



Offshore Petroleum Regulator
for Environment & Decommissioning

D/4272/2021

NEO Energy
455 Union St
Aberdeen
AB11 6DB

23 August 2023

Dear [REDACTED]

**Department for Energy
Security and Net Zero**

Offshore Petroleum
Regulator for Environment &
Decommissioning
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

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**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020**

**NOTICE UNDER REGULATION 14(5) – NOTIFICATION OF THE DECISION TO
AGREE TO THE GRANT OF CONSENT**

Affleck Re-development Environmental Statement

On 27/07/2022 NEO Energy submitted an Environmental Statement (ES) for the above project to The Offshore Petroleum Regulator for Environment and Decommissioning (“OPRED”). OPRED acts on behalf of the Secretary of State for Energy Security and Net Zero (“the Secretary of State”). Following review of the ES and representations received, NEO Energy was requested to provide further information, which was provided to OPRED on 6 April 2023 and 25 May 2023.

OPRED has now completed its review of the ES, the representations received relating to the environmental effects of the project and the further information provided. In accordance with Regulation 14(5), we hereby notify you that the Secretary of State agrees to the grant of consent for the project.

A copy of the decision, which sets out the conclusion on any significant effects of the project on the environment, any conditions attached to the agreement to grant consent, and a description of any features of the project or measures envisaged to



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avoid, prevent, reduce or offset any significant adverse effects on the environment is appended below.

The Oil and Gas Authority (OGA) was notified of the decision to agree to the grant of consent on 23 August 2023.

Judicial Review

A person aggrieved by the grant of consent for a project may apply to the Court for leave / permission to apply for judicial review of the relevant decision or decisions. The United Kingdom has three separate legal systems; one each for England and Wales, Scotland and Northern Ireland. The rules for any application for leave / permission to apply for judicial review may vary depending on where that application is made, but it is important to note that there are time limits for making any application and judicial review may only be available if the applicant has standing / a sufficient interest in the subject matter of the application. Further information about the process for seeking judicial review can be obtained from the Administrative Court (for England and Wales), the Court of Session (for Scotland) or the Judicial Review Office (Northern Ireland).

Yours sincerely,

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The Offshore Petroleum Regulator for Environment and Decommissioning
For and on behalf of Secretary of State for Energy Security and Net Zero



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APPENDIX

DECISION TO AGREE TO THE GRANT OF CONSENT

The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020

Regulation 14(3)

Secretary of State Decision

NEO Energy

Affleck Re-development

To: [REDACTED]

Decision Recommendation:

That you agree, on behalf of the Secretary of State, to the grant of consent by the Oil and Gas Authority (OGA) [\[1\]](#).

As set out further below, taking into account the relevant considerations, I have concluded that the project will not have any significant effects on the environment, and there is no requirement for conditions to be attached to the grant of consent.

From: [REDACTED]

Date: 22 August 2023

ES Title:	Affleck Re-development
Developer:	NEO Energy
Consultants:	Xodus Group
OGA Field Group:	Central North Sea (CNS)
ES Report No:	D/4272/2021
ES Submission Date :	27/07/2022
Block No/s:	30/19, 30/14, 30/13, 30/12 and 30/7.
Project Type:	Field Development
OGA Reference No:	PCON/6557/0

Project Description



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The Affleck development will consist of the redevelopment of the Affleck field re-using two wells previously drilled in 2007. The proposed development is in the Central North Sea, approximately 263 km from the east coast of Scotland and 5 km from the UK/Norway median line in water depths ranging from 70 m to 75.4 m.

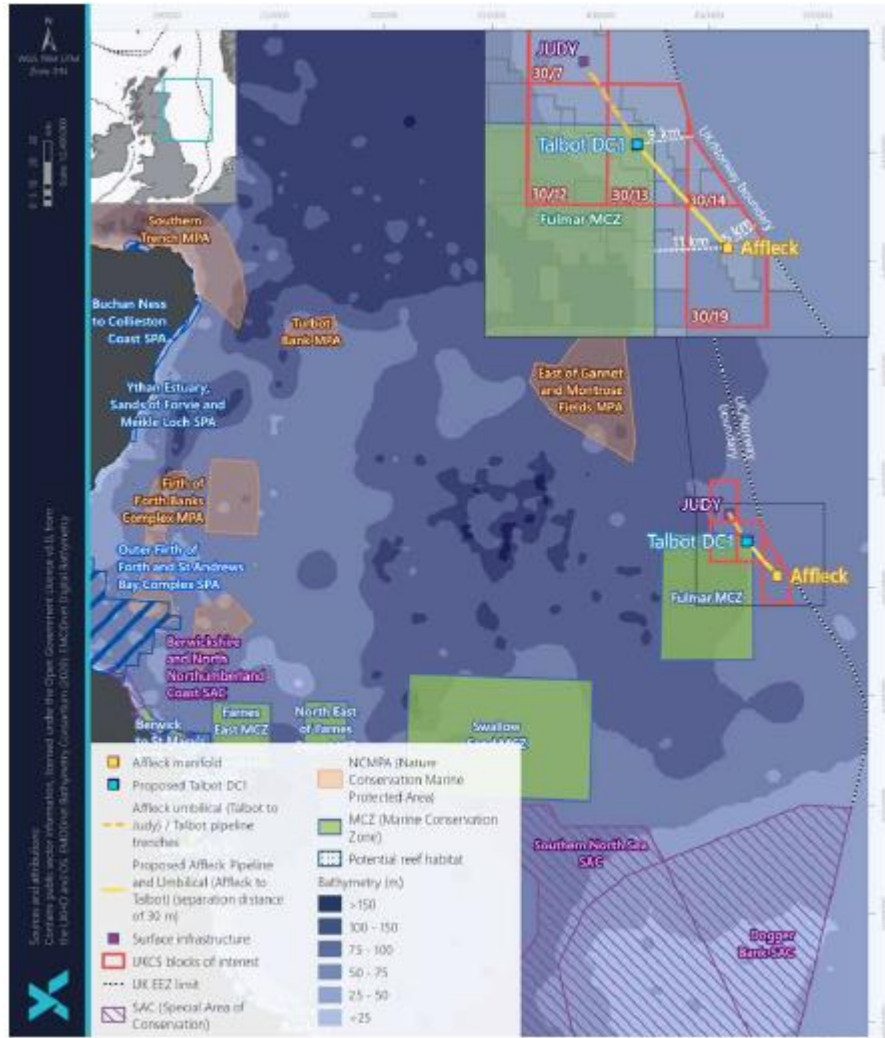


Figure showing location of Affleck Field.

The Affleck wells were shut in in 2016 following the previous host installation, Janice, ceasing production. NEO now propose to tie the two production wells back to the Judy installation, via a manifold at the Talbot field. Both Talbot and Judy are operated by Harbour Energy. A 21 km 8½" pipe in pipe production pipeline between the Affleck manifold and the tie in structure at Talbot, along with a 37 km umbilical between the Affleck manifold and the Judy installation will be laid. Both the pipeline and umbilical are to be trenched and buried. The trench will be backfilled once the pipeline has been laid and protection material (rock, concrete mattresses, grout bags) installed at crossings, tie in spools and to prevent upheaval and buckling at points along the route. Produced fluids from Affleck will be commingled at the Judy installation along with produced fluids from other nearby fields that are already operating and separated into gas and liquids streams for export via the Judy Export Pipeline and the CATS (Central Area Transmission System) Pipeline to Teesside.



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Key Environmental Impacts

The Environmental Statement (ES) identified and discussed the following as having the potential to cause an environmental impact:

- effects on users of the sea (e.g., commercial fishing and shipping) from the physical presence of temporary and permanent infrastructure;
- effects on the sediment, seabed habitat, fauna and flora from seabed disturbance from the physical presence of temporary and permanent infrastructure;
- effects on the seabed and protected species and habitats;
- effects on local air quality and climate from the atmospheric emissions generated by the project;
- effects on water quality from discharges to sea;
- effects from underwater noise caused by the projects;
- effects on water quality, protected species and habitats, flora, and fauna from an accidental event result in an oil release.

Key Environmental Sensitivities

The ES identified the following environmental sensitivities:

- **Fish and shellfish:** The project area lies within multiple nursery and spawning areas of fish species. Priority Marine Features (PMF) such as anglerfish, blue whiting, cod, herring, ling, mackerel, Norway pout, sandeels, spurdog and whiting are known to be found in the project area. Cod, spotted ray and spurdog are also listed on the OSPAR list of threatened and/or declining species in the project location. Sandeels are known to have a particularly important ecological function as a prey item for other fish, seabirds, and marine mammals. Only one station within the survey, in an area through which the umbilical between Affleck and Judy will pass, had sediment suitable for sandeel spawning.
- **Seabirds:** Multiple species of seabird could be present at the project area in various levels of abundance during the post breeding season. The highest abundance of species is attributed to auks, black-legged kittiwake, northern gannet, and northern fulmar. Sensitivity of seabirds in the project area is generally low throughout the year with exceptions in May and June when sensitivity is very high in blocks 30/13 and 30/14, and extremely high in adjoining block 30/08.
- **Protected habitats and species:** Part of the pipeline route is located within the Fulmar Marine Conservation Zone (MCZ). The Fulmar MCZ has been designated for subtidal sand, mud, and mixed sediments as well as the ocean quahog. Six ocean quahogs were observed across five sampling locations during the Affleck pipeline survey, as well as a single pair of siphons at one sampling location and dead and broken ocean quahog shells observed throughout the survey area. Three juvenile ocean quahogs were also recorded in the macrofaunal analysis. Horse mussels were observed during the site-specific surveys, and it was clarified that that



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no horse mussel beds were observed. There are no other protected sites within 40 km of the project area.

- **European Protected Species and pinnipeds:** Cetaceans such as harbour porpoise, minke whale, white beaked dolphin and Atlantic white-sided dolphin are likely to occur in the project area predominantly during the months from May to September. Pinnipeds, such as the grey seal and the harbour seal, may occur in the project area in very low densities but are far more common close to shore. The development is 263 km from the shoreline.
- **Other users of the sea:** Commercial fishing effort in the project area has been assessed as “low to moderate” representing less than 0.01% of total UK landed value and weight. The majority of fishing effort in the project area is focussed on the summer months. Demersal fishing gear is most prevalent. Shellfish are also targeted to a lesser extent and pelagic fishing is generally low.

Shipping density in the area is ‘very low’. The project area sits within a well-established location for offshore oil and gas infrastructure. The closest installation is the Clyde installation, situated approximately 18 km to the SSW of the proposed Affleck pipeline route. The project area is not used for military exercises. There are several wrecks within the vicinity of the development. There are wrecks located 1.8 km from the pipeline and 1.7 km from the umbilical.

- **In-combination, cumulative and transboundary sensitivities:** The project area is 5 km from the Norway / UK median line. The installation of infrastructure will reduce availability of the natural environment to activities such as fishing, but this will be offset by trenching and burying the pipeline so that fishing activities can continue in those locations. There will be a combined area of impact from the Affleck and Talbot developments equating to 0.44 km². There are no other known planned developments in the area. Although it was previously thought there would be no temporal overlap between the two projects, due to delays in the Talbot project there may now be an overlap. The project has the potential to add cumulatively to produced water discharges, though the oil in water content of produced water discharges from Judy installation will remain <30 mg/l. There are not thought to be any transboundary impacts other than the effect of atmospheric emissions on a global scale and potentially the impact of an oil release.

Public Consultation(s)

The ES and the application for consent was subject to Public Notice, which was published on 25 August 2022 and ended on 26 September 2022. No public representations were received.

Further information was requested from NEO Energy on 31 January 2023 and 17 May 2023. Documents containing responses to these comments were received on 6th April 2023 and 25th May 2023. It was concluded that the further information did not engage Regulation 12(3) requirements and no further public consultation was required.

Consultation with Other Authorities



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The Joint Nature Conservation Committee (JNCC), Ministry of Defence, Northern Lighthouse Board, Marine Scotland, Maritime Coastal Agency, Trinity House, Marine Management Organisation and Centre for Environment, Fisheries and Aquaculture Science (Cefas) were consulted on the ES submission. All the consultees submitted responses and none of the consultees had objections to the environmental impact assessment.

Consultation with other Countries

Given the location of the project proposal and the potential for an accidental event to impact both Denmark and Norway, both countries were contacted to offer the opportunity to participate in the EIA process. However, no response was received and therefore they did not participate in the EIA process.

Conclusion on the significant effect of the project on the environment

I have reviewed the following:

- The ES;
- the further information obtained under Regulation 12 as summarised above;
- The representations received from other authorities as summarised above; and
- The conditions that may be attached to the agreement to the grant of consent.

Taking those matters into account to the extent required under Regulation 14(2), I have concluded on behalf of the Secretary of State that this project will not have any significant effects on the environment:

Physical presence of temporary and permanent infrastructure and interaction with other users of the sea:

As part of the project a 21 km 8½" pipe in pipe production line between Affleck and Talbot will be installed along with a 37 km umbilical between Affleck and the Judy installation. Tie in spools will be installed at the Affleck manifold. There is no significant impact anticipated during installation of the pipeline and umbilical to other users of the sea given the low levels of shipping in the area. There will be a minor increase in vessel traffic during the Development installation activities. As the proposal is to trench and bury the pipelines and trawler-friendly subsea protection will be used, the impacts to the fishing industry in the area are not significant. There will be no temporary or permanent exclusion zone implemented specifically for the Development, meaning there will be no statutory restrictions on vessel or fishing activity beyond that which is implemented through the safety zones at Affleck, Talbot DC1 and Judy. I agree that there is no significant impact anticipated from navigational hazards associated with the project and the protected features of the Fulmar MCZ are not expected to be significantly impacted.

Seabed impacts:



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Seabed impacts include the laying of the pipeline and umbilical along with protection materials for crossings and transitions including mattresses, grout bags and rock. The worst-case area of impact to the seabed from the pipeline, umbilical and protection materials is expected to be 0.261 km². The contributing factors to the permanently impacted area are the installation of the pipeline from the Affleck manifold to Talbot and the umbilical running from Affleck to the Judy installation, associated trenching and burying and protection materials. Other infrastructure includes tie in spools at Affleck and Talbot, which will result in a small area of seabed being impacted. This impact will persist in the long-term, but it will be temporary as it is anticipated that these structures will be removed at the end of field life.

The Affleck pipeline and umbilical are partially located within the Fulmar MCZ. Approximately 4 km of the pipeline and 7 km of the umbilical will be within the site. The MCZ has been designated for subtidal sand, mud and mixed sediments as well as the ocean quahog. None of the pipeline crossings and related rock protection are within the MCZ. Overall, 0.045 km² of the MCZ will be affected by the installation of the pipeline, umbilical and rock placement at trench transitions. This represents 0.0018% of the MCZ. It is not considered that there is a significant risk of hindering the achievement of the conservation status for the Fulmar MCZ from the Affleck project. I agree with the assessment that there will be impacts to the seabed, but these are not expected to be significant given the scale of the development, the ability of the environment to recover from temporary disturbance and the relatively small permanent footprint within the protected site of the Fulmar MCZ.

Emissions to air:

Local air quality and emission of Greenhouse Gasses was considered. The main emitting sources would be from installation of the Affleck pipeline and umbilical, flare and vent occurrences and fuel consumption associated with vessel and helicopter flights and incremental emissions at the Judy installation. Quantities of greenhouse gas emissions associated with the project are minor compared to those of the wider industry and the UK in general. The largest source of emissions is associated with production processing on Judy.

The majority of emissions from vessels will occur during subsea installation: about 22,240 Te CO₂e (CO₂ equivalent) of a total of 26,192 Te CO₂e from vessels over the life of the project. During the development phase there will be a limited increase in helicopter traffic to Judy installation.

There will be minimal increases to flaring volumes on Judy as a result of Affleck coming online. There is no routine venting on Judy. However, there will be a small amount of routine flaring, as set out in the ES and clarified by the developer. This will continue beyond the 2030 end date proposed in the World Bank's routine flaring initiative, to which the UK has signed up. While noting this inconsistency with current UK policy, overall, I do not consider that the environmental effects of the project (including cumulative effects with Talbot) resulting from flaring at Judy are significant. The volumes of emissions resulting from flaring (whether routine or non-routine) are small, and Harbour Energy (who operate the Judy installation) have identified greenhouse gas reduction opportunities covering flaring within their Emissions Reduction Action Plan. The impact to local air quality is expected to be negligible due to power generation and compression facilities at the Judy installation running more efficiently as a result of Affleck coming online. No new combustion equipment is being



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added as a consequence of the addition of Affleck, and the additional fluids are within the design capacity of the Judy installation.

The carbon intensity metric (kg CO₂ per barrel of oil equivalent produced) at Judy installation is forecast to reduce with the inclusion of Affleck production. This improvement in carbon intensity is expected due to power generation equipment on the Judy installation operating at an optimal load once Affleck production is included. By bringing Affleck online it is estimated that annual UKCS (United Kingdom Continental Shelf) offshore CO₂ emissions will rise by about 0.005%. The project will contribute a very small proportion of the North Sea Transition Deal targets and UK Committee on Climate Change Carbon Budgets. There are ongoing and future emissions reduction projects on the Judy installation that have not been accounted for within calculations of incremental emissions (at Judy from Affleck) but should result in a reduction in atmospheric emissions. Within the ES, NEO outline their commitment to minimising greenhouse gas emissions and complying with the NTSA Stewardship Expectations 11 as part of the UK Government's strategy to meet the Net Zero target by 2050.

I agree with the assessment that atmospheric emissions generated by the project will not themselves result in a significant effect on the environment.

Discharge to sea:

Discharges to sea are planned during the installation of the pipeline and umbilical and related dewatering operations. The offshore chemicals to be used and discharged during installation activities will pose a low hazard for their registered use. Produced water from the well will be treated and discharged at Judy installation (oil in water concentration of 30 mg/l or less) through the caisson at Judy approximately 42 m below sea level. Offshore chemicals will be used during the production phase such as methanol and wax inhibitor. Well control fluids will be used in a closed loop system.

Marine organisms and water quality were identified as key receptors. As the impacts to water quality are likely to be localised and short term, the impact is not considered to be significant. Discharges are likely to rapidly disperse in the water column rapidly. I agree with the assessment that discharges to sea will not result in a significant effect on the environment, given the dispersion and dilution expected in the marine environment.

Underwater noise:

The primary source of noise during the project results from the pipeline installation, dredging and presence of development vessels. The developer clarified that following a change to the project that there will be no piling associated with the project. The main receptors to underwater noise are marine mammals and fish. Given the noted populations of cetaceans and fish throughout the project area, the sensitivity to noise was assessed. The combined temporary impact and sensitivity of mammals and fish to underwater noise results in an insignificant impact to both receptors. I agree with the results of the noise assessment that no significant effects are anticipated from the noise generated by the project.

Accidental events:

Main scenarios of hydrocarbon spill considered in the analysis of accidental events are from full loss of the pipeline inventory and a well blow-out. As the wells have already been drilled at Affleck, the probability of a well blowout is greatly reduced as the risk of a release is



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highest during drilling operations. The impact of a well blowout is judged to be high; however due to the low probability of such an event occurring, the impact is considered not significant. Should a blowout occur, oil spill modelling shows the most likely beaching location in the UK as being Aberdeenshire where there is estimated to be a 5.5% chance of beaching. Modelling shows a maximum probability of beaching in Norway of 23.6%. NEO will have response measures in place to respond in the event of a well blowout including an Oil Pollution Emergency Plan and access to Oil Spill Response Limited (OSRL) and Offshore Pollution Liability Agreement (OPOL).

Assessment within the ES concludes that without mitigation and response a well blowout may lead to a 'Major Environmental Incident'. However, it is my opinion that due to the extremely low probability of this occurring and the mitigations in place (discussed further below) that the risk is reduced to an acceptable level.

Features of the project or measures envisaged to avoid, prevent, reduce or offset significant effects.

The only impact identified as potentially having a significant effect on the environment is an accidental event, which in this case is a well blow out. The following key measures of the project are envisaged to avoid, prevent, reduce, or offset any significant adverse effect on the environment from accidental events.

The developer has several measures in place to ensure that the risk of a well blow-out occurring is minimised. These preventative measures are:

- a. Primary Well Control: the developer will use appropriate techniques to maintain well control and provide sufficient hydrostatic pressure;
- b. Secondary Well Barrier: the developer will utilise a blowout preventor (BOP) which is used for the initial stages of secondary well control should a blowout occur;
- c. Operations will be carried out in accordance with relevant practices and procedures;
- d. Oil Pollution Emergency Plan which sets out arrangements for responding to incidents that may cause oil pollution;
- e. Well Procedures and equipment to control the well in the event of a blow out, including a capping device or the drilling of a relief well.

Although a significant effect to the environment would be expected in the case of an unplanned, accidental well blow-out from the Affleck well, the mitigation measures and commitments in place above, will seek to avoid and/or reduce the unlikely impact as far as possible.

I therefore agree with the conclusion that a well blow-out does have the potential to significantly affect the environment, however, mitigation measures and commitments will be in place to reduce the risk of a well blow-out occurring, to as low a risk as possible.

There are no other features of the project or measures envisaged to avoid, prevent, reduce or offset any significant adverse effects on the environment.



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Decision on Conditions to the agreement of the grant of consent

No conditions should be attached to the agreement to the grant of consent.

Recommendation

I have set out above my conclusion on the significant effects of the project on the environment and the conditions that should be attached to the grant of consent.

I recommend that the Secretary of State should agree to the grant of consent for this project because taking into account the effect of the measures / features set out above, there will be no significant effects on the environment.

[Redacted signature]

22 August 2023

[Redacted name]
Offshore Petroleum Regulator for Environment and Decommissioning
For and on behalf of the Secretary of State for Business, Energy, and Industrial Strategy

Agreement decision

I accept the recommendation. On behalf of the Secretary of State, I therefore agree to the grant of consent.

[Redacted signature]

Date 22 August 2023

[Redacted name]
Offshore Petroleum Regulator for Environment and Decommissioning
For and on behalf of the Secretary of State for Business, Energy, and Industrial Strategy.