

GMB response to BEIS consultation on a Regulated Asset Base (RAB) model for nuclear

Introduction

GMB Union is one of the country's largest trade unions and the leading union in energy. We represent over 600,000 people in the public and private sectors, including more than 50,000 energy workers. GMB's members work in every stage of the nuclear life cycle from construction to decommissioning.

Executive summary

It is vital that new investment in nuclear generation is secured. The UK requires a dependable baseload of electricity supply as part of a balanced energy mix. Against a backdrop of rising demand, the looming closure of most of our existing nuclear plants, and shaken investor confidence, assurance over the Government's commitment to nuclear is essential.

In our view, the most cost effective and accountable mechanism for funding new nuclear builds is direct government funding. If the Treasury is not willing to sanction this approach then a Regulated Asset Base (RAB) model could play an important role in delivering investment in nuclear, subject to certain conditions and safeguards which we set out in this response.

GMB energy policy

GMB believes that the UK needs a well-regulated and cohesive government-led approach to achieve a balanced and sustainable energy mix that contributes to decarbonisation while ensuring security of supply.

Until there is a breakthrough in large-scale, economically viable and reliable storage technology, wind and solar alone cannot replace a sensible mix of renewables and low-carbon sources, including an enhanced role for hydrogen, that provide a dependable baseload that can accommodate both regular and peak demand. Energy insecurity represents an existential threat to thousands of jobs, especially in heavy and specialist manufacturing industries, and it is important that we invest in dependable domestic power generation.

GMB policy would include the building of at least six more nuclear power stations, providing clean energy, skilled and well-paid jobs, and security of supply.

The need for investment

Nuclear contributed 20 per cent of electricity production in 2018, up from 14 per cent in 2008.¹ It is likely that the UK will require a significant expansion of this supply in the coming decades. The National Grid estimates that peak electricity demand could rise to 85 gigawatts by 2050 (an increase of around 40 per cent compared to current levels), driven by the anticipated electrification of transport and heating.² Reportedly, according to the Department's own analysis, up to twelve new nuclear power stations may be required if climate change targets are to be met.³

The need for new capacity is now acute due to the planned phasing out of coal by 2025 and the expected closure of most existing nuclear plants by 2030. The UK's energy deficit (measured by

¹ DUKES table 5.1

² <http://fes.nationalgrid.com/media/1409/fes-2019.pdf> (page 48)

³ <https://www.thetimes.co.uk/article/reforms-in-funding-planned-to-meet-demand-for-nuclear-power-plants-j3n0mln0l>

dependence on imports) has doubled over the last decade,⁴ and a worsening of domestic production rates would raise serious questions over security of supply. The German Government's recent and unhappy experience of denuclearising supply, and the resulting growth in dependence on fossil fuels, is a sobering reminder that the only way that the UK can meet its climate change obligations while fulfilling rising demand is through continued investment in this high-output form of low-carbon production.

We welcome the Government's commitment, now confirmed after an unnecessary series of reviews, to the construction of Hinkley Point C (HPC). HPC will not in of itself meet our future energy needs, and the collapse in rapid succession of plans to construct new nuclear capacity at Moorside, Wylfa Newydd, and Oldbury has created a chilling effect across the sector. It should be noted that the downgrading of assumed future nuclear capacity in the National Grid's *Future Energy Scenarios* publication was due to the uncertainty over the status of major projects.⁵

The UK has a notoriously poor record when it comes to delivering major infrastructure projects. The issue of sector confidence is therefore paramount, and a clear plan for delivering and funding new nuclear generation is an essential first step.

The labour value of nuclear

It should be noted that nuclear construction and operations are important sources of a high volume of skilled and well-paid jobs, relative to all occupations. The ONS estimates that 13,400 people were directly employed in nuclear electricity production in 2017,⁶ a figure that on industry estimates rises to 65,000 people across the whole of the nuclear life cycle, including decommissioning.⁷ On the construction side, GMB is a signatory to the 'best in class' HPC workforce agreement, which is held up as a model agreement for other major infrastructure projects.

Nuclear generation also supports an extensive and vibrant supply chain. Nuclear generation boasts the second highest employment multiplier of all forms of low carbon electricity production, supporting a further 22,900 jobs across the wider economy on the ONS's measure.⁸ ONS multipliers imply that the 900 FTE permanent jobs expected to be sustained at HPC will support a further 1,500 jobs across the wider economy, double the indirect contribution that an equivalent investment in direct offshore wind jobs would generate.⁹

A corollary of this argument is that, under current market dynamics, a policy of meeting our energy requirements purely through wind and solar would destroy thousands of jobs currently sustained through the nuclear sector, even if such a policy was technically feasible.

⁴ <https://www.gov.uk/government/statistics/electricity-section-5-energy-trends> (ET 5.6)

⁵ <http://fes.nationalgrid.com/media/1409/fes-2019.pdf> (page 121)

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<https://www.ons.gov.uk/economy/environmentalaccounts/datasets/lowcarbonandrenewableenergyeconomyindirectestimatesdataset>

⁷ <https://www.niauk.org/nuclear-activity-report/>

⁸ After hydropower. See ONS,

<https://www.ons.gov.uk/economy/environmentalaccounts/datasets/lowcarbonandrenewableenergyeconomyindirectestimatesdataset>.

⁹ GMB calculations based on ONS LCRE multipliers for 2017. It should be noted that the ONS has produced Type I multipliers, and that the labour market footprint of nuclear would be higher if Type II multipliers (including induced effects) were available.

Investing in nuclear is therefore important from the point of view of sustaining and growing jobs and skills, and of avoiding the hidden costs of unemployment and lower-paid employment that a transfer from low-carbon nuclear to renewables would incur under current labour market conditions.

Funding new nuclear – the case for direct investment

Ultimately the only two sources of funding for nuclear projects are taxpayers and billpayers (and of course most people are a combination of the two).

Funding nuclear construction and other major projects through borrowing or general taxation would be more cost efficient and accountable than the various market mechanisms that have been developed over past decades. Funding projects through direct taxation rather than household bills would also be progressive and shift the balance of costs to those with the broadest shoulders (this argument is discussed in more detail below).

Nuclear development is a matter of national strategic importance that is hindered by the state's quasi-separation from the delivery process, and the raised costs and inflexibilities of market mechanisms are not, in our view, a price worth paying for keeping nuclear investment off the Government's balance sheet.

GMB firmly believes that direct funding represents the best option for delivering Sizewell C and other new nuclear projects. Our answer to **Question 5** then is unequivocal: the Government has not given sufficient consideration to the case for direct funding. If there is not the political will to pursue this option, however, then with the right safeguards we believe that a RAB model has the potential to represent an advance on the current position.

Moving beyond Contracts for Difference

In our evidence to the Public Accounts Committee inquiry into the funding of HPC, GMB argued that the much criticised HPC strike price was below other contemporary strike prices, and that securing the investment in HPC - even under a flawed funding model – was imperative after years of stalled investment.¹⁰

Nevertheless, the drawbacks of the Contracts for Difference (CfD) approach are apparent. Taxpayers and billpayers now locked into a strike price of £92.50 per MWh (in 2012 prices) for the best part of three decades. By contrast, the wholesale cost of electricity was £41.86 in July 2019¹¹ (although it should be noted that the National Audit Office stated that 'it will not be known for decades whether HPC will be value for money'¹²). The volatility of electricity prices and the difficulties - if not impossibility - of making accurate projections over the long term invite a different approach.

Regulated Asset Base proposals

RAB models are widely utilised and well understood across the transport and utilities sectors. From investors' point of view, RAB models reduce the cost of borrowing while providing a measure of certain over rates of return. The provision for periodic reviews under RAB model avoids the possibility of forecast errors can lock taxpayers into very long-term commitments under the CfD model. There is some evidence that the use of RAB funding has been more effective at restraining

¹⁰ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/hinkley-point-c/written/70732.html>

¹¹ <https://www.ofgem.gov.uk/data-portal/electricity-prices-day-ahead-baseload-contracts-monthly-average-gb>

¹² <https://www.nao.org.uk/wp-content/uploads/2017/06/Hinkley-Point-C.pdf>

cost overruns in the electricity sector than other procurement methods.¹³ The proposal to account for depreciation should help to prevent a repeat of the accumulation of unsustainable levels of debt in the rail industry's RAB model, which does not account for depreciation.

The disadvantages of (potentially) levying additional charges on consumers in the event of a cost overrun, even under an *ex ante* approach, must also be considered. Energy bills are regressive (the lowest income households spend nine times more of their income as a proportion on energy bills than the richest households)¹⁴, although it is not straightforward to assess whether the distributive impacts of the RAB model would be worse or better than those imposed by the CfD approach. The risk of cost overruns at Sizewell C should be mitigated by the lessons learned and expertise gained from HPC construction, and it should be noted that under all models the ultimate risks lie with the taxpayer.

While these are not easy questions to consider, in our view adoption of the RAB model would make it more likely that funding is secured for Sizewell C (and other critical nuclear builds), and as such our responses to **Questions 1 and 4** are ones of qualified support. It is important however that the Department learns of lessons of how the RAB model has been applied to other sectors.

In the case of the water industry, the RAB model has been associated with poor regulation, which has seen almost the entire sum of industry profits converted into shareholder dividends and almost no discretionary or speculative investment.

Capping of investor returns, a proposal raised by the consultation document, would be a positive step during nuclear builds. As our response to **Question 3**, we would argue that consideration should be given to continuing this cap once construction has been completed to encourage the conversion of retained profit into reserves and investment. Mechanisms should also be implemented to ensure that unexpected financial gains (such as those derived from the lowering of the Corporation Tax rate) should be recycled into investment or lower household bills.

We are disappointed that the nuclear workforce is a missing dimension from the Department's consultation document. Nuclear construction and operations require highly skilled workers, a clear plan for bringing apprentices through the ranks, and stable industrial relations over the long-term. The Government should therefore regard investment in the nuclear workforce as being as important as investment in physical infrastructure. GMB has set out more details of the case for workforce investment in the energy sector as part our *Switched On* campaign.¹⁵ If the Department decides to proceed with the RAB model then it should consult with the nuclear trade unions on how these objectives can be prioritised under the new regulatory regime. GMB has also argued that energy contracts should mandate more extensive data reporting for public consumption.

Procurement processes under a RAB model should account for labour market and prosperity effects – at the very least to the extent that is provided for under the 2018 Treasury Green Book update – and through these measures better support the UK's supply chain. There must be no repeat, in nuclear or any other part of the energy sector, of the offshore flow of orders on the Neart Na Gaoithe project. The assumption of a 'golden share' in new nuclear projects by the Government could aim compliance with these aims.

¹³ International Transport Forum, The Regulatory Asset Base and Project Finance Models: An Analysis of Incentives for Efficiency, page 16 https://www.itf-oecd.org/sites/default/files/dp_2016-01_makovsek_and_veryard.pdf

¹⁴ <http://www.ukerc.ac.uk/asset/0AD68D13-5215-4EC7-B6D5FAE680E90706/> figure 4

¹⁵ <https://www.gmb.org.uk/campaign/switched>

Finally, we note that the consultation document states that the hypothetical Regulator could be a new or an existing body. GMB's view is that Ofgem has consistently failed to represent consumers' or energy workers' interests and that it should be abolished.¹⁶ We would have concerns in principle about the potential combination of economic and safety regulation if the Office for Nuclear Regulation was designated as the new Regulator. Our response to **Question 2** is therefore that, if a RAB model is adopted, then those functions should be entrusted to a new body.

Conclusion

The delivery of new nuclear builds is vital to the UK to meet its energy needs and its climate change obligations. In our view, the direct funding of projects would be a fairer and more efficient means of delivering that capacity. This option regrettably does not appear to be on the table, and we have set out in this response a number of additional steps that could be taken to better secure the interests of energy workers and consumers under the Government's proposed model.

In response to the core question posed by the consultation, GMB endorses the view that, in the apparent absence of the political will to fund nuclear projects directly, a RAB approach is 'plausible and preferable' to the CfD model.¹⁷

¹⁶ See <https://www.gmb.org.uk/news/npower-urgent-action-required-energy-sector>

¹⁷ Dieter Helm, Energy Futures Network Paper 27: The Nuclear RAB Model, 1 June 2018
<http://www.dieterhelm.co.uk/assets/secure/documents/The-Nuclear-RAB-Model-12.06.18.pdf>