Rosebank

Response to Requirement #3 (Provision of relevant information for the Secretary of State to consider when reaching a decision on whether or not to agree to the grant of consent) of the Regulation 12(1) Notice dated 21 July 2025

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1 INTRODUCTION

Background and scope

1.1. This document provides a response in relation to Requirement #3 in OPRED's Regulation 12(1) Notice dated 21 July 2025 ("OPRED's Regulation 12(1) Notice") and seeks to provide updated information for the Secretary of State to consider when reaching a decision on whether or not to agree to the grant of consent by the Oil and Gas Authority for Rosebank. Such a decision would be taken in consideration of the Department for Energy Security & Net Zero – Environmental Impact Assessment (EIA) – Assessing effects of downstream scope 3 emissions on climate - Supplementary guidance for assessing the effects of emissions on climate from offshore oil and gas projects issued in June 2025 (the "Supplementary Guidance").

1.2. As stated in the Supplementary Guidance, "*the Secretary of State will usually consider, amongst other matters, the severity, extent, understanding and duration of the significant effects, the Government's overall energy and environmental objectives, and the potential economic and other advantages of the project proceeding. This includes an assessment of the extent to which the project aligns with the Government's stated objectives for the future of the North Sea.*"

1.3. The Department for Energy Security & Net Zero – Building the North Sea's Energy Future[1] consultation document issued in March 2025 stated the following objectives:

- "*Overarching objective: to foster an internationally-leading offshore clean energy industry, which ensures good, long-term jobs, growth and investment in communities across the North Sea, in tandem with a sustainable transition in oil and gas – boosting the country's economy and energy security, in line with our climate obligations.*
- *Supporting objective 1: to ensure our oil and gas workers and supply chain can take advantage of the opportunities of our clean energy transition, creating a global blueprint for a transition which supports prosperity, jobs, growth, communities and energy security.*
- *Supporting objective 2: to take a globally standard-setting, 1.5°C and climate science-aligned approach to future oil and gas production."*

1.4. This document considers the factors that are described in the Supplementary Guidance (and referred to in 1.2 of this document) and the Government objectives referred to in 1.3 of this document and describes relevant information pertaining to Rosebank in respect of those factors and alignment with the Government's objectives.

1.5. For the avoidance of doubt, Equinor UK Limited's[2] response to Requirement #1 of the Regulation 12(1) Notice dated 21 July 2025 considers the emissions reduction elements of the North Sea Transition Deal whilst this document considers the other elements of the North Sea Transition Deal.

Current UK Energy Industry

1.6. Oil and gas are core components of the UK energy system today and are expected to remain so in the decades to come, even as the UK continues to reduce emissions in line with its climate commitments.[3] As well as being primary

[1] Building the North Sea's Energy Future: consultation document.
[2] At the time of submission of this response to the Regulation 12(1) Notice, assets which (subject to necessary approvals) will transfer to Adura are in the process of an inter-affiliate transfer from Equinor UK Limited to Equinor SPV Limited (company number 16172712, which will be renamed Adura Operations Limited in due course). As part of this inter-affiliate transfer, Equinor UK Limited's (80%) beneficial interests in and field operatorship of Rosebank will be transferred from Equinor UK Limited to Equinor SPV Limited (company number 16172712).
[3] Building the North Sea's Energy Future: consultation document.

sources of energy, oil and gas will still be needed to help make cleaner fuels (i.e. blue hydrogen), which are important for industries that are difficult to switch to low-carbon alternatives, and as feedstocks for non-energy applications such as chemicals.

1.7. The UK is a significant importer of energy, with this increasing to 43.8 % in 2024 up from 40.3 % in 2023[4]. This increasing trend is due to domestic UK energy production falling faster than demand. The UK's energy production is currently at record low levels, largely due to ongoing declines in oil and gas production[5]. UK domestic production is likely to be the equivalent of under 34% (including the positive impact on production of the future development of new fields) of cumulative UK demand for oil and gas between 2025-2050[6].

1.8. Due to the nature of the oil market, it is acknowledged that most of the UK's oil production is not used in the first instance in the UK, with ~88% of exported crude oil volumes in 2024 being transported to European countries.[7]

1.9. UK refineries are not optimally configured to process the specific types of crude oil produced in the North Sea as much of the UK's crude oil is "light" (has a low density and flows easily) and "sweet" (has low sulphur content) (i.e. Rosebank crude oil). European refineries, particularly in the Netherlands and Belgium, are better equipped to handle and refine this crude efficiently. UK refineries are often geared toward handling heavier grades of crude oil or producing specific fuel types. Much of the UK's crude oil production is refined in Europe and then reimported as petroleum-based products[8].

1.10. Minimising the net-import gap is vital for the UK's sustainability because it enhances energy security, reduces economic vulnerability to global price shocks, and supports the transition to cleaner, domestically produced energy sources. By lowering dependence on fossil fuel imports, the UK can cut emissions intensity, invest more in renewable infrastructure, and meet its net-zero targets, all while fostering innovation and creating green jobs. This shift not only strengthens the UK's resilience but also aligns with long-term environmental and economic goals.

[4] Department for Energy Security and Net Zero 'Digest of UK Energy Statistics (DUKES) – Chapter 1: Energy', Kevin Harris, (accessed here: DUKES_2025_Chapter_1.pdf).
[5] Department for Energy Security and Net Zero 'Digest of UK Energy Statistics (DUKES) – Chapter 1: Energy', Kevin Harris, (accessed here: DUKES_2025_Chapter_1.pdf).
[6] North Sea Transition Authority, 'DESNZ NZS and CCC BNZP Demand and NSTA Production Projections', (accessed here: DESNZ NZS and CCC BNZ Demand and NSTA March 2024 Production Projections).
[7] Department for Energy Security and Net Zero 'Digest of UK Energy Statistics (DUKES) – Table 3.8: Exports of crude oil and petroleum products by country of destination, 2023 (thousand tonnes)', Alasdair Campbell, 30 July 2024 (accessed here: DUKES_3.8.xlsx).
[8] United Kingdom - Countries & Regions - IEA.

2. SUMMARY

2.1. Rosebank is expected to generate over 2,000 UK-based jobs during peak construction in 2025 and sustain significant employment throughout its estimated 30-year lifespan[9]. This includes around 13,000 man-years of full-time work, over 70% of which will be UK-based, with an average of 525 jobs,[10] while also contributing to skills development that will help retain talent and prepare the workforce for future opportunities in the offshore renewables sector.

2.2. The delivery of Rosebank presents a critical opportunity to strengthen the UK's industrial capabilities and energy workforce at a time when oil and gas investment is declining. The Rosebank supply chain activity will sustain jobs, invest in port and fabrication facilities, and enable skills development. Rosebank helps retain talent and infrastructure essential for the energy transition, with nearly 80% of offshore energy jobs in oil and gas and over 90% of those workers having transferable skills to renewables.[11] This makes continued domestic production vital to maintaining the UK's integrated energy supply chain and future energy resilience.

2.3. Rosebank is expected to generate £8.5 billion in direct investment, with approximately 77% going to the UK economy,[12] and aims to maximise local supply chain involvement. Over its lifetime, Rosebank will contribute £25 billion in Gross Value Added (GVA), with peak annual GVA reaching £2 billion—nearly 1% of Scotland's GDP.[13] These economic benefits stem from job creation, supply chain activity, and consumer spending linked to Rosebank. Additionally, the UK Government stands to gain substantial tax revenues from Rosebank which would be lost if Rosebank does not proceed.

2.4. Rosebank plays a vital role in strengthening UK and European energy security by providing domestic oil and gas production. Rosebank also supports future energy flexibility through its Floating Production, Storage and Offloading vessel (FPSO) design and aligns with the UK Government's strategy to maintain domestic production to preserve critical infrastructure, skills, and supply chain capacity for the energy transition.

2.5. Rosebank is being developed in alignment with the OGA Strategy[14], UK net-zero targets[15] and the North Sea Transition Deal (NSTD)[16] by applying low-emission technologies such as electrification-ready FPSO design, closed flare systems, and energy-efficient operations. Over £80 million has been invested in FPSO electrification, positioning Rosebank as a leader in low-carbon production west of Shetland.

2.6. At peak Rosebank will contribute up to 4.5% of UK gas production, supporting domestic supply as UK gas self-sufficiency declines. The FPSO's flexible design also allows for future development of nearby resources, aligning with UK stewardship and strategy goals to extend asset life and maintain production.

[9] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[10] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[11] https://www.rgueti.com/wp-content/uploads/2023/09/powering-up-the-workforce.pdf.
[12] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[13] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[14] The OGA Strategy.
[15] assets.publishing.service.gov.uk/media/6194dfa4d3bf7f0555071b1b/net-zero-strategy-beis.pdf.
[16] assets.publishing.service.gov.uk/media/605b148ce90e0724c7d30c2b/north-sea-transition-deal_A_FINAL.pdf.

3. GOOD, LONG-TERM JOBS

Employment

3.1. In the UK, the oil and gas industry supports over 200,000 jobs,[17] but the oil and gas sector is in decline.

3.2. Rosebank has contributed to highly skilled jobs, with over 2,000 UK-based jobs (direct, indirect, and induced) estimated to be directly generated by the development of Rosebank at the height of the construction phase in Q2 2025.[18]

3.3. Rosebank will support local and UK employment during construction, operation and decommissioning phases, over an estimated c.30 year-total lifespan. It is estimated that it will directly support the equivalent of c.13,000 man-years of full-time employment during the expected life of the field, of which greater than 70% is in the UK.[19] Across the lifetime of the field, Rosebank will support significant employment with an average of 525 UK-based full-time direct, indirect and induced jobs.[20]

3.4. The skills development that will take place in the Rosebank workforce will not only help the UK strengthen the skills base for oil and gas, but also retain talent in the UK, ready for the expected demand in the coming years for offshore renewables sector workers.[21]

Energy Supply Chain

3.5. The delivery of Rosebank represents a material opportunity to support industrial capability growth in the UK at a time when skills and labour could act as one of the biggest barriers to realising the country's energy transition ambitions.

3.6. A major challenge facing supply chain companies in the UK is that much of the demand that is anticipated from floating wind, carbon capture and storage (CCS) and hydrogen will not emerge until late this decade and into the 2030's. In the interim there is an emerging 'gap' where the integrated offshore energy market in the UK declines due to the challenges facing oil and gas investments. Key findings from the OEUK Supply Chain Report 2025 include that 40% of supply chain companies report a declining business environment, with almost 90% looking for growth opportunities outside the UK[22]. Ultimately this will damage the build-out of the level of supply chain capacity that will be required for floating wind, CCS, and hydrogen projects in the 2030's, as skills and equipment are moved out of the UK beforehand.

3.7. With UK suppliers looking to diversify into renewables over the coming years, developments like Rosebank can enable them to sustain their workforce and skills so that the UK has a healthy supplier base in years to come, as the energy transition progresses.

3.8. In addition to the skills and labour benefit, investment in the participating port and fabrication facilities have also been supported through Rosebank's contracts. By the end of this decade, these facilities are likely to be in extremely high demand, driven by offshore wind developments in Scotland. Through Rosebank's contracts, such facilities will have scope to use Rosebank as a springboard for investment, enabling improved capacity and capability for the large offshore wind contracts that could follow. It also represents an opportunity to train and develop the local supply chain, and in the process develop transferable skills in the manufacturing sector required for the growth of the offshore wind sector.

3.9. Robert Gordon University estimate that almost 80% of the direct, indirect and induced jobs in offshore energy are accounted for by oil and gas, with over 90% of these people having medium to high skills transferability to offshore

[17] https://oeuk.org.uk/wp-content/uploads/woocommerce_uploads/2024/06/Economy-and-people-report-2024-OEUK-fthaik.pdf.
[18] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[19] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[20] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[21] https://assets.publishing.service.gov.uk/media/67d0005ed107f3a16e028796/building-the-north-sea-energy-future-consultation.pdf.
[22] Supply Chain Report 2025 | Offshore Energies UK (OEUK).

renewables[23], reiterating the significant opportunity to deliver a managed transition for the sector's workforce. There is a huge opportunity for re-skilling and transferability of skills of the oil and gas workforce across the economy.

3.10. Continued domestic production supports the UK's integrated energy supply chain, which underpins both oil and gas and the growth of renewables. Without this continuity, critical skills, infrastructure, and investment could be lost, weakening the very foundation of the UK's energy future.

[23] Robert Gordon University, 'Powering up the Workforce: The future of the UK offshore energy workforce', 12 September 2023, (accessed here: https://www.rgueti.com/wp-content/uploads/2023/09/powering-up-the-workforce.pdf).

4. GROWTH AND INVESTMENT IN COMMUNITIES

Economic Contributions

4.1. Rosebank is estimated to create £8.5 billion of direct investment, of which £6.6 billion (c.77%) is likely to be invested in the UK economy.[24] Rosebank's aim is to maximise the number of supply contracts with UK-based businesses. Equinor UK Limited already partners with over 700 suppliers around the UK and actively seek local supply chain contractors for Rosebank to ensure high local content.

4.2. Over its lifetime, Rosebank will generate a total of £25 billion of Gross Value Added (GVA), comprised of £13.2 billion direct, £8.3 billion indirect and £3.5 billion induced economic impacts.[25] At peak production the annual GVA of Rosebank is estimated to be £2.0 billion, equivalent to almost 1% of the Scottish GDP.[26]

4.3. The development of Rosebank will have direct, indirect, and induced economic impacts, all of which add value to the economy, contribute to GDP and create jobs. Direct impacts are derived from the development and operations of Rosebank and the employment that this creates. The indirect impacts derive from the supply chain, supporting all the companies working on Rosebank generating additional economic activity and employment. Finally, the induced economic impacts of Rosebank are driven by the wages spent by those who work directly or indirectly on Rosebank and which filter into the economy, supporting further jobs in the process.

4.4. In May 2022 the UK Government introduced an additional tax referred to as the Energy Profits Levy ("EPL"). This initially increased the overall tax rate on profits generated by an oil and gas company, from oil and gas production, from 40% to 65% and subsequently this tax rate was raised further so that the overall tax rate is currently 78%.[27] If Rosebank does not move to the operational phase there will be no opportunity for the UK Government to receive the significant tax receipts that will be generated by Rosebank. [28]

[24] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[25] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[26] Wood Mackenzie, 'Rosebank – Social Economic Impact Analysis' (15 July 2024).
[27] https://www.gov.uk/government/publications/july-statement-2024-changes-to-the-energy-oil-and-gas-profits-levy/changes-to-the-energy-oil-and-gas-profits-levy.
[28] It is acknowledged that tax relief on certain aspects of decommissioning costs may be available in future at the point at which Rosebank is eventually decommissioned.

5. SUSTAINABLE TRANSITION IN OIL AND GAS

Net Zero

5.1. Equinor UK Limited (along with its Rosebank co-venturer Ithaca SP E&P Limited) is actively working with a broad range of stakeholders to ensure that Rosebank is developed in line with the OGA Strategy, NSTD, UK net-zero targets and Equinor's[29] ambition to produce oil and gas with lower emissions intensity.

5.2. Equinor UK Limited has worked systematically to reduce the emissions intensity of oil and gas developments by focussing on key areas such as optimising design to reduce power consumption, implementing closed flare & vent systems and electrification. As one of the most carbon dioxide (CO_2) efficient oil and gas producers, Equinor aims to apply insights and best practices from its other assets, particularly its extensive experience with electrification on the Norwegian Continental Shelf, to enhance the environmental performance of Rosebank.

5.3. The FPSO will be electrification-ready from day one, to allow it to be powered from shore when technology is qualified and matured, viability is confirmed and necessary regulatory consents are in place. This has the potential to reduce production emissions from Rosebank by over 70%.

5.4. The life of field emissions intensity of production from Phase 1 is estimated to be approx. 12kg CO_2/boe[30], and from Phase 1 and Phase 2 is estimated to be approx. 10kg CO_2/boe (in both cases calculated on the basis of expected volumes of production and associated emissions estimates, and excluding the effect of electrification from shore). The life of field emissions intensity of production from Phases 1 and 2 if electrified by end 2030 is estimated to be less than 3kg CO_2/boe[31] (calculated on the basis of expected volumes of production and associated emissions estimates but excluding indirect emissions from electricity generation).[32]

5.5. In the North Sea Transition Authority (the "NSTA") Emissions Monitoring Report for 2025[33] the UK had an estimated emissions intensity (carbon dioxide and methane only) of 26 kgCO2 e/boe, placing the UK 7 kgCO_2e/boe below the global average of 33 kgCO_2e/boe. The NSTA also estimates the average emissions intensity for methane and CO_2 of supplying gas from the UKCS (including upstream and processing emissions) to be 28 kgCO_2 boe on average – whilst importing LNG (including production, processing, transport, shipping and regasification) had an average equivalent emissions intensity of 85 kgCO_2/boe in 2024.

5.6. Production from Rosebank is therefore estimated to be significantly below the UK average in terms of emissions intensity of production, even without the benefit of electrification, and materially lower than the intensity of oil and LNG that is imported to the UK from other countries.

5.7. The Rosebank Licensees have invested more than £80 million on modifications to support future electrification of the FPSO and these modifications will be completed prior to the arrival of the FPSO at the field location. As a result, Rosebank could become one of the first oil and gas developments west of Shetland to be powered by electricity, reducing the emissions and meeting the NSTD supply decarbonisation target of achieving a net-zero basin in the UK by 2050.

5.8. Rosebank could also play an important role in establishing the infrastructure necessary for the electrification of west of Shetland oil and gas operations, which extends beyond only the Rosebank field.

[29] Equinor - An international energy company headquartered in Stavanger, Norway. It operates in over 30 countries, focusing on oil, gas, and renewable energy production.
[30] Carbon dioxide emissions per barrel of oil equivalent.
[31] Rosebank_Environmental_Statement_-_Final_for_Submission_To_OPRED_Equinor_3rd_August_2022.pdf.
[32] https://www.equinor.com/energy/rosebank.
[33] Emissions Monitoring Report 2025.

Energy Security

5.9. Equinor is helping deliver safe, secure and reliable sources of energy (gas, oil and offshore wind power) to the United Kingdom and Europe. In fact, Equinor is the largest supplier of energy to Britain.[34]

5.10. At plateau, Rosebank is expected to produce ~73 kboe/d[35] (~64.0 kbbl/d[36] oil and ~50 mmcf/d[37] gas).[38] From first production in 2026 / 2027 through to 2030 Rosebank will account for ~8% of the UK's oil production; this increases to an average of ~10% through the 2030s[39]. The development of Rosebank materially improves the UK's hydrocarbon production and Europe's energy security.

5.11. Rosebank's gas will be exported through the West of Shetland Pipeline System (WOSPS) ultimately entering the UK National Transmission System, thereby contributing to domestic energy supply. At peak gas production between 2032 and 2035 Rosebank will produce volumes equivalent to ~4.5% of the UK's gas production. By this point the UK is forecast to be less than 25% self-sufficient in gas.[40]

5.12. Aligned with the NSTA's Stewardship Expectations[41] and the principles of the OGA Strategy[42], flexibility in the FPSO design could allow Equinor UK Limited to develop long-term plans to maintain production and potentially extend asset life through the development of nearby oil and gas opportunities.

[34] Rosebank oil and gas field - Equinor.
[35] kboe/d – thousand barrels of oil equivalent per day.
[36] kbbl/d - thousand barrels of oil per day.
[37] mmcf/d - million cubic feet per day.
[38] Wood Mackenzie, 'Rosebank Development Social Economic Impact Study – Refresh' (December 2023).
[39] Wood Mackenzie, 'Rosebank Development Social Economic Impact Study – Refresh' (December 2023).
[40] Wood Mackenzie, 'Rosebank Development Social Economic Impact Study – Refresh' (December 2023).
[41] Asset Stewardship Expectations.
[42] The OGA Strategy.

6. CONCLUSION

6.1. The development of Rosebank aligns closely with the UK Government's stated objectives for the future of the North Sea by supporting domestic energy production, creating thousands of UK-based jobs, strengthening the supply chain, and enabling a managed transition to net-zero. It contributes to energy security, economic growth, and industrial capability while incorporating low-emission technologies and electrification-ready infrastructure to meet decarbonisation targets under the NSTD. Rosebank also helps retain and reskill the existing offshore workforce, ensuring the UK maintains the talent and infrastructure needed for future renewable energy expansion.

7. COMPETENT EXPERT

Name	Company	Title	Relevant Qualifications Experience
Withheld	Equinor UK Limited	Withheld	Approximately 25 years of experience in oil and gas, with extensive experience in commercial, joint venture and regulatory relations.