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JULY 2024

EXECUTIVE SUMMARY: CHEAP, CLEAN ELECTRICITY FOR GREAT BRITAIN BY 2030[1]

A FRAMEWORK TO DELIVER LOWER BILLS AND PROTECT THE ECONOMY

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To protect the economy and permanently lower bills, Great Britain needs to get off gas and rapidly build a low-cost, clean electricity system. This report sets out a framework for how this can be achieved, using the Labour Government's 2030 clean power target as the guiding star.

Great Britain is highly dependent on gas for electricity generation – which presents a major risk for households and national finances. The recent gas crisis pushed inflation sky-high and millions into fuel poverty, with the Treasury forced to subsidise energy bills by over £94 billion.[2,3,4] Remaining dependent on gas imports means Great Britain[5] could be hit by these crises again. This would be disastrous. Recurring price spikes could cost the economy double the cost of net zero, with none of the economic and environmental benefits.[6]

In contrast, a renewables-based electricity system could make bills lower than they were pre-gas crisis and shield us from future price spikes.[7] Great Britain must transition rapidly to a clean electricity system or else it will be forced to build more expensive gas power stations by default. This new system should be underpinned by wind and solar power and managed with flexible demand and storage. These technologies can all lower bills. Alongside this, new low-carbon hydrogen power stations and green hydrogen storage should be rapidly built.

[1] This is a summary of the report of the same name, available from E3G, July 2024, **'Cheap, clean electricity for Great Britain by 2030'**

[2] UK government, March 2024, **Spring Budget 2024**

[3] National Energy Action, 2024, **Timeline of the energy crisis**

[4] ONS, March 2024, **Contributions to the 12-month rate of CPI(H) by import intensity**

[5] Note: Electricity policy for Northern Ireland is devolved. Therefore, for simplicity we discuss Great Britain throughout this report. However, a lot of the topics discussed within this paper also hold true for all the UK.

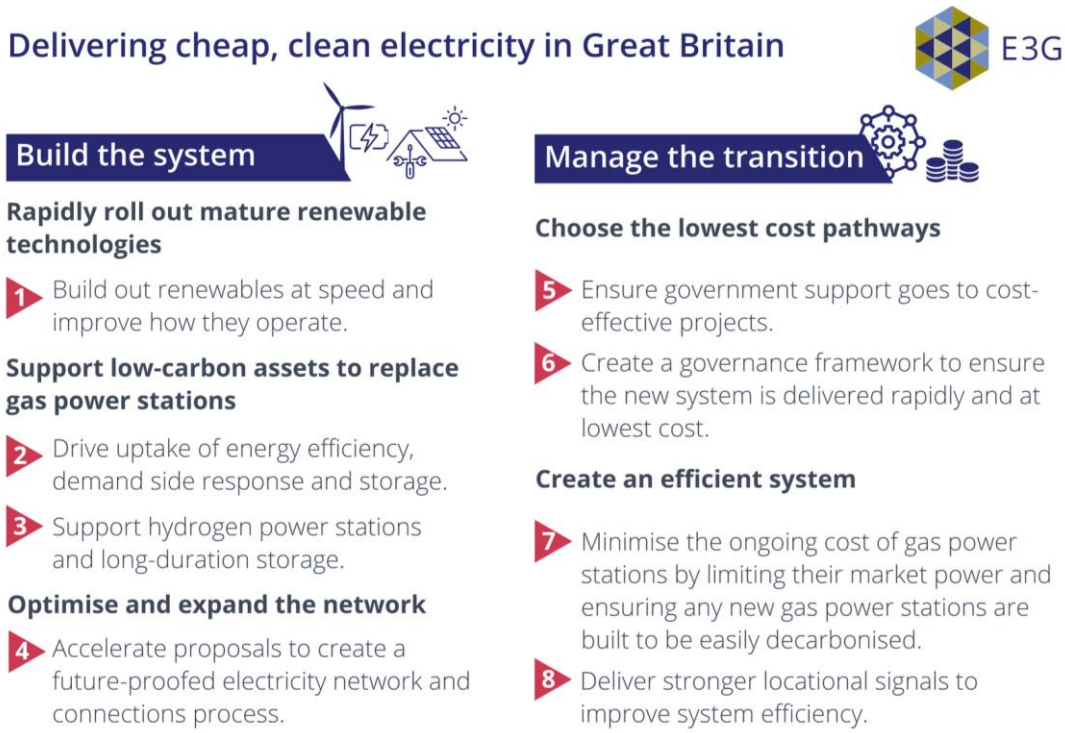
[6] Office for Budget Responsibility, July 2023, **Fiscal risks and sustainability**

[7] National Infrastructure Commission, October 2023, **The Second National Infrastructure Assessment**

This is a strategic future technology for Great Britain needed to decarbonise and protect our energy security. This is an area where we should prioritise using this valuable fuel.

To effectively lower bills, the next stage of the clean electricity transition must be well-designed and successfully managed. This is essential as significant sums must be spent to transform Great Britain's electricity system.[8] This price will be much greater if the transition is managed poorly, wiping out the potential to permanently lower bills. The government will need to stand up to vested interests to secure the lowest cost transition pathway. Policies and strong, independent governance mechanisms can ensure that rapid investment is put into the right assets in the right place, at a good price. They must ensure that once built, these assets are operated to meet the needs at the lowest cost.

We highlight the specific interventions below to transition Great Britain to a low-cost, clean electricity system by 2030.



Moving away from gas cannot be done instantly, so bills may remain high for some time. Targeted groups of consumers can be supported during this transition by:[9]

[8] Resolution Foundation, April 2024, **Electric Dreams**

[9] More detail on these actions is set out in the supporting note **"Targeted near-term actions to bring down UK electricity bills"**, available from E3G, July 2024.

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> Introducing targeted energy bill support, guaranteeing affordable energy for vulnerable households (i.e. a social tariff).

> Boosting rates of home decarbonisation with energy efficiency, heat pumps and heat networks.

> Removing policy levies from electric heating to lower bills and kick start the heat pump market.

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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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