LCPDelta

Market Frameworks

Key manifesto pledges in the UK General Election 2024

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Foreword

Welcome to LCP Delta's special instalment of our Market Framework report.

The upcoming UK general election on 4 July 2024 will represent a turning point for the power sector. In this report, we have analysed the manifesto commitments of the Labour and Conservative parties, identifying key decisions that are yet to be made, the impacts the proposed changes will make and how they will interact to achieve both existing and new Net Zero targets.

We will carry out further analysis on the detailed power sector plans of the winning party as part of our GB Power Market Outlook report in autumn 2024.

Get in touch if you would like to know more about the full impact that the different policy changes may have on power generators, consumers and the wider economy.

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Market Forecasts – Power price projections

Dataset and report with projections of wholesale power prices out to 2050, renewable capture prices, price spreads, generation mix, and bankable revenue curves. (Quarterly)

Market Forecasts - non commodity costs

Provides a five-year forecast of non-commodity charges that represent a significant portion of the energy bill (Quarterly)

Market Frameworks

Expert insights on key news and events in the power and gas markets, covering policy, industry, markets, and regulation (Monthly)

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Cutting edge wholesale market analysis including asset revenue analysis, fleet summaries, and deep dives into balancing and frequency markets (Monthly)

Investment and Commercial insights

Investment trends and news specific to energy transition, as well as high-level commercial insights into the most significant companies in the power sector in the UK. (Quarterly)





Labour manifesto

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Clean power sector by 2030

The manifesto of the Labour party includes a commitment to reach a 'clean' power sector by 2030 – what is meant by 'clean' will require a clear definition early on as all other energy sector decisions will be informed by it. LCP Delta previously investigated the appropriate level of gross emissions target (i.e. not including the negative emissions from BECCS) in a decarbonised 2030 power sector and found the most cost-effective emissions intensity was 30gCO2/kWh¹ in the scenarios explored at the time. At this level, 97% of generation would be coming from low-carbon sources (which could therefore serve as a similar target if Labour is aiming for a given proportion of generation coming from low-carbon sources) but going any further would risk increasing costs.

The accelerated deployment of renewables – doubling onshore wind, tripling solar power and quadrupling offshore wind – is a necessity to reach a decarbonised power sector by 2030 but it is not enough, with additional low carbon generation capacity also necessary. The technology most likely to be available at scale in time is gas CCS, with the necessary capacity at 7-9GW, but long-duration storage will help reduce delivery risk of other commitments.

At the current low gas prices, the system cost benefits of reaching a decarbonised power sector by 2030 are not significant compared to current government ambitions. However, it represents an important insurance against very high gas prices, by up to £37bn.

Beyond 2030, hydrogen peaking and nuclear capacity will be necessary to make further progress and to account for the increased power sector demand as the rest of the economy decarbonises, however their role in hitting the 2030 target will be limited.



*Note that this marginal cost of abatement curve is based on the scenarios tested for this analysis. Other scenarios may exist with different marginal cost of abatement

LCP Delta commentary: Labour would need to clearly define the metrics of a 'clean' power sector and what technologies they intend to prioritise but the scale of the ambition is right. While unlikely to lead to system cost savings in a baseline scenario, a more rapidly decarbonising power sector would insulate against global gas price shocks.



Ensuring security of supply with unabated gas generation

Unabated gas generation will fall as the power sector decarbonises with the biggest impact on efficient plant types such as CCGTs and CHP plants. The fall in load factors will be significantly accelerated under the Labour commitment to reach a clean power sector by 2030, reducing their profitability and therefore leading to potential closures which could impact security of supply before other low-carbon technology types are ready to deploy at scale.

Large gas plants at different points in their lifetime may react differently and would require different additional support. Existing generators may be able to recoup enough additional revenue in the Capacity Market to remain operational (albeit with an increased price cap), but recently built plants with long-term CM agreements may have relied heavily on significant generation in their early years with no way to increase their income and instead shutting prematurely.

The Labour manifesto currently includes a commitment to introduce a 'strategic reserve' for gas power to address this problem. Strategic reserves are typically expensive¹ and may lead to a problem of double subsidy on top of Capacity Market payments. Instead, the size of the gas power sector, as well as the need to convert large parts of it to CCS or hydrogen, may allow for an efficient market-based mechanism, such as through the 'optimised Capacity Market' mooted by the Review of Electricity Market Arrangements (REMA), or through specialised CM auctions for converting gas stations.

LCP Delta commentary: Faster decarbonisation targets may require revisiting certain parts of REMA that have already been concluded, especially as the next regular CM auctions will already be procuring capacity for 2029/30 – however, using existing market-based mechanisms should be considered ahead of new top-down approaches.

Unabated gas load factor in the LCP Delta Central scenario (existing 2035 decarbonisation targets)



Our Power Insights: Market Forecasts subscription includes LCP Delta's detailed power price projections that informed this graph: LCP Delta Subscriber Portal – Market Forecasts.

¹ <u>Review of Electricity Market Arrangements – Summary of Responses</u> © LCP Delta 2024



New investment vehicles

Great British Energy and National Wealth Fund will be essential in delivering targets

Labour's Green Prosperity Plan will be delivered through multiple new funds and investment vehicles. The two key new instruments will be the National Wealth Fund and Great British Energy (GBE), joining the existing UK Infrastructure Bank (UKIB) with a similar remit.

The National Wealth Fund (NWF) covers enabling infrastructure for CCUS and hydrogen transport, as well as port upgrades necessary to deploy further offshore wind projects. Given the increase in gas CCS capacity necessary to reach clean power targets by 2030 and the future reliance on hydrogen peaking capacity, this will be an essential enabling mechanism.

GBE will focus on delivering energy projects with a triple ambition of coinvesting in leading technologies, supporting developing technologies and increasing local energy production. Decarbonisation is a capital-intensive task, and therefore it is particularly sensitive to changes in the cost of capital¹. There is a risk that Labour's accelerated targets could increase these financing costs, but GBE could balance this by co-investing to provide cheaper loans than what the market is willing to provide. State participation can have additional benefits for investments by increasing the credit rating and attractiveness of an investment.

Further clarity on the priorities between the triple goals of GBE would be needed as soon as possible, as well as a clear delineation between it and UKIB – which currently has a very similar remit, even if GBE is expected to eventually own assets unlike the UKIB. Without careful consideration, GBE would risk crowding out private investment instead of crowding them in, if it decides to focus on areas that do not require additional support. Change in capex financing costs 2022-50 due to increased WACC under existing targets¹



1% increase in WACC 2% increase in WACC

LCP Delta commentary: Faster decarbonisation would increase financing costs due to increased project delivery risks, for example due to supply chain issues, and therefore instruments like the NWF and GBE would be essential to keep costs low. Government must carefully consider the technologies and project types it intends to invest in to maximise its impact.

¹ The Power Market Outlook 2023



Warmer Homes plan

Retrofitting existing homes is a key part of decarbonisation, with existing targets for all privately rented and owner-occupied homes to reach an EPC rating of C by 2035. Labour has proposed to move this target up to 2030 for all privately rented properties, estimated to affect about 3.2 million homes^{1,2,3}. The Labour manifesto has committed to providing additional support to reach the increased ambition but further clarity is needed on how much of the support will be provided as grants, loans, and what contribution is expected from consumers.

LCP Delta research has previously found that the average cost of a retrofit to reach EPC C rate is £14,500 in the UK, with homeowners typically willing to pay up to £10,000 to contribute to this. Labour's commitment to spend £13.6bn for retrofitting properties would therefore only cover about 3 million homes assuming all support would be grants – however Labour's manifesto clarifies that low-interest loans will also be provided. Great British Energy will also have a considerable remit to deliver local low-carbon generation, including solar panels, which would improve EPC ratings, as well.

A key barrier to success is the lack of skilled workers able and willing to deliver these retrofits. Commercial properties also have an efficiency target for 2030 (EPC B), but with the cost margin 5-6 times higher on a per square meter basis, specialisation in this market will be favoured. Some of the planned £500 million per year for the British Jobs Bonus will have to be used to incentivise firms to deliver additional training and participation in the residential market.

LCP Delta commentary: Retrofitting homes will require an expansion in the skilled workforce, going some way to reach Labour's target of delivering 650,000 additional jobs by 2030. However, careful consideration should be given to what these skilled workers may be able to do once retrofits are completed.

7 Power Insights – Market Framework – Manifesto Analysis June 2024

How much more are homebuyers willing to pay for a house with better EPC rating?



n = 608, <u>excluding</u> homebuyers that are <u>not willing to pay</u> extra (23%) or are unsure (17%).

Further detail is available in the <u>Gas Heating</u> and the <u>EPC rating &</u> <u>low carbon heat: How do homeowners value them?</u> Reports of LCP Delta's Heat service.

- ¹ Housing, England and Wales Office for National Statistics (ons.gov.uk)
- ² English Housing Survey
- ³ Number of Homes in need of improvements



Critical enablers and synergies

Labour's proposed additional funding and new schemes would not be enough to reach its ambitious targets if operated in isolation. All new schemes must be carefully coordinated to maximise synergies and additional enabling steps must be taken. Labour's proposed new cross-departmental mission boards can fill this role, but it must be adequately staffed with its own resources.

Local energy development appears in various parts of Labour's manifesto, both under the remit of GBE and under the Warmer Homes plan. Some existing mechanisms also share this remit, such as the UKIB, and many departments have a role in its delivery beyond DESNZ, such as the Treasury and the DLUHC. Coordinating across these teams and missions should allow for maximal impact in a short amount of time.

New electricity projects currently face delays from both the planning consent process and the connection agreement process. This dual problem means that there is currently barely enough capacity in the pipeline to hit Labour's capacity targets for renewable projects, such as for Offshore Wind, as illustrated in the graph on the right¹. Setting out new national policy statements will therefore be crucial in speeding up the pipeline, but this will necessarily mean reduced recourse for local communities – ensuring that they directly benefit will be essential to maintaining public support.

The Electricity System Operator has been making strides to deliver a faster connection schedule, such as through the TMO4+ process², but further work is needed to deliver National Grid's plan to upgrade the national transmission infrastructure.



Change in the Offshore Wind Pipeline^{3,4}

■ Built ■ Holds CfD agreement ■ Received planning consent ■ Holds connection agreement

LCP Delta commentary: Setting targets and creating new funds will not be enough to deliver on Labour's targets. Coordination across and beyond Whitehall, including fast-tracking the proposed Energy Independence Act, will be critical enablers whose delay could easily lead to missed targets.

- ¹ The Power Market Outlook 2023
- ² Power Insights: Market Frameworks May 2024
- ³ <u>Renewable Energy Planning Database</u>
- ⁴ Transmission Entry Capacity register





Conservative manifesto

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No new Conservative commitment on energy projects

The Conservative party's manifesto intends to continue on the same pathway as it has been on without introducing any major new changes. As the current decarbonisation targets for 2035 draw nearer, this will likely lead to missing them by a wide margin¹.

Under the manifesto commitments, offshore wind would only triple compared to today's 15GW² to 45GW by 2030, below the existing ambition to hit 50GW. While the proposed restrictions on solar farms on agricultural land would be paired with easing their location on brownfield and rooftops, solar capacity buildout rate is currently below where it would need to be to hit the 2035 target of 70GW. It remains unclear how effective the new planning rules to more easily locate onshore wind in England actually are – and without building onshore wind in England, renewable goals are likely unachievable.

The manifesto is cautious about delivering additional low-carbon flexible generation. It proposes a slight increase to the Green Industries Growth Accelerator fund (from £960m to £1.1bn), designed to improve green hydrogen and CCUS infrastructure. However, it only commits to 'progressing' the Track 2 CCUS clusters over the next Parliament, rather than fully delivering them by 2030, as has been proposed previously.

Building new gas power stations would be necessary under the existing decarbonisation pathway as existing power stations shut down by 2030 and low-carbon alternatives to not become available until later, with other countries, such as Germany³, recently committing to doing the same. However, government research has shown that in the absence of a credible decarbonisation pathway, it is unlikely for significant volumes of new capacity to come forward⁴.



GB capacity change 2021 to 2022 vs required yearly average build to 2030

Capacity added in 2022 © Required yearly average build to 2030

LCP Delta commentary: Continuing on the same capacity pathway as before will not allow the UK to reach its Net Zero targets and other commitments. This includes both domestic commitments, such as the legally binding Carbon Budget 6, and the Nationally Determined Contributions under the Paris agreement.

- ¹ The Power Market Outlook 2023
- ² Offshore Wind Report 2023 | The Crown Estate
- ³ Germany agrees to tender 10 GW of "hydrogen-ready" gas-fired power plants | Enerdata
- ⁴ Assessing the deployment potential of flexible capacity in Great Britain an interim report (publishing.service.gov.uk)



Steps to maintain public support

The incremental steps in regulation proposed in the Conservative's manifesto would likely increase public support for energy policies but could lead to a reduction in Net Zero ambitions.

Reforming the Climate Change Committee's remit to have an explicit mandate to consider costs to households and ensuring enhanced parliamentary scrutiny on future Carbon Budgets would likely increase the buy-in from the public as it would more clearly acknowledge the importance of short-term costs. It is worth noting that the CCC already considers costs in determining its advice and Carbon Budgets are already debated in Parliament, and therefore excessive focus on these instruments could prove a distraction.

Most green levies due on household bills over the next five years originate from commitments made as part of Contracts for Difference, Renewable Obligations and other government schemes that have already concluded, and therefore their cost impacts cannot be changed. New technologies such as CCS and hydrogen were going to require new green levies, but these have now been ruled out. This means that the only way to reduce the impact on household bills, a key Conservative commitment, would be to move payments onto general taxation instead.

The intention to introduce zonal pricing for wholesale markets has the potential to provide system cost savings of £5-15bn¹, due to plants locating in more appropriate locations. While theoretically expected to provide considerable consumer benefits, practical implementation would likely take a number of years and even small impacts on the cost of capital, caused by changes in investor sentiment, could wipe out any potential benefit.

Difference in system costs between status quo and locational wholesale pricing under different levels of WACC¹



LCP Delta commentary: The scale of changes necessary to deliver Net Zero will require public support for a sustained period of time and strengthening mechanisms for feedback may help in achieving this. As the introduction of zonal pricing would necessarily lead to additional generation capacity locating near population centres, the perception of public participation would likely reduce local opposition.

¹ System Benefits from Efficient Locational Signals

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