

Great British Bill Committee: submission from Amentum

Great British Energy (GBE) has the potential to deliver affordable energy to homes across the UK that is both secure – ensuring we are not reliant on foreign nations – and low carbon. The government has a statutory duty to reach net zero carbon emissions by 2050. Every 10 days, more than 0.1% of that time passes. If the new government wants to accelerate towards decarbonisation, time is of the essence. Delivering a GB Energy that is both implementable and impactful will be a crucial step on that journey.

Industry has been supportive of the policy since its inception, and HM Government's enthusiasm in delivering this transformative agenda has been welcome. If, however, the potential benefits are to be realised in full, this must be treated as a national endeavour, with the required legislation ensuring GB Energy has the powers, freedoms and financing needed to achieve its stated aims. This should not solely be a national endeavour; the private sector should be allowed and encouraged to contribute and empower GB Energy, providing the support, technology, and delivery assurance needed to achieve the government's ambitious targets.

This national endeavour gives a great opportunity to evolve the relationship of government with key industry stakeholders. Through the formation of GB Energy, partnership/peer relationships should be formed between government and major industry stakeholders; moving away from a hierarchical model to one that sees industry much more as an enabling lever through alignment and interdependence. Ensuring a whole of government and whole of sector approach is key to this mission to get the most out of this once in a lifetime endeavour.

To realise its full potential, GB Energy must take a programmatic approach in delivery and make a series of 'no regret' decisions over the next few years to ensure the UK is not left behind other nations and has a secure network that ensures power remains constant and the country enjoys a thriving, growing economy. In order to achieve this, we believe it is best to examine four separate tranches:

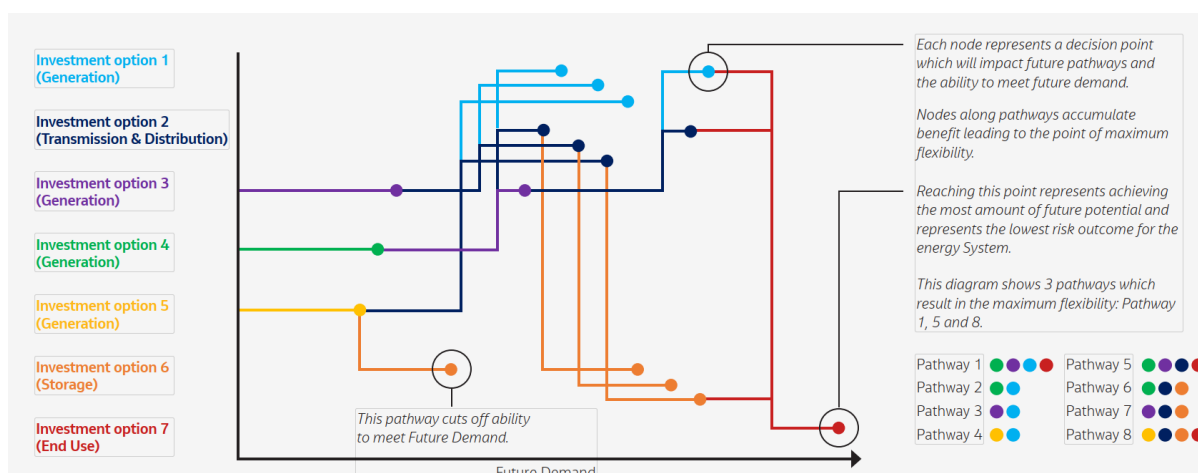
1. Investment and co-investment
2. Community energy
3. Accelerated deployment
4. Supply chain

These are considered in greater detail further below, but first, we would like to set out a number of overarching recommendations which would help ensure GB Energy is not held back in its delivery of critical energy infrastructure.

General Recommendations

- **Special Purpose Vehicle** – The Bill should make provision for GB Energy to act as, or establish, a Special Purpose Vehicle similar to the Vaccine Task Force or the Olympic Delivery Authority. Both the response to Covid-19 and the drive to prepare for the London 2012 Olympic & Paralympic Games required the need to move at pace. If government is to meet its net zero objectives, the same urgency must be considered with the energy transition. Administrative independence and the ability to make decisions at pace is crucial, and the bill should consider legislating to this effect.
- **Adaptive Pathways approach** – An ‘adaptive pathways’ approach eliminates the likelihood of high-risk decision making leading to unnecessary public spend, instead addressing the key uncertainties and common market failures that affect investment in all energy sectors. This allows for the building of a programme of investments in the short-term that do not undermine long-term opportunities. By taking an adaptive pathways approach, GB Energy can make the decisions that need to be taken now and programme those that must be taken in the future, to ensure the long-term benefits and success of decarbonisation.
- **Creation of an energy advisory board** – The creation of a UK Energy Advisory Board, consisting of government representatives, industry leaders, academics, and technical experts from each major area of UK interest (e.g. nuclear, wind, solar, hydrogen, tidal, networks, transmission, finance, investment, programme delivery and energy systems) would enable the government to take an holistic, technology agnostic approach to the UK’s energy and decarbonisation requirements. This has already successfully been implemented in the UK at an individual technology, sub-market level, including UK Hydrogen Council (advising DESNZ), the Nuclear Innovation and Research Board (advising DESNZ) and the Scientific and Technology Advisory Group (advising MOD).

Figure 1: Example of the adaptive pathways approach to investment



Investment and co-investment

A host of new technologies currently under development have the potential to ease the necessary energy transition. There is significant capital available when projects reach final investment decision, but there remains a major gap between the initial development of the technology and a final investment decision, with a dearth of development and feasibility funding. We recommend GB Energy focus on this gap (advancing project and technology adoption and project readiness levels) rather than the technology readiness.

It is common for entrepreneurs or Original Equipment Manufacturers (OEMs) to innovate new technologies, with a combination of angel, VC, family office funding, and government grants advancing their development. However, across various technologies, we often see the onus of project creation falling on these technology innovators, from which point project origination and delivery then stalls.

Project origination and development requires individuals or entities that can align stakeholder ambitions, create, and integrate teams, and ensure outcomes. A development team with experience across the project lifecycle in advanced engineering, system integration, and commercial and programme management needs to be involved at this stage to create programme momentum and prevent stalling. These are distinct skillsets from technology innovation, but equally vital as they de-risk project delivery.

Just as the financial service industry in the UK was set up and is run by industry, the UK can do the same within our energy transition. Our perspective is that this transition does not require the government to act as a developer, but rather to create the optimal conditions for investment.

Recommendations

- **Targeted investment** – providing feasibility stage funding to appropriate projects to propel them to access development stage funding from the wider infrastructure investment market.
- **Risk characterisation** – risk characterisation, allocation and project structuring have high first-time costs. Appropriately executed and shared, they can unlock wider delivery programmes.
- **Guarantees** – various developers have asked for our balance sheet backing to unlock development stage funding or financing. This is an unreasonable request for industry. GBE can fill this void or help coordinate terms with UK government to do so.

Case study – *THAMES TIDEWAY*

For the Thames Tideway 'super sewer' project, the UK provided a Government Support Package. This was an effective government backstop specifically targeted at five risk areas the private sector market could not price, such as black swan events. Government funded feasibility works also characterised and allocated risks. These items were critical to leverage in private capital at the attractive rates received.

Community Energy

Community energy projects offer an opportunity to deploy distributed generation and localised consumption at scale, whilst gaining public support with the implementation of commercial structures that benefit local communities.

Pioneering communities have deployed successful schemes, providing a path to follow. However, changes to policy and the regulatory environment governing private wire and microgrid deployments can create wider pathways for implementation at scale.

We see examples of current regulations hindering microgrid/private wire deployment in providing behind the meter (BtM) power to end users such as the UK rail network. In general, an electricity generator must hold a licence unless certain exemptions are met. As the electricity would be sold to Network Rail and not the end customers, and the train operating companies are not premises, these exemptions are not met. This regulatory hurdle is one of the reasons that providing BtM solutions to the UK rail network has advanced at such a slow pace. We see other such restrictions across the energy transition playing field, greater acceptance of end use applications other than national grid should be further explored by UK government.

We are in discussion with large landholders and energy users with interest in deploying clean energy at scale for their own use and to provide power to other nearby consumers. There will be instances where similar regulatory hurdles will be encountered and where creating a unified industry approach could unlock numerous opportunities.

Recommendations

- **Incentivise communities** – Gaining local community buy-in is essential to the success of GB Energy. The Bill should make provision to empower both the Ministry of Housing, Communities and Local Government and Great British Energy to incentivise communities to take on major energy sites. This could include community payback, investment schemes, including discounted energy bills, and the creation of regional training and employment hubs where key sites are located.

Accelerated Deployment

The deployment of innovative and emerging technology takes time as the technology and market advance to provide the right financial conditions for programme delivery. However, we are seeing instances where these delays are compounded due to procurement practices, licencing regimes, and sub-optimal management of planning approval processes.

This is happening with various technologies; small modular nuclear reactors (SMRs) provide a poignant example. The UK is a world leader in civil nuclear power, being the first country to deploy it. We continue leading the world in technology development, much of it happening in Amentum's own research and development laboratories in Warrington. However, the UK is falling behind in deploying SMRs.

There are a handful of SMR project sites being developed right now. Some have selected the Rolls Royce SMR, developed in the UK, as their technology, however none of these sites are in the UK.

As an illustrative example of this, Amentum has been brought onboard by one SMR technology provider (who is a known name in the UK) to help duplicate their 2030 deployment programme in the US here in the UK. We have created a programme to do so but implementing it will require new working practices across a range of stakeholders. This is not a unique situation, as we are seeing other nations in Europe gaining the edge on the UK in SMRs, as well as other technologies.

Is it important to note that the nations where the First of a Kind deployment for an SMR takes place, will likely be the home of that vendors supply chain for exports of the technology into the wider region. If the UK does not act quickly and start projects before our European neighbours, we run the risk of being a technology importer, as SMR vendors create factories and supply chains in the home nations acting as the host for the First of a Kind deployments. Counter to this, if the UK can take an early market lead, we can gain first mover advantage and become a technology exporter, with the UK acting as a springboard into Europe and the Baltic States.

Recommendations

- **Permitted development** – There are ways to speed up site development in a commercially conscious manner. GB Energy can help qualify aspects of early site development prior to Development Consent Order.
- **Access to government land** – The Bill should make provision for GB Energy to have greater powers concerning state owned land, allowing for selection of sites for energy infrastructure deployment at pace.
- **Changing relationships** – It is common to see public organisations that can drive change take standoff positions with developers for fear of procurement regulations or the perception of all as a zero-sum game. Industry is seeking collaborative relationships for co-development that GB Energy can facilitate evolving collaborative approaches to project development.
- **First rights of follow on** – There are investors in market willing to provide development capital to innovative projects. They will require first rights of follow on capital to release these initial investments. Care must be taken to create an even playing field to deploy this in blended finance structures.

Supply Chain

As an international company, we see many examples where policy and industrial strategy work hand-in-hand to create new industries. We are encouraged to see this government place industrial strategy back as a policy priority and the Department for Business and Trade progressing this in the first 100 days, as we, and many others in the sector, feel this requires strengthening in the UK. It is critical that energy policy and industrial strategy are interrelated. For example, in France, we see national projects create national industries.

Contrasting this, the UK space programme at present is in need of a more joined-up approach. Through the UKSA, the UK Government provides various grants to innovators in the UK space industry. These grants are awarded during project allocation rounds with a defined scoring system. However, there lacks an overarching strategy on supporting complementary innovations in terms of technology and skill development to create a sustainable UK space industry.

In order to progress this to the next stage, there needs to be a series of clearly defined and aligned national space projects rather than spread betting in niche innovations, which will not create an enduring sustainable space sector in the UK.

Recommendations

- **Joined up approach** – The pieces of the jigsaw need to come together for energy policy and investment to align with industrial strategy and regional plans. Aligning all will create a multiplier effect for GBE investment decisions.
- **Evaluate return on different metrics** – The energy transition will bring the advent of many new technologies, not only for energy generation and distribution, but also for end use. This provides a generational opportunity to foment UK industrial development if investment decisions consider these outcomes appropriately.

Case study – THE UK: AN AVIATION SUPER-POWER

The UK's aviation technology industry was shaped by a combination of government-led strategies, strategic investments, and strong collaboration with the private sector. After World War II, the government nationalised key parts of the supply chain, developed strong partnerships with the private sector and together invested in R&D programmes, supporting innovations like the Concorde project, and developing military aircraft through defence contracts. Partnerships with leading UK industry organisations such as Rolls-Royce and BAE Systems were critical, and the government facilitated exports to expand the global reach of UK aerospace technology.

Research institutions and universities played a key role, contributing to the development of new materials, advanced manufacturing, and avionics. At its peak in the mid-2010s, the UK aviation industry was valued at around **£31 billion annually**, making it the second-largest aerospace industry globally, with **70% of its production exported**. UK Government focused on maintaining its competitive edge through initiatives like the Aerospace Growth Partnership, which promotes innovation and collaboration and continued investment in STEM education and apprenticeship programs to ensure the availability of a skilled workforce to meet the needs of the evolving aerospace sector. The industry directly employed over **120,000 people** and was a significant economic driver for the UK. This multifaceted approach has helped the UK sustain a leading position in global aviation technology.

In summary, we are excited by the formation of GB Energy and the potential it has to transform the energy sector. There is great potential for collaboration and co-delivery as we scale the energy transition. We also see this as a great opportunity to provide structural clarity to the government support structures of GBE, GBN, NWF, and UKIB. It is our recommendation that GB Energy serves as a front-door for industry for energy projects that are yet to deploy at scale. This will provide a single-entry point to receive and convey a unified position on the instigation of nascent technologies as we transform them into deliverable programmes of work.

In addition, we would encourage a pragmatic and holistic view regarding Return on Investment (ROI) when GB Energy and/or private investors look to invest in technologies, projects and programmes. Unlike industry, nation states can take a much wider view on ROI and seek to develop projects based on more than financial returns alone. This could include:

- Financial return
- Job creation and a focus on local economic growth in regions across the UK
- Job and skills transfer e.g. from O&G sector
- Facilitate UK exports (first mover advantage, IP, knowledge and products)
- Create supply chains in UK
- Underpin other key UK industries e.g. steel, chemical production etc
- Provide greater resilience and energy security

Amentum remains committed to supporting policymakers in ensuring that GB Energy is as successful as it can be, and we would be happy to provide further case studies and recommendations as required, be that to government, parliament or any other interested stakeholders.

About Amentum

Amentum is a global leader in advanced engineering and innovative technology solutions, trusted internationally to address the most significant and complex challenges in science, security and sustainability facing the world today. With a UK workforce of over 6,000, our people are designing, building, maintaining and decommissioning power stations and nuclear sites and work on critical national defence programmes. Globally, Amentum has more than 53,000 employees in approximately 80 countries across all seven continents.

In the UK, Amentum is delivery partner for project and construction management services at Hinkley Point C; delivery and integration partner at Sizewell C; and supports the UK's existing nuclear power stations under a Lifetime Enterprise Agreement with EDF. The company is a major supplier of engineering design, safety case and project management services at Sellafield and other UK nuclear decommissioning sites and operates the country's largest private sector complex of nuclear laboratories and engineering test facilities in Warrington.