

Mr. Morrissey
Mr. Collins
Rúnaí Aire Stáit

Decision Sought:

That the Minister of State:

- **Grant approval for CNOOC Petroleum Europe Limited to undertake the drilling of an exploration well on the Iolar Prospect, Block 52/04-A, under Frontier Exploration Licence 3/18 (FEL3/18); and**
- **Having consulted with the Minister for Transport, Tourism and Sport in respect of the safety of navigation, in relation to the drilling of an exploration well on the Iolar Prospect, Block 52/04-A, FEL 3/18 grant consent to CNOOC Petroleum Europe Limited to place a temporary well head and associated infrastructure on the seabed, pursuant to Section 5(2) of the Continental Shelf Act, 1968, as amended.**

Background:

1. The 2015 White Paper “*Ireland’s Transition to a Low Carbon Energy Future 2015-2030*” sets out Government energy policy in respect of Ireland’s transition to a low-carbon, climate resilient and environmentally sustainable economy. It notes that the development of Ireland’s indigenous oil and gas resources has the potential to deliver significant and sustained benefits, particularly in terms of enhanced security of supply, import substitution, fiscal return, national and local economic development and technology learning¹.
2. The White Paper was followed by the development and approval of Ireland’s first National Mitigation Plan (‘NMP’)² and National Adaptation Framework (‘NAF’)³ in 2017 and 2018 respectively, in accordance with Section 5 of the Climate Action and Low Carbon Development Act 2015.

¹ White Paper

<https://www.dccae.gov.ie/documents/Energy%20White%20Paper%20-%20Dec%202015.pdf>

² National Mitigation Plan,

<https://www.dccae.gov.ie/documents/National%20Mitigation%20Plan%202017.pdf>

³ National Adaptation Framework

<https://www.dccae.gov.ie/documents/National%20Adaptation%20Framework.pdf>

3. Licensing Option 16/7 was awarded to Nexen Petroleum UK Limited (“Nexen”) on 16 February 2016 following conclusion of the assessment of applications received under the 2015 Atlantic Margin Licensing Round. On 1 July 2016 a Petroleum Prospecting Licence (PPL 7/16) was granted to Nexen Petroleum UK Limited. On 1 March 2018 a Frontier Exploration Licence (FEL 3/18) was awarded to Nexen for the period 1 March 2018 to 28 February 2033.
4. On 5 July 2017, Nexen was granted consent to carry out a geophysical site survey at the Iolar Prospect, Block 52/04 A, under PPL 7/16 in the Southern Porcupine Basin, offshore Ireland. The site survey was carried out over an area encompassing the well location, potential re-spud⁴ and relief well locations. The objective of the site survey was to accurately determine water depths, the nature of the seabed and locate and identify any seabed and sub-seabed features or obstructions that may impede top-hole drilling operations. A further objective of the site survey was to provide information on the local biological baseline environment, to support an application to drill a well on the Iolar Prospect.
5. On 25 July 2018, an assignment by Nexen of a 50% interest in FEL 3/18 to ExxonMobil Exploration and Production Ireland (Offshore South) Limited (“Exxon”) was approved. Nexen remained the operator of FEL 3/18. On 14 January 2019, the Department was notified of a change of name of Nexen to CNOOC Petroleum Europe Limited (“CNOOC”).

Application:

6. An application for consent to undertake exploratory drilling, under Frontier Exploration Licence 3/18, on the Iolar Prospect, Block 52/04-A, was received by the Petroleum Affairs Division (PAD) of the Department from CNOOC on 14 November 2018. The following documents (**Tab A1-A6**) were received as part of the application:
 - Application letter seeking consent for exploratory drilling;
 - Application for consent to place a temporary well head and associated infrastructure on the seabed, pursuant to Section 5 of the Continental Shelf Act, 1968, as amended.

⁴ Occasionally drilling difficulties can be encountered, particularly in the top-hole section, to the point that operations need to recommence. In such situations, there is a need to re-spud the well, which involves moving the rig a marginal distance and re-starting drilling operations. A re-spud is essentially the same well, as it has the same approximate surface location and the same targets and objectives.

- Environmental Risk Assessment (EIA Screening) Report;
- Appropriate Assessment Screening Report (AA);
- Pre-drill Fisheries Report;
- Underwater Archaeological Assessment;
- Application for a Permit to Use and Discharge Added Chemicals (“PUDAC”);
- Generic Well Proposal⁵ including evidence of required notification of relevant Government Departments, Agencies and Authorities in accordance with Section 3.1.3 of the Rules and Procedures Manual for Offshore Petroleum Exploration and Appraisal Operations

The proposed well location is approximately 232km off the south west coast of Ireland. The water depth at the proposed well location is approximately 2,160m.

Regulatory Context:

7. Frontier Exploration Licence 3/18 was granted under Section 8(1) of the Petroleum and Other Minerals Development Act 1960 (‘POMDA’). Section 8(2) of the POMDA provides that every Exploration Licence shall be granted upon such terms and conditions as the Minister thinks fit and specifies therein. Paragraph 4 of Frontier Exploration Licence 3/18 requires adherence to the Licensing Terms for Offshore Oil and Gas Exploration, Development and Production 2007. Section 58 of the said Licensing Terms provides that applications for approval of drilling shall be in the form described in the Rules and Procedures Manual for Offshore Petroleum Exploration and Appraisal Operations (‘Rules and Procedures’). The European Union (Environmental Impact Assessment) (Petroleum Exploration) Regulations 2013 (S.I. No 134/2013), as amended by the European Union (Environmental Impact Assessment) (Petroleum Exploration) (Amendment) Regulations 2019 (S.I. No 124/2019) provides for applications to the Minister for permission to undertake activities under an Exploration Licence.

⁵ Note that the final version of the Well Proposal, which was evaluated, was received on 15 March 2019 in accordance with the process outlined in Section 3.1.3, Rules and Procedures Manual for Offshore Petroleum Exploration and Appraisal Operations (‘Rules and Procedures’)

8. The application has therefore been considered in accordance with the above legislation, terms and rules, and in accordance with the following European and Irish legislation:

Environmental Impact Assessment

- Directive on the assessment of the effects of certain public and private projects on the environment (Directive 2011/92/EU) as amended by Directive 2014/52/EU ('the EIA Directive')
- European Union (Environmental Impact Assessment) (Petroleum Exploration) Regulations 2013 (S.I. No 134/2013), as amended by the European Union (Environmental Impact Assessment) (Petroleum Exploration) (Amendment) Regulations 2019 (S.I. No 124/2019).

Appropriate Assessment

- Directive 2009/147/EC on the conservation of wild birds (commonly referred to as the Birds Directive);
- Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (commonly referred to as the Habitats Directives);
- The European Communities (Birds and Natural Habitats) Regulations 2011-15 as amended;

Other applicable legislation

- Section 9A of the POMDA; and
- Section 5 of the Continental Shelf Act, 1968, as amended.

Ministerial considerations in assessing the application:

9. The EIA Screening Determination (**Tab C1-C2**) of 12 April 2019, made by the Environment Advisory Unit of the Department ('EAU'), which has concluded that the application to drill an exploration well on the Iolar Prospect can be completed without significant effects on the environment, subject to attachment of specified conditions.

10. The AA Determination (**Tab D**) of 17 May 2019, made by the EAU, which has concluded that the application to drill an exploration well on the Iolar Prospect can be completed without adverse effects on the integrity of Natura 2000 sites with respect to Articles 6(3) and 12 of the Habitats Directive (specifically Regulation 42 of the European Communities (Bird and Habitats) Regulations 2011), subject to attachment of specified conditions.
11. The policy objectives in respect of offshore oil and gas exploration, as stated in the Government's White Paper "Ireland's Transition to a Low Carbon Economy Future 2015-2030"⁶ which commits Ireland to achieve a transition to a low-carbon, climate resilient and environmentally sustainable economy, underpinned by a secure and competitive energy supply in the period to 2050. The White Paper states that:
- a. *"Even with the demand reduction, energy efficiency efforts and a greater use of low carbon fuels, the IEA forecasts that oil and natural gas will remain significant elements of the global energy mix out to 2035, especially in transport. In this context the development of Ireland's indigenous oil and gas resources has the potential to deliver significant and sustained benefits, particularly in terms of enhanced security of supply, import substitution, fiscal return, national and local economic development and technology learning".*
12. The technical assessment of the application undertaken by Petroleum Affairs Division Technical Section, who indicated that technical elements of the well proposal are acceptable and that the details and design provided by CNOOC meets the Department's requirements, subject to conditions.

⁶ White Paper "Ireland's Transition to a Low Carbon Economy Future 2015-2030
<https://www.dccae.gov.ie/documents/Energy%20White%20Paper%20-%20Dec%202015.pdf>

13. The Financial Responsibility Assessment documentation submitted by CNOOC Petroleum Europe Limited, together with the assessment conducted by a consortium of independent consultants comprising Astrid (Petroleum Safety Consultant), NRG (Well Management Consultants) and INDECS (Insurance Consultants), pursuant to Section 9A (2) c of the Petroleum and Other Minerals Act 1960, and to be satisfied that the applicant has adequate financial provision to meet the costs of carrying out the offshore petroleum activities in question to meet the costs of effective emergency response and subsequent remediation in the event of a major accident, and to have appropriate insurance, indemnity or other financial assurance instruments to cover liabilities potentially deriving from the applicant's offshore activities;
14. The granting of a safety permit (SP15) by the Commission for Regulation of Utilities (CRU) and adoption of an oil spill contingency plan by Irish Coast Guard.
15. The Minister to have regard to any observations made by relevant State Bodies.
16. Having consulted with the Minister for Transport, Tourism and Sport in respect of the safety of navigation, in relation to the drilling of an exploration well on the Iolar Prospect, Block 52/04-A, Minister to be satisfied that the applicant may place a temporary well head and associated infrastructure on the seabed, pursuant to Section 5(2) of the Continental Shelf Act, 1968.

Environment Assessment Review

Considerations of the Environment Advisory Unit ('EAU') regarding environmental impacts of the proposed activity under the EIA and Birds and Habitats Directives:

17. Article 9a of the EIA Directive provides as follows:

"Member States shall ensure that the competent authority or authorities perform the duties arising from this Directive in an objective manner and do not find themselves in a situation giving rise to a conflict of interest.

Where the competent authority is also the developer, Member States shall at least implement, within their organisation of administrative competences, an appropriate separation between conflicting functions when performing the duties arising from this Directive."

18. The European Union (Environmental Impact Assessment) (Petroleum Exploration) (Amendment) Regulations 2019 (S.I. No 124/2019) amended the European Union (Environmental Impact Assessment) (Petroleum Exploration) Regulations 2013 (S.I. No 134/2013), so that environmental assessment functions have been delegated to the Environment Advisory Unit of the Department.

Public consultation:

19. Although public participation is not required during the screening process under either the EIA Directive or Birds and Habitats Directives, the Department, mindful of the requirements of the Aarhus Convention and the public participation requirements in Article 6 of the EIA Directive, conducted a thirty day public consultation period, on receipt of the application.

20. The application and associated environmental documentation were published on the Department's website on the homepage (under 'Latest Consultations') on 21 December 2018 and three submissions were received by the final date for submissions on 21 January 2019. Submissions from An Taisce, Friends of the Irish Environment and Gluiseacht were then forwarded to the EAU, and were considered by independent expert advisor to the EAU, Ramboll Environment and Health UK Limited (Ramboll) and by the EAU in their screening determinations (**Tab I**).

21. Two further public consultation processes were undertaken at the request of the EAU;

- Further information was provided by CNOOC on 22 February 2019 as required by the EAU to enable them to make an EIA Screening determination. A period of public consultation on this further information was facilitated from 22 February 2019 until 8 March 2019.

A submission was received from An Taisce which was subsequently forwarded to the EAU (**Tab J**). The EIA Screening determination was published on the Department's website on 12 April 2019 and in the Irish Independent newspaper on 17 April 2019 (**Tab K**).

22. Following an AA Screening Determination (**Tab L1-L3**) which was published on the Department's website on 27 March 2019 and in the Irish Independent newspaper on 29 March 2019 (**Tab M**), a Natura Impact Statement (NIS)(**Tab N**) was received on 9 April 2019 and a period of public consultation on this document was facilitated to 29 April 2019 to allow submissions be received on the NIS. Submissions from a Ms. Fiona O'Rourke and An Taisce were then forwarded to the EAU (**Tab O**). The AA determination was published on the Department's website on 17 May 2019 and in the Irish Independent newspaper on 21 May 2019 (**Tab P**).The EIA Screening Determination (**Tab C**) of the EAU of 12 April 2019, concluded that the request by CNOOC Petroleum Europe Ltd to drill a single exploration well on the Iolar Prospect under Frontier Exploration Licence 3/18 in the Porcupine Basin is not likely to have a significant effect on the environment and, consequently, an Environmental Impact Assessment was not required in respect of the application. The decision was contingent on the mitigation measures proposed by the Applicant being included as conditions in any drilling consent that may be granted by the Minister in respect of the Application.

23. The AA Determination (**Tab D1-D3**) of the EAU of 17 May 2019, made under the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011), as amended, concluded that the application by CNOOC Petroleum Europe Limited to drill a single exploration well in the Iolar Prospect under Frontier Exploration Licence 3/18 in the Porcupine Basin offshore of the south west of Ireland would not adversely affect the integrity of a European site (whether individually or in combination with other plans or projects), subject to the mitigation measures proposed by the applicant.

Technical Review in accordance with Rules and Procedures:

24. The application documents submitted to PAD on 14 November 2018 were accompanied by a Generic Well Proposal in accordance with the *Rules and Procedures*, Section 3.1.1., A Final Well Proposal was received by PAD on 8 February 2019. All bodies which must be notified of the submission of the Generic and Final Well Proposal, in accordance with the *Rules and Procedures* (Section 3.1.3 and Section 3.1.4) have been notified by CNOOC (the bodies notified are listed below at paragraph 33).

25. PAD Technical Section, having reviewed the proposal, reverted to CNOOC seeking clarification and additional information on 11 March 2019. CNOOC submitted a revised Final Well Proposal to PAD on 15 March 2019.

26. PAD Technical Section have indicated that, should this approval be granted, information gained from drilling, even if petroleum (oil or gas) is not found, would underpin greater geological understanding of the basin subsurface in a frontier unexplored part of the Irish offshore. A well would also provide information on prospect seal lithology, effectiveness and trap potential and the findings could help de-risk the Irish Atlantic Margin Middle Jurassic play. The data provided from the proposed Iolar Prospect well would act as a key control point in assessing the prospectivity in an underexplored basin and would enable assessment of the potential fairways and petroleum systems within the Porcupine Basin.
27. A technical review of the work scope has been undertaken by PAD Technical Section who indicated that technical elements of the well proposal are acceptable and therefore, from a technical perspective it is concluded that the details and design provided by CNOOC meets the Department's requirements subject to 8 conditions (**Tab B1-B3**).

Financial Responsibility Assessment:

28. The Financial Responsibility Assessment documentation (**Tab E**) submitted by CNOOC in support of the application to commence drilling activities is required to be considered by the Minister of State pursuant to Section 9A (2)c of the Petroleum and Other Minerals Development Act 1960 which transposed the requirements of Directive 2013/30/EU on safety of offshore oil and gas operations in the context of ensuring that the applicant has adequate financial provision to meet the costs of carrying out the offshore petroleum activities in question, to meet the costs of effective emergency response and subsequent remediation in the event of a major accident, and to have appropriate insurance, indemnity or other financial assurance instruments to cover liabilities potentially deriving from the applicant's offshore activities. The CNOOC submission was reviewed by a consortium of independent consultants comprising Astrid (Petroleum Safety Consultant), NRG (Well Management Consultants) and INDECS (Insurance Consultants) engaged by the Department. The consortium undertook the review of the submission taking account of the Department's Financial Responsibility Assessment Protocol - "*Method for assessment of financial indemnity/insurance of petroleum authorisation holders*"⁷ which requires:

⁷ <https://www.dccae.gov.ie/en-ie/natural-resources/publications/Pages/Method-for-Assessment-of-indemnityinsurance-of-Petroleum-Authorisation-Holders.aspx>

- An examination of the financial ability of the applicant to meet the costs of carrying out the activity; and
- An examination of the costs of emergency response and subsequent remediation in the event of a major accident; and
- A determination if the applicant has put in place, appropriate insurance and/or indemnity to cover potential liabilities.

29. The independent consultant's report "*Assessment of financial responsibility - CNOOC Well 52/04-A (Iolar)*" (**Tab F**) outlines their assessment of the application, with respect to ensuring the applicant has adequate financial provision to cover liabilities potentially deriving from the applicant's offshore activities, including effective emergency response and subsequent remediation and potential economic damages (where such liability is provided for by national law) as required by Directive 2013/30/EU.

30. The overall conclusions of the assessment are:

- The cost and duration of well control using a capping stack are addressed appropriately;
- The cost of drilling a relief well has been addressed appropriately;
- The modelling work is appropriate and consistent with good practice. The worst case modelling has assumed a spill is in winter conditions, thus overestimates surface spreading and beaching of oil;
- Spill response & clean-up cost estimates (including studies & impact assessments) have been assessed in accordance with the guidance and are conservative;
- The cost of damage to fisheries and aquaculture may underestimate the costs to aquaculture but the underestimation is likely smaller than overestimates in other areas;
- Other economic costs considered include the costs to tourism which have been estimated appropriately as a proportion of all Ireland tourism;
- The applicant has omitted consideration of the proximity of the well site to marine SACs (e.g. Belgica Mounds Province SAC, Hovland Mound Province SAC, & South-West Porcupine Bank SAC), but this is not material to the financial estimate; and
- That "*The applicant has provided evidence that suitable insurance cover is in place and that the applicant's overall Financial Responsibility estimate [REDACTED] is reasonable*".

Considerations of the CRU regarding the Safety Case submitted by CNOOC and approval of Oil Spill Contingency Plan by the Irish Coast Guard:

31. It is noted that on 14 March 2019 the CRU granted a safety permit SP15 (**Tab G**), in accordance with Section 13P of the Electricity Regulation Act 1999, as amended. This was granted to CNOOC Petroleum Europe Limited and Exxon Mobil Exploration and Production Ireland (Offshore South) Limited in respect of the carrying on of certain designated petroleum activities related to well work under or in connection with FEL 3/18. This permit was granted in accordance with Iolar Well Work Safety Case (4 October 2018) and Stena IceMax Non-production Safety Case (12 December 2018).
32. It is noted that Safety Permit SP15 adopts the Oil Spill Contingency Plan as approved by the Irish Coast Guard. This Oil Spill Contingency Plan was received by the PAD on 9 May 2019 (Tab H).

Consultation:

Consultation with state bodies:

33. The following bodies have been notified of the proposed drilling activities by CNOOC in accordance with the *Rules and Procedures*;
- Health and Safety Authority
 - Department of Transport, Tourism and Sport
 - Irish Coast Guard, Department of Transport, Tourism and Sport
 - Department of Agriculture, Food and the Marine
 - Department of Justice and Equality
 - Commission for Regulation of Utilities
 - Commissioners of Irish Lights
 - Environmental Protection Authority
 - National Parks and Wildlife Service
 - Met Éireann
 - Sea Fisheries Protection Authority

- Marine Institute
- Department of Defence
- Inland Fisheries Ireland

34. The following bodies provided observations to the Department (**Tab Q**);

Department of Defence:

An email was received on 9th May 2019, noting no observations from the Naval Service

Irish Aviation Authority:

The Flight Operations Department (FOD) of the Irish Aviation Authority (IAA) had no observations / comments to add to this notification.

Department of Justice and Equality:

Notification from Mr Colm Farrell, Government Inspector of Explosives, of a “*Guidance Document on the Relevant Legislation Relating to offshore exploration installations*”.

Adherence to this Guidance is reflected as a condition to be attached to any consent granted.

Ship Source Pollution Prevention Unit, Department of Transport, Tourism and Sport:

Ship Source Pollution Prevention Unit’s submission attached an email dated 5 March 2019, stating that their reply sent to CNOOC outlining their requirements would only cover the ship source pollution prevention provisions

Maritime Services Division, Department of Transport, Tourism and Sport:

Maritime Services Division copied PAD on an email to CNOOC outlining their requirements on 30 April 2019 but made no direct representations to PAD which required a condition.

Consultation with the Minister for Transport, Tourism and Sport pursuant to Section 5 of the Continental Shelf Act, 1968:

35. Section 5 of the Continental Shelf Act, 1968 requires that a person shall not construct, alter or improve any structure or works in or remove any object or material from a designated area, in this case the sea bed, without the consent of the Minister for Communications, Climate Action and Environment. It also requires consultation with the Minister for Transport, Tourism and Sport, in respect of any potential impact of the proposed placing of a temporary well head on the safety of navigation
36. The consent of the Minister of State was sought on 14 November 2018 by CNOOC, for consent pursuant to Section 5 of the Continental Shelf Act, 1968, to place a temporary well head and associated infrastructure on the seabed in connection with the drilling of an exploration well on the Iolar Prospect, Block 52/04A, FEL 3/18.
37. The views of the Minister for Transport, Tourism and Sport regarding the safety of navigation were sought in respect of the application for consent under section 5 (2). A response was received from the Maritime Services Division of the Department of Transport, Tourism and Sport on 18 February 2019 confirming that there is no impact to the safety of navigation, should a temporary well head be located the proposed location of drilling operations, provided that the Marine Survey Office are informed

“in good time, prior to commencement of operations, by vessel operators such as anchor handling vessels, platform supply vessels, crew transfer and safety standby vessels which may be required to undertake domestic voyages between ports in Ireland and the drill location.”

Should consent be granted by the Minister of State under Section 5 (2) of the Continental Shelf Act, 1968, then adherence to this requirement will be attached as a condition to the consent.

Other relevant matters

38. Ireland is a signatory of the Convention for the Protection of the Marine Environment of the North-East Atlantic (“OSPAR”)⁸ which covers the disposal of materials incidental to and derived from the normal operations of an offshore installation. Article 4.1 of Annex III to the Convention provides that:

“The use on, or the discharge or emission from, offshore sources of substances which may reach and affect the maritime area shall be strictly subject to authorisation or regulation by the competent authorities of the Contracting Parties”.

39. OSPAR regulates the disposal of materials incidental to and derived from the normal operations of an offshore installation. Prior to commencing offshore well operations, operators must obtain permission from the Department in respect of all use and discharge of added chemicals in connection with the operations, by submitting an application for a permit for use and discharge of added chemicals (PUDAC) in accordance with Section 4.4.5 of the *Rules and Procedures*. This contains details and quantities of every chemical planned to be used and discharged during the course of the well operations together with the information on the quantities to be used and discharged for every chemical. The Department (PAD Technical Section) is the competent authority for such matters and is advised by a Marine Environmental Chemist with the Marine Institute, who provides expert advice and an evaluation of the application and recommends proposed conditions to the Department in relation to the PUDAC application.

40. An application for a PUDAC was made by CNOOC on 14 November 2018 and has been considered by PAD Technical Section. A PUDAC will not be granted by the Department until such time as the Minister has granted consent to undertake drilling.

⁸ The Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') was signed in 1992 by sixteen contracting parties, for the protection of the marine environment of the north east Atlantic, whereby signatories take all possible steps to prevent and eliminate pollution and shall take the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected.

Reasoned Recommendation:

41. A comprehensive due diligence exercise has been carried out by the Department on the application including technical and financial assessments and the carrying out of public consultation, as described above. Taking account of all such considerations, it is recommended that the Minister of State grant the consents sought, subject to the applicant's compliance with the 12 conditions, for the following reasons:
42. As set out in detail in the EIA Screening Determination of 12 April 2019, the drilling of an exploration well on the Iolar Prospect can be completed without significant effects on the environment, subject to attachment of specified conditions.
43. As set out in detail in the AA Determination of 17 May 2019, the application to drill an exploration well on the Iolar Prospect, would not adversely affect the integrity of a European site (whether individually or in combination with other plans or projects), subject to attachment of specified conditions.
44. The technical elements of the proposals are acceptable and meet the Department's requirements. It is considered that information delivered from such activity will underpin greater geological understanding of the basin subsurface in a frontier unexplored part of the Irish offshore. A well would also provide information on prospect seal lithology, effectiveness and trap potential and the findings could help de-risk the Irish Atlantic Margin Middle Jurassic play. The data provided from the proposed Iolar Prospect well would act as a key control point in assessing the prospectivity in an underexplored basin and would enable assessment of the potential fairways and petroleum systems within the Porcupine
45. The applicant has provided sufficient evidence that suitable insurance cover is in place and that the applicant's overall Financial Responsibility estimate is reasonable to meet the costs of carrying out the offshore petroleum activities in question, to meet the costs of effective emergency response and subsequent remediation in the event of a major accident, and to have appropriate insurance, indemnity or other financial assurance instruments to cover liabilities potentially deriving from the applicant's offshore activities.

46. The development of Ireland's indigenous oil and gas resources has the potential to deliver significant and sustained benefits, particularly in terms of enhanced security of supply, import substitution, fiscal return, national and local economic development and technology learning.

Approval Sought

47. The Minister of State confirms that:

- a) Having considered this submission, including the TABs attached to it;
- b) Having considered the EIA Screening and AA Determinations made by the EAU with contingent conditions;
- c) Having considered the technical review by the Petroleum Affairs Division Technical Section;
- d) Having considered the Financial Responsibility Assessment documentation submitted by CNOOC Petroleum Europe Limited, together with the assessment conducted by a consortium of independent consultants, pursuant to Section 9A (2) c of the Petroleum and Other Minerals Act 1960, and being satisfied that the applicant has adequate financial provision to meet the costs of carrying out the offshore petroleum activities in question, to meet the costs of effective emergency response and subsequent remediation in the event of a major accident, and to have appropriate insurance, indemnity or other financial assurance instruments to cover liabilities potentially deriving from the applicant's offshore activities;
- e) Having noted the granting of a safety permit (SP15) by the CRU and adoption of an oil spill contingency plan by Irish Coast Guard;
- f) Having regard to any - observations made by State Body consultees;
- g) Having consulted with the Minister for Transport, Tourism and Sport in respect of the safety of navigation, in relation to the drilling of an exploration well on the Iolar Prospect, Block 52/04-A.

That the Minister of State:

- **Grant Approval for CNOOC Petroleum Europe Limited to undertake the drilling of an exploration well on the Iolar Prospect, Block 52/04-A, under Frontier Exploration Licence 3/18 (FEL3/18); and**

- **Having consulted with the Minister for Transport, Tourism and Sport in respect of the safety of navigation, in relation to the drilling of an exploration well on the Iolar Prospect, Block 52/04-A, FEL 3/18 grant consent to CNOOC Petroleum Europe Limited to place a temporary well head and associated infrastructure on the seabed, pursuant to Section 5(2) of the Continental Shelf Act, 1968, as amended**

In granting such consent it is recommended that the Minister of State require it to be contingent on adherence to the following conditions:

1. The Minister of State consents to the carrying out of drilling operations at the approximate surface location Latitude 50° 53' 31.16" North; Longitude 13° 21' 24.38" West (ED50 datum) in accordance with the 52/4-A Final Well Proposal (Rev 2.0) (Doc. No. IE-EXP-52/04-IOLAR-DR-00002-WE-01) dated 15 March 2019, and the clarifications provided by CNOOC in relation to the 52/4-A well proposal. This well location is at Inline [REDACTED] and Crossline [REDACTED] on the MC1402- 3D seismic volume, acquired in 2014 (PAD Survey ID 2014/02).
2. Permission is granted subject to the well being drilled to a depth sufficient to penetrate and fully evaluate the interpreted Upper and Middle Jurassic formations of the 'Iolar' prospect at the well location. In the dry hole case the [REDACTED]
[REDACTED]
[REDACTED] and is anticipated to be at 5,810m TVDSS. In the success case the Total Depth will be in the order of [REDACTED] below the [REDACTED] Seismic Event and will be sufficient to penetrate the entire interpreted [REDACTED] succession to allow for a full geological and formation evaluation. The success case Total Depth is anticipated to be at 6,174m TVDSS. In the event that [REDACTED] or older stratigraphy is encountered a shallower Total Depth may apply, following approval from the Department.
3. Once the Total Depth (TD) has been reached confirmation shall be required from the Department that the TD criteria have been met.
4. During wireline logging operations CNOOC shall provide the proposed sidewall core and [REDACTED] programmes to the Department for its review and approval.
5. All operations shall be conducted in compliance with the provisions of the Rules and Procedures Manual for Offshore Petroleum Exploration Operations.

6. Attention is drawn to the Reporting Procedures of the RPM. To ensure complete confidentiality, the daily drilling, daily geological reports and daily logs should be sent to the Department by posting to a designated secure website or by emailing (addresses advised separately). CNOOC is required to make the daily drilling and geological reports and daily logs available at the start of business each day if possible, but in any event not later than noon. Any significant event that occurs between the daily drilling and geological reports should be notified to the Department by telephone or email as soon as possible. Copies of wireline log data shall be made available by secure website or email to the Department immediately after the completion of logging runs. The Department's lead contact point for the operations is [REDACTED]
7. These conditions shall also apply to any re-spud of well 52/4-A.
8. Daily reporting shall commence from the time the drilling unit enters Irish waters and shall continue until the drilling unit leaves Irish waters, after the completion of the drilling operations.
9. The use and discharge of chemicals associated with the well operations shall be in accordance with the conditions of a Permit to Use and Discharge Added Chemicals (PUDAC).
10. Operations shall be conducted in compliance with the provisions of the Department of Justice and Equality *Guidance Document on relevant Explosives Legislation for Offshore Exploration Installations*.
11. Compliance with the conditions outlined in the attached Table 1: Mitigation measures required to be specified in any Consent that may be granted, following the EAU's EIA Determination.
12. Compliance with the conditions outlined in the attached Table 2: Mitigation measures required to be specified in any Consent that may be granted, following the EAU's AA Determination.

Louise Casey
Petroleum Affairs Division
24 May 2019

Table 1: Mitigation measures required to be specified in any Consent that may be granted

Discipline	Mitigation Measure Proposed	Industry Standard	Project Specific
Physical Presence	A pre-spud ROV survey of the well site will be undertaken to increase the likelihood that areas of high sensitivity species and habitats will be avoided at the well site.		✓
Interactions with Other Sea Users	CNOOC will consult with relevant authorities and organisations as defined in the Rules and Procedures Manual, particularly the Sea Fisheries Protection Authority and the Sea Fisheries Policy Division, Department of Agriculture, Food and the Marine to minimise interference impacts resulting from the project.	✓	
	A Notice to Mariners will be distributed by the Department of Transport, Tourism and Sport and a version of this will be run in selected local marine related publications.	✓	
	A vessel will operate on site for the duration of the project	✓	
	The drill ship and supply vessel will display SOLAS compliant lights and shapes and noise signals to alert other seafarers in the area	✓	
	A 500 m safety zone will be maintained around the drill ship whilst on location		✓
	Nexen will consider the use of a Fishing Liaison Officer (FLO) on board the standby guard vessel which will operate on site for the duration of the project.		✓
	The drill ship will have Safe Work Procedures to prevent dropped objects which will include (but not limited to): <ul style="list-style-type: none"> • Good housekeeping practices with all wastes correctly stored; • Storage of hazardous chemicals as per material safety data sheet (MSDS); • Lift planning for over-the-side lifting (including appropriate crane rigging and load ratings, crane operator and rigger training and competency requirements) all lifting equipment will be tested and certified; • A ship to ship transfer permit will be in place; • All deck items will be securely stowed; • Transfer of objects will use specialist equipment and consider environmental conditions; • Ongoing personnel awareness and training and dropped object prevention programs (e.g. lanyards on hardhats, hand tools); • Safe working procedures to prevent dropped objects; • Procedures will be in place to ensure that the location of any lost material is recorded and that significant objects are recovered – including ROV and boat recovery where practicable; • Waste Management Plan. 	✓	

Discipline	Mitigation Measure Proposed	Industry Standard	Project Specific
Underwater Noise	A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals and log all relevant events using standardised data forms.		✓
	Sound-producing activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible, the sound-producing activities shall be postponed until effective visual monitoring is possible.		✓
	As the water depth is >200 m pre-start-up monitoring shall be conducted at least 60 minutes before the activity is due to commence. Sound-producing activity shall not commence until at least 60 minutes have elapsed with no marine mammals detected within 1,000 m Monitored Zone by the MMO.		✓
	Pre-start monitoring shall subsequently be followed by a Ramp-up Procedure (where possible) which should include continued monitoring by the MMO. Airguns utilised in VSP generally fire for approximately two minutes then stop for 5-10 minutes before repeating the pattern. To ensure that marine mammals are given the opportunity to move away from the airguns as they commence firing, energy would be slowly increased to the maximum level over a period of 40 minutes, in a process called "soft-start".		✓
	If there is a break in sound output for a period of 5-10 minutes (e.g. due to equipment failure, shut-down), MMO monitoring must be undertaken to check that no marine mammals are observed within the Monitored Zone prior to recommencement of the sound source at full power.		✓
	If there is a break in sound output for greater than 10 minutes (e.g. due to equipment failure, shut-down or station change) then all Pre-start Monitoring and a subsequent Ramp-up Procedure (where appropriate following the Pre-start Monitoring) will be undertaken.		✓
	Atmospheric Emissions	Practical steps to limit the release of atmospheric emissions during the project will include advanced planning to enable efficient operations and fuel utilisation and well maintained and operated power generation equipment.	✓
The contractors will comply with the MARPOL Convention 73/78 Appendix VI on atmospheric emissions; no emissions of ozone depleting substances, content of sulphur in fuel oil will not exceed 35% m/m and no incineration of garbage containing more than traces of heavy metals.		✓	
A vessels and the drill ship will comply with the Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2010-2017		✓	
Nexen will verify that drill ship contractor procedures align with the relevant Nexen Engineering requirements which cover all aspects of primary and secondary well control for floating drilling operations.			✓

Discipline	Mitigation Measure Proposed	Industry Standard	Project Specific
Discharges to the Sea	All Oil Based Muds will be skipped and shipped onshore for recovery and /or disposal in accordance with Waste Management legislation, and not discharged overboard.		✓
	Cementing procedures will be in place to minimise the quantities of cement prepared and used, consistent with safe practices, and to minimise the amount of unused cement discharged.		✓
	Chemicals will be selected in line with CNOOC's chemical selection policy, reducing where possible the use of chemicals carrying substitution notifications and other product warnings.		✓
	The management of drilling fluids, drill cuttings, cementing fluids and subsea control fluids will be consistent with all appropriate CNOOC Engineering Standards, Operating Standards and Procedures.		✓
	Environmental risk assessment as part of PUDAC approval process, and identification of measures to reduce risk, will be carried out to obtain approval for chemical use prior to drilling operations commencing as per the PAD Rules and Procedures Manual.	✓	
Archaeology	A pre-spud ROV survey will be conducted at the well site to identify any marine artefacts that could potentially be disturbed, or any other obstructions.		✓
	If potential marine artefacts are observed, a qualified marine archaeologist will be consulted prior to spud, and spudding will not commence until the marine archaeologist has confirmed that the spud location is free of marine artefacts.		✓
	If any item of potential archaeological interest is identified, that item will be avoided and the well location be moved to an alternative location, which will also be subject to a pre-spud ROV survey and the same precautions identified above. A short report will be prepared by the marine archaeologist detailing the observations made and the actions taken.		✓
	If a discovery of a ship wreck or object of historical interest is made during the above process, CNOOC will immediately report the discovery and its location to the relevant Government Departments and Agencies identified by PAD (2014).		✓
	Under these circumstances CNOOC would also facilitate the statutory authorities in any investigations that they may need to carry out in accordance with the terms of the National Monuments Acts		✓
General	All mitigation and management measures identified during the Environmental Risk Assessment Process will be incorporated into a commitments register. These commitments will be incorporated into the Environmental Management Plan (EMP) for the project.		

Table 2: Mitigation and Management Measures Committed to by the Applicant.

Discipline	Commitment Proposed	Additional Notes
Underwater Noise	A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals and to log all relevant events using standardised data forms.	None
	Sound producing activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible, the sound-producing activities shall be postponed until effective visual monitoring is possible.	If a break occurs in the hours of darkness, then sound-producing activities will not commence until hours of daylight and when effective visual monitoring is possible.
	Pre-start-up monitoring shall be conducted at least 60 minutes before the activity is due to commence. Sound-producing activity shall not commence until at least 60 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.	It is recommended that pre-start-up monitoring is undertaken irrespective of water depths to mitigate effects on marine mammals. In addition, it is recommended that the Monitored Zone is clarified to be 1,000 m.
	Pre-start-up monitoring shall be subsequently followed by a Ramp-Up Procedure (where possible) which should include continued monitoring by the MMO. Airguns utilised in VSP generally fire for approximately two minutes and then stop for 5-10 minutes before repeating the pattern. To ensure that marine mammals are given the opportunity to move away from the airguns as they commence firing, energy would be slowly increased to the maximum level over a period of 40 minutes, in a process called 'soft-start'.	None
	If there is a break in sound output for a period of 5-10 minutes (e.g. due to equipment failure, shut-down), MMO monitoring must be undertaken to check that no marine mammals are observed within the Monitored Zone prior to recommencement of the sound source at full power.	The airguns proposed generally fire for approximately two minutes then stop for 5-10 minutes before repeating this pattern. It is recommended that the break between firing is reduced as much as possible and that monitoring is undertaken by the MMO throughout the break during the use of the airgun and shall not recommence within the

		hours of darkness when visual monitoring is ineffective.
	If there is a break in sound output for a period greater than 10 minutes (e.g., due to equipment failure, shut-down or station change) then all pre-start-monitoring and a subsequent Ramp-Up Procedure (where appropriate following pre-start-monitoring) will be undertaken.	If a break of greater than 10 minutes occurs in the hours of darkness, then sound-producing activities will not commence until hours of daylight and when effective visual monitoring is possible.
Unplanned accidental releases	Crew of the drill ship will undergo environmental awareness and safety training. Incident response training will form part of the induction for any crew joining the drill ship or Project vessels. The drill ship has an approved safety case and will be class certified by a recognised certifying authority	None
	A full risk assessment will be performed as part of well planning	None
	CNOOC Engineering Standards will be implemented	None
	The well will be designed to CNOOC Well Control Standards ECN-DR-STD-00067	None
	While drilling a two-barrier well control policy will be implemented at all times. The primary well control will be the mud hydrostatic and secondary well control will be the blow-out preventers or BOPs, which will be maintained throughout the drilling of the well. A full risk assessment was performed during well design	None
	While drilling, the primary well control barrier in the main conduit will be the hydrostatic pressure imparted by correctly weighted drilling fluid and secondary well control measures will include the BOP and cut-off valves on all machinery, pipelines and hoses	None

	<p>Outside the main conduit, previous casings in the next annulus also have barriers, i.e. seal assemblies in casing hangers, and cement isolation between reservoir and surface – there may be one or more cement seals set in each annulus</p>	<p>None</p>
	<p>Well design, materials and drilling procedures will combine to ensure that the surface environment can be isolated from the wellbore by at least two independent barriers during all stages of well construction and abandonment</p>	<p>None</p>
	<p>The BOP rated design pressure will comfortably exceed the anticipated reservoir pressure and the BOP will undergo maintenance and inspection prior to use</p>	<p>None</p>
	<p>Barriers will be tested prior to use, during installation and post-installation</p>	<p>None</p>
	<p>In the event of a blowout during drilling activities, when the primary Blowout Prevention Equipment has failed, a capping device will be deployed. The full description of the containment and recovery process is described in the Iolar Oil Spill Contingency Plan (OSCP), ECI-HS-PRP-00014. The OSCP was approved by the Irish Coast Guard on 12 February 2019 and was prepared in accordance with the Sea Pollution (Amendment) Act 1999. Details of the OSCP are provided in Section 4.3.4.2 of the applicant's NIS. This capping and containment system is a one of two-source control strategy, the other being a relief well drilling</p>	<p>None</p>
	<p>Shallow hazards (from shallow gas or over-pressured shallow formation water) have been assessed by seismic survey prior to drilling, and the results have been incorporated into the well design</p>	<p>None</p>
	<p>The plug and abandonment plan will be reviewed and approved by CNOOC, in accordance with Oil and Gas UK Well Decommissioning Guidelines</p>	<p>None</p>

