

UK faces £615 billion infrastructure investment challenge

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- New research shows UK needs over £1.3 trillion by 2030 to deliver on energy, transport, and housing infrastructure ambitions
- Investment sources are currently forecast to deliver a little over half of what is needed, leaving a £615bn shortfall – most of which needs to come from private sector
- The analysis is published as the insurance industry works with the Government and the PRA to channel £100 billion into infrastructure investment over the next decade to narrow this gap

The UK faces a £615bn funding challenge to meet requirements for energy, transport and housing infrastructure by 2030 – having secured a little over half of the £1.3tr needed.

Research conducted for the [Investment Delivery Forum](#) shows the additional investment needed to deliver the infrastructure the country needs across areas including onshore and offshore wind, Carbon Capture and Storage (CCS), electric vehicle charging infrastructure, rail electrification, new homes, and retrofitting insulation to existing housing stock.

By 2030, £700bn of funding is forecast to come from a mixture of public and private sources, leaving the nation £615bn short if it's to reach the £1.3tr investment required by 2030. Most of the shortfall (c. £350bn) will need to come from private sources* and at the current rate of investment this gap will widen from £615bn in 2030 to £1.5tr by 2050.

While significant investment is still required for energy and transport projects, it's housing where we face the biggest challenge, with housing retrofit and new property development representing most of the projected shortfall.

The research is being published as the government, regulators, and the ABI (representing the insurance and long-term savings industry) work together to deliver Solvency UK regulatory reforms, which will allow insurers to invest in a wider range of assets. The industry is committed to channelling £100bn over the next ten years into UK productive investment – making a significant contribution to closing the gap in investment required from the private sector.

Commenting on the research, sub-chair of the Investment Delivery Forum and Deputy President of the ABI, **Clare Bousfield** said:

“Our research shows there is a mammoth infrastructure investment challenge facing the UK. The ongoing ‘Solvency UK’ reforms are crucial in helping us to channel around £100bn into green and good infrastructure and narrow this investment gap.

We have established the Investment Delivery Forum to ensure that once unlocked, these funds can be deployed swiftly. We are working hard to lay this groundwork, but we want to hear from project owners as part of this process, as well as telling the infrastructure community what makes projects investable for the insurance and long-term savings industry.”

Ends

*£615bn shortfall: c.£265bn shortfall in public funding and c.£350bn shortfall in private investment to meet required levels. This is equivalent of a £75bn shortfall a year until 2030. The annualised shortfall in private funding to 2030 is over £40bn.

About the Investment Delivery Forum

The Investment Delivery Forum brings together the major insurance and long-term savings firms with an interest in large-scale infrastructure investment. The Forum acts as an accelerator helping industry, government and key stakeholders avoid delay and move forward together. It was established by the ABI in July 2023 to ensure that the industry would be ready to act quickly on regulatory changes (Solvency UK) that would enable the channelling of approximately £100bn into green and good projects.

Note to editors

- The research was commissioned by the Association of British Insurers' (ABI) Investment Delivery Forum and conducted by Development Economics.
- The infrastructure projects included were:
 - Energy investment estimates for the two current Future Energy Scenarios and additional investment needed in the grid and other connections, including interconnections with other countries, to ensure stability of supply. In line with the FES, this includes onshore and offshore wind power, solar power, marine renewables, large-scale nuclear, small modular nuclear, hydrogen, carbon capture and storage (CCS), Bio-energy with Carbon Capture and Storage (BECCS), energy storage, and investment in (trans-national) inter-connectors).
 - Energy networks and decarbonised transport infrastructure such as the extension and reinforcement of electric vehicle (EV) charging infrastructure, the electrification of the heavy rail network in line with Network Rail and Scottish Government rail investment strategies, and hydrogen production and distribution infrastructure projects.
 - Investment in retrofitting existing housing stock to conform with insulation standards assumed by the FES and meeting the current backlog of housing supply and future arising housing need.
- The findings are summarised in the below tables and charts. All financial costs included in this report are presented using 2023 prices. No account has been taken on the potential future levels of price inflation.

Table 1: Required future investment in green infrastructure (£billions, 2023 prices)

Investment category	2023-2030	2031-2040	2041-2050	Total 2023-50
Energy generation infrastructure	160.2	335.0	171.7	666.8
UK grid reinforcement	11.9	22.8	11.7	46.4
EV public charging infrastructure	0.4	0.3	0.2	0.9
Heavy rail electrification	2.8	6.0	4.6	13.4
Hydrogen distribution networks	5.5	30.9	44.9	81.3
Housing - retrofit existing stock	342.5	140.2	57.8	540.5
New housing investment	791.9	727.5	582.9	2,102.3
Total	1,315.2	1,262.7	873.7	3,451.6

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Table 2: Required future public sector investment in green infrastructure (£billions, 2023 prices)

Investment category	2023-2030	2031-2040	2041-2050	Total 2023-50
Energy generation infrastructure	30.8	65.7	30.6	127.1
UK grid reinforcement	11.9	22.8	11.7	46.4
EV public charging infrastructure	0.4	0.3	0.2	0.9
Heavy rail electrification	2.8	6.0	4.6	13.4
Hydrogen distribution networks	1.9	2.4	0.0	4.3
Housing - retrofit existing stock	222.6	91.2	37.6	351.3
New housing investment	158.4	145.5	116.6	420.5
Total	428.7	333.9	201.3	963.9

Table 3: Required future private sector investment in green infrastructure (£billions, 2023 prices)

Investment category	2023-2030	2031-2040	2041-2050	Total 2023-50
Energy generation infrastructure	129.4	269.2	141.0	539.6
Hydrogen distribution networks	3.6	28.5	44.9	77.0
Housing - retrofit existing stock	119.6	49.1	20.2	189.2
New housing investment	633.5	582.0	466.3	1,681.8
Total	886.4	928.8	672.4	2,487.7

Table 4: Overall potential funding shortfall (£billions, 2023 prices)

Investment category	2023-2030	2031-2040	2041-2050	Total 2023-50	Average p.a.
Energy generation infrastructure	19.7	105.3	61.6	186.6	6.7
EV public charging infrastructure	0.2	0.2	0.1	0.5	0.0
Heavy rail electrification	2.7	5.7	4.4	12.8	0.5
Hydrogen distribution networks	5.5	30.9	44.9	81.3	2.9
Housing - retrofit existing stock	308.2	126.2	52.0	486.4	17.4
New housing investment	277.2	254.6	204.0	735.8	26.3
Total	613.5	522.9	367.0	1,503.3	53.7

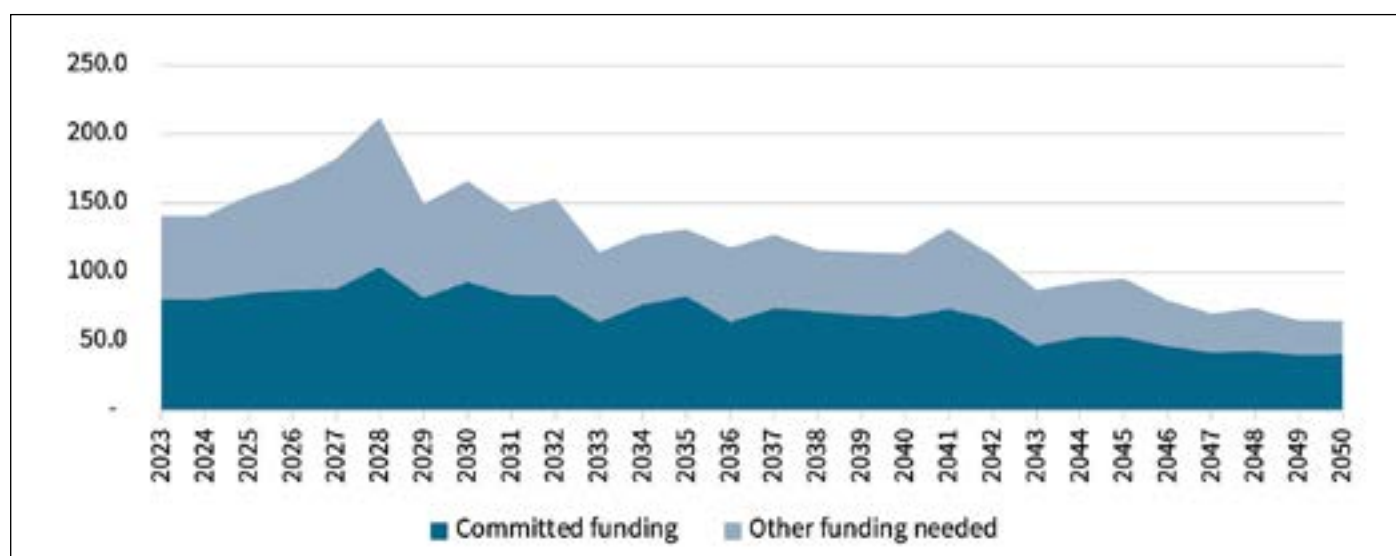
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Table 5: Potential public funding shortfall (£billions, 2023 prices)

Investment category	2023-2030	2031-2040	2041-2050	Total 2023-50	Average p.a.
Energy generation infrastructure	4.1	30.0	17.5	51.6	1.8
EV public charging infrastructure	0.2	0.2	0.1	0.5	0.0
Heavy rail electrification	2.7	5.7	4.4	12.8	0.5
Hydrogen distribution networks	1.9	2.4	0.0	4.3	0.2
Housing - retrofit existing stock	200.3	82.0	33.8	316.2	11.3
New housing investment	55.4	50.9	40.8	147.2	5.3
Total	264.7	171.2	96.6	532.5	19.0

Table 6: Private sector funding shortfall (£billions, 2023 prices)

Investment category	2023-2030	2031-2040	2041-2050	Total 2023-50	Average p.a.
Energy generation infrastructure	15.6	75.3	44.1	135.0	4.8
Hydrogen distribution networks	3.6	28.5	44.9	77.0	2.8
Housing - retrofit existing stock	107.9	44.2	18.2	170.3	6.1
New housing investment	221.7	203.7	163.2	588.6	21.0
Total	348.8	351.7	270.4	970.9	34.7

Chart 1: Future funding (all sources): committed vs uncommitted funding (£billions, 2023 prices)


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Chart 2: Future Public funding profile (£billions, 2023 prices)

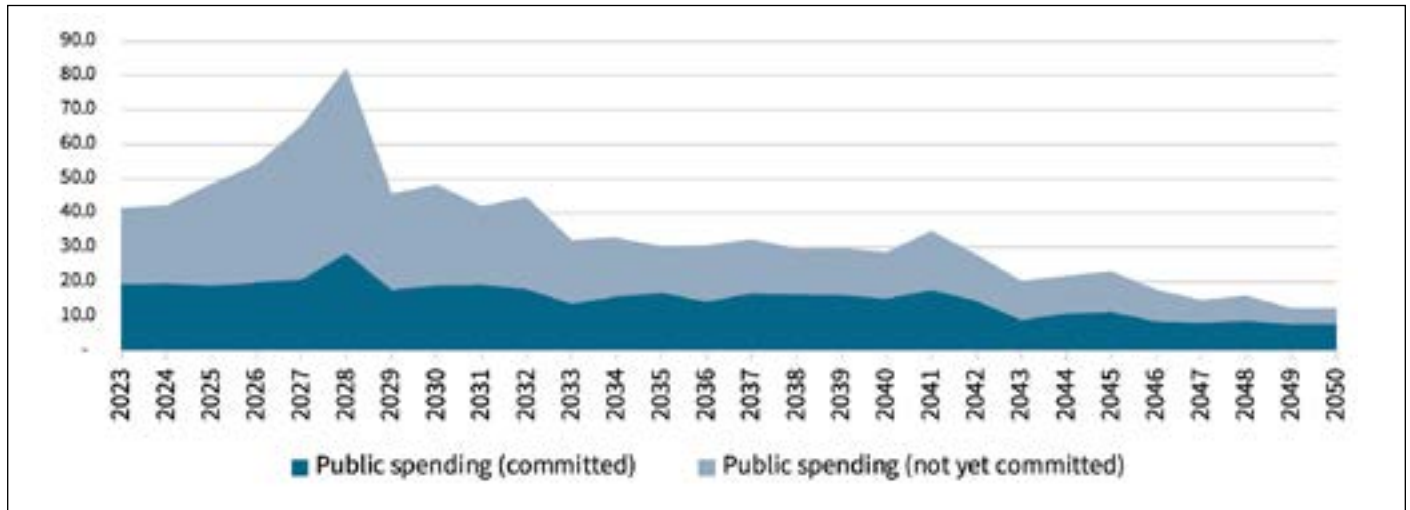


Chart 3: Future Private sector funding profile (£billions, 2023 prices)

