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THE STATES OF DELIBERATION
of the
ISLAND OF GUERNSEY

POLICY & RESOURCES COMMITTEE

OFFSHORE WIND OPPORTUNITY FOR GUERNSEY – UPDATE AND NEXT STEPS

The States are asked to decide:-

Whether, after consideration of the policy letter entitled Offshore Wind Opportunity for Guernsey – Update and Next Steps, dated 20th March 2025, they are of the opinion:-

1. To approve next steps set out by the Policy & Resources Committee's Offshore Wind Group sub-committee (see paragraphs 5.2 to 5.7), and to direct the Policy & Resources Committee to submit a policy letter to the States of Deliberation by December 2026 at the latest which sets out the commercial leasing agreement, terms relating to that agreement and the preferred bidder; and

2. To direct the Policy & Resources Committee to establish an arm's length entity with appropriate political governance (see paragraph 6.4) to take forward the work of the offshore wind project through Phases 3 and 4 from the beginning of the new States' term.

THE STATES OF DELIBERATION
of the
ISLAND OF GUERNSEY

POLICY & RESOURCES COMMITTEE

OFFSHORE WIND OPPORTUNITY FOR GUERNSEY –
UPDATE AND NEXT STEPS

The Presiding Officer
States of Guernsey
Royal Court House
St Peter Port

20th March, 2025

Dear Sir

1. Executive summary

1.1. The work of the Policy & Resources Committee's Offshore Wind Group sub-committee to date, informed by external technical expertise, has identified that, at this time, the optimal way to best meet the States of Guernsey's ("the States") overall objectives is to explore the possibility of generating renewable energy and exporting it to the UK from a Guernsey offshore wind farm in order to generate revenue. The other options appraised - export to France, and a hybrid of export plus connection to Guernsey - should continue to be considered and tested.

1.2. The work has indicated that, subject to a number of assumptions and the need for further work by the States, there is a significant financial value of the seabed as an asset to be developed for the export of offshore wind to the UK. As well as being subject to many financial and technical assumptions, this is also subject to commercial assumptions and changes in the market and supply chain. It is based on a single representative site in Guernsey's territorial sea which has been the subject of technical research. Assumptions are based on a sample site area of 157km sq, with installed capacity of 1.27GW and with a high but feasible density of around 8MW/km sq.

1.3. Reasonable base case assumptions suggest that a developer could achieve significantly greater returns than required to justify its investment assuming an IRR (Internal Rate of Return) of 7.5%. The net present value (NPV) of this is estimated at £300mn – the excess value that a developer may be willing to share with the States for ownership of the project. The precise mechanism for sharing this would be subject to commercial negotiation. However, as a guide, a NPV of £300mn would equate to an upfront payment up to that amount (based on commercial negotiation) or alternatively up to £1,300mn over the active 35-year lifetime of the windfarm (if treated as annual

payment based on real, undiscounted payments derived from wind farm net cashflows, and again dependent on commercial negotiations).

1.4. While this is a reasonable base case, there is a significant potential range for this valuation and revenues due to the sensitivity of the assumptions, particularly price and investor expectations. The base case valuation is £300mn but the variation of assumptions indicates a range of high cases to £707mn. A number of very significant assumptions have been made as part of this calculation, including financial assumptions, site and windfarm assumptions, technical and economic assumptions, and revenue assumptions. In addition, it is assumed that the base option will be part of the UK's Contract for Difference ("CfD") framework (see 3.6 to 3.9) and also that there will be connection to the UK grid to enable export, which will require significant developer investment. These are significant assumptions that need to be refined, and which will require significant resource from the States in order for the necessary work to be done.

1.5. Notwithstanding the significant assumptions made, it is evidenced that there is a potentially valuable commercial option for Guernsey to lease part of the seabed for offshore wind, and that there is a potentially valuable commercial opportunity for offshore wind developers and investors to continue to explore in a structured and more detailed way, with the continued use of external expert advice. The overall financial benefits to the States of Guernsey could include a lease exclusivity payment, rental income over a period of up to 35 years[1], and corporate income tax revenue over that same period.

1.6. In order to further explore this opportunity, the States must undertake due diligence and de-risk the proposition, by negotiating access to a UK/French CfD, a UK/French grid connection, and finalising a Marine Spatial Plan identifying offshore wind development areas (which will likely require legislation to set out the relevant legal framework for implementation and enforcement) and an associated licensing and consents framework. This work needs to be prioritised through 2025 and into 2026, alongside the proposed next Phases of consultancy work (see section 5). Discussions on access to the CfD regime are already progressing with the UK government.

1.7. Funding of up to £1.3m (excluding external legal costs and the costs of a delivery entity) is required to undertake the next phases of work (Phases 3 and 4) during 2025-26 and to establish a route to market. At that point the States will be asked to consider a commercial agreement setting out the leasing approach and proposed developer, through a policy letter submitted to the States of Deliberation by the end of 2026.

1.8. Access to the UK or French CfD regime is critical to the financial viability of an offshore wind development on the seabed and it must be clear by the end of 2025 at the latest if that can be achieved. On that basis while the funding for Phases 3 and 4 of the work has been agreed, the deployment of the funding for Phase 4 will be dependent on the

[1] 35 years is based on advice received during the work to date from industry experts that the assumed lifespan of an offshore wind farm is 30 years, and that there is a period prior to construction/operation of the windfarm in the region of 5 years where a fee may be charged for exclusivity.

Policy & Resources Committee's agreement, being satisfied with the progress and outcomes on Phase 3 and on the progress in respect of securing access to the UK and/or French CfD regimes.

1. Introduction

1.9. In December 2023 the Policy & Resources Committee established a sub-committee tasked with:

- Development of a leasing approach for offshore wind in Guernsey's territorial waters, including an appraisal of options for the approach to leasing, recommendations on an optimal approach to fee structure and benefit realisation, recommendations on the model for leasing and method for approaching the market, and development of the legal documentation to deliver the approved leasing approach.
- Supporting and feeding into the development of the licensing/consenting of offshore renewable energy and ensuring a joined-up approach with the development of the leasing approach, work which is led by the Committee *for the* Environment & Infrastructure.
- Supporting and feeding into the development of the Marine Spatial Plan and ensuring a joined-up approach with the development of the leasing approach. This work is being led and will be delivered by the Committee *for the* Environment & Infrastructure.
- Strategic engagement centred on other requirements for the development of offshore wind, which will not necessarily be resolved by the States including interconnection and route to market.
- Being the primary point of contact through which engagement with developers and interested parties will be undertaken.

1.10. The political membership of the sub-committee was revised to the following, recognising Committee mandates and the broader group which undertook the October 2022 scoping report:

- Deputy Chris Blin - Chair
- Deputy Bob Murray – Policy & Resources Committee
- Deputy Lindsay de Sausmarez – President of the Committee *for the* Environment & Infrastructure
- Deputy Nick Moakes – representative of the Committee *for* Economic Development and of the States' Trading Supervisory Board
- Deputy Carl Meerveld – Member
- Deputy John Dyke – Member

1.11. The sub-committee resolved to address its work in four Phases:

1. Exploring the viability and opportunity for offshore wind in Guernsey's territorial seas.

2. Understanding what the value of that opportunity might be, from the perspective of setting out the potential value of Guernsey's seabed as an asset.
3. Dependent on completion of the first two Phases, whether there is one or more potential markets for Guernsey's offshore wind.
4. How a Guernsey offshore wind farm would access that market.

1.12. Following a tender process and evaluation, two consultancies were selected to provide technical expertise: PA Consulting[2], with a greater focus on commercial and technical matters; and the Carbon Trust[3], with a greater focus on regulation, licensing and consents-related matters.

2. Assessing the potential value of the opportunity

2.1. During Phase 1, detailed work was undertaken by PA Consulting on a NPV analysis of the offshore wind opportunity, based on a representative site. Preliminary technical analysis was also provided by Ramboll[4] as part of this work. The analysis was completed and presented to the sub-committee on 10 December 2024. Although much of the analysis and evidence base is at this stage commercially confidential to the States, it has been agreed to confirm the current calculation of NPV and the assumptions made which might impact on it in the future. It is intended to be a guide to the States and potential partners on the scale of the opportunity, subject to the assumptions that have been made.

Methodology

2.2. The work undertaken by PA Consulting to provide a baseline NPV for a potential offshore wind project evaluates the potential profitability of the investment and project by calculating the difference between the present value of cash inflows and the present value of cash outflows over its lifetime. An NPV calculation enables comparison of the financial benefit of different approaches with different cashflows. A positive NPV means that the scheme generates positive benefit over time above a base IRR achieved by the developer of around 7-8% and the higher the NPV the better the financial outcome. This calculation should be regarded as an approximate placeholder for the maximum value that a developer could be willing to share with the States in return for ownership of the project.

2.3. The methodology that was used also incorporates a levelised cost of electricity ("LCoE"), a widely used metric to assess the unit of generating energy from a particular power generation asset over its lifetime. In this case, the LCoE is calculated as the total cost of building, operating, and decommissioning the wind farm over its entire operational lifespan, divided by the total energy produced during that period. Both these costs and generation are discounted over the lifetime of the asset, by a factor known as the discount rate – typically related to the cost of capital of the developer,

[2] Energy and utilities | PA Consulting
[3] Climate Action Plans & Business Sustainability | The Carbon Trust
[4] Architecture, engineering and consultancy - Ramboll Group

investor or market. LCoE is a useful comparison between projects, provided approaches such as the treatment of inflation, the cost basis (e.g., inclusion of tax, transmission charges) and other factors remain equal.

2.4. Both of these metrics use discounting, i.e. they account for the time value of money, which is standard in such commercial assessments. Both models also rely on a wide range of assumptions that can have significant and complex impacts on the calculated NPV. On that basis, the NPV should be considered to be a useful indicator but one that is subject to significant variation should one or more of the variables involved in the calculation change.

Assumptions made in the calculation of a baseline NPV

2.5. In the calculations, the following assumptions were made:

- Financial assumptions - for the assessment, PA Consulting has assumed a 7.5% IRR (nominal, post-tax) pre-financing in the base case, with the IRR stretching to 7.0% and 8.0% in the high and low valuations of the NPV respectively.
- Site and windfarm assumptions - a representative site for the assessment was selected based on the mapping and analytical exercise conducted by the Carbon Trust. Based on this representative site, an approximate windfarm capacity density of 8MW/km^2 is assumed as the site potential, arriving at a site that is approximately 1.27GW in capacity. The windfarm capacity is assumed based on precedent windfarms and evolving industry standards. Based on industry standards for new windfarms, a lifetime of 35 years has been assumed, with commissioning in 2036 as a base assumption.
- Techno-economic assumptions - for the representative project, PA Consulting has assumed fixed foundations will become possible at the depths provided. This is informed by market discussions as well as its technical advisor's work. All windfarms will use 24MW turbines with the installation port assumed to be Brest. Connection to the UK in Scenarios 1 and 3 (see section 3.12) will involve high voltage direct current (HVDC) transmission systems, while high voltage alternating current (HVAC)[5] will be used in the connection to France option in Scenario 2.
- Revenue assumptions - in Scenarios 1 and 3, revenues in the UK are estimated based on projected ranges of CfD strike prices (see section 3.6), which PA Consulting has assumed constrained by existing viable price levels witnessed in past CfD Allocation Rounds. As a result, PA Consulting has assumed the viable supply under a CfD in the UK for the representative windfarm to vary between £45/MWh to £65/MWh in 2012 prices. The tenor of the CfD is defined based on the existing contracts.
- In Scenario 2 revenues in France are assumed to be linked to CfDs from the future offshore wind auctions (Appels d'offres or AO). PA Consulting assumed

[5] HVDC is an efficient way to transfer large amounts of electricity over long distances with low levels of transmission loss. HVAC is generally lower cost but has higher losses. A comparison of HVAC and HVAC can be found at https://www.electricaltechnology.org/2020/06/difference-between-hvac-hvdc.html

future viable prices will be linked to viable prices seen to date, and therefore assumed a price range of €45/MWh to €65/MWh as applicable to the Guernsey opportunity, with a tenor of 20 years. Revenue post-CfD is also assumed to be at the market price rather than with any pre agreed pricing.

Contract for Difference

2.6. A CfD is a long-term contractual agreement (typically 15 years) between a low carbon electricity generator and the Low Carbon Contracts Company ("the LCCC"), which is government-owned. CfDs have three elements:

- Strike price - the price the LCCC agrees to pay the energy generator – set by an auction. The strike price is fixed throughout the CfD but is index linked with annual adjustments.
- Market reference price - for offshore wind, the reference price is set for each hour based on the results of auctions for power held the day ahead of generation.
- Difference payment - calculated by comparing the market reference price and the strike price (if the market reference price is below the strike price, the LCCC pays the generator a top-up to cover the difference, and the generator pays the LCCC the difference when the market reference price is above the strike price). This protects consumers from high prices.

2.7. The retained consultants for the offshore wind group have expressed that deals are rarely struck without a CfD providing long-term revenue certainty and reduced risk for investors. A project with reduced capital risk can be built at a lower overall cost, which is more attractive to a wider pool of investors. The sub-committee has recommended that the Policy & Resources Committee prioritises the work on access to UK and French CfDs and on options for connection, and to recommend to its successor Committee to ensure the work remains prioritised at the beginning of the new States term, following the 2025 election.

2.8. The CfD scheme is a support measure for large-scale renewable energy projects. It is publicly funded and, in the UK, has largely targeted offshore wind. Ultimately, it is designed to protect project proponents from changes to the wholesale electricity price. The scheme is recognised as an effective way to provide developers with price or revenue certainty. The UK, EU and several Member States have expressed their intention to prioritise CfDs to support investment in renewable energy projects, as they are increasingly seen as the method of choice for incentivising investment in low-carbon technology projects.

Different types of revenue

2.9. There are a number of different types of revenue available from seabed tenders:

Revenue Type	Description	Advantages	Disadvantages
Upfront payment	Single payment at end of tender or on award of lease	• No risk of lost revenue for the SoG • Immediate 'win'	• Upfront payment is not discounted, so smaller in total terms • Sizeable risk for developer without the proper guarantees, could deter participation
Option fee	Yearly payments for every year between lease award and start of construction or operation	• Lower risk of lost revenue for the SoG than payments over lifetime • Spreading out payments lowers risks and yields higher total payment	• Payments are less discounted than over site lifetime, so smaller in total terms • Sizeable risk for developer as upfront and potential for delays increasing costs
Rent / lifetime payments / revenue sharing	Yearly payments for every year of operation of the wind farm, sometimes a fixed amount, sometimes a percentage of revenue	• Spreading out payments and pushing them to the future lowers risks and yields higher total payment (more discounting) • Can be combined with other payment types • Lower risk for bidders so higher payments	• Higher risk of lost revenue for the SoG given possibility of project falling through • Revenues are substantially delayed (by 5-10 years)
Equity participation	Direct investment of the lessor in the project, sharing in expenditures and returns. Likely a secondary revenue stream	• Gives developers confidence that the SoG take the development seriously • Access to shares in wind farm profits which can be very substantial	• Significant risk for the SoG in case of project delays, cost overruns or cancellation • Challenging setup, high cost requirement • Less benefit from farm-down to 3rd party (can't sell as much of wind farm to low-IRR investors)
Other secondary streams	Other methods including: • Community benefit funds • Tax agreement • Free electricity to island	• These lifetime-based investments could de-risk project for developers • Opportunity to combine with other payment types	• Some of these are untested, thus potentially riskier in the eyes of some developers • Higher risk of lost revenue for the SoG given possibility of project falling through
Courtesy of PA Consulting			

2.10. An approach which delays payments to a rental model as opposed to an upfront payment has a substantial impact on the overall amount paid. The time value of the money, and the overall income over the long-term is usually significantly higher than the upfront payment model. The following conclusions were set out in the work undertaken by PA Consulting:

Revenue Assessment | Conclusions	
Payment Types	**Revenue types have different drawbacks and revenue profiles** • **Upfront payments** are a 'quick win' for the SoG, but can deter developers and does not maximise total revenue • **Option fees** are a common way to incentivise a rapid development schedule, although their open-ended nature can also deter developers, and they do not provide annual revenues during operation • **Rent / lifetime payments** often take the form of **revenue sharing**, and are highly de-risked for developers, as they are typically only paid once revenues are secured – but equally this is a risk for the SoG, as the project falling through leads to significant lost revenues • **Equity participation** is a model used in Denmark, and although it requires substantial investments from the SoG, it yields high revenues as well as reassuring the developer that the SoG have a stake in project realisation • **Other methods** are typically used in combination with the above options, e.g. to benefit local economies
Tender Design	**Revenue types are typically compatible with PA's recommended tender design options** • All of PA's options include a monetary bid, which can take the form of an upfront sum, option fee or rent payment • Equity participation, tax and community benefit funds are usually added as requirements to the leasing design, and combined with the first three payment types
PA's View	**We recommend combining 2-3 of the revenue options** • It is unlikely that all revenue mechanisms will apply simultaneously – this would create both an overly complex (with multiple payment types due) and overly risky system for developers (accounting for different liabilities) • **A rental payment as a proportion of revenue** is common in the industry, and secures SoG a minimum operational revenue at low risk to the developer. Realisation risk can be mitigated through the use of pre-qualification criteria and bid bonds • **Option fees** are also common in the industry, balancing upfront payments and incentives to deliver promptly • Combined with option fee bids and rental payments, a **direct equity stake** can also benefit the SoG with high revenues & developer reassurance, although this model is trickier to balance (see Denmark's recent failed tender)
Courtesy of PA Consulting	

2.11. An approach which delays payments to a rental model as opposed to an upfront payment has a substantial impact on the overall amount paid. The time value of the money, and the overall income over the long-term is usually significantly higher than the upfront payment model. The following conclusions were set out in the work undertaken by PA Consulting:

The baseline net present values of the three options

2.12. PA Consulting undertook assessments to understand the potential commercial considerations centred on three potential offshore wind options in Guernsey, focusing on the LCoE, potential revenues, and NPVs. The calculation of the LCoE and NPV both use discounting to account for the time-dependent value of money. See also Appendix 3 to the policy letter.

2.13. Three scenarios were considered in significant technical and commercial detail:

- Scenario 1 (base option) – this utilises a HVDC connection to the UK. This scenario offers the highest potential baseline net present value of around £300mn. This scenario also assumes a positive transmission charge due to connecting into the south of the UK as well as being part of the contracts for difference framework.
- Scenario 2 – this utilises a HVAC connection to France, and as currently modelled sees a negative net present value of around £90mn. This is predominantly driven by the less favourable offtake profile in France, as there is a lower contract for difference price compared to the UK. However, this option also has a lower cost profile.
- Scenario 3 – this hybrid option combines a HVDC connection to the UK and three individual turbines connecting to the Guernsey grid through inter-array cabling. This presents a positive net present value baseline of £156mn. While similar to Scenario 1, it sees higher capex based on grid related costs required to connect to Guernsey as well as lower offtake prices.

Potential direct value to Guernsey

2.14. Exploitation of the seabed realistically requires government partnership with an experienced developer. Reasonable base case assumptions suggest a developer would achieve significantly greater returns than required to justify its investment assuming an IRR of 7.5%. The NPV (using the assumption outlined in paragraph 3.5) of this is estimated at £300mn – the excess value that a developer may be willing to share with States of Guernsey for ownership of the project. The precise mechanism for sharing this would be subject to commercial negotiation. However, as a guide, a NPV of £300mn would equate to an upfront payment up to that amount (based on commercial negotiation) or alternatively up to £1,300mn over the active 35-year lifetime of the windfarm (if treated as annual payment based on real, undiscounted payments derived from windfarm net cashflows, and again dependent on commercial negotiations). While this is a reasonable base case, there is a significant potential range for this valuation due to the sensitivity of the assumptions, particularly price and

investor expectations. The base case valuation is £300mn but the range between that and high cases is up to a positive £707mn.

3. Overview of work undertaken so far – Phases 1 and 2

3.1. The work for Phase 1 and Phase 2 was set out in an inception report that was approved by the sub-committee on 29 August 2024. The relevant sections of that are attached as Appendix 1. The inception report informed the work that has been done up to the end of Phase 2.

3.2. In order to provide guidance and direction to the sub-committee, the Policy & Resources Committee wrote to the sub-committee in a letter of 7 September 2024, attached as Appendix 2. The letter included:

> "Given that the work is now starting to progress at pace, the Committee is taking this opportunity to make clear its objectives for the sub-committee's work.
>
> "The Island's fiscal challenges remain significant, and the generation of revenue is critical to enable the funding of public services as well as investment in infrastructure, including energy infrastructure. With that in mind the Committee welcomes the OWG's focus on raising revenue through seabed leasing and the development of offshore wind energy, and endorses that as the primary objective of its work.
>
> "Given that the States has also agreed a long-term energy policy in 2020 and an electricity strategy in 2023, it is clear to the Committee that some of the revenue generated from offshore wind should also be used to support the objectives in the energy policy and the electricity strategy. That will be the best way to ensure that the community and the economy benefit directly from the future development of offshore wind in Guernsey's waters.
>
> "With that in mind, the Committee is advising the OWG that there are two considerations that it wishes to see addressed as the work develops, in order to be set out in the Policy Letter:
>
> - The opportunities for raising revenue from the seabed through the development of offshore wind; and
> - How a proportion of that revenue might best be allocated to support the other objectives set out above and recognised by the OWG, namely energy resilience, stability of pricing, and the pathway to net zero."

<u>Phase 1 work</u>

3.3. Pages 8-13 of the inception plan (Appendix 1) sets out the tasks undertaken in Phase 1 of the work between August and October 2024, which can be summarised as the

States assessing their objectives, challenging them, and then prioritising them (see 5.19 to 5.24) through a viability assessment. The outcomes of the work were agreed by the sub-committee on 12 November 2024 at its meeting in Guernsey with the retained consultants.

Phase 2 work

3.4. Pages 14-19 of the inception plan (Appendix 1) sets out the tasks undertaken in Phase 2 of the work between November 2024 and February 2025. The outcomes of the work were agreed by the sub-committee at its meeting on 11 February 2025 with the retained consultants, and comprise of:

- Aligning on approach and tender objectives. Confirming the Phase 2 approach and defining and prioritising seabed leasing model objectives.
- Ensuring finalisation of the top 2-3 models for assessment. Seabed model analysis and down-selection to top 2-3 seabed leasing archetypes. Overall conclusions from the seabed leasing model assessments. Developing and assessing seabed leasing model options with commercial assessment of the top archetypes. The final selection of the tender model has not yet been carried out, but consideration of the evidence emerging from the commercial assessment subtasks on revenue and power offtake analysis has been undertaken.
- Analysing the regulatory framework and identifying remaining gaps, finalising and detailing the preferred leasing approach, and evaluate remaining risks.

Conclusions from Phases 1 and 2

3.5. At the end of Phase 1, the sub-committee agreed to prioritise assessing three Scenarios, 1) exporting to the UK as current preferred baseline option, but also to continue to consider 2) exporting to France, and 3) a hybrid option (export to the UK but with connection to Guernsey).

3.6. The seabed is a critical resource as well as an asset for the States. The leasing the seabed for any development (having agreed to ownership of the same with the Crown), including renewable energy development, requires careful consideration of several factors, such as the lease purpose, award mechanism, length, terms and cost. The purpose of a seabed lease is to grant exclusive rights for a specific site to an entity, such as an offshore wind developer, for a designated purpose and for an agreed return – in this case, the development of an offshore wind project. In the context of offshore wind, the lease agreement can cover activities relating to surveying, construction, operation, and decommissioning.

3.7. With respect to offshore wind development, the development model should shape the approach to leasing at a very high level. Under a centralised model, the government takes more responsibility and mitigates risk for the lessee; under a decentralised model, the lessee takes more responsibility. Regardless of the

development model, the designated seabed authority manages the seabed leasing process.

3.8. Based on the detailed work undertaken, the sub-committee anticipates one or more offshore wind projects within the territorial waters of Guernsey, with the specific area to potentially develop single or multiple wind farms to be determined with further technical advice during the Phase 3. In addition to setting out this high-level approach, establishing clear and well-aligned seabed leasing objectives will streamline the leasing mechanism design process to ensure the effective use of the seabed resource.

3.9. Carbon Trust analysis showed that there are certain examples where offshore wind sites have been allocated without tender. In Denmark, until 2023, project developers could be granted exclusive access to an area of seabed only if there was no interest from other bidders, a mechanism known as the 'open door' scheme. However, over the last decade, competitive auctions have become one of the most common methods for leasing areas of seabed for offshore wind development. By launching a public, competitive auction, seabed managers can structure the auction (both *what* is being leased in addition to *how* it is being leased) to meet their own deployment and development objectives. Globally, seabed managers set leasing objectives based on existing policies and strategies, which may address economic opportunities, security of supply and contributions to socio-economic development.

3.10. The Carbon Trust recommended that it will be important to confirm the leasing objectives before making decisions about the mechanisms or design elements for a competitive seabed auction. For example, if one of the over-riding seabed leasing objectives is to increase local job opportunities, it would be expected that some aspect of the leasing process would reflect supporting or increasing the local supply chain. Often there will be trade-offs between various seabed leasing objectives. Establishing a limited number of clear, non-conflicting seabed leasing objectives will more easily guide the development of the leasing process.

3.11. During Phase 1, the States' policy objectives were reviewed by the Carbon Trust in the context of offshore wind development, considering relevant policy documents and the identified unique selling propositions (USPs) from the sub-committee. The sub-committee confirmed that the States had – in various documents and approved policies – agreed four policy objectives to be considered as evaluation criteria:

1. Maximise direct revenue from the seabed/project over the full lease term.
2. Contribute to the States' energy security and independence.
3. Support the States' ability to maintain affordable electricity prices for Guernsey consumers.
4. Contribute to the States' net zero target through avoiding any new emissions that cannot be offset.

3.12. The current preferred baseline option (Scenario 1) of export to the UK contributes directly to the policy objective of maximising direct revenue from the seabed/project over the full lease term. However, the Carbon Trust indicated that the potential

benefits of exporting electricity to the UK may indirectly support the other three policy objectives dependent on the use of the revenue, and which has been the case in other jurisdictions. In short, the States could decide to use the commercial benefits of exporting energy to meet their domestic energy objectives.

3.13. Drawing on the consultants' understanding of other potential seabed leasing objectives, the sub-committee identified two seabed leasing objectives that should be considered while designing the seabed leasing process in Guernsey:

- Incentivising delivery of the offshore wind project.
- Unlocking the commercial value of the seabed within Guernsey's territorial seas.

Incentivising delivery of the offshore wind project

3.14. Incentivising delivery of the project will help ensure that the States maximise the value of the seabed surrounding Guernsey in the short and long term. All major windfarm projects carry a risk of non-delivery. Non-delivery can be defined as the failure or significant delay in commissioning offshore wind projects. Non-delivery has the potential to cause problems because cancelled projects can cause forecasting challenges for energy supplies, particularly if the route-to-market has already been agreed and can have implications on the robustness of the supply chain, which may end up with stranded assets. Additionally, projects with significant delays often experience financial impacts on the developer and throughout the supply chain.

3.15. To ensure achievability, the Carbon Trust recommended that seabed leasing processes should be designed to ensure that:

- Bidders have sufficient qualifications to deliver the project.
    - Requiring developers to demonstrate the necessary technical expertise and project planning capabilities before bidding will ensure that developers with the appropriate experience are awarded site development rights. Most markets demonstrate this through minimum pre-qualification criteria.
- The selected bidder provides evidence of milestones and project progress.
    - Frequent progress monitoring will identify challenges early on, allowing for timely mitigation. Milestones, clearly identified and agreed with the developers, will help keep delivery on track.
- The selected bidder may face non-delivery penalties.
    - Introducing non-delivery penalties linked to milestones should incentivise developers to stay close to the timeline and avoid a drawn-out delivery schedule. The delay penalty conditions should be transparent.
- Co-existence among marine users is prioritised.
    - The States could seek to de-risk the development process by, for example, requiring a certain level of engagement with stakeholders, or by facilitating conversations with stakeholders themselves.

3.16. One of the challenges in incentivising delivery and limiting non-delivery is that there are aspects outside of the developer's control that may also cause a delay in the project's progress. These can include technical challenges during construction; regulatory risks through obtaining permits or approvals – particularly if the developer is required to navigate permits in three separate jurisdictions – and external market pressures such as economic impacts or force majeure events.

Unlocking the commercial value of the seabed within Guernsey's territorial waters

3.17. As identified above, only one prioritised policy objective is likely to be directly achieved by the export to the UK option. To unlock the benefits for the States, unlocking the commercial value of the seabed should be identified as a specific seabed leasing objective considering that the seabed will be leased and occupied for a period of over 30 years. Factors which can contribute to this objective include:

- Seabed leasing payments.
    - Introducing seabed leasing payments will help the States unlock the seabed's commercial value and disincentivise speculative behaviour. The Crown Estate has now introduced a competitive option fee bidding process.
- Ensuring financial stability and access to funding.
    - As with technical capability, it is common for developers to be required to demonstrate their financial capabilities through evidence of past performance. Additionally, the developer may be required to demonstrate financial guarantees or bonds. Incorporating elements of this into the leasing mechanism will ensure the developer has the financial standing required to develop the site, and will increase the likelihood of the States receiving lease fees for the duration of the project.

3.18. The seabed leasing process should be carefully designed with both of these objectives in mind, as they are linked and should not be addressed in isolation. Limiting non-delivery will, in effect, support maximising the commercial value of the seabed by ensuring the seabed is effectively used for the seabed lease period.

3.19. Balancing the weighting of each factor is important as there are trade-offs to be had. Carbon Trust analysis showed that maximising the commercial value of the seabed could also have a negative impact on limiting non-delivery. Should the commercial value be considered too high, there is a risk that aspects contributing to quick delivery, such as technical feasibility, could be overlooked. In 2021, to avoid unattainable bids being received, Crown Estate Scotland introduced a maximum cap of seabed leasing fee per area to reflect recent financial challenges and the challenging nature of the sites compared to recent leasing rounds in England and Wales.

4. Phases 3 and 4 of work

4.1. The ambition is to bring a policy letter to the States in December 2026 at the latest which sets out the commercial leasing agreement, terms relating to that agreement and the preferred bidder. A high-level timeline showing potential time to tender is at Appendix 4.

Proposed Phase 3 work – identifying the market for Guernsey's offshore wind

4.2. The Policy & Resources Committee has used its delegated authority to approve funding, and subject to a final commercial negotiation with PA Consulting and the Carbon Trust, the work in this Phase will cover:

- Business case development - a clear business case for connection of a Guernsey-based wind farm into the UK grid will need to be developed.
- Progress discussions with UK counterparties - namely the UK National Energy System Operator, Ofgem, the UK Department for Energy Security & Net Zero and the Crown Estate. These discussions should focus on clarifying the regulatory status and future options impacting offshore wind development in Guernsey.
- Revenue raising mechanism - the external advisors have set out five options for raising revenue (upfront payment, option fee, rent/lifetime payment/revenue sharing, equity participation, other secondary streams – see paragraph 3.9) with various advantages and drawbacks, of which two/three may be used. The pros and cons of total revenue vs upfront revenue will be considered in detail.
- Auction design – refinement of the commercial auction process that will be used, based on models used in other jurisdictions in order to give developers assurance. The pros and cons of the different approaches need to be considered and a decision made on the preferred auction model.
- Areas/limits/options - the leasing process will need to dovetail with other States policies and plans around any potential restrictions or options – for example the leasing process and the Marine Spatial Plan will need to be aligned.
- Term - traditionally the term for a lease is 50 years, however with developments aiming at 30-year lifecycles this does not offer the potential to repower. Combined with build time this would also be an issue for 25-year lifecycles. The pros and cons of the different approaches need to be considered and a decision made on the approach.
- Qualitative elements - for simplicity, the focus has been on price, however the sub-committee continues to consider that there may need to be non-price elements that enable buy-in to the project. These elements can be through a pre-tender process or as part of a mixed price/qualitative tender. Some qualitative elements are fairly standard, but they reduce the financial returns to the project so any trade off will need to be considered carefully and a decision made.

- Whether the destination market has specific requirements to ensure compliance for grid/market access.
- How the process will be managed by the States – potentially through the arm's-length entity it is recommended that the States establish (see section 6).
- Proposing and designing leasing documentation, including the design of an optimal seabed leasing model including whether to precede leasing with exclusivity agreements and advising on the components of a model lease. It is likely that the work in this area will require external expert legal advice, and as this work progresses during 2025 it will become clear what that requirement is. Initial indications from soundings taken by St. James' Chambers are that this could be up to £1mn, based on an informal survey of other projects.
- Setting out the processes and other documentation required to support a leasing process. This may include drafting the documents, outlining gateways to obtaining a lease, including tender rules and other documents, outlining timings and responsibilities and advising and supporting where legal advice/drafting is required.
- Designing the competitive bidding process, including the initial framework (e.g. timeline, qualification criteria, detailed tender design model and any documentation).

<u>Proposed Phase 4 work – going to market</u>

4.3. The objectives of this Phase will be to provide subject matter expert assistance and support in the management of the appointment of a developer/development partner through to the appointment of the successful bidder(s) and provide additional advice to the States throughout. This should be undertaken with the aim of optimising the potential return to the States whilst noting the limited resources to de-risk the project. The scope for this work will be finalised as Phase 3 comes to an end, but will include:

- Assisting in the development of the approach to the market, including advice on when a seabed lease should be entered into and what other contractual agreements should be considered.
- Assisting with approaching developers around the opportunity, including:
    - Ensuring initial discussions include relevant parties.
    - Analysis of potential approaches/partnership types.
    - Agreement of shortlist.
    - Selection criteria.
- Assisting with running the selection process, which may be a competitive tender, and assessing bids.
- Final preparation of all documentation from Phase 3 for the approach to the market.
- Providing specialist advice to the States on an ad-hoc basis throughout the development Phase.

Other priorities for the States during the Phase 3 and Phase 4 work in 2025-26

4.4. In addition to the work set out above, there will be three specific and critical workstreams that will be led by officers reporting to the sub-committee and the Policy & Resources Committee, and which assist in de-risking the potential project from a developer perspective (and thereby optimise the commercial potential of the arrangements). Initial work has begun in these areas but needs to be a matter of priority through 2025:

1. To put in place an agreement with the UK Government that a Guernsey offshore wind farm that provides energy to the UK can be part of the UK's Contract for Difference (CfD) regime, thereby enabling developers to engage and negotiate with the UK government and relevant authorities – this is critical for the financial viability of the project and will serve to appropriately de-risk the project for potential partners and investors. In December 2024, the President of the Policy & Resources Committee met with the UK Prime Minister as well as his Chief Ministerial counterparts from Jersey and the Isle of Man and referenced at a high level the ongoing work of the States on offshore wind and the potential for a Guernsey offshore wind project being considered as part of the UK CfD framework.
2. To put in place an agreement with the French Government that a Guernsey offshore wind farm that provides energy to France can be part of the French's CfD regime, thereby enabling developers to engage and negotiate with French government and authorities.
3. To work with the consultants on options for connecting a Guernsey offshore wind farm to the UK and/or France, as well as exploring the potential for connections to Guernsey, Alderney and Jersey, and preparing options for discussions with investors and developers.

Other areas of priority work for the States

4.5. The Committee *for the* Environment & Infrastructure is currently finalising the policy letter on the structure and funding of the **Offshore Renewable Energy Commission**, which will provide the licensing and consents model for offshore wind and other forms of renewable energy in Guernsey. This has been assisted by the Carbon Trust. This is a critical piece of the jigsaw for developers and investors as it will set out how the licensing and consents regime will work for a Guernsey wind farm project.

4.6. The **Marine Spatial Plan**, led by the Committee *for the* Environment & Infrastructure, is also a critical part of the jigsaw for developers and investors, and has been referenced by almost all interested parties that have engaged with the States on this matter since 2023. In April 2024 the Policy & Resources Committee provided additional funding to accelerate the Marine Spatial Plan with additional external resource and expertise. Work on the Marine Spatial Plan continues, and it is important that it remains prioritised in the next political term. It is also important to note that the implementation and enforcement of this vital plan will likely require legislation.

4.7. The sub-committee has recommended that the Policy & Resources Committee and Committee *for the* Environment & Infrastructure and their successors, prioritise the work on a Guernsey Marine Spatial Plan.

5. Structure for taking forward the next stage of work

5.1. The structure of Guernsey's government does not readily lend itself to technical and commercial projects which span more than one States' term. One of the challenges is the multiplicity of Principal Committee mandates which impact or are impacted by major projects, and this is no different with an offshore wind project, for example:

- Committee *for the* Environment & Infrastructure – political lead Committee for energy policy and infrastructure, the natural environment and the Marine Spatial Plan.
- Policy & Resources Committee – political lead Committee for territorial seas and seabed leasing, and for significant commercial matters and relationships.
- Committee *for* Economic Development – responsibilities in relation to the electricity market and licensing.
- States' Trading Supervisory Board – role in respect of energy infrastructure as the shareholder of Guernsey Electricity Limited on behalf of the States.

5.2. The multiplicity of political responsibilities can provide complexity for commercial projects, where external parties are used to and require a clearer relationship in order to aid certainty and progress.

5.3. In July 2023 the States of Deliberation agreed to establish a Guernsey Development Agency to counter similar challenges in the development and regeneration of the Island. The Guernsey Development Agency is at arm's-length from the States but still accountable to it. On the former point, this has enabled it to build relationships with potential partners on a number of different potential schemes in the north of the Island. On the latter point, the Guernsey Development Agency is being guided by the high-level plan submitted by the Policy & Resources Committee to the States of Deliberation, and which was approved in December 2024. In short, the Guernsey Development Agency provides an approach which can be remodelled as needed for the offshore wind opportunity.

5.4. The Policy & Resources Committee (and the sub-committee) recommends that establishing a 'light touch' Guernsey Development Agency-type entity is explored to support and deliver the next Phases of work. Moreover, when that work is completed and the States of Deliberation considers the next steps, the entity can be enhanced with greater authority in the longer-term if required, i.e. if the development of an offshore wind farm in collaboration with one or more commercial partners is to progress. To support these discussions, the States should engage with the Crown Estate to understand how the States and Crown Estate could work together to support offshore wind development in Guernsey.

5.5. The Policy & Resources Committee has agreed that that the sub-committee should work with officers to establish the model for a Guernsey Development Agency-type entity with political oversight, adapted as required, to take forward the work of the offshore wind project, through Phases 3 and 4, and to develop a policy letter for the States of Deliberation by the end of 2026. A funding request for 2025 funding from the Budget Reserve will be made, ahead of a funding request for 2026 onwards through the Budget cycle.

6. Seabed Leasing – modernisation of the approach to leasing

Background

6.1. The requirement for the States to undertake due diligence and de-risk the opportunity for potential developers and influencers is critical. One aspect of this is providing certainty and working to models that may be bespoke in certain aspects but primarily reflect the models used by other jurisdictions. This point has been raised with the sub-committee in respect of the Guernsey approach to leasing, and further work in Phase 3 will inform this area of consideration.

6.2. The seabed and foreshore around Guernsey is vested in the Crown in right of Guernsey. HM Receiver General ("HMRG") is appointed by Royal Warrant to administer and maintain the Crown's assets in the Bailiwick including the sale and letting of Crown property (including the foreshore and seabed adjacent to Guernsey). Since 1985, HM Procureur (HM Attorney General), holds the office of HM Receiver General

6.3. The office of HMRG undertakes some similar functions to the Crown Estate in the UK, but also has distinct differences. HMRG is responsible for administering and maintaining the Crown's estate in the Bailiwick and seeks directions from the Lord Chancellor in relation to certain matters such as the purchase of real estate and property (in that person's role the Privy Counsellor rather than as a Secretary of State in the UK Government).

6.4. The Crown Estate in the UK manages a diverse portfolio of the Crown's properties, including urban real estate, agricultural land, and seabed rights across the entire United Kingdom. It is managed by the Crown Estate Commissioners and operates as a statutory corporation under the Crown Estate Act 1961[6]. It was set up principally to manage and invest in assets belonging to the Monarch and to generate revenue for public benefit. To this end it has a commercial purpose and there is a clear relationship defined between the HM Treasury and the Crown Estate. The Treasury is the sponsor department for the Crown Estate and the Crown Estate's Chief Executive is the Accounting Officer. A Framework Agreement[7] sets out the relationship between the two bodies including duties, financial oversight and performance management. Both the Treasury and the Scotland Office have statutory powers to direct the Crown

[6] Crown Estate Act 1961

[7] https://www.thecrownestate.co.uk/media/1757/hm-treasury-and-the-crown-estate-framework-document.pdf

Estate's business (within the Crown Estate's statutory duties) if necessary, but typically they work collaboratively with the Crown Estate. In this way the Crown Estate works independently of both government and the Monarch (as does HMRG in Guernsey) and any surplus funds it generates for the Monarch are remitted to the Consolidated Fund which benefits the public.

6.5. HMRG in Guernsey focuses specifically on the Crown's estate within the Bailiwick of Guernsey, which the post holder effectively holds and administers on trust for the Crown. Under the provisions of the Jersey and Guernsey (Financial Provisions) Act 1947[8], the net revenues of the Crown (derived from its assets in the Bailiwick) are paid to HM Treasury, such sums being remitted to the States for government purposes. In practice HMRG liaises with relevant officials to ensure those Crown's revenues are remitted to the States directly.

6.6. At its meeting of 30 January 2019[9] the States of Deliberation agreed to extend the Island's territorial seas from 3nm to 12nm (or the median lines where they exist). This has increased the area of seabed for which HMRG is responsible and from which Guernsey can benefit from its commercial exploitation. The States resolved to direct the Policy & Resources Committee to establish whether a transfer of Guernsey's foreshore and seabed from the Crown (so far as the same are vested in the Crown) to the States, or another suitable person or entity, can be agreed in principle and report back to the States[10]. This resolution is set out below:

> "8. To direct the Policy & Resources Committee to establish whether a transfer of Guernsey's foreshore and seabed from the Crown (so far as the same are vested in the Crown) to the States or another suitable person or entity can be agreed in principle, and -
>
> (a) if agreed in principle
>
> (i) to identify a suitable person or entity in which title to and rights in the foreshore and seabed surrounding Guernsey might most appropriately be vested,
>
> (ii) to negotiate the terms and conditions of transfer, and
>
> (iii) to report back to the States with proposals enabling the States to approve any such transfer and the identity of the transferee, or
>
> (b) if not agreed in principle -
>
> (i) to report any failure to agree to the States, and
>
> (ii) to make recommendations as to any further actions or measures that might need to be taken to enable an agreement to be reached."

[8] Jersey and Guernsey (Financial Provisions) Act 1947
[9] Billet d'État II 2019
[10] Extending the Bailiwick of Guernsey's Territorial Seas - States of Guernsey

6.7. It may provide some comfort for contracting parties wishing to lease the seabed to be dealing with the Crown (in Guernsey's case through HMRG) as this would be a similar arrangement to dealing with the Crown Estate - the seabed would simply be leased from the Crown (and HMRG has confirmed agreement in principle if this is what the States wishes to do). However, from engagement with the industry it is clear that what developers want most is certainty and to de-risk projects. Whilst there is clearly certainty if the Crown remains the owner, HMRG in Guernsey is not set up as a corporation sole, such as the Crown Estate, and would need to appoint a team of experts to assist with the technical matters arising from a lease of the seabed. If ownership were vested in the States then ownership would also be certain, although similarly, the States would need to appoint relevant experts to assist with any leasing of the seabed as this expertise does not reside within government. Again, HMRG has confirmed, on behalf of the Crown, agreement in principle to a transfer of the seabed to the States, if that is what the States wish to do. Therefore, it will need to be considered whether vesting the seabed in the States or some other suitable entity or person or maintaining the status quo will give the least risk and the most certainty, in turn providing for the most favourable commercial offering. This issue will need to continue to be explored in the next phase of the project as part of the due diligence of the legal and financial issues.

6.8. In light of this opportunity the Policy & Resources Committee will prioritise the work to conduct due diligence centred on the preferred mechanism for transferring ownership of the seabed and then to recommend whether such transfer should be to the States or to some other suitable person or entity acting on behalf of the people of Guernsey. The Committee will seek approval from the States of Deliberation as soon as possible on the proposed arrangements if commercially optimal.

7. Conclusion

7.1. The sub-committee has explored the viability and opportunity for raising revenue from the seabed through the development of offshore wind in Guernsey's territorial seas and has reported to the Policy & Resources Committee what the value of that opportunity might be. It has been agreed to publish the current calculation of net present value and the assumptions made which might impact on it in the future to ensure the States are appropriately informed as they are asked to endorse next steps, and to guide potential partners on the scale of the opportunity, subject to the assumptions that have been made.

7.2. The current preferred baseline option of export to the UK contributes directly to the policy objective of maximising direct revenue from the seabed/project over the full lease term. There is a significant potential range for this valuation and revenues due to the sensitivity of the assumptions, particularly price and investor expectations.

7.3. Given that the States have agreed a long-term energy policy in 2020 and an electricity strategy in 2023, it is clear to the Policy & Resources Committee that some of the revenue generated from offshore wind should also be used to support the objectives in the energy policy and the electricity strategy. Reducing emissions, stabilising pricing

and critically to ensure energy resilience with investment in the domestic grid will be the best way to ensure that the community and the economy benefit directly from the future development of offshore wind in Guernsey's waters. This work will form part of an assessment of benefits that will be undertaken over the course of the next phase of work.

7.4. This work must be sustained into the next term prioritised in the Government Work Plan 2026-2029 and co-ordinated with the enabling workstreams that will see the States asked to support the creation of an **Offshore Renewable Energy Commission,** essential to developers and investors as it will set out how the licensing and consents regime will work for a Guernsey wind farm project, alongside the developing **Marine Spatial Plan**, its implementation and any associated legislation with the necessary lead time to enactment.

7.5. The States are therefore asked to:

1. Approve next steps set out by the Policy & Resources Committee's Offshore Wind Group sub-committee (see paragraphs 5.2 to 5.7), and to direct the Policy & Resources Committee to submit a policy letter to the States of Deliberation by December 2026 at the latest which sets out the commercial leasing agreement, terms relating to that agreement and the preferred bidder; and

2. Direct the Policy & Resources Committee to establish an arm's length entity with appropriate political governance (see paragraph 6.4) to take forward the work of the offshore wind project through Phases 3 and 4 of the work.

8. Compliance with Rule 4

8.1. Rule 4 of the Rules of Procedure of the States of Deliberation and their Committees sets out the information which must be included in, or appended to, motions laid before the States.

8.2. In accordance with Rule 4(1):

a) the Policy & Resources Committee confirms that the recommended strategic direction is in line with the priorities set out in the Government Work Plan, specifically to explore the value of the seabed as an asset, and to consider the benefits to Guernsey of offshore wind.

b) On behalf of the Policy & Resources Committee, the Offshore Wind sub-committee has consulted with business representative bodies. Representation of the Committee *for the* Environment & Infrastructure and the Committee *for* Economic Development are part of the sub-committee in order to facilitate ongoing consultation as the project has progressed.

c) the Propositions have been submitted to His Majesty's Procureur for advice on any legal or constitutional implications.

d) the financial implications to the States are set out in the policy letter, the full impact, both in terms or revenue and expenditure, will become clearer as this project progresses.

8.3. In accordance with Rule 4(2)

a) the Propositions relate to the duties of the Policy & Resources Committee to advise the States on the realisation of the seabed as an asset and as lead for territorial seas and significant commercial matters and relationships.

b) it is confirmed that the Propositions above have the unanimous support of the Policy & Resources Committee.

Yours faithfully

L S Trott, OBE
President

H J R Soulsby, MBE
Vice President

J P Le Tocq
R C Murray
J A B Gollop

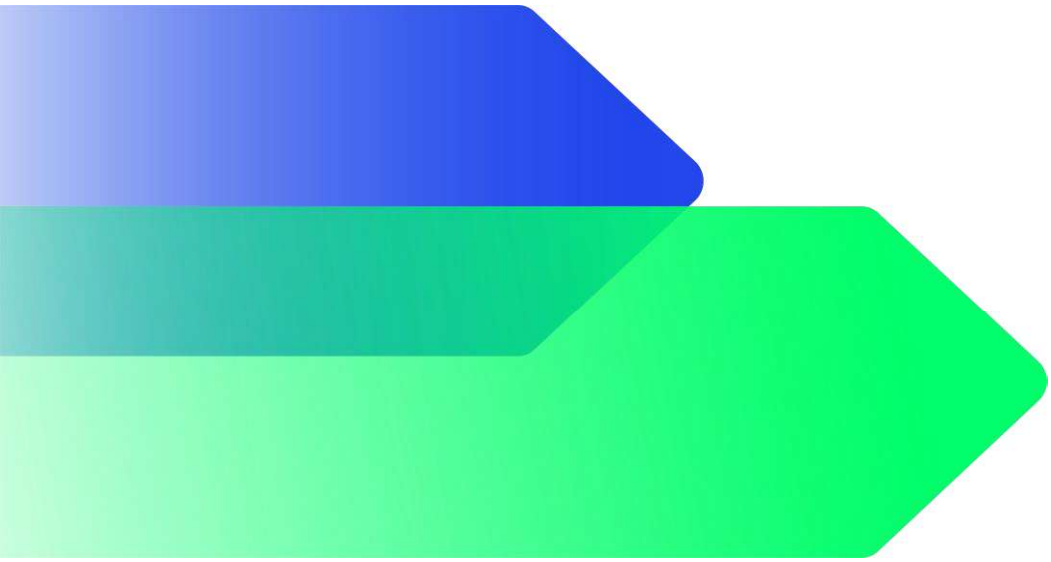
REPORT

Inception report

Approach to seabed leasing in States of Guernsey

Final issue. Revised following comments from the States of Guernsey.

August 2024



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1. Introduction

1.1. Background

In spring 2024, the States of Guernsey (SoG) sought to engage external advisors to provide technical and commercial support around the potential offshore wind (OSW) opportunity in the seas surrounding the Bailiwick of Guernsey. SoG selected the Carbon Trust (CT) and PA Consulting (PA) to provide this support. The support has been scoped into several iterative phases of work. SoG has currently contracted CT and PA to deliver Phases 0-2 of the support ("the project"). This inception report sets out, in detail, how the teams will work together to deliver the project.

1.2. Our understanding of the project objectives

As set out in the original request for proposals (11 March 2024), SoG's aims in securing support from external advisors is to:

- Explore commercial opportunities and options with respect to the potential OSW opportunity;
- Understand, quantify, test and validate the potential OSW opportunity in terms of its economic and financial returns and wider benefits
- Understand and optimise the potential OSW opportunity in all relevant areas, and considering existing policies or policies in development, including (but not limited to): energy, regulation, licensing and consents, the seabed and foreshore, territorial seas, and subsea cables; and
- Conclude the specific mechanism around the seabed lease and leasing process to realise this opportunity
- Set out clearly the next phases of work that SoG should undertake and commission based on the above

Based on these aims, SoG developed a longer list of specific objectives, which has been used to shape the scope of the project and the tasks detailed in Section 3.

2. Inception activities

2.1. Kick-off meeting

Key members of the SoG and Project Team (hereafter, the Programme Board, PB), CT team and PA team joined an online kick-off meeting on 05 July 2024. The parties discussed:

- Context for the project, including briefing from SoG Deputies (members of the PB)
- Expectations for the next in-person / on-island meeting
- Project set-up and ways of working together, including governance, communication and meeting cadence and information sharing

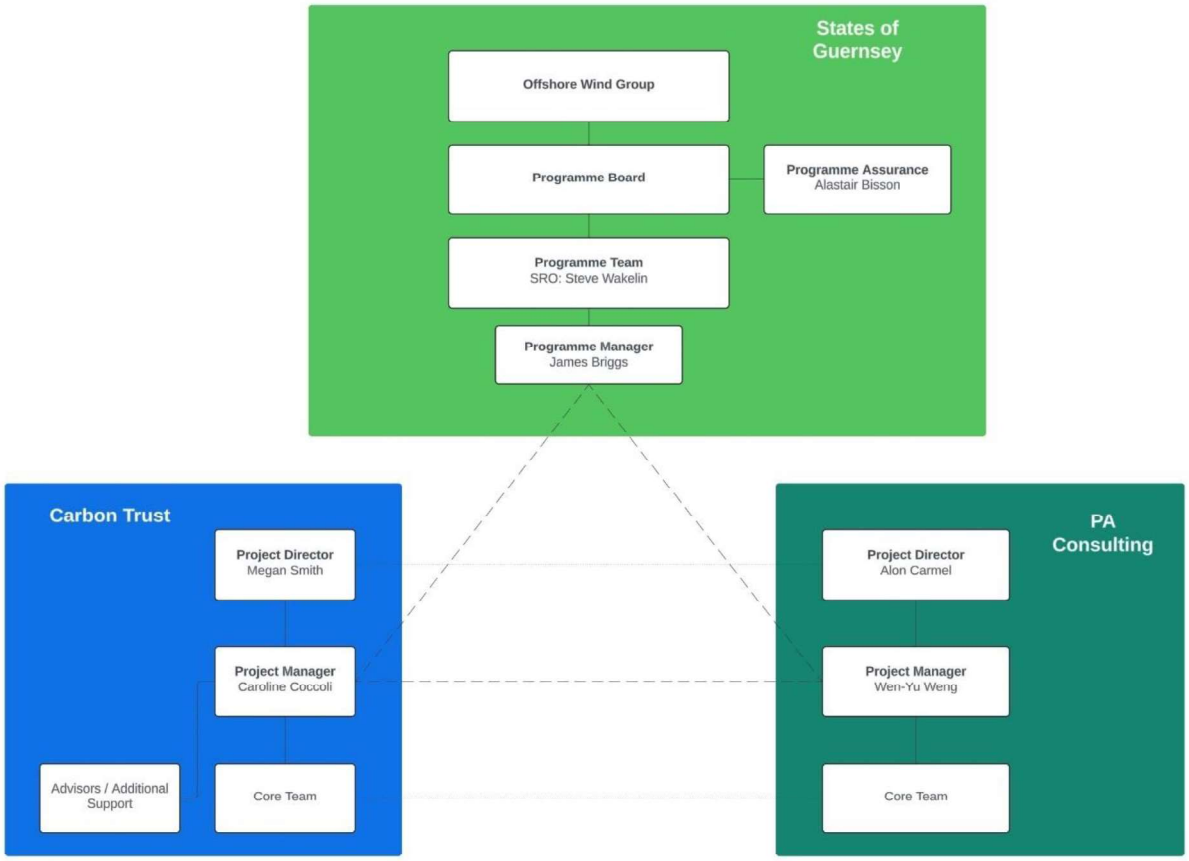
The following sections reflect the feedback received during the online kick-off. The next in-person meeting has been tentatively scheduled for the week commencing 26 August (detailed in Section 3).

2.2. Ways of working

Governance

The SoG Project Team, CT team and PA team will work together to deliver the project, as described in Schedule 1 of each party's respective contract with SoG and this inception report.

SoG has appointed James Briggs to act as Programme Manager on behalf of SoG. CT and PA will include the Programme Manager in all communications to the SoG team (indicated in 'Communication and meeting cadence').



Communication and meeting cadence

This section details the communication and meeting cadence between members of the Project team.

Communication	Format and timing	Participants	Email/meeting content
Weekly coordination calls between CT and PA	Online (Teams call); 30 min; Tuesday mornings	CT project team; PA project team	Actions for this week Dependencies / mitigations Update for weekly email
Weekly email updates to SoG project team	Email, Tuesday 12pm	All project teams	Outputs from previous week Actions for this week Questions for SoG team Next meeting
Fortnightly progress update for SoG Project team	Online (Teams call); 1 hr; biweekly on Tuesday, 2-3pm	All project teams	Update on tasks/deliverables (allowing for informal feedback and direction); Review of Programme Plan (prepared by SoG)

All interaction between CT and PA with the SoG Programme Board (PB) is detailed in the stakeholder engagement objectives in Section 2.3 and associated tasks detailed in Section 3.

Review and feedback protocols

We have identified a number of deliverables which will be generated throughout the work delivery. The formal review periods can be seen in the accompanying project delivery timeline (Section 4).

All draft and/or interim deliverables or continued work will be checked and agreed with SoG during the regular, fortnightly calls. Reasonable and sufficient lead time between receipt of the report by the SOG and fortnightly call will be necessary to allow the SoG to provide full feedback during these calls. Where any written feedback will need to be provided to summarise the feedback following the provision of verbal feedback, this will be provided by the SoG primary contact as soon as possible, with best endeavours to provide this within 2 days of that call. The SoG primary contact will be responsible for ensuring that interim deliverables meet the expectations of the SoG Programme Board in order to avoid substantial revision or changes at formal review periods, as these could result in significant delay to the proposed delivery schedule. It is noted that where political decisions by the SoG may be required, the consultation on this process will be had at the time of the regular fortnightly calls so that this timing can be factored in and the impact on the delivery schedule is understood.

SoG has proposed that Steve Wakelin will act as primary SoG point of contact and as such, will provide final sign-off on all content on behalf of SoG for both formal reviews and informal feedback within the aforementioned timelines. Jo Reeve and James Briggs will act as alternate SoG points of contact and sign-off when Steve Wakelin is not available, and all draft or final documentation will be uploaded to the SoG Teams site with links sent to all three points of contact. The SoG will be responsible for ensuring that timely sign-off is provided and that coordination (if required) for feedback is conducted within the project timeframe indicated.

Information and data sharing

CT has set up a private Microsoft Teams channel for the project: [EXT] States of Guernsey – Approach to Seabed Leasing. All draft working materials between CT and PA will be shared on this channel. CT and PA teams will upload own materials as needed to this site.

SoG has set up a Microsoft Teams channel for the project, in line with the organisation's approach to data management and security. All draft and final deliverables will be shared on this channel. SoG, CT and PA Consulting teams will upload own materials as needed to this site.

Unless explicitly stated otherwise, CT and PA will share indicated deliverable outputs and not underlying assets required to produce these deliverables (e.g., proprietary cost databases or financial models will not be shared).

Schedule development and management

All parties will work from a single shared Programme Plan, owned by the SoG, and managed via fortnightly review calls between the CT and PA project managers and the SoG Programme Manager. This document will act as the master source of information regarding dates, task durations and ownership for the development, review and approval of all deliverables throughout the life of the Programme.

2.3. Stakeholder mapping and engagement plan

The SoG Programme Board and Project team members requested advice on engaging stakeholders with respect to the project. With input from the SoG Project team, CT [and PA] have carried out an initial mapping of relevant stakeholders to determine who could be engaged during Phases 1-2 of this project. Based on this mapping, CT and PA have developed a stakeholder engagement plan for Phases 1-2 of the project.

To develop the engagement plan, we have:

- Received input from the SoG Project team on relevant stakeholders, including their perceived level of capacity/interest/influence in engaging with this project
- Identified additional relevant stakeholders based on own knowledge and desktop research
- Developed a stakeholder database, indicating stakeholder (organisation), type (e.g. government, commercial, civil society), context, reason for inclusion in database, level of capacity/interest/influence.
- Based on this information, for each stakeholder, we identified the objective of potential engagement, level of priority for engagement in Phase 1 and Phase 2, and proposed method of engagement in Phase 1 and Phase 2.

A total of 58 individual stakeholder organisations were identified at this initial stage of the project.

The following objectives and methods for engaging stakeholders were identified based on proposed scope of Phases 1-2.

Project Phase 1 stakeholder engagement objectives

- **Work with the SoG Programme Board** to ensure that political members in the SoG OSW Group provide strategic input, challenge and validate findings and provide feedback on key project milestones and the critical path;
- **Seek input from select generation and transmission stakeholders** in SoG to inform initial understanding of potential opportunities and barriers to OSW development;

- **Gather perspectives from a diverse group of offshore wind developers** to assess the Guernsey opportunity's attractiveness within the private market and refine the asset's product definition for tender. Leveraging PA's relationship with developers we propose to:

    1. **Engage with a diverse group of offshore wind developers,** representing a range of diverging developer archetypes and strategic interests. We aim to gather varied perspectives and encourage valuable responses and prevent overrepresentation of views from one group of similar developers. Therefore we have provided a long-list of developers and will narrow down the ones to interview closer to date.

    2. **Offer anonymity to interviewees where needed, while providing descriptions of their roles and company types**. Our experience and extensive track-record conducting market intelligence surveys and interviews have shown that this can elicit more candid feedback,.

- **Inform other relevant public policy stakeholders in SoG** of the project, its aims and initial findings in order to raise awareness ahead of any further activities.

Project Phase 2 stakeholder engagement objectives

- **Continue working with the SoG Programme Board** to ensure that political members and relevant civil servants understand findings and provide feedback on key project milestones and the critical path;
- **Seek input from leasing, generation and transmission** stakeholders in SoG and neighbouring jurisdictions (UK, France) to inform a regulatory gap analysis and recommendations;
- **Obtain private market perspective on the tender model design** and ascertain there is the right degree of trade-off (e.g. between risk and reward, between complexity and competitiveness, between price discovery and financial return, etc) – we propose a similar approach to Phase 1 where diverse and honest perspectives are sought. Additionally:
    - **Identify potential risks and inefficiencies in the preferred seabed leasing option** from the private market perspective. This informs the determination of any "no-regret" features or risk mitigation mechanisms can be implemented without significantly altering the chosen approach. This will enable work to be undertaken in collaboration with HM Receiver-General in Guernsey, a critical party to this area of work.
    - **Engage with other relevant stakeholders in the private sector**, such as OEMs, component/service providers, OFTOs, and others, if and when relevant to the tender design. Prioritise engagement when supply chain involvement is a significant factor at the tender stage – which will depend on the outputs of Phase 2.
- **Inform commercial, community and other non-governmental stakeholders in SoG** of the project, its aims and initial findings to raise awareness ahead of any further activities.

The proposed activities to achieve the stakeholder engagement objectives for Phases 1-2 are detailed in Section 3 of this report.

2.4. Document and data request

Several documents and data files are requested from SoG during Phase 0 to aid in the delivery of Phases 1-2. The table below indicates the status of those requests since project kick-off.

The list below is not exhaustive, and CT and PA may request additional documents or materials from the SoG Project team during project delivery.

Type	Presumed owner	Description	File format	Status
Document	SoG	OSW Scoping Study	.doc or .pdf	Received via email
Document	SoG	Guernsey Electricity Strategy	.doc or .pdf	Received via email
Document	SoG	Guernsey Climate Change Action Plan (2020)	.doc or .pdf	Received via email
Document	SoG	Guernsey Energy Plan (2020)	.doc or .pdf	Received via email
Document	SoG	Any initial materials produced as a result of the Government Work Plan 2023-2025 (Marine Biosecurity Plan, Blue Economy Plan, any other MSP work)	.doc or .pdf	Further to a meeting on 6 August, Jo Reeve is overseeing the co-ordination of this data collection, working with Peter Barnes, Jim Robinson, Julia Henney at SoG as well as Digimap and Ports and Harbours
Data	SoG	Onshore environmental designations (e.g., Sites of Special Significance, Sites of Special Scientific Interest, Special Protected Sites, Areas of Biodiversity Importance, Sites of Nature Conservation Interest, other statutory designations, conservation areas, protected areas)	.shp	
Data	SoG	Offshore/coastal/marine environmental designations (e.g., Marine Protected Areas, Ramsar sites)	.shp	
Data	SoG	Onshore and coastal historic designations (e.g., scheduled/protected monuments, heritage sites, conservation areas)	.shp	
Data	SoG	Ecological and species data (protected/endangered/red list species)	.shp	
Data	SoG	Locations of ports, fishing harbours and small harbours	.shp	
Data	SoG	Land boundaries	.shp	
Data	SoG	Territorial seas boundaries/search area boundary	.shp	
Data	SoG	Locations of any proposed offshore developments	.shp	
Data	SoG	Guernsey Electricity Limited (GEL) power market data – historic and forecasted demand and supply, installed capacity mix, prices, as well as main users and relevant major trends	.doc or .pdf or .xls	Steve Wakelin is overseeing the co-ordination of this working directly with GEL

				and PA, meeting planned for 13 August

Key topical areas for SoG's proactive consideration

The above table represents specific document and data requests we can currently identify. In addition, it would be beneficial to our analysis the States of Guernsey (SOG) is requested to proactively disclose any relevant information, documents, or external consultancy work related to the key topics below, regardless of whether they are explicitly listed in the table above:

- Any relevant information relevant to state of engagement between SoG and other markets, including but not limited to: pre-existing international agreements for interconnectors; any notes from prior meetings (notably with UK and France) on energy policy, collaboration, coordination issues, etc
- Any relevant information to help further characterise the SOG energy sector (e.g., demand/supply forecasts, energy mix, major energy infrastructure projects), including prior engagements, studies, consultations, externally consultancy contracted work, and policy documents. This should also include any public domain information (or information SoG is willing to share) about relevant discussions in the private sector/industry side that could have a significant impact on energy demand.
- Any relevant information to help further understand the current perspectives on the Opportunity specifically from stakeholders – e.g. prior studies, consultations, stakeholder engagement, externally contracted consultancy work, notes from conversations with developers/investors, etc.

3. Updated approach, methodology, and workplan

Phase 1: Identify and assess the options to realise the Potential Opportunity

The activities for Phase 1, as defined in the RfP and the Revised Scope of Work by SoG, have been detailed below in 5 tasks and subtasks.

We have identified a number of deliverables which will be generated throughout the work delivery. The formal review periods for Phase 1 can be seen in the accompanying project delivery timeline (Section 4), summarised below:

- Task 1 (policy objectives, evaluation criteria) and Task 2 (longlist and down-selection) – week commencing 26th August, with a 1 week review period
- Task 3 (detailed analysis), Task 4 (SWOT) and Task 5 (framework) – week commencing 28th October, with a 1 week review period

All draft / interim deliverables or continued work will be checked and agreed with SoG during the regular, fortnightly calls, with any written feedback provided by the SoG primary contact within 2 days of that call as per section 2.2.

Task 1 - Refine SoG's offshore wind objectives to inform strategic options analysis

Objective of the task: Determine the priority objectives for offshore wind development in Guernsey.

Sub-task	Deliverables
1.1. Review States' policy objectives Develop an understanding of the key objectives for SoG, taking into consideration trade-offs between different priority policy areas	1. Briefing memo with list of strategic policy objectives (5-10 page .docx format) 2. Summary slides to facilitate prioritisation and discussion (in .ppt format)
1.2. Prioritise States' policy objectives during in-person workshop Confirmation of policy objectives to prioritise, which are required for successful OSW market development.	3. Minutes from the workshop detailing the prioritised objectives (.docx format)

1.3 Develop evaluation criteria The prioritised objectives will be used as the basis of evaluation criteria for the Potential Opportunity during Task 2	4. Table of assessment criteria and definitions (.docx format 1-2 pages)

Task 2 - Identify longlist of options and assess at a high level against criteria

Objective of the task: Identify the most appropriate generation and export options for offshore wind development in Guernsey based on the States' priorities and current and future energy landscape.

Sub-task	Deliverables
2.1 Energy Landscape Assessment Including consideration of the current and future energy landscape for Guernsey and neighbouring UK and France to understand the potential generation opportunities	5. Memo detailing current and future energy considerations, covering demand / supply forecasts, energy mix, key energy trends, etc. (.docx format 5-8 pages)
2.2. Develop a long list of generation/export opportunities Provide several generation models for offshore wind development ***Approval point – longlist to be discussed and approved by SoG Programme Board before further assessment of the options during in-person workshop for Task 1.2.***	6. Approximately 5-7-page memo detailing the 10 options
2.3. Assess longlist of options against evaluation criteria to create a short list of 2-3 options Assess the options against evaluation criteria to rank them.	7. Summary slide deck to facilitate validation session in .ppt format; additional reasoning for the top 2-3 options added to deliverable 6 (memo) and copy of the excel assessment document.

Task 3 - Detailed analysis of top 2-3 options considering commercial perspectives

Objective: Consider SoG's top 2-3 OSW options in context with the wider OSW market, taking into account commercial implications and regulatory barriers.

Sub-task	Deliverables
3.1. Offtake opportunity assessment High-level assessment of offtake and power export opportunities as relevant for the 2-3 options	8. Memo (c.10 pages) detailing offtake / power export opportunities relevant to the 2-3 short-listed options identified.
3.2. Regulatory and geopolitical barrier identification and assessment Identify any barriers to the development of offshore wind from a SoG perspective and any show-stoppers of working with neighbouring jurisdictions. Evaluate how each of the potential options will contend with the identified barrier constraints, highlighting any key risks and mitigations.	n/a – feeds into deliverable 14
3.3. Initial geospatial constraints analysis to identify offshore wind development potential Using GIS and data provided by SoG or other publicly available data, perform a high-level geospatial constraints analysis to identify any clear barriers to offshore wind development in Guernsey's maritime jurisdiction.	9. Summary of constraints analysis (~5-7 pages) in .docx format 10. All applicable maps 11. All processes and datasets (.zip folder of .shp files)
3.4 LCoE analysis and commercial opportunities assessment Assess the commercial investment required for offshore wind development in Guernsey's waters, and summarise key commercial considerations from a developer perspective. **[Additional task added after Phase 0: net present value analysis]**	12. Data book of technical and cost assumptions 13. Memo (c.10 pages) summarising LCOE / valuation modelling results and commercial opportunities / risks for developers
3.5. Economic opportunities assessment Discuss the economic opportunities (job creation, GVA, additional revenue generation) for the SoG.	n/a – feeds into deliverable 14.

3.6. Summary of all considerations Summary of all considerations from SoG and developer perspective for the opportunity, including regulatory, site, commercial and economic benefits.	14. Memo outlining the findings of tasks 3.2 and 3.5 for the 2-3 shortlisted options (5-7 pages per option

Task 4 – Determined the recommended opportunity based on SWOT analysis and evaluation of short-listed options

Objective of the task: Assess and evaluate the shortlisted 2-3 options to provide a final recommendation for the SoG seabed leasing opportunity, in terms of product design (i.e., the product to be tendered in a leasing process).

Sub-task	Deliverables
4.1 Evaluation of short-listed options (SWOT and benefits analysis) Based on all research of previous tasks, identify primary strengths, weaknesses, opportunities, and threats of each of the short-list options, from the market perspective and arrive at a recommended OSW leasing option for SoG	15. Memo summarising the SWOT analysis, evaluation of shortlisted options and final recommendation

Task 5 - Determine frameworks/roles/responsibilities of SoG and other actors (developers)

Objective of the task: Define a clear framework for the development route for the top selected option (i.e., the product to be tendered in a leasing process).

Sub-task	Deliverables
5.1 Outline the offshore wind project development cycle Identify the steps that need to be taken to deliver a leasing round.	16. Diagram of offshore wind farm development lifecycle steps
5.2 Benefits and challenges of government-led development stages Based on international experience, outline the benefits and challenges of SoG undertaking early project development steps or parts of steps (i.e. a centralised/hybrid approach) leading up to an offshore wind leasing round.	n/a feeds into deliverable 17
5.3 Benefits and challenges of developer-led development stages Based on international experience, outline benefits and challenges of SoG requiring developers to undertake all early project development steps (i.e. a decentralised approach) leading up to an offshore wind leasing round.	n/a feeds into deliverable 17
5.4 Provide recommendations for establishment of programme management function for SoG Determine the recommended development model based on challenges and benefits. Subsequently outline the tasks and resource requirements for SoG to move to implementation.	17. Final Task 5 output: memo outlining successes & risks per step with government-led vs developer-led approach, with draft framework for SoG (5-7 pages, .docx format).

Task 6 (Cross-cutting) – Stakeholder engagement delivery

Objective of the task: [Set out in section 2.2]

Sub-task	Deliverables
6.1 SoG Programme Board milestone feedback meetings Lead 3 updates to the PB (kick-off, mid-Phase, end-Phase). During each meeting, CT will present findings and facilitate feedback from PB members to ensure strategic alignment.	Meeting slides to facilitate update and feedback. Feedback will be incorporated into final deliverables.
6.2.a Bilateral meetings with select stakeholders in Guernsey	Feedback will be incorporated into final deliverables.
6.2.b Bilateral meetings with select offshore wind developers	Feedback will be incorporated into final deliverables.
6.3 Public sector and adjacent stakeholder meeting [note: delayed until after Phase 2 in agreement with the SoG.	Feedback will be incorporated into final deliverables.

Phase 2: Further Assessment: Opportunity, Leasing Options & Recommendations

The activities for Phase 2, as defined in the **RfP** and the **Revised Scope of Work** by SoG, have been detailed below in 5 tasks (including the cross-cutting stakeholder engagement task) and subtasks.

We have outlined and described all 5 deliverables, which will be generated throughout the work delivery across Phase 2.

All draft/interim deliverables or continued work will be checked and agreed with SoG during the regular, fortnightly calls, with any written feedback provided by the SoG primary contact within 2 days of that call as per section 2.2.

However, there will be specific subtasks for which a formal review period is required in the approach taken to ensure downstream analysis remain consistent. For Phase 2, the formal review periods for Phase 2 can be seen in the accompanying project delivery timeline (Section 5) and are also summarised below.

- **A. Task 1.1 and 1.2 (Align on approach and tender objectives) –** Confirm Phase 2 approach and define and prioritise seabed leasing model objectives – estimated week commencing 4h November, with a 1 week review period
- **B. Task 2.2 (Ensure finalisation of the top 2-3 models for assessment) –** Seabed model analysis and down-selection to top 2-3 seabed leasing archetypes – estimated week commencing 4th November, with a 1 week review period
- **C. Task 2 (Overall Conclusions from the Seabed leasing model assessments)** - Develop and assess seabed leasing model options with commercial assessment of the top archetypes – here the final selection of the tender model will not have yet been carried out, but it provides a crucial opportunity to engage on the evidence emerging from the commercial assessment subtasks in Task 2 (revenue and power offtake analysis). Estimated week commencing 9th December, with a 1 week review period.
- **D. Task 3 and 4 (Phase 2 Final Outputs) –** Task 3: Analyse regulatory framework and identify remaining gaps, and Task 4: Finalise and detail the preferred leasing approach, and evaluate remaining risks – feedback session to commence after the final proposed in-person presentation and delivery of synthesis report. Estimated week commencing 3rd February, with a 1 week review period.

However, the dates here remain subject to change given potential timeline changes in Phase 1 or the refinement of scope at the beginning of Phase 2 itself, subject to the final recommendation of the tendered product in Phase 1.

Task 1 – Confirm Phase 2 approach, and define and prioritise seabed leasing model objectives

Objective of the task: Following the final recommendations from Phase 1, confirm and present the overall approach and detailed workplan for Phase 2. Based on the chosen product definition and commercial structure, define and prioritise the key objectives for an ideal seabed leasing model that aligns with the States of Guernsey's strategic goals and maximises value for all stakeholders.

Sub-task	Deliverables
1.1 Refresh and confirmation of Phase 2 approach and Kick-Off Validate the approach to be taken in Phase 2 and refresh any required updates in terms of activities, scopes and timeline based on final recommendation of product in Phase 1	18. Phase 2 kick-off deck and plan presented and approved by SoG, highlight key considerations and implications for Phase 2 work
1.2 Identify 'preferred' seabed leasing option objectives to be taken forward Based on the policy objectives identified in Phase 1, define the leasing model objectives which will be the most commercially attractive, assessing their relative importance	19. Memo (c.3-5 pages) listing objectives for seabed leasing process and workshop for discussion (virtual)

Task 2 – Develop and assess seabed leasing model options with commercial assessment of the top archetypes

Objective of the task: Assess and compare a range of potential seabed leasing models, incorporating best practices from other jurisdictions, to identify 2-3 optimal archetypes that best align with Guernsey's objectives, offer diverse strengths, and demonstrate commercial viability. Consider key trade-offs and evaluate each model's performance across multiple assessment categories.

Sub-task	Deliverables
2.1 Seabed leasing models options appraisal and trade-offs Assessing potential options and models to leasing and approaches to market that might be available to SoF, considering the trade-offs between various approaches, SoG objectives as well as what is realistic in the market. Advising on the relative benefits of other leasing mechanisms from other jurisdictions which are already working or are planned. Advising on the extent to which a 'UK model' (Crown Estate), or alternative, is followed.	20. Memo (c.10-12 pages) detailing options appraisal for seabed leasing models, including lessons learnt from previous auctions – also introduced in a presentation to allow for greater visualisation of the trade-offs
2.2 Seabed model analysis and down-selection to top 2-3 seabed leasing archetypes Provide a structured assessment for highlighting 2-3 candidate seabed leasing archetypes and provide clear definition and evaluation of strengths/weaknesses, ahead of further analysis	Memo delivered in combination with previous deliverable (Task 2.1) - presentation summarizing the shortlisted archetypes with relevant comparative analysis
2.3 Revenue assessment Outline possible mechanisms from the lease which would result in revenue / income / benefit stream(s) for Guernsey and detail the assumptions made for the top 2-3 archetypes.	21. Memo (c.5-8 pages) detailing possible revenue / income / benefit stream(s) for SoG and present key underlying commercial assumptions
2.4 Power offtake assessment This will build on Phase 1, Task 3.1 to provide better granularity and quantification on power offtake after the final recommendation has been provided post Phase 1 in terms of product.	22. Memo (c.5-8 pages) listing power offtake options with assessment of benefits and drawbacks of each from both SoG and developer perspective

Task 3 – Analyse regulatory framework and identify remaining gaps

Objective of the task: Evaluate Guernsey's existing regulatory framework for offshore wind development, identifying any gaps or areas for improvement that could impede the implementation of the shortlisted seabed leasing model archetypes. Assess the potential for integrating SoG's key policy objectives into the regulatory framework to enhance the effectiveness and impact of the chosen leasing model. Provide key regulatory considerations to inform the detailed design of the selected leasing approach in Task 4.

Sub-task	Deliverables
3.1 Assess regulatory changes or updates needed in SoG Identify regulatory aspects that must be developed or refined before site leasing can commence. This will include recommendations on the necessary regulatory changes needed to facilitate the developments (including but not limited to site identification, offshore selection, planning and permitting).	23. Memo on main regulatory gaps in SoG and commentary on changes or updates required to enable delivery of the preferred option(s) (in .docx format 8-10 pages)
3.2 Assess regulatory changes or updates needed for access to export markets (as applicable) More detailed consideration of relevant policy and regulatory frameworks and developments in potential export markets to further inform options on revenue models/power export opportunities/ transmission/grid options.	24. Memo on main regulatory gaps for access to export markets and commentary on changes or updates required to enable delivery of the preferred option(s) (in .docx format 4-6 pages)

Task 4 – Finalise and detail the preferred leasing approach, and evaluate remaining risks

Objective of the task: Consolidate the findings from the previous tasks, in particular the analytical framework of Tasks 2 and 3, to definitively select the optimal seabed leasing model for Guernsey. Develop a comprehensive and detailed leasing approach, outlining all necessary terms, conditions, and processes.

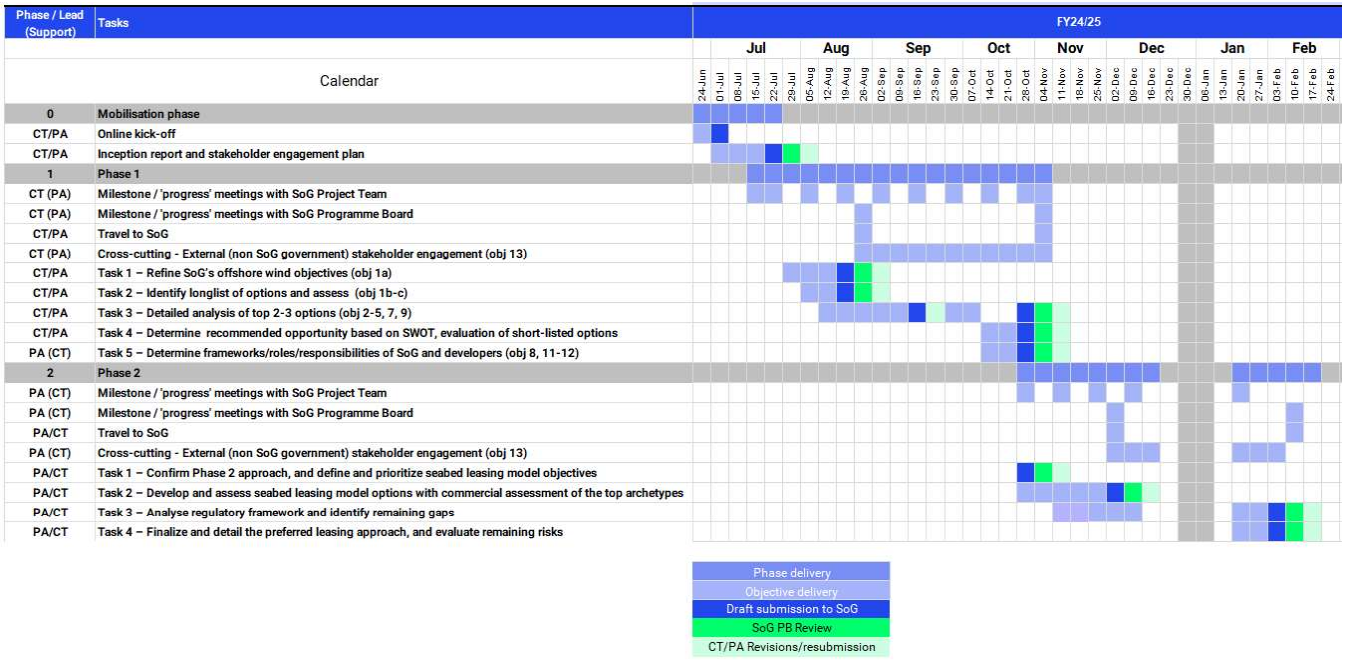
Sub-task	Deliverables
4.1 Develop final recommendation on optimal seabed leasing model (market design) Based on prior tasks 1-3, provide final recommendation on the optimal leasing approach option(s) with justifications.	25. Memo summarising detailed recommendation, including optimal seabed leasing model (market design), incentives on bidders, key risks, and opportunities for SoG, etc. Provide a copy of the decision matrix for SoG use. Relevant section in the Phase 2 synthesis report (.pptx/.pdf format) – includes insights from 4.2 below
4.2 Refine the project / programme requirements and management function, and create a roadmap of critical milestones and next steps Set out the approach to the work required in preparation of a lease.	26. Memo (c.15 pages) summarising final recommendation, initial roadmap and engagement plan (and input into the synthesis report mentioned in subtask 4.1)

Task 5 (Cross-cutting) – Stakeholder engagement delivery

Objective of the task: [Set out in section 2.2]

Sub-task	Deliverables
5.1 SoG Programme Board milestone feedback meetings Lead 3 updates to the PB (kick-off, mid-Phase, end-Phase). During each meeting, CT will present findings and facilitate feedback from PB members to ensure strategic alignment.	Meeting slides to facilitate update and feedback. Feedback will be incorporated into final deliverables.
5.2.a Bilateral meetings with select stakeholders in Guernsey	Feedback will be incorporated into final deliverables.
5.2.b Bilateral meetings with select offshore wind developers	Feedback will be incorporated into final deliverables.
5.3 Public sector and adjacent stakeholder meeting [note: delayed until after Phase 2 in agreement with the SoG.	Feedback will be incorporated into final deliverables.

4. Proposed delivery timeline



5. Summary of outputs

Please note that for Phases 0-2, all Carbon Trust deliverables will be provided in .doc format where appropriate (in some cases, deliverables may be provided in .xls, .ppt or .shp). We will provide these in the Carbon Trust document format unless a preferred document format is provided to CT and PA at project kick-off.

Review processes are outlined in section 2.2.

Phase and task	Deliverable	Expected delivery date	SoG review date and return time
P1 T1.1	1. Strategic policy objectives (5-10 page briefing memo .docx)	16 Aug	26 Aug – 3 Sep, 1 week
P1 T1.1	2. Summary slides to facilitate prioritisation and discussion (in .ppt format)	16 Aug	26 Aug – 3 Sep, 1 week
P1 T1.2	3. Minutes from the workshop detailing prioritised objectives (in .docx format)	30 Aug	No formal SoG review, for information only. Policy objectives to be discussed during in-person meeting and reviewed by 3 Sep.
P1 T1.3	4. Table of assessment criteria and definitions (.docx format 1-2 pages)	16 Aug	26 Aug – 3 Sep, 1 week
P1 T2.1	5. Memo detailing current and future energy considerations (.docx format 5-8 pages)	16 Aug	26 Aug – 3 Sep, 1 week
P1 T2.2	6. Long list of 10 opportunities (5-7 page briefing memo .docx)	16 Aug	26 Aug – 3 Sep, 1 week
P1 T2.3	7. Summary slide deck to facilitate validation session in .ppt format; additional reasoning for the top 2-3 options added to deliverable 6 (memo) and copy of the excel assessment document.	16 Aug	No formal SoG review, for information only. Validation feedback to be provided during in-person meeting.
P1 T3.1	8. Memo detailing offtake/power export opportunities relevant to the 2-3 short-listed options identified (8-10 page memo .docx)	Wc 28 Oct	Wc 4 Nov, 1 week

P1 T3.3	9. Summary constraints analysis (5-7 pages .docx)	13 Sep	Wc 16 Sep; approval required before PA begins task 3.4, 1 week
P1 T3.3	10. All applicable maps from GIS analysis	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T3.3	11. All processes and datasets (.zip folder of .shp files)	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T3.4	12. Data book of technical and cost assumptions	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T3.4	13. Memo summarising LCOE/valuation modelling results and commercial opportunities/risks for developers	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T3.6	14. Memo outlining the findings of tasks 3.2 and 3.5 for the 2-3 shortlisted options (5-7 pages per option)	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T4.1	15. Summary of the SWOT analysis, evaluation of shortlisted options and final recommendation	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T5.1	16. Development cycle steps (.docx format 1-2 pages)	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T5.4	17. Memo outlining successes ad risks per step of government-led vs developer-led approach (.docx format 5-7 pages)	Wc 28 Oct	Wc 4 Nov, 1 week
P1 T6	Outputs from stakeholder engagement delivery to include: • Summary documents of bilateral stakeholder engagement meetings. • Presentation materials for in-person informational meeting • Material for update meetings to PB (kick-off, mid-phase and end-phase)	Wc 28 Oct	No formal SoG review, for information only.
P2 T1.1	18. Phase 2 kick-off deck and plan presented and approved by SoG, highlight key considerations and implications for Phase 2 work	Wc 28 Oct	Wc 4 Nov

P2 T1.2	19. Memo listing objectives for seabed leasing process (.docx format 3-5 pages)	Wc 2 Dec	Wc 9 Nov, 1 week
P2 T2.1	20. Memo (c.10-12 pages) detailing options appraisal for seabed leasing models, including lessons learnt from previous auctions – also introduced in a presentation to allow for greater visualisation of the trade-offs		
P2 T2.3	21. Memo (c.5-8 pages) detailing possible revenue / income / benefit stream(s) for SoG and present key underlying commercial assumptions		
P2 T2.4	22. Memo (c.5-8 pages) listing power offtake options with assessment of benefits and drawbacks of each from both SoG and developer perspective		
P2 T3.1	23. Memo on main regulatory gaps in SoG and commentary on changes or updates required to enable delivery of the preferred option(s) (in .docx format 8-10 pages)	Wc 3 Feb	Wc 10 Feb, 1 week
P2 T3.2	24. Memo on main regulatory gaps for access to export markets and commentary on changes or updates required to enable delivery of the preferred option(s) (in .docx format 4-6 pages)	Wc 3 Feb	Wc 10 Feb, 1 week
P2 T4.1	25. Memo summarising detailed recommendation and optimal seabed leasing model	Wc 3 Feb	Wc 10 Feb, 1 week
P2 T3.2	27. 26. Memo (c.15 pages) summarising final recommendation, initial roadmap and engagement plan (and input into the synthesis report mentioned in subtask 4.1)	Wc 3 Feb	Wc 10 Feb, 1 week
P2 T4	Outputs from stakeholder engagement delivery to include: • Summary documents of bilateral stakeholder engagement meetings (public sector, developers and transmission operators) • Material for update meetings to sub-committee (kick-off, mid-phase and end-phase)	Wc 3 Feb	No formal SoG review, for information only.

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Deputy Chris Blin
Chair
Offshore Wind Group Sub-Committee

6 September 2024

Dear Deputy Blin

At the beginning of this year the Policy & Resources Committee re-set the Offshore Wind Group sub-committee (OWG), broadening its membership and setting out revised objectives, and you agreed to be its chair.

The OWG's primary objective is to facilitate the submission before the end of this term of a policy letter which sets out the case for further investment in a commercial scale windfarm in order to maximise the value of the seabed as an asset.

In the revised and updated terms of reference, the Policy & Resources Committee set out that "the contents of the policy letter, on which the OWG will advise, to obtain States of Guernsey approval will, as a minimum, include:

- The licensing of renewable energy in the marine environment
- Agreeing the objectives of developing offshore wind within Guernsey's waters (the rationale for development), which have initially been identified as including:
    - Energy resilience/enhanced energy independence
    - Potential revenue-raising
    - Energy infrastructure investment
- The approach, including process and benefit realisation for Guernsey, to leasing the seabed for an offshore wind development."

The Policy & Resources Committee has noted the progress made to date this year, including:

- The appointment of PA Consulting and the Carbon Trust to provide independent expertise on this phase of the work in order to inform the analysis and recommendations of the Policy Letter, this appointment following a tender process overseen by the States of Guernsey's commercial team;
- The appointment of CBO to support the management of the work; and
- The ongoing development of options for the more detailed consultancy work.

The original driver of this work was to build on the October 2022 scoping report compiled by Deputy Carl Meerveld, which set out the potential opportunities for maximising the value of the seabed as an asset. The Committee noted that this was clearly reflected in the March 2024 invitation to tender for consultancy, which set out the States' primary objectives for seabed leasing as to:

- "Explore commercial opportunities and options, based on the principle that this should result in economic and financial returns and other benefits for the islands. The starting point is to explore a project at a significant scale (beyond domestic consumption) export model whereby all energy generated from the project is exported and does not land in Guernsey. However there should also be consideration of the potential for a domestic consumption model and a hybrid model (ie export and domestic); and
- Maximise the potential long-term benefits through the model the States agrees to take forward, in terms of:
    - Economic and financial returns that raise revenues for the States;
    - Enhancing energy resilience with the objective of mitigating the cost challenge; and
    - Generating revenue to enable energy infrastructure investment."

Given that the work is now starting to progress at pace, the Committee is taking this opportunity to make clear its objectives for the sub-committee's work.

The Island's fiscal challenges remain significant, and the generation of revenue is critical to enable the funding of public services as well as investment in infrastructure, including energy infrastructure. With that in mind the Committee welcomes the OWG's focus on raising revenue through seabed leasing and the development of offshore wind energy, and endorses that as the primary objective of its work.

Given that the States has also agreed a long-term energy policy in 2020 and an electricity strategy in 2023, it is clear to the Committee that some of the revenue generated from offshore wind should also be used to support the objectives in the energy policy and the electricity strategy. That will be the best way to ensure that the community and the economy benefit directly from the future development of offshore wind in Guernsey's waters.

With that in mind, the Committee is advising the OWG that there are two considerations that it wishes to see addressed as the work develops, in order to be set out in the Policy Letter:

- The opportunities for raising revenue from the seabed through the development of offshore wind; and
- How a proportion of that revenue might best be allocated to support the other objectives set out above and recognised by the OWG, namely energy resilience, stability of pricing, and the pathway to net zero.

The Committee is of the mind that these two points should be the focus of the OWG's work, and of the officer time that supports this work. As the chair of the sub-committee, it is critical that you recognise the need for financial and officer resources to be fully focused on these priorities in supporting the sub-committee's work, and that they are not diverted intentionally or otherwise into other areas or ancillary matters by the sub-committee. This must be emphasised to the political members involved in this work as it is important that the OWG focuses on the task at hand given the tight deadlines. This same direction is being given to the Chief Strategy & Policy Officer who ultimately reports to the Policy & Resources Committee on this work.

It is also important that the OWG demonstrates a professionalism and focus in its engagement with external parties, and I trust that as chair you will ensure that the highest standards of governance and professional standards will be met at all times.

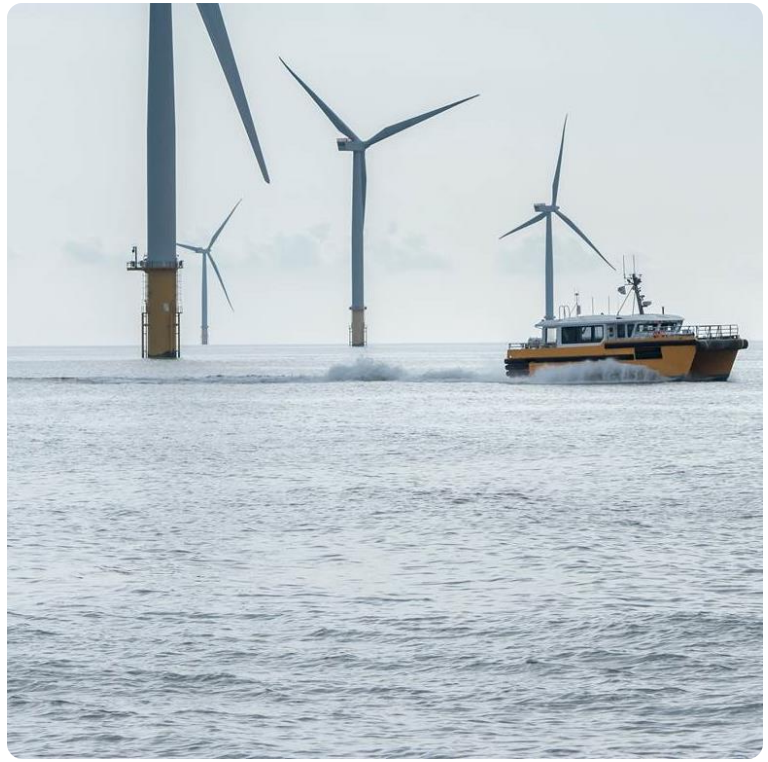
Finally, the Committee requests that a further update on the progress made is provided at the end of Q4 of this year, with confirmation and evidence that the work is on-plan and within budget.

Yours sincerely

Deputy Lyndon Trott
President

States of Guernsey – NPV modelling for a representative offshore wind site

February 2025



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02 Approach: NPV Modelling for an offshore wind farm

03 Assumptions and scenarios

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05 Caveats and sensitivities

01 Introduction | PA Consulting is a global strategy and technology delivery partner to private and public sector

GROWTH & INNOVATION

Apply agility and design thinking to work at speed; transform propositions, experiences and processes; engage consumers and customers; focus on outcomes

TECHNOLOGY

Fully leverage physical and digital technology, and data, as a source for innovation and as a driver to attain sustainability

DESIGN

Create product concepts, propositions and experiences that engage customers and that win in the market

COMMERCIAL STRATEGY

Support clients to find solutions that work - in practice, not just on paper - that capture and drive long-term value

More than a traditional consulting firm

We are a strategy and technology firm that offers **end-to-end innovation**. Our diverse teams – including strategists, innovators, designers, consultants, commercial modellers, digital experts, scientists, engineers and technologists – bring real-world experience and apply it at pace.

We have deep industry expertise and work from 20 offices across North America and Europe, **partnering with clients in a range of industries**, including consumer and manufacturing, defence and security, energy and utilities, financial services, government and public services, health and life sciences, and transport.

c. 4,000
Experts

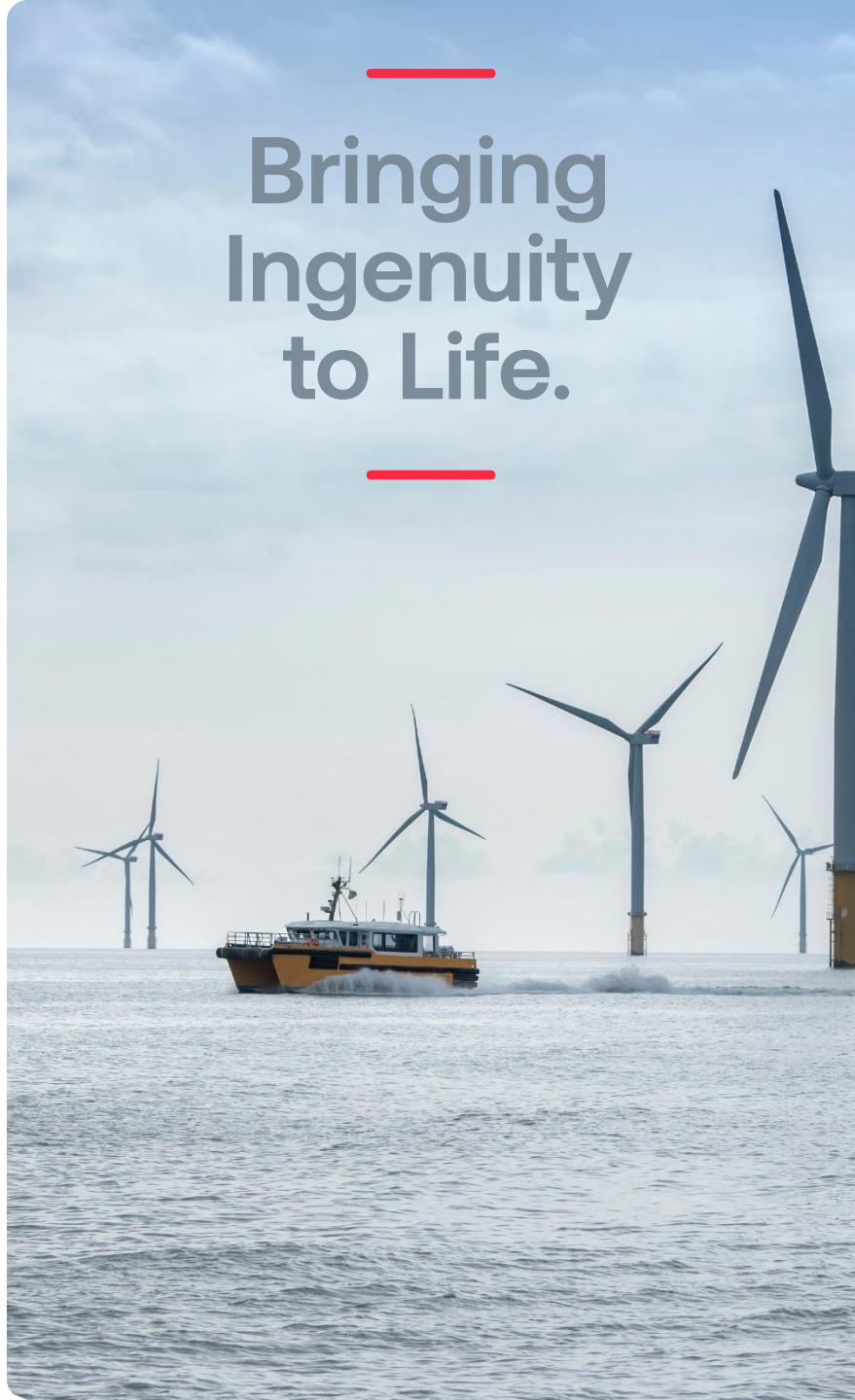
20
Offices globally

Clients

Mix of major global companies, including renewables developers, utilities, investors, government agencies, regulators

Expertise

Deep expertise across sectors, and in the energy sector on tender competition strategy, supply chain assessment, market design and regulation.



01 Introduction | States of Guernsey asked PA Consulting to conduct high level valuation (Net Present Value, NPV) modelling for a future offshore wind farm

Scope of work and context

This report's objective is to provide a preliminary investigation of the potential value of a wind farm located in the States of Guernsey's territorial waters.

There are several ways of measuring the value and from a renewable electricity generation project, such as focusing on returns to the project developer, direct or indirect benefits to the States of Guernsey (SoG), comparisons with other such generators, etc.

Net Present Value (NPV), is a financial metric used to evaluate the profitability of an investment / project by calculating the difference between the present value of cash inflows and the present value of cash outflows over its lifetime. Together with metrics such as hurdle rate, it is key in assessing the commercial viability of projects, as well as how much value it presents, above the cost of capital or required returns of the developer. As a result, the NPV can be used as an approximative placeholder for the maximum value that could be shared between a developer and the States of Guernsey.

PA Consulting's Offshore Wind team regularly advises Investors, Developers, Energy Companies and Governments on:

Strategy
Auctions & new market entry

Transactions support
Commercial & regulatory due diligence

Supply chain strategy
OEMs, ports, vessel strategy

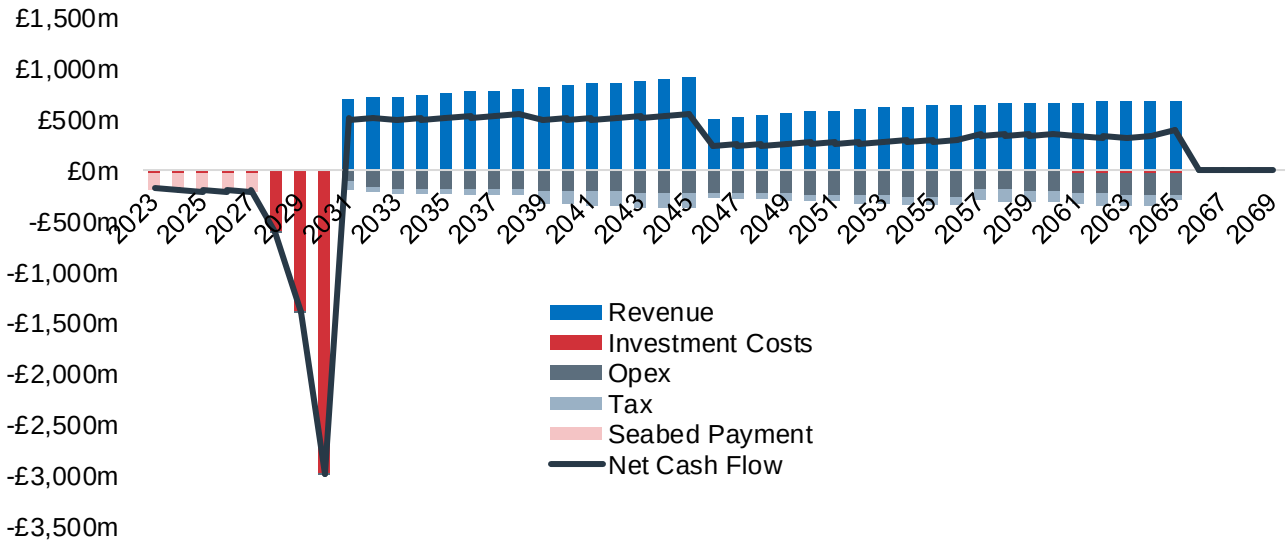
Market design
Regulatory framework & auction design

02 Approach | Net Present Value Modelling is one of the most common tools to value and compare different business opportunities

How to value a wind farm – Net Present Value modelling

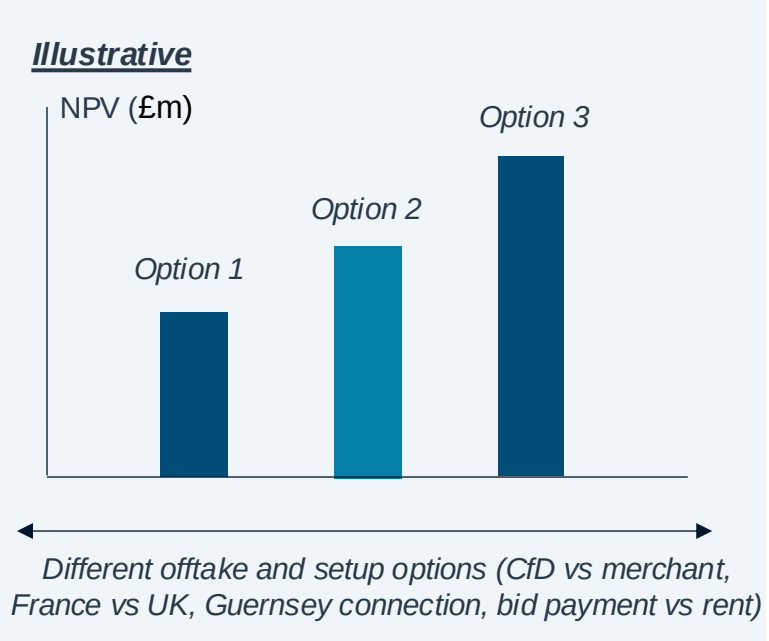
- Net present value (NPV) is a way to measure the value of an asset such as an offshore wind farm by using its cash flows over time (see example of cash flows below)
- It is calculated by adding up the present value of all future cash flows, taking into account the time value of money. This accounts for the long-term profitability of the asset, and is a key metric businesses use to decide of the investability of a project.
- This discount rate typically acts as stand-in for the cost of capital of a business, or the "opportunity cost" of investing. A positive NPV result indicates that the investment's rate of return will be higher than the discount rate.

Illustrative offshore wind farm cash flow profile



Comparing business opportunities

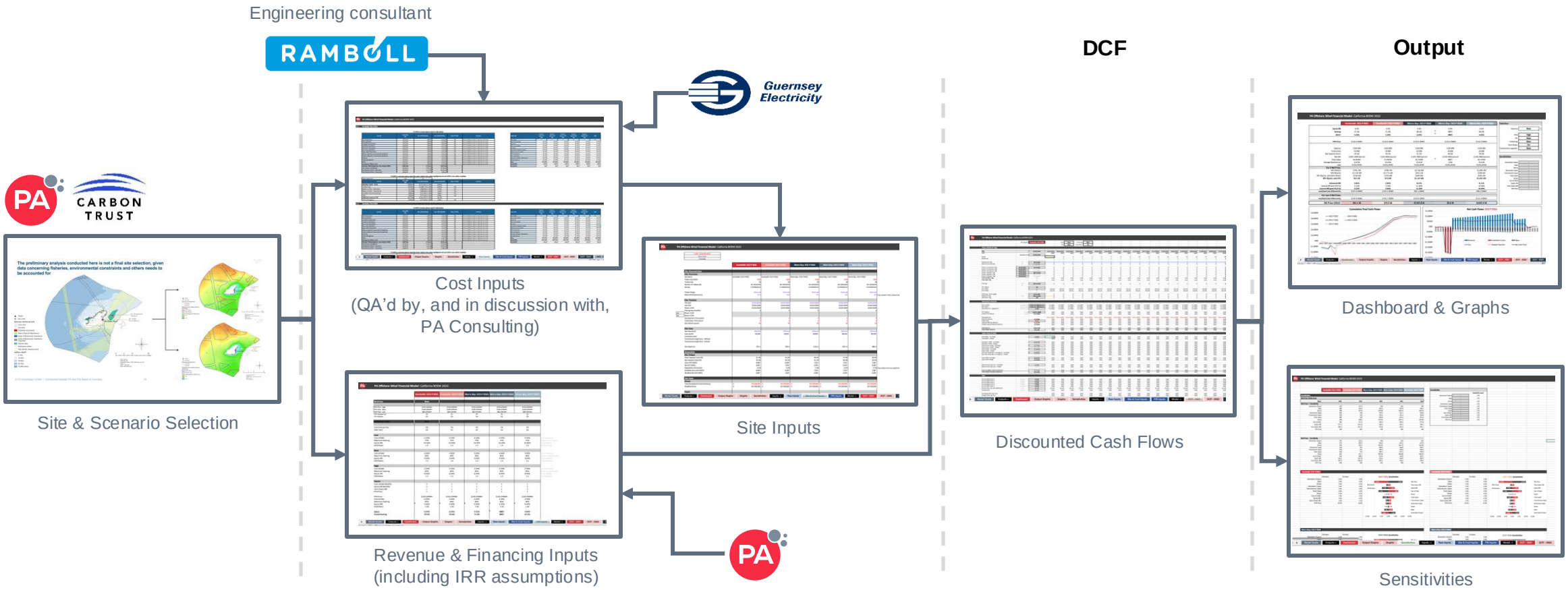
- The NPV method can be used to weigh up different business options or commercial approaches, to understand the returns and the net value of different investments after costs.
- By presenting the NPVs of different options, the clear economical differences between these can be measured and contrasted – for example, differentiating a Guernsey-based wind farm's connection to the UK or France, or between a CfD and merchant offtake.



Different offtake and setup options (CfD vs merchant, France vs UK, Guernsey connection, bid payment vs rent)

02 Approach | PA's Discounted Cash Flow Model combines inputs from multiple sources

PA NPV Model – Flow diagram



02 Approach | Technical inputs such as AEP, CAPEX & OPEX come from Ramboll while PA uses public sources & in-house expertise for revenue and other inputs

PA NPV Model – Inputs list

RAMBOLL

WTG
- Tower
- Nacelle & Drivetrain
- Blades

BoP
- Foundations
- Export cables
- Inter array cables
- Substations

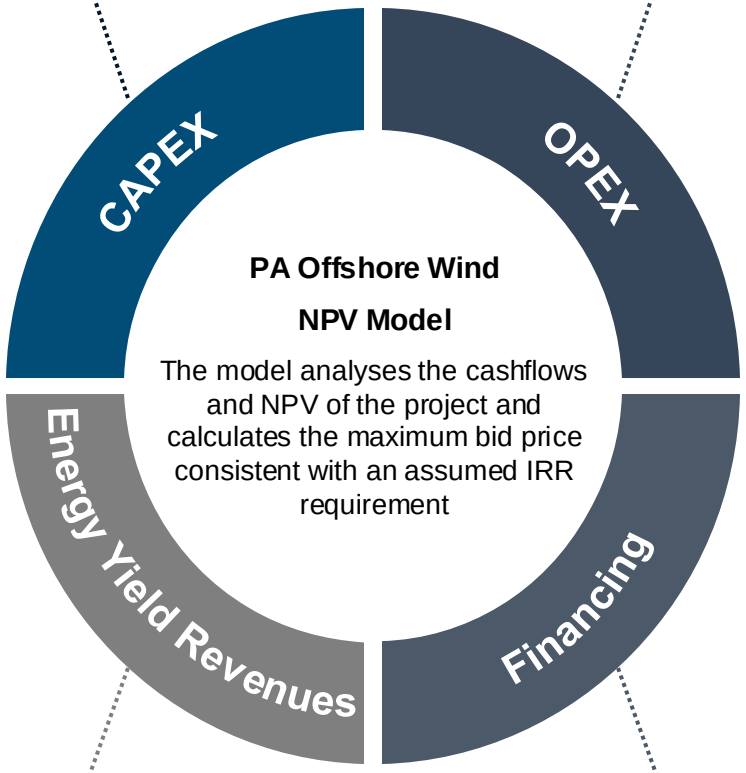
Other
- Development
- Installation
- Capitalised finance cost

Considerations
- WTG sizes
- Water depth
- Distance from shore

Power Production
- Energy Yield / AEP
- Availability
- Losses

Revenues
- PPA Price / ORESS
- Power prices
- Capacity market?
- Ancillary services?

RAMBOLL



RAMBOLL

Fixed
- Labour
- Equipment & Transport
- Insurance

Other
- Tax
- Finance costs
- Network charges

Variable
- Unplanned maintenance
- Variable network
- Tariff

Considerations
- Asset capacity
- WTF sizes
- Distance from shore

Financial Structure
- Required IRR
- Gearing levels
- Cost of debt
- Project finance / balance sheet
- Farm down

Tax
- Basic levels of corporate tax
- ITC and tax equity
- Impact on project cashflows

03 Assumptions and scenarios | **Steps 1 and 2: Area selection** - A representative site was specified off the Guernsey coast

The Carbon Trust selected a representative wind farm area in Guernsey territorial waters accounting for some of the main constraints, including:

- Undersea cables
- Shipping lanes
- Minimum distance to shore of 5 km
- Areas of biodiversity importance

However, these were assessed on high-level, preliminary datasets, and will require further detailed assessment before actual site selection

In addition, a number of constraints were not accounted for, including fishing activity, stakeholder views and a number of other environmental constraints.

PA Consulting, in close discussions with States of Guernsey and the Carbon Trust, then narrowed the selection to the representative area shown on the left, based on:

- Minimising depth to reduce foundation CAPEX
- Avoid areas where significant shipping or fishing might take place (on a qualitative discussion level)
- Avoid areas excluded by SoG for other reasons
- Maximising the area a single contiguous zone for this initial representative area

Our team selected a representative wind farm area in Guernsey waters accounting for some of the main constraints. We also agreed an initial set of inputs with States of Guernsey for this illustrative wind farm, listed below

The preliminary analysis conducted here is not a final site selection, given data concerning fisheries, environmental constraints and others needs to be accounted for.

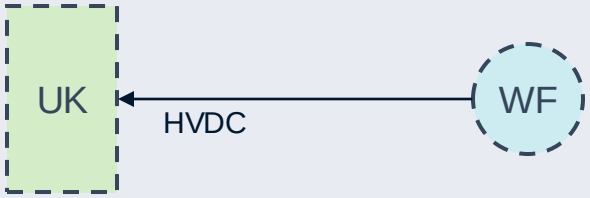
Scenario	Reference
Site Size	
Coastal buffer	5 km
Area	157.4 km^2
Density Assumption	8.1 MW/km^2
Feasible Capacity	**1,272 MW**
Timeline	
Start of development	2027
FID	2033
Construction time	3 years
COD	2036
Lifetime	35 years
Site Characteristics	
Turbine Size	24 MW
Turbine Number	53
Foundations	Jackets

Photo Credit: EU Copernicus Sentinel Data

1 – Including transmission CAPEX. 2 – Wider TNUoS in the UK is a positive payment to generators in some regions

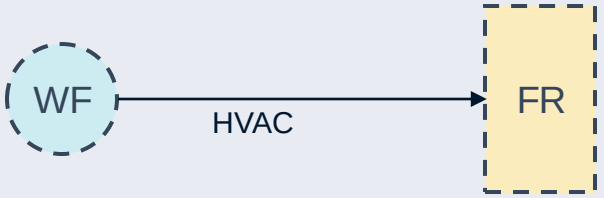
03 Assumptions and scenarios | **Step 3: Scenarios** - PA and the SoG agreed on three technical set-ups (“options”) to assess

1 Option 2.1: UK



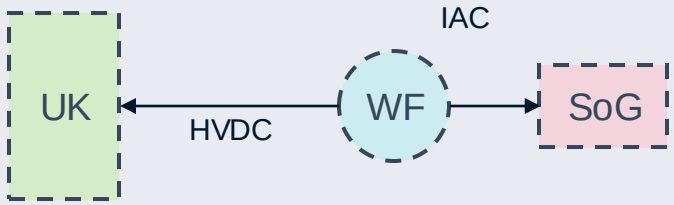
- Single radial HVDC transmission to the UK grid
- CfD (15 years) with merchant revenue post-CfD
- **Unbundled:** seabed first and CfD later
- Transmission likely will need to fit the OFTO regime (developer build, sell to third party)

2 Option 2.2: France



- Single radial HVAC transmission to the France
- CfD (20 years) with merchant revenue post-CfD
- **Complex**: requires significant French state buy-in and coordination (e.g. potentially with AO10 in 2026)
- French TSO **typically** pays for offshore transmission – however, this will likely require negotiation from SoG

3 Option 3.1: UK + Guernsey



- UK, except three turbines inter-array cables directly to 33kV ring circuit north of Guernsey
- CfD (15 years) with merchant revenue for UK portion: SoG average price assumption with generic capture rate assumption
- **Unbundled:** seabed first and CfD later for UK component, but with timing considerations for SoG connection
- UK portion: likely OFTO
  SoG: Direct inter-array connections, assuming developer pay for ca. £35 million for grid upgrade

See further description and key implications on the next slide

03 Assumptions and scenarios | **Step 4: Modelling** - modelling shows significant potential value for a Guernsey wind farm, but dependent on revenue model

Photo Credit: EU Copernicus Sentinel Data

Key Insights

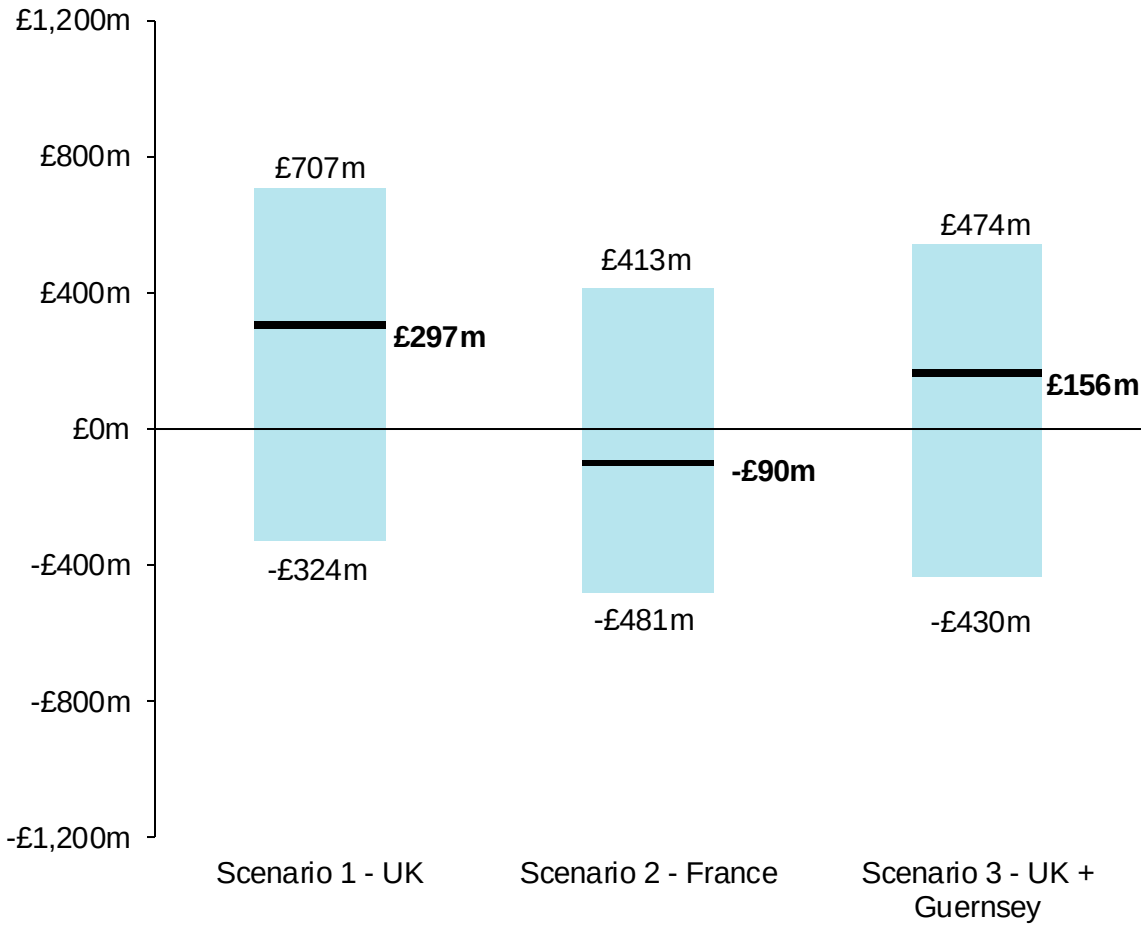
- **Scenario 1 (Option 2.1)** utilises a HVDC connection to the UK. This scenario also assumes a positive transmission charge due to connecting into the South.
- **Scenario 2 (Option 2.2)** utilises a HVAC connection to France. This is predominantly driven by the less favourable offtake profile in France (notably, a lower CfD price assumed compared to that of the UK). However, this option does feature a lower cost profile.
- **Scenario 3 (Option 3.1)** combine a HVDC connection to the UK and 3 individual turbines connecting to the SoG grid through its inter-array cabling. While very similar to Scenario 1, it sees higher CAPEX is based on grid related costs required to connect to Guernsey as well as lower offtake prices, considering PA's capture rate assumptions.

Key Parameters (£ 2025)	*Option 2.1* **Scenario 1 - UK**	*Option 2.2* **Scenario 2 - France**	*Option 3.1* **Scenario 3 - UK + Guernsey**
CAPEX Total	£5.1 bn	£3.9 bn	£5.1 bn
CfD Price	£80/MWh	£49/MWh	£80/MWh (for UK offtake)
Operational CfD Inflation	100%	20%	100%
Wholesale Price Average	~£71/MWh	~£61/MWh	~£71/MWh (for UK offtake)

1 – Including transmission CAPEX. 2 – Wider TNUoS in the UK is a positive payment to generators in some regions

04 Results | NPVs are strongly influenced by the assumptions around required returns and CfD levels

Net Present Value Range – Varying hurdle rate and CfD (£2025)



Key Insights

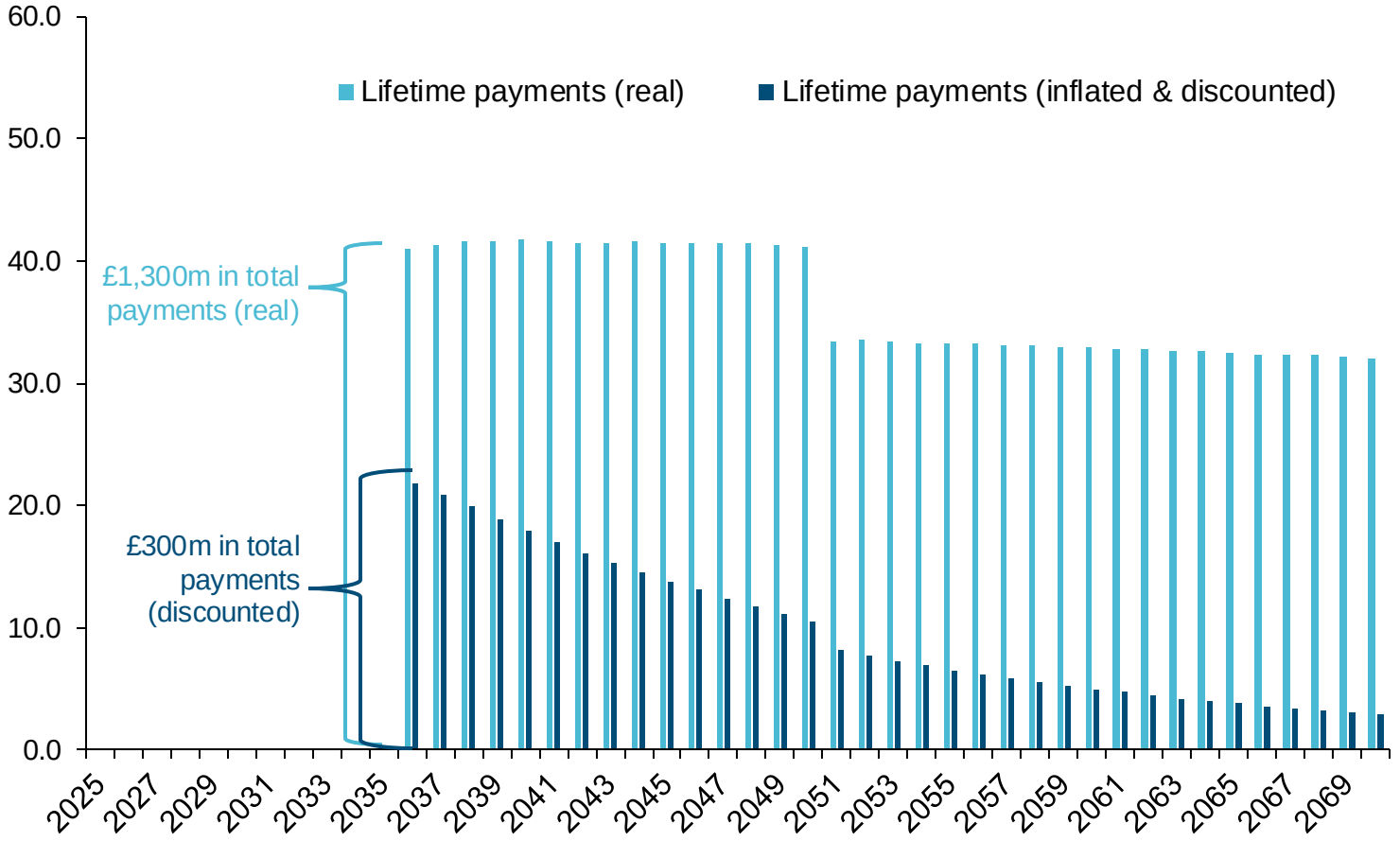
- **Significant Range in Potential NPV**: The estimated NPV of this offshore wind representative varies significantly across all scenarios, driven by:
  - **Offtake assumption uncertainty** (notably the core mechanism, the CfD) – as the CfD is expected to be the key mechanism in both UK and France
  - **Range of investor expectations** – the project hurdle rate (discount rate) assumed in the modelling for developers. This will depend on project risk profile, including offtake certainty.
- **Sensitivity to Key Assumptions:** Small changes in either driver can have a big impact on the project's value.
- These uncertainties are expected, given the early-stage nature of this offshore wind opportunity in its development cycle, the key sensitivities of NPV analysis, and the challenge in predicting prices / costs a decade or more in the future, particularly when set by competitive pressures in an auction).

The assumption used in the NPV range indicated on the left is shown below.

Base Case Range	Project Hurdle Rate (Required IRR / WACC)			CfD Price (£ 2025)		
	Low	Base	High	Low	Base	High
UK connection	8.00%	7.50%	7.00%	£61/MWh	£80/MWh	£88/MWh
France connection	8.00%	7.50%	7.00%	£40/MWh	£49/MWh	£58/MWh

04 Results | An NPV of £300m translates to £1,300m in regular payments over the wind farm's operational lifetime (real, undiscounted)

Lifetime Payments (£2025)



Key Insights

- **Direct Value**: in terms of direct value for SoG, Scenario 1 with an NPV of ~£300m could result in either a seabed bid up front or in payments over time (e.g. rent).
- This is because future payments are substantially discounted (even when accounting for inflation)
- The share of the value and how this was divided between the developer and States of Guernsey would depend on the risk profile of the investment and commercial negotiations.
- However, developers often reserve a significant amount of the NPV to mitigate potential risks and provide a buffer for their returns.

05 Caveats and sensitivities | This analysis is high level and needs to be read with an understanding of the key limitations and uncertainties

Results and conclusions

Our modelling shows that with plausible assumptions, and given a reasonable revenue model and transmission regime, there is significant value potential in offshore wind off the coast of Guernsey. However, significant further work is required to define the opportunity before it can be brought to market.

Key limitations and uncertainties

- **Cost estimates** (CAPEX,OPEX, DEVEX and DECEX) are necessarily approximate and high level for any offshore wind farm at this stage – given that it generally takes up to 6-7 years to develop a wind farm before getting to financial close when key CAPEX packages are procured and the costs locked down.
- **Turbine costs** and the sizes and wind yield of best-in-class turbines in the future will be a key driver of cost and value of the project. We have assumed that models in the 20-24MW class will be available for a project reaching COD in the mid 2030s. This may be conservative as turbines in these classes are already being prototype tested.
- The **foundation CAPEX** is particularly uncertain in this case because the water depths in the site would require jacket foundations of sizes that are not yet available in the market. We have used engineering consulting expertise to estimate the future cost of these foundations. Steel prices in the future will be a key determinant of foundation costs.
- **Transmission CAPEX** is estimated based on an HVDC technology solution for the scenario where the windfarm connects into the UK grid. There may however be HVAC solutions that are feasible at lower cost – especially on the timescales when this windfarm would reach FID and COD.
- **Site layout** has not been optimised, but is based on an approximation, as is wind yield and while the site specifics, wind conditions and wake and other losses have been estimated, they will inevitably be approximations at this stage.
- **Regulatory uncertainty** – offtake and revenue models are not established for a potential Guernsey windfarm. We have modelled a range of CfD prices from the UK & France.
- **Grid connection** is also not established and is another key uncertainty. We have modelled the windfarm based on existing regulatory models available in the UK and France.
- **Financing cost uncertainty** is a significant driver of overall cost and NPV for offshore windfarms. We have modelled a range of IRR requirement assumptions based on similar windfarms in the UK and France.

05 Caveats and sensitivities | We have assumed fixed bottom foundations are available in future at greater depths, with 24MW turbines

Key technology assumption

24 MW turbines, commissioning by 2034 (most aggressive timeline) to 2038 (most conservative timeline)

No specific “turbine” make assumed

Fixed bottom jacket foundations are assumed for the entire zone

Ramboll has made independent steel price assumptions

Market news / references

China's Mingyang lined up by EU developer to supply 18MW offshore wind turbines

- **Expected commissioning date**: 2030
- **Market**: Germany

'Significant market' for offshore wind foundations as deep as 120 metres

World’s First 26 MW Offshore Wind Turbine Rolls Off Production Line

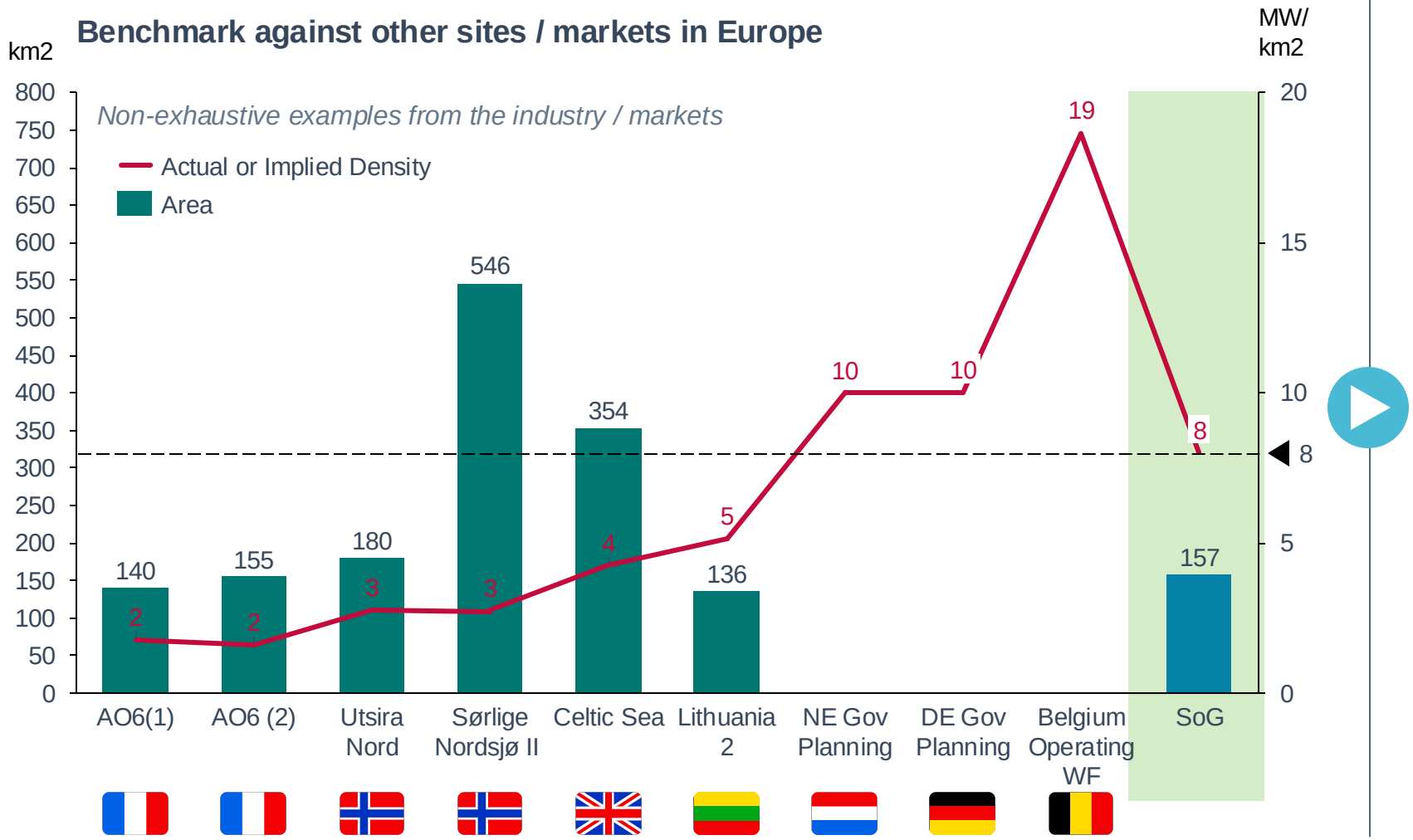
- **Manufacturer:** Dongfang (Chinese)
- Single turbine – not yet commercial production

Depth charge | BP and EnBW name key partner to help 'stretch boundaries' of offshore wind

- Depths of ~75m
- Contracted Kent (engineering firm) to push boundaries of fixed foundation

- While many turbine manufacturers have begun to level off their ambition over turbine scaling, others are pushing ahead with larger turbines
- Given a mid-2030s COD timeframe, it is possible to expect larger turbine models may become available.
- Non-western OEMs continue to tout the roll-out of larger turbine models, including up to 26MW by Dongfang.
- The limits of foundations are also being tested – it is thought that BP and EnBW are keen to used fixed bottom foundations at their 75m depth Morven site

05 Caveats and sensitivities | We have benchmarked size and density against recent tenders and other points of policy and market references



- Our 8MW per km^2 assumption is higher than the implied density based on some recently tendered (or to be tendered) sites.
- However, it is lower than the many other comparable benchmarks – for example, the Dutch and German government regularly uses higher “density” for policy planning.
- Notably in smaller European markets, the densities of operational and pipeline windfarms tend to be high – see the average density of the Belgium operating windfarm cohort.

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High-level timeline for SOG | We anticipate potential timelines of around 24-36 months to tender, though this is highly contingent on discussions with the UK (if connecting into the UK) and creating significant certainty for market around route-to-market and grid connection