estimate £150 million payments FY21/22 | 0.29 |

² UK government, 2022, **Home Upgrade Grant: Phase 2**

³ UK government, 2022, **Market Engagement Notification**

⁴ UK government, 2021, **Government boosts energy efficiency spending to £1.3 billion with extra funding for green homes**

⁵ UK government, 2021, **Government boosts energy efficiency spending to £1.3 billion with extra funding for green homes**

⁶ OFGEM, 2023, **Boiler Upgrade Scheme (BUS)**

⁷ UK parliament, 2021, **Green Homes Grant Voucher Scheme**

⁸ Ofgem, 2021, **Domestic RHI Annual Report 2020-2021**



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| Grant overarching | Sub-programmes | Information | Estimated total spending between FY20/21 and 24/25 (£bn) |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| ECO | ECO3 and ECO4 ⁹ | ECO4 is the latest round of the Energy Company Obligation levy, worth £4 billion from 2022 to 2026. ECO3 delivered £0.55bn in FYs 20/21 and 21/22. | 4.11 |
| ECO | ECO Plus ¹⁰ | ECO+, which is intended to run from Spring 2023 until March 2026 at a value of £1 billion over the three years. | 0.67 |
| Devolved nations energy efficiency and heat decarbonisation expenditure | Scotland Social Housing Net Zero Heat Fund ¹¹ | £200 million for the SHNZHF, 2020 to 2025. | 0.20 |
| | Scotland area based schemes ¹² | £35.8 million in 20/21, £30.3 million in 21/22, 22/23 unspent, estimate £35 million | 0.14 |
| | Warmer Homes Scotland ¹³ | Around £25 million 20/21, increased to £50 million a year in 21/22, 22/23 | 0.12 |
| | Wales, NEST ^{14, 15} | Around £20 million per year | 0.10 |
| | Northern Ireland: NI Sustainable Energy Programme ¹⁶ | £8 million / year | 0.04 |
| Sum | | | 9.23 |

⁹ BEIS, 2022, **Energy Company Obligation**

¹⁰ BEIS, 2022, **Energy Company Obligation**

¹¹ Scottish government, 2022, **Social Housing Net Zero Heat Fund – call for funding applications – 2022**

¹² Scottish government, 2022, **Area Based Schemes: allocation per local authority**

¹³ Scottish government, 2022, **Decarbonisation funding: FOI release**

¹⁴ Nest, 2021, **Nest Annual Report**

¹⁵ Welsh government, 2016, **Energy Efficiency in Wales**

¹⁶ EST, 2023, **Financial support for home energy efficiency**



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Source: Government sources as referenced in the table, and own calculations.

E3G estimated the proportion of each government scheme that is dedicated to either domestic heat decarbonisation or energy efficiency. The proportions were estimated through consultation with sector stakeholders and relevant documents. These proportions are listed in Table 2.

Table 2: Programme-by-programme split between energy efficiency (EE) and heat decarbonisation (HD)

| Programme | EE | HD |
|-------------------------|------|------|
| Devolved nations | 80% | 20% |
| SHDF | 80% | 20% |
| HUG | 67% | 33% |
| LAD | 67% | 33% |
| LAD boost | 67% | 33% |
| GHG vouchers | 67% | 33% |
| ECO+ | 100% | 0% |
| ECO | 100% | 0% |
| BUS | 0% | 100% |
| RHI | 0% | 100% |

Source: Own calculations and sector stakeholder consultation.

The proportions shown in Table 2 were applied to each respective government programme to determine the estimated spend dedicated to energy efficiency and heat decarbonisation, respectively. These calculations lead to the following values for total estimated committed spend for the 2020/25 parliament:

- > energy efficiency: £7.46bn
- > heat decarbonisation: £1.77bn.

Table 3 compares these values to investment needs as determined by the Energy Efficiency Infrastructure Group for the UK to meet its carbon budget



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commitments.¹⁷ The difference between these numbers is the investment gap. Table 3 also includes the EEIG investment need for the 2025/30 parliament split between energy efficiency and heat decarbonisation. If the investment need for the 2020/25 parliament is not met it will spill over into the following parliament. Furthermore, research shows only a small proportion of the total investment need has been committed to for the 2025/30 parliament, meaning there is an investment gap of over £21bn for both energy efficiency and heat decarbonisation to 2030.

Table 3: Investment need and investment gap for energy efficiency (EE) and heat decarbonisation (HD) over the 2020/25 and 2025/30 parliaments (£bn)

| | 2020/25 parliament | | 2025/30 parliament | |
|----------------------------------------------------------|--------------------|-------------|--------------------|--------------|
| | EE | HD | EE | HD |
| Investment need (EEIG) ¹⁸ | 12.70 | 5.10 | 13.66 | 12.25 |
| Investment need + overspill ¹⁹ | N/A | N/A | 18.96 | 15.62 |
| Committed funding | 7.40 | 1.73 | 3.39 | 0.52 |
| Gap between investment need and committed funding | 5.24 | 3.34 | 10.27 | 11.74 |

Source: Investment need figures from EEIG, as referenced. Other data from own calculations and government sources. See Table for programme-by-programme breakdown of sources.

¹⁷ EEIG, 2021, **Investing in British homes and communities**

¹⁸ EEIG, 2021, **Investing in British homes and communities**

¹⁹ Overspill refers to spending from the 20/25 parliament which must be carried over to the 25/30 parliament to meet the government's decarbonisation objectives.



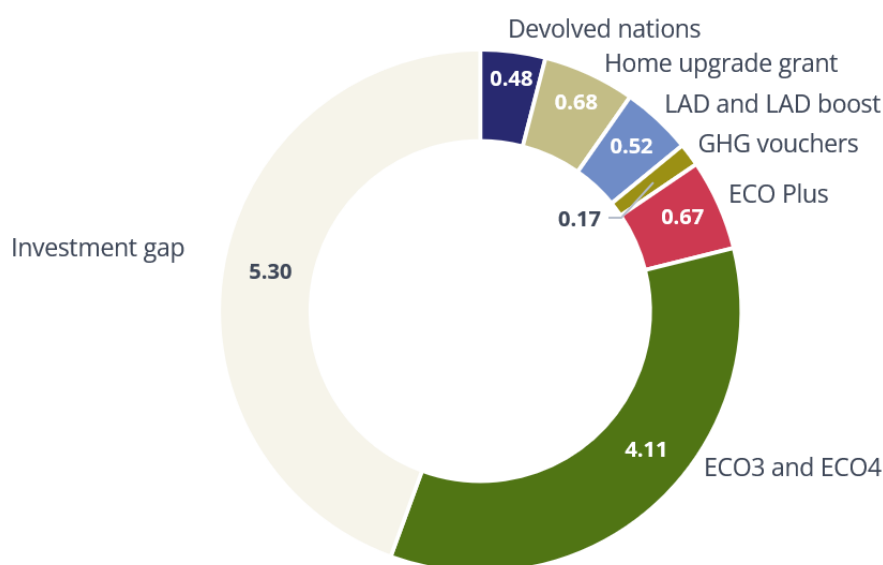
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Error! Reference source not found. and 2 (see following pages) visualise the programme-by-programme breakdowns of the spending commitments for energy efficiency and heat decarbonisation for the 2020/25 parliament, and the investment gap that remains.

The investment gap identified in **Error! Reference source not found.** was allocated between government programmes. This is outlined in Table 1 in the main briefing document under the “Top up required” column. The top up for each programme was estimated by extrapolating from existing funding commitments, and applying industry insight into which supply chains could successfully adapt to a larger pot of funding.

Energy efficiency – government spending and investment gap 2020/25 (£bn)

Total investment need = £12.70bn



Source: Investment need: EIGG, 2021, Investing in British homes and communities
Other data: government sources and own calculations



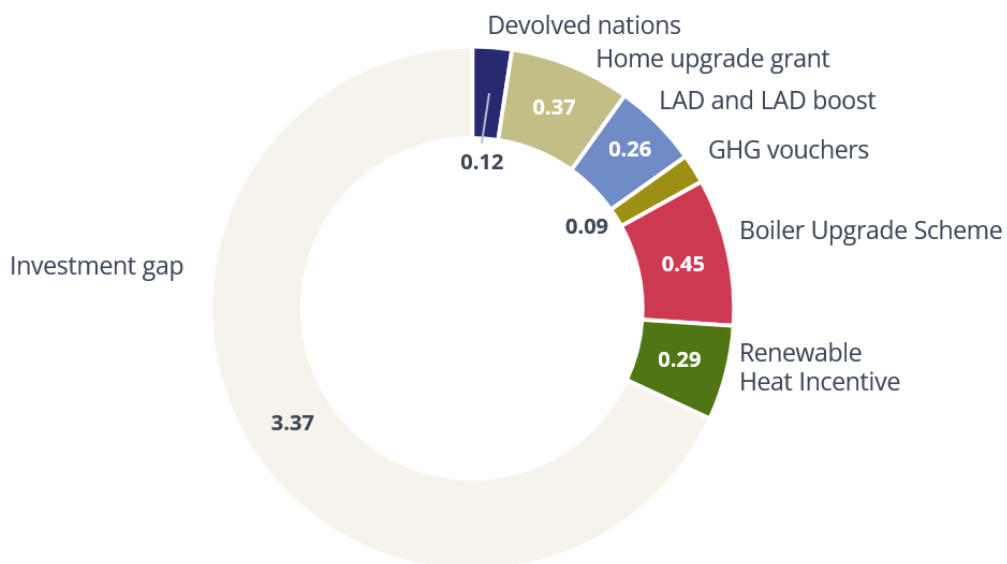
Figure 1. Government spending commitments on energy efficiency for the 2020/25 parliament leave an investment gap of £5.24bn.



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Heat decarbonisation – government spending and investment gap 2020/25 (£bn)

Total investment need = £5.10bn



Source: Investment need: EIGG, 2021, Investing in British homes and communities
Other data: government sources and own calculations



Figure 2: Government spending commitments on heat decarbonisation for the 2020/25 parliament leave an investment gap of £3.34bn.



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About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

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