Planning Examination inspection of the application by Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited for an order granting development consent for the development for the Morgan and Morecambe Offshore Wind Farm Transmission Assets.

Personal Bio:

I am a Chartered Engineer MIET, MBA (Dist), DMS (Dist) and MAPM (Ret'd) the Association of Project Management. I have comprehensive Engineering, Programme and Integration, Risk management expertise and I have successfully utilised to lead/deliver complex, high value defence systems to UK and International customers. I have also conducted the role of Head of Risk & Opportunity Management for the Middle East Defence sector. I was recommended for the role to co-design and implementation of the Company's Lifecycle Management across BAe Systems (UK & Inc). I was given the responsibility to acted in a dual capacity as Engineering (Product/Systems) Phase Review Assessor and Phase Review Chair, and Business Phase Review Assessor and Phase Review Chair for numerous projects. An example being the Type 26 Frigate. This weapon systems present day value is reflected by the recently announced Type 26 Global Combat Ship contract with Norway valued < £10 billion.

Project Overview:

I attended the Examination hearing on Tuesday 7th October and Thursday 9th October, 2025.

Offshore wind farms scope:

Morgan Offshore Wind Project: A planning application for this project in the Irish Sea, for up to 96 wind turbines, approximately 37 km from the North West coast, was approved in 29th May, 2025. The project is expected to have a capacity of 1.5GW.

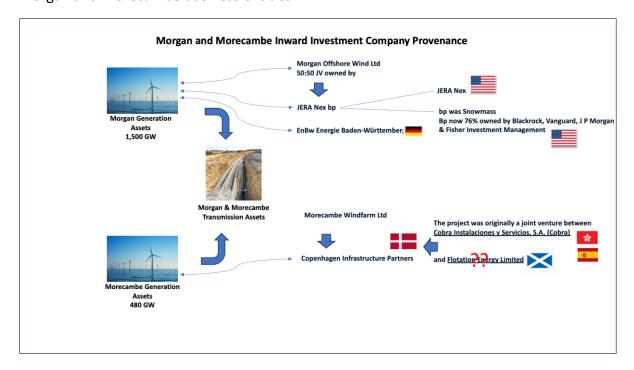
Morecambe Offshore Windfarm: It is proposed to build an offshore wind farm with up to 35 turbines, generating nominally 480 MW. It is located approximately 30km from the Lancashire coast in the Eastern Irish Sea. Ref Morecambe WS

This windfarm is currently awaiting the approval by the Planning Inspectorate with this decision scheduled to be declared by 23rd October, 2025.

Interestingly earlier this year, on 26th February, Copenhagen Infrastructure Partners (CIP) announced it intended to acquire the full ownership of Morecambe Offshore Windfarm from COBRA Group and Flotation Energy. Since then, there has been no public domain nor CIP statement to confirm whether the acquisition has been successfully completed. However, I am surprised no reference was made to this significant change during Transmission Assets Examination nor how it may affect both the Morecambe Wind Farm go-ahead decision.

Morgan and Morecambe Offshore Wind Farms Transmission Assets: Is a joint application that is currently under examination. It is a fundamental requirement to complete the Morgan and Morecambe Generation and Power Transmission capability.

The following diagram aims to show the current status of the organisational constructs for Morgan and Morecambe business entities.



The schedule for closing submissions for Morgan and Morecambe Transmission Assets Examination is as follows:

October 22, 2025 (Deadline 6): Submission of post-hearing information, including final versions of key documents from the applicants.

October 29, 2025 (Deadline 7): Final closing statements and any last submissions are due.

Observations:

As a concerned resident of the Fylde and having already made a submission offering an alternative route for consideration. I also made reference to Octopus Energy and its consortium's 2,500 Km (1,563 mile) cable transmission project, aimed to transfer solar energy from Moroccan solar farms to a National Grid onshore interconnect located in Western Cornwall. It would appear, this consortium believes this can be successfully achieve. However, Morgan and Morecambe appear uninterested or unable to run a transmission system for 30 Kms (18.75 miles) along the Ribble estuary to the proposed Nation Grid's Penwortham now defuncted coal powered station.

I listened intently, assessed maturity of stakeholder contributions against documentation under examination, observed behaviour, professionalism and body language of stakeholders in particular the applicants' representatives.

Transmission Assets

I believe the terminology in which the project is described tends to cause some confusion with the stakeholders. The term Asset can mean a discrete piece of equipment or a combination of equipment's, a combined entity. It is not always clear whether stakeholder comments referred to the Assets(s) inferring the singular (an item) or the plural use of the term (a combination of items or system).

I understand the overall project aim is to generate renewable energy from offshore (fixed)* wind turbines and transmit such energy through an onshore interconnect at Starr Gate, on the Fylde Coast, then through cabling via 2 sub-stations to a National Grid hub for onward distribution across their network.

*Fixed in this context relates to wind turbines being fixed to the sea bed and opposed to being built on a floating pontoon. The qualification is necessary as it relates the Contract for Difference (CfD) strike price it attracts. Floating CfD strike price is currently 2.1 x that of fixed wind turbines.

I believe this capability (generation through transmission) comprises of 3 systems. There are 2 Wind turbine generation systems Morgan and Morecambe plus the Transmission system. All 3 applications are running to separate timescales. They do not appear to be being progressed concurrently nor against synchronised schedule – Gantt chart. The Morgan Windfarm has been approved but Morecambe Windfarm still awaits a decision.

In my view the combination of these 3 systems creates a system of systems, a complete system that scopes power generation through to interconnection with a National Grid. They should be being manged accordingly, as a system of system. Sadly, I see no complete integrated plan by which this complete capability will be delivered, especially as there is no integration framework.

This is a fundamental concern as the seeds of project success are sown during this genesis phase. I believe it imperative that a systems integration framework is defined to ensure appropriate alignment, associativity and document maturity is developed in line with the desired integration/performance objectives. Integration is fundamental enabler to these complex project(s) and cannot be bolted later on at future phases. The time for this is now!

Lack of Transmission Assets Model

It was clear the approach taken by the applicants to visualise the Transmission Assets could be improved. The Transmission Assets routing proposed is defined in the Works Plans (Ref 1) document by overlaying the proposed route onto a 2D line map of the area (a static view). This was not easy to interpret at high level nor at more detailed levels and gives little opportunity for the stakeholder to hold a common mental model of intent/impact. Even the detailed overlays were at times difficult to interpret and I know the area well.

I believe it is well within the capabilities of the applications and their financial backers to produce a digital model, preferably 3D with simulation capabilities that would enable far clearer presentation to be made, would also enable What-Ifs scenarios to be conducted and even allow interrogation of alternative routings in a virtual world (a dynamic model). It would also would help all stakeholders to articulate their views from an improved common understanding and single source of truth.

Such modelling/simulation applications are readily available and have been for many years and would enhance this project considerably.

<u>Dassault Systems 3DS</u> would be an ideal candidate for this complete project – Transmission and Generation (Ref 8 & 9).

Risk

In Search of a Collective Risk Position

During the Tuesday session, whilst activity listening the hearing, I started to conduct a document search. I was looking for 2 particular documents, a Risk Register, with mitigations and contingencies; contingencies of cost escalation or adverse project impact or adverse community impact or all three. And an Opportunity Register that captured emerging Opportunities as they arose, exploitation strategies and target benefits.

I found 1,346 documents but found no Risk Register and no Opportunity Register. I did find 37 risk assessments. When I reviewed the risk assessments they demonstrated grossly inconsistent maturity metrics. Some used the traditional RAG assessment criteria Red, Amber, Green; others used Purple, Red, Amber, Green, Yellow and remainder contained no risk maturity assessment at all.

My conclusion is that there is no collective risk, mitigation nor contingency status for this project. This reinforces my previous views that each document is a discrete asset (singular) with little or no integration to the final solution and no indication of corporate governance to ensure an aligned, authoritative audit trail.

Document sign off, Governance and Audit Trail

In my experience documents for formal review need to be approved and authorised by signature to ensure accountability and an auditable trail that ensures there is appropriate corporate governance in place. If documents are not submitted signed by the review deadline they are classed as inadmissible. In such a case the project would be disadvantaged from the start of the review process, the project would probably not meet the maturity criteria and would struggle to secure approval to progress to the next phase.

On review of the Transmission Assets documents I have not seen any signed documents, only those initialled. I assume this is by the document author and authoriser but there is no way of telling. I do not believe this is sufficiently robust for project of this cost magnitude!

Overall, I believe the content of the documents has been generated by the applicant's subject matter experts/consultants to satisfy the requirements of this Examination and have delivered discrete documented assets accordingly.

Summary of Observations:

I find the following key expectations of this project are either omitted or in a questionable state of maturity at this Examination these are:-

No Visible Business cases for:

- Morgan Wind Generation Assets
- Morecambe Wind Generation Assets
- Morgan and Morecambe Transmission Assets

No visible return on Investment (ROI) – Opportunity

No compelling story - Opportunity

No collective risk, mitigation and contingency status - Opportunity

Only legacy, static visual 2D mapping of the cable routing - Opportunity

No Private equity company renumeration process – Opportunity

No integration framework - Opportunity

No construction schedule - Gantt chart - Opportunity

The United Kingdom is at Risk.

This project creates serious risk to the United Kingdom's economy, National and energy security. There is little to no National ownership or control of this capability and similar instantiations. Industry experts recognise < 50% of these installations are frequently foreign, in the hands of foreign state-owned corporations. And as such much of the profit/wealth paid for by UK consumer's will be exported from our shores to applicant's companies in based Germany, Denmark, USA, France, China and beyond. The UK control is severely limited to little more than withholding CfD Strike price/GB Energy funds if contracts are breeched. In the worst-case scenario such countries could use their position of strength to exhort their control over aspects of the UK.

The UK is recognised as having the highest energy costs in the developed world. This adversely impacts UK's competitive edge, growth potential and its industries, especially high energy users such as steel manufacturers, glass and chemicals. For example, Eneos (Chemicals) has announced it intends to cut 60 jobs at a plant in East Yorkshire blaming high energy costs and "dirt-cheap" imports from China. After already confirming it will be closing the Grangemouth refinery in Scotland due to unsustainable operating costs.

Such inward investment funded energy projects will do little to improve the cost base challenge, in fact the reverse is true as there is a high probability energy costs will continue on an upward trajectory.

Conclusion.

If I were to ask an advocate of this project, what does it aims to achieve. I expect the answer would be to generate renewable energy and by doing so save the planet and save the environment.

In my response is why carve up the beautiful Fylde countryside with a 100-metre-wide scare running from Starr Gate to the Penwortham Power Station, whilst adding plus two enormous sub-stations, is not my idea of saving the planet nor the Fylde's environment. This is not saving the planet nor the environment. It is government sponsored corporate profiteering.

Earth is a complex, self-regulating system (Ref 10).

I note on 14th October, 2025; Ed Miliband, as Energy Secretary, has approved the Tillbridge solar farm despite concerns from the Planning Inspectorate regarding issues like potential slave labour in the supply chain and the loss of high-quality agricultural land. The decision has sparked criticism from opponents who argue it prioritizes net-zero targets over local input and food security, though Miliband has defended the approval as necessary for speeding up the UK's transition to clean energy and achieving energy independence.

Appendix A – Outlines Aspects of the Project(s) I expected to see during this Examination.

C Eng IET, MBA (Dist), MAPM AOP

Circulation.

Planning Inspectorate - Morgan & Morecambe Transmissions Assets Examination Hearing

Andrew Snowdon – Conservative MP for Fylde

Joshua Roberts - LCC, Cabinet Member for Rural Affairs, Environment and Communities

Appendix A

The True Value of Government Attracted Inwards Investment Versus the Exportation of National Wealth Adversely Impacting the United Kingdom's Energy and National Security.

This UK's Net Zero strategy aims to secure 43-50 Gigawatts of wind power generation by 2030.

There is no definitive number of offshore wind farms defined to discharge this objective.

Offshore Windfarm Operations.

Industry experts estimate that a wind turbine operates for approximately 86% of the time, which is around 8,760 hours per year, with a 95% technical availability. The total operational lifespan is generally 20 to 25 years, during which they can be running for up to 120,000 hours.

This amounts to approximately 8,322 hours per year (0.95 x 8,760 hours in a year), although this can vary based on wind conditions and maintenance.

Factors that affect wind turbine run time:

Wind speed: Turbines shut down during very high winds to protect themselves from damage and cannot operate in wind that is too low to generate power.

Maintenance: Wind turbine maintenance schedules typically includes semi-annual (every 6 months) and annual (every 12 months) preventive inspections, lubrication, and checks. More comprehensive maintenance, such as gearbox oil changes (up to 300 litres of polysynthetic oil/gearbox) and major component checks, is performed every 2-5 years, while large-scale refurbishments may occur after 10-15 years.

Regular maintenance is crucial for meeting the expected lifespan and operational availably/performance.

Environmental conditions: Factors like turbulence, lightning, and corrosion (especially for offshore turbines) can affect how long a turbine operates and its overall lifespan.

Private investment funding renumeration model.

The cost to build and operate privately funded generation and transmission assets will, indirectly, be through the Contract for Difference (CfD) strike price and GBEnergy funding mechanisms. Energy consumer tariffs, both industrial and domestic, are adjusted to cover green subsidies, generation, transmission, load balancing, grid enhancement and general maintenance. The CfD nominal charge has increased significantly in the last 3 years. The Allocation Round (AR) for fixed wind turbines for 2023 AR5 was £44/MWh, 2024 AR6 was £73/MWh, and 2025 AR7 being £113/MWh. That is a 65% & 55% year on year increase respectively which when compounded is 250% increase over the 3 years.

Revenues Generation:

The following diagram illustrates the potential revenues generated.

| Windfarm R | evenue Gener | ration | | | | |
|------------|--------------|------------------------------|----------------------------------|----------------------|--|--|
| | Megawatts | Effective Hours in Operation | CfD Strike Price per MWh £ | Potential Return per | | |
| | | 8322 | 113 | | | |
| 1 Megawatt | | | | £ 940,386.00 | | |
| Gigawatt | | | | £ 940,386,000.00 | | |
| Morecambe | 480 | | | £ 451,385,280.00 | | |
| Morgan | 1500 | | | £ 1,410,579,000.00 | | |

Asset Estimated Costs for Generation & Transmission Asset – Morgan and Morecambe.

The following diagram illustrates construction costs for the combined capability utilising industry expert data.



Summary of Construction Estimates:

Definitive costs are not published by private companies, in their absence, I have utilised indicative costs from Industry Expert data. This illustrates the sheer magnitude of costs incurred by such projects.

Morgan Wind Farm estimated as £4 Billion

Morecambe Wind Farm estimate as £1,35 Billion

Morgan and Morecambe Transmission Assets £ 814,450,891

Financial statement 2024 Property Estimate £19,967,103 (Ref 3)

Financial Statement 2025 Property Estimate £22,648,891 (Ref 4)

Resultant year on year increase of 13.43 %

Windfarm and Transmission Assets Revenue Generation/Payback – Morgan and Morecambe.

| Indicative costs | | | | | | | | |
|--------------------------------|-----------------------|--------------|---------|------------------|---------|---|-------------------|--------------------|
| | Wind Farm* | Power Output | Cabling | High Power Sub- | | | | |
| 1000000000 | Construction Costs | MW | Km | station | Cabling | | Sub-Total | Totals |
| Morgan Generation Assets | £ 4,000,000,000.00 | 1500 | | | | £ | 4,000,000,000.00 | £ 4,000,000,000.0 |
| Morecambe Generation Assets | £ 1,350,000,000.00 | 480 | | | | £ | 1,350,000,000.00 | £ 1,350,000,000.0 |
| Transmission Assets | | 1980 | 30 | | | | | £ 814,450,891.0 |
| Cable Routing | | | | | £ - | £ | 316,602,000.00 | |
| Morgan Sub station | | | | £ 360,000,000.00 | | £ | 360,000,000.00 | |
| Morecambe | | | | £ 115,200,000.00 | | £ | 115,200,000.00 | |
| stimated Landing P | rocurement Costs 2025 | | | | | £ | 22,648,891.00 | |
| Combined Risks con | tingency 10% | | | | | £ | 697,890,178.20 | £ 697,890,178.2 |
| Revnue Generation | | | | | | | | £ 6,862,341,069.2 |
| Morga 1,500 MW/pa | 1 | | | | | £ | 1,410,579,000.00 | |
| Morecamber 480 M | W/pa | | | | | £ | 451,385,280.00 | |
| Combined pa | | | | | | £ | 1,861,964,280.00 | £ 1,861,964,280.0 |
| Payback period for | | | | | | | | |
| complete system | | | | | | | | |
| Years | | | | | | | 3.69 | |
| let Revenue over 2 | 0 year life span | | | | | £ | 30,376,944,530.80 | £ 30,376,944,530.8 |
| | 5 year life span | | | | | | 39,686,765,930.80 | |

As can be seen in Ref 1 Morecambe Offshore Windfarm Ltd the co-applicant, has only declared £1,000 equity in the business. No further filings have been placed with Companies House since December 2023. The Director that signed off these accounts Bruno Rossi who terminated his engagement with the Company on 17th July, 2025. Morecambe Offshore Windfarm Ltd looks to be a distressed company hence the subsequent Copenhagen Infrastructure Partners (CIP) announced an agreement to acquire the full ownership of

Morecambe Offshore Windfarm from COBRA Group, and Flotation Energy. Nothing in this Examination has illuded to precarious situation.

In summary the complete solution Generation to National Grid interconnect comprises of the figures identified above at 2025 value is £6,862,341,069.20. Looking forward to 2031, as indicated by scheduled completion targets, with escalation costs of circa 13.43% compounded to cost at completion would have escalated to £14,616,382,237.86.

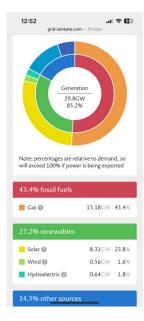
As can be seen by the above illustration's inward investment by private equity institutions is very lucrative.

Summary.

Generation and transmission system cost wills escalate considerably over the next few years, with a 90% probability of doubling. The CfD strike price has increased by 250% in just 3 years and unless productivity improvements are made the UK energy process, already the highest in the developed World, are only going in one direction.

The resultant is consumers will be expected to pay such increased charges at exponential rates!

But What Happens When the Wind Does Not Blow! The Germans call it **Dunkelflaute** - a period of time in which little or no energy can be generated with wind and solar power.



Actual UK Windpower Generation @ 12:58:08 on 12th October, 2025

Above is a recent example when renewable wind generation was 1.6% of UK demand. To rebalance the grid, optimising demand with supply, extra power would have been triggered either by spooling up gas powered turbine capability or increase demand from European interconnects. The cost of rebalancing adds a further £2.7 billion to bills in 2024 -25 and projected to peak at nearly £8 billion per year in 2030 under current trends. Just another financial demand power consumers are expected to pay.

In my humble opinion Net Zero finances are basically unaffordable, they just do not add up and will ultimately harm the UK's economy and our wellbeing

References

- 1. Morgan and Morecambe Offshore Windfarms Transmission Assets Work Plan
- 2. <u>Morecambe Offshore Windfarm Ltd Annual Report and Financial Statements for</u> the Financial Year Ended 31 December 2023
- 3. Morgan and Morecambe Offshore Wind Farms: Transmission Assets; Morgan Offshore Wind Limited Property Cost Estimate September 2024
- 4. Morgan and Morecambe Offshore Wind Farms: Transmission Assets; Morgan Offshore Wind Limited Property Cost Estimate September 2025
- 5. **Similar challenge different country** Why Mid-Atlantic electricity prices are rising so fast
- 6. <u>Talking points roundup: America's gas turbine shortage, Europe's record wind</u> curtailment, Germany's destructive energy policy
- 7. <u>Civil Service Project Management Handbook</u>
- 8. <u>Visualizing Power Transmission Networks Dassault Systèmes</u>
- 9. <u>Improve Offshore Wind Projects With the 3DEXPERIENCE Platform | Dassault Systèmes</u>
- 10. ** Earth is a complex, self-regulating system James Lovelock