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Ms. Hildegard Naughton, TD,
Chair,
Joint Committee on Communications, Climate Action and Environment,
Leinster House,
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Email: hildegard.naughton@oir.ie

Re: Petroleum and Other Minerals Development (Amendment) (Climate Emergency Measures) Bill 2018

August 3, 2018

Dear Ms. Naughton,

I refer to the hearings held on July 3 and July 10, 2018, where the Joint Committee on Communications, Climate Action and Environment convened to scrutinise the Petroleum and Other Minerals Development (Amendment) (Climate Energy Measures) Bill 2018.

I hope that the correct facts, figures and commentary provided by witnesses from Sustainable Energy Ireland ("SEAI"), IBEC, the Irish Offshore Operators Association ("IOOA") the Department of Communications, Climate Action and Environment ("DCCA") and Gas Networks Ireland ("GNI")/Ervia on Ireland's future energy requirements, security of supply and higher CO2 levels (through increased importation) during the hearings will be considered.

Additionally, I do hope that the facts, figures and commentary provided by the International Energy Agency ("IEA") at a previous hearing held on June 26, 2018 will be given serious consideration and that the Committee will get a chance to look at the just published report from The Irish Academy of Engineering ("IAE") on Ireland's Gas Supply Security.

Unfortunately, during the hearings held on July 3, 2018, there were a number of references and/or comments and/or assertions made which either named Providence Resources P.l.c. ("Providence") directly or incorrectly categorised aspects relating to Providence's business. As these are potentially damaging to Providence, I would like to provide clarification to the various points raised.

Please note that a copy of this letter has been sent directly to all Committee members by email.

Please also note that this document provides links to websites and that there is 1 Appendix.

On behalf of the board, management, employees, shareholders and stakeholders of Providence, I request that a copy of this letter be made available on the Committee's website.

Comments attributable made at July 3rd hearings attributable to Providence or Providence assets

1. **Dr. Amanda Slevin's comment on the authorisation for Barryroe:**

"The latest report shows that the authorisation for the Barryroe oil find remains a standard exploration licence with no reference to transfer the authorisation to a petroleum lease or a lease undertaking. That allows a private company, Providence, to maintain control over Irish resources without having expressed any plans to bring the resource into production."

Clarification regarding Providence

Providence Resources P.l.c. is not a private company. Based in Dublin, Providence is an Irish registered, public listed company quoted on the Irish & London Stock Exchanges with c. 10,000 shareholders.

To date, Providence has directly invested approximately €200 million in its activities offshore Ireland where it holds interests in a number of licensing authorisations (including Licensing Options, Standard Exploration Licences, Frontier Exploration Licences and Lease Undertakings). The investment in the work programmes associated with these various licensing authorisations are made directly by Providence.

Over the past 10 years, Providence has been the most active operator offshore Ireland investing in multiple seismic, site survey and drilling operations. In addition to the direct investment made by Providence on its various licensing authorisations, a further €300 million of additional foreign direct investment ("FDI") has been made by Providence's international partners in connection with the various licensing authorisations.

Clarification regarding the progression of a Licensing Authorisation

The Irish licensing terms are very clear on the application, award and progression of licensing authorisations. <https://www.dccae.gov.ie/documents/LicensingTerms%202007.pdf>

In the specific case of a Standard Exploration Licence, at the end of the licence phase, the Licensee is required to either forfeit the licence or apply to the Minister for a successor authorisation, which could be either a Lease Undertaking or a Petroleum Lease.

Based on this licensing regime, with timetables and work programmes, a Licensee has a clear pathway to take an oil or gas prospect from exploration through appraisal and on to production, subject to the requisite Ministerial consents.

Clarification regarding status of Barryroe

Barryroe is held under Standard Exploration Licence ("SEL") 1/11. SEL 1/11 is operated by Exola DAC (80%), a wholly-owned Providence subsidiary, on behalf of its partner, Lansdowne Celtic Sea Limited (20%).

In July 2017, Providence announced that it had been granted a 2-year extension to the term of the First Phase of SEL 1/11 to July 2019 and overall term to July 2021 by the Minister for Communications, Climate Action & Environment, subject to the Barryroe Partners carrying out an additional specific work programme. **RNS – July 13, 2017**

www.providenceresources.com/sites/default/files/RNS%20-%20LICENCE%20UPDATE%20-%20SEL%201-11%20-%20LICENCE%20EXTENSION.pdf

In March 2018, Providence announced a major commercial transaction, in the form of a farm-out, that will see substantial foreign direct investment ("FDI") of over \$150 million initially, the clear objective of which is to take the Barryroe oil field through development to production. **RNS – March 28, 2018**

www.providenceresources.com/sites/default/files/BARRYROE%20FARM%20OUT%20DEAL%20AGREED%20-%20MARCH%202018%20-%20FINAL%20%281%29_0.pdf

Based on these facts, Providence refutes the statement that Providence “maintain control over Irish resources without having expressed any plans to bring the resource into production”.

2. Deputy Eamon Ryan’s comment on oil and gas resources:

“My understanding is that we have searched every pocket in the Irish Sea and Celtic Sea and found nothing aside from Kinsale and another pocket below.”

Clarification regarding exploration in Ireland

Based on data available from the Petroleum Affairs Division at the Department of Communications, Climate Action and Environment (“DCCA”), only 192 wells (exploration, appraisal and production wells) have been drilled offshore Ireland over the past 45 years or so and today, only 7.4%¹ of the total Irish offshore area is licenced.

Notwithstanding this low well count, and the small proportion of the offshore area being licenced, the Committee should be made aware that there have already been a number of discoveries of oil and gas offshore Ireland, and to date, 4 gas fields have been declared commercial and developed, with the Barryroe oil project currently on a pathway to commerciality and development.

- **Kinsale Head Area**

The Kinsale Head Area, offshore Cork, has produced gas from 3 fields (comprising the Kinsale Head, Ballycotton & Seven Heads gas fields) for nearly 40 years. Discovered in the 1970’s, the gas supply from Kinsale has played a major role in meeting Ireland’s energy requirements for decades and enhanced its ability to attract foreign direct investment, especially in the Cork region. Unfortunately, gas supply from Kinsale is expected to end in 2021.

- **Corrib**

The Corrib gas field, offshore Mayo, was discovered in 1996 and it started production in 2015. Today, it continues to play a hugely important role in the current supply of indigenous natural gas, thereby lessening Ireland’s reliance on imported gas and supporting the growth of intermittent energy sources such as onshore wind.

However, as pointed out in a just published report from the Irish Academy of Engineering (“IAE”) , “Natural Gas – Essential for Ireland’s Future Energy Security”, Corrib production is declining and will cease around 2030:

“Gas production from Corrib has already started to decline and by 2025 will supply less than 20% of Ireland’s demand. Corrib production is expected to cease around 2030.”

<http://iae.ie/news/iae-report-on-security-of-irelands-gas-supply/>

- **Barryroe**

Providence is operator of the Barryroe oil field development, offshore Cork. Barryroe was initially discovered in 1973 with 4 wells subsequently drilled by other operators, all of which logged hydrocarbons.

¹ Calculated by: Total offshore Ireland is 714,896.9 sq km (geodesic); Licence authorisations 52,697.5 sq km

When Deputy Ryan was the Minister of the Department with responsibility for oil and gas exploration in 2008, he approved Providence's application for an authorisation over Barryroe in 2008 (initially as a Licensing Option) with the objective of carrying out further technical evaluations to advance the field to commerciality and development.

Since the award of the initial Licensing Option (and the subsequent conversion to a Standard Exploration Licence), Providence has invested over €60 million in progressing Barryroe towards commerciality.

This investment has included the acquisition of 3D seismic, increasing equity in the licence, the drilling (and testing) of a well followed by extensive post well evaluation studies and subsequent commercial discussions, which has led to a commercial transaction which is designed to take Barryroe through development and on to production.

Highlights include:

The acquisition of 3D seismic data in 2011. **RNS – July 4, 2011**

<http://www.providenceresources.com/sites/default/files/providencecompletesbarryroe3dseismicsurvey.pdf>

Increasing equity in SEL 1/11 in 2011. **RNS – December 23, 2011**

<http://www.providenceresources.com/sites/default/files/sel1-11-increaseinequityinbarryroe.pdf>

The drilling and testing of an appraisal well (48/24-10Z) in 2012, with demonstrated flow rates of 3,514 barrels of oil per day ("BOPD") and 2.93 million standard feet of gas per day ("MMSCFGD") or cumulatively c. 4,000 barrel of oil equivalent per day ("BOEPD"). **RNS – March 15, 2012**

<http://www.providenceresources.com/sites/default/files/barryroewelltestresults15-03-12-final.pdf>

The testing of an upper gas reservoir that achieved flow rates of c. 7 million standard feet of gas per day ("MMSCFGD") and 1,350 barrels of oil per day ("BOPD") or cumulatively 2,516 barrels of oil equivalent per day ("BOEPD"). **RNS – March 23, 2012**

<http://www.providenceresources.com/sites/default/files/barryroedst1bresults-march23rd2012.pdf>

In July 2012, Providence published the oil in place figures for Barryroe with a range of 1,043 million barrels of oil ("MMBO") (P50) to 1,612 million barrels of oil ("MMBO") (P10) from the 2 main reservoirs (Middle Wealden & Basal Wealden) and indicated that there was further upside volumetric potential in the hydrocarbon bearing Lower Wealden and Purbeckian sands, as well as in the deeper upper Jurassic exploration objectives. **RNS – July 25, 2012**

<http://www.providenceresources.com/sites/default/files/barryroe-oilinplaceresourceupdate-july2012-finalmaps.pdf>

Following post well analysis of the 48/24-10Z well, and incorporating all newly acquired data, an independent resource audit was carried out by Netherland Sewell & Associates Inc ("NSAI") in 2013, which confirmed Barryroe 2C ("best estimate scenario") Recoverable resources of 346 million barrels of oil equivalent ("MMBOE"). **RNS – April 5, 2013**

<http://www.providenceresources.com/sites/default/files/barryroeoilfield-technicalupdate-resourceaudit.pdf>

As already referred to (in 1. above) , following the signing of a major commercial transaction in March 2018, which will see substantial Foreign Direct Investment exceeding \$150 million initially, Barryroe is now the subject of a pre-development drilling programme being planned for 2019 to define the forward development of the field to commerciality and on to first oil production. **RNS – March 28, 2018**

http://www.providenceresources.com/sites/default/files/BARRYROE%20FARM%20OUT%20DEAL%20AGREED%20-%20MARCH%202018%20-%20FINAL%20%281%29_0.pdf

3. Deputy Eamon Ryan’s comment that we do not have formations like they have in the North Sea:

“They thought they were going to find all sorts of everything but he (Colin Campbell) said we are geologically unlucky because, unfortunately, we do not have the formation that they have in the North Sea. It is all a gamble. All the talk about great prospects there usually come from people who are trying to raise money to spend and get a good cut for themselves in the process. I am not saying this about the Department, but he is the best geologist I have ever heard and he says, unfortunately, there is nothing out there.”

Clarification regarding formations

I draw the Committee’s attention to my previous answer (in 2. above) which describes the independently audited oil resource base at Barryroe and the stated plans for its future development, which clearly show that Ireland does have substantial resources – to be clear, Barryroe, with recoverable resources of 346 million barrels of oil equivalent (“MMBOE”), would rank as a large field in the North Sea.

Clarification regarding geological prospectivity & potential offshore Ireland

Various internal and external reports on the prospectivity of offshore Ireland have been commissioned by the Department and/or by the industry. These reports do not support the premise that *“there is nothing out there”* and this is certainly evidenced by the significant increased levels of licence activity, the significant level of investment by international oil and gas companies, the wells drilled to date and the wells being planned for the future.

Specifically, the Committee should be made aware of the following:

• **Petroleum Systems Analysis of the Rockall and Porcupine Basins**

The *“Petroleum Systems Analysis of the Rockall and Porcupine Basins Offshore Ireland, Digital Atlas, PAD Special Publication 3/06”* was published by the Department in 2006. This report highlighted the substantial resource potential offshore Ireland amounting to 8 billion barrels of oil equivalent (“BBOE”) Yet to Find (“YTF”) Recoverable Resources. Relevant extracts include:

“Recent discoveries highlight the potential for major plays along the Rockall Basin margins, whilst earlier discoveries in the Porcupine Basin demonstrate the presence of an active hydrocarbon system, with substantial potential for oil and gas.”

“The presence of an active petroleum system in Atlantic Ireland is demonstrated by numerous shows and several discoveries. These include the Dooish gas condensate discovery on the northeast Rockall margin, the Corrib gas field in the Slyne Basin and Jurassic discoveries in the Porcupine Basin. Further indications of hydrocarbons are seen with the presence of gas chimneys and seeps in areas not yet explored.”

“The presence of organic-rich oil-prone Jurassic mudstones is inferred in Rockall, whilst Upper Jurassic Kimmeridge Clay equivalent mudstones are known to be present and mature for

hydrocarbon generation in the Porcupine Basin. Regional 3D basin modelling demonstrates the potential for generation and expulsion of substantial volumes of hydrocarbons from these source horizons, with generation still continuing at the present time.”

“Seven major plays are recognised. The greatest potential is expected to be located in Jurassic and pre-Jurassic reservoirs in tilted fault blocks developed along the margins of both Porcupine and Rockall basins. Additional potential is recognised in post-rift stratigraphic and structural plays in Cretaceous and Tertiary sediments.”

“In summary, Atlantic Ireland offers substantial potential for hydrocarbon accumulations in a variety of plays, in essentially unexplored frontier basins.”

“Yet to Find Summary – Atlantic Margin (Porcupine + Rockall)

Un-risked –total in-place = 162 billion barrels of oil equivalent (“BBOE”)

Un-risked – total recoverable resources – 74 billion barrels of oil equivalent (“BBOE”)

Risked – total recoverable Resources – 8 billion barrels of oil equivalent (“BBOE”)”

- **Other discoveries made**

In addition to the Kinsale, Corrib and Barryroe fields (all described in 2. above), the Committee should be made aware that there have been numerous other discoveries (such as Spanish Point, Connemara, Helvick, Dooish, Hook Head, Schull, Old Head, etc) which have not, to date, been declared commercial.

Each of these discoveries have their own particular characteristics as to why they have yet to be either declared commercial and/or developed - but that is not to say that they will not be – and indeed a number of these assets are now the subject of further technical and commercial evaluations with the objective of commercialisation of these Irish resources.

- **Dunquin North**

Dunquin North is one of two large structures (the other being Dunquin South) located in Frontier Exploration Licence (“FEL”) 3/04 in the Porcupine Basin, in which Providence holds a 26.846% working interest.

The 44/23-1 well was drilled on the Dunquin North prospect in 2013 by a consortium operated by ExxonMobil. The 44/23-1 well encountered a massive porous over-pressured Lower Cretaceous carbonate reservoir. Whilst the 44/23-1 well was not deemed commercial, as the first well drilled in the southern Porcupine Basin, it did prove the presence of an active oil prone system in the southern Porcupine Basin and so it has significant implications for the yet to be drilled Dunquin South prospect as well as the overall prospectivity of the southern Porcupine Basin. **RNS – July 6, 2015**

<http://www.providenceresources.com/sites/default/files/operationalupdate-dunquinnorthwell-22july2013.pdf>

The information obtained from the 44/23-1 well is also acknowledged by global industry participants as being instrumental in driving industry interest in the 2015 Atlantic Margin Licensing Round.

During 2017, the Dunquin JV partners, led by now operator Eni, licenced new 3D seismic data over both the Dunquin North and Dunquin South prospects. **RNS – April 3, 2017**
www.providenceresources.com/sites/default/files/RNS%20-%20FEL%203-04%20%28DUNQUIN%29%20-%20Operational%20Update%20-%20CGG%203D%20Seismic%20-%20FOR%20RELEASE.pdf

This new 3D data has confirmed a clear breach structure over the Dunquin North prospect and yet the data shows no such similar structure over the undrilled Dunquin South prospect (1.389 BBOE REC Pmean), thereby substantially de-risking the Dunquin South prospect for future exploration drilling. **RNS – July 20, 2018**
www.providenceresources.com/sites/default/files/Technical%20Update%20-%20FEL%203-%2004%20DQS%203D%20Seismic%20Update.pdf

- **2015 Atlantic Margin Licensing Round**

This offshore exploration licensing round was the most successful in the history of the State as confirmed by the Minister of State Seán Kyne TD in his speech at 2016 Atlantic Ireland Conference, November 1, 2016, where he stated:

“Turning to the outcome of the 2015 Atlantic Margin Licensing Round. At its close in September 2015, 43 applications for licensing options were received from 17 companies. This was by far the largest number of applications received in any licensing round held in the Irish offshore, almost triple the number of applications received under the 2011 Atlantic Margin Licensing Round. The applicant companies included majors, mid-cap companies and smaller companies. To be honest, while we knew that there was a strong industry interest in the round, the response far exceeded expectations.”

“Given the large number and complexity of overlapping competing bids, and in order to respond to industry needs, evaluation of applications was split into two phases. The first phase focused on an area in the southern Porcupine Basin, where a number of applications included commitments to acquire new seismic surveys in 2016.”

“The second phase involved consideration of the remaining areas applied for. By June of this year, 28 new Licensing Options had been awarded to 17 companies. Already we have seen companies actively pursue work programme commitments on the new Licensing Options with a significant level of 3D data acquisition already undertaken in 2016.”

“The outcome of the Round is a further positive signal of the building momentum in oil and gas exploration offshore Ireland.”

<https://www.dccae.gov.ie/en-ie/news-and-media/speeches/Pages/2016-Atlantic-Ireland-Conference.aspx>

- **Licensing Authorisations offshore Ireland**

Finally, the map showing the licensing authorisations issued offshore Ireland (as of March 31, 2018) clearly demonstrates the industry’s significant interest in offshore Ireland. This map is also attached in **Appendix A**.

https://www.dccae.gov.ie/documents/A0_Concesion_Map_31Mar2018.pdf

Clarification regarding the conduct of the industry

The comment that companies talk about great prospects “to try to raise money and get a good cut for themselves in the process” is not true and is unwarranted. The companies operating offshore Ireland

are professionally run companies who adhere to some of the highest HSEQ and corporate governance standards.

4. Deputy Brid Smith's comment on Providence finding 5 billion barrels, where she stated:

"Last Year, Providence Resources suggested that it might find some 5 billion barrels of oil in our oceans; it did not but we can hypothesise that it did. When burned, those 5 billion barrels would have resulted in approximately 1.5 billion tonnes of CO2. The Druid and Drombeg field alone could, therefore, potentially have produced the equivalent of all of Ireland's greenhouse gas emissions at 2016 levels for at least the next quarter of a century."

Clarification regarding 5 billion barrels

Providence did indeed state that the Druid and Drombeg reservoirs, if hydrocarbon bearing, could contain in place un-risked prospective resources of up to 5.095 billion barrels of oil ("BBO") PMean.

RNS – April 22, 2016

www.providenceresources.com/sites/default/files/Technical%20Update%20RNS%20-%20Exploration%20Collaborative%20Project%20-%20Druid%20%20Drombeg%20-%20April%202016.pdf

However, to clarify, if the prospects were to be oil bearing, and after risking and taking into account recovery factors of circa 35% of the in-place resources, the quoted recoverable resources would be much smaller than the in-place un-risked prospective – so circa 1.78 billion barrels of oil ("BBO") recoverable compared to 5 billion barrels.

Further, as stated by the International Energy Agency ("IEA") on June 26, 2018, it is worth noting that a large proportion of oil is never combusted, and so it is highly unlikely that all oil from Druid & Drombeg (if it had been oil bearing) would have been converted to CO2.

Additionally, as oil consumption is demand-led by end users, any oil from Druid & Drombeg would not have created any net increase of CO2 globally and would have actually reduced global CO2 emissions by displacing non-EU oil sources, which have a higher carbon footprint, due to transport and lower operating standards and efficiencies. This further supports the premise that if Ireland is going to continue to need to use fossil fuels (where the facts and figures provided confirm that it does), it is better for the environment to use our indigenous resources, than import from elsewhere.

5. Deputy Eamon Ryan's comments that Barryroe is not economical:

"I remember newspaper headlines all over the world at the time about the luck of the Irish, leprechaun gold at the end of the rainbow and how we were going to have a bonanza. It (Barryroe) has not come ashore because it is not economical. Operating in deep waters is expensive. The Celtic Sea is not even that deep. Indeed, its waters are fairly shallow. Every year, we are promised that it is about to be sold or a partner is about to buy into it. It has been seven years and we are still waiting. It is all a speculative bubble."

Clarification regarding Barryroe economics

This is factually incorrect. As stated (in 2. above), Providence announced a major commercial transaction in March 2018 that will see a partner come into Ireland and invest substantial money in the development of Barryroe, clearly demonstrating that it is economical.

6. Deputy Eamon Ryan's question regarding the costs of oil extraction in Ireland:

"What is the estimated cost of a barrel from Irish waters?"

Clarification regarding the cost of extraction in Ireland

Providence is happy to provide clarification for the Committee on this, as the Department updated and issued a report in 2009 on the estimated costs of oil extraction offshore Ireland.

This report was entitled "*DCENR PIP Cost Effective Field Development Study for Atlantic Ireland Basins, 2009 Update*" and the main findings are summarised below:

"1. Executive Summary

Offshore Ireland offers a number of prospective basins, with the potential for major oil and gas discoveries. The fiscal terms are very attractive, with a mildly progressive profit-based taxation regime. Its position at the edge of the European gas market means that any gas discoveries can feed the short markets in Ireland and, in the event that sufficient gas is produced to satisfy the Irish market, possibly the UK, and thus command a location premium over mainland Europe prices.

"This report seeks to establish the commerciality of a number of example discoveries located in the Atlantic waters offshore Ireland, using 2009 conditions for hydrocarbon prices and development costs. The work shows clearly that the example scenarios would all be attractive developments once discovered, and that their attractiveness has only been slightly impaired by the introduction of additional progressive profit taxes in 2007.

"1.1 Scenarios evaluated

A spectrum of different oil and gas discovery development scenarios were modelled for 10 different black oil, dry gas and rich gas condensate discoveries. Overall reserve sizes ranged from 25 million barrels of oil equivalent ("MMBOE") to 750 million barrels of oil ("MMBOE"), in a variety of locations and water depths, matched to the potential prospectivity in each basin.

"1.2 Economic results

The scenarios were evaluated at three oil price cases (in real terms - \$50 / 75 / 100 per barrel ("BBL"), together with three beach gas price cases (in real terms - \$5.50 / 8.00 / 10.50 million British Thermal Units ("MMBTU")). Investment metrics were calculated for each case, together with the impact of the 2007 budget changes.

"In summary, the projects modelled generally looked attractive. All of the projects had rates of return in excess of 25% nominal for the mid-price scenario and greater than 15% nominal using the low price scenario. The Discounted Profitability Indices look attractive, generally above 2.0 in the mid case price scenario (the Discounted Profitability Index or DPI, is calculated as NPV generated from the investment / NPV of the investment). The results for the mid- price case (\$75 / bbl real) are summarised in Table 1-2 below:

Case	boe	Revenue	CAPEX exc. Abandon	OPEX exc. Tariffs	Pre-tax NCF	Field PRRT rate	Maximum PRRT rate	Total taxes	Post-Tax NPV10	NPV10/boe	IRR %	DPI
	MMboe	\$mm	\$mm	\$mm	\$mm	%	%	\$mm	\$mm		%	Index
Field 1A	400	44,588	4,200	5,137	33,173	7.9%	15.0%	10,898	4,666	11.67	29.6%	3.1
Field 1B	749	84,910	7,077	9,075	64,783	8.9%	15.0%	22,003	8,987	11.99	32.2%	3.4
Field 1C	317	23,548	2,128	1,259	19,480	8.5%	15.0%	6,528	4,488	14.14	57.6%	4.7
Field 1D	391	27,170	3,016	2,701	21,057	6.7%	15.0%	6,670	4,026	10.29	37.2%	3.4
Field 2A	125	13,779	1,632	2,184	9,299	4.8%	10.0%	2,775	1,333	10.66	27.3%	2.5
Field 2B	474	39,616	2,489	4,746	31,138	10.6%	15.0%	11,092	5,005	10.56	42.4%	4.4
Field 3A	172	10,588	1,963	965	7,484	2.4%	5.0%	2,049	1,814	10.55	34.6%	2.4
Field 3B	86	5,284	905	395	3,726	2.7%	10.0%	1,034	909	10.57	36.3%	2.6
Field 3C	43	2,563	514	299	1,598	1.8%	5.0%	428	455	10.57	40.4%	2.3
Field 3D	21	1,242	255	174	602	0.8%	5.0%	155	183	8.52	34.5%	1.9

Table 1-2: Mid-price case results

Based on the data provided in table 1-2, the estimated cost of extraction for an Atlantic Margin development ranges between \$15 to \$31 per barrel of oil equivalent (“BOE”).

To clarify, the oil price in 2009 ranged between \$53.48 per barrel and \$60.91 per barrel. In 2018 to date, the oil price has ranged between \$65.32 per barrel and \$76.98 per barrel.

Clarification regarding the cost of extraction for Barryroe

The estimated cost of extraction from Barryroe ranges between \$15 to \$20 per barrel.

Clarification regarding the costs of extraction for Providence’s assets in the Porcupine Basin

In the deeper Porcupine Basin, the specific breakeven costs for each of Providence’s assets will depend on a number of factors including hydrocarbon type, field size and productivity, but Providence’s assessment of extraction costs range between \$15 to \$35 per barrel of oil equivalent (“BOE”) for deep-water oil and gas prospects in the Porcupine Basin.

It should also be noted by the Committee that this operating cost range underpinned Providence’s investment decision to conduct exploration drilling activities in the Porcupine Basin, where it has drilled 2 wells in the past 5 years:

- **Dunquin North**
Operated by ExxonMobil, the 44/23-1 well was drilled in 2013. The partners were ExxonMobil, Eni, Repsol, Providence, Atlantic Petroleum and Sosina.
- **Druid & Drombeg**
Operated by Providence, the 53/6-1 well was drilled in 2017. The partners were Total, Cairn, Providence and Sosina.

7. Commentary that it would be better to invest on wind energy rather than betting on oil and gas exploration:

“Let me get to the fundamental point. Rather than betting on the Irish stock market and offshore gas exploration, in respect of which there is no certainty and a chance of success of up to 40:1, should we not invest the same amount of money in wind energy generation off the west coast and in the Irish Sea and further interconnections?”

Clarification regarding investment

Providence would like to clarify for the Committee that the investment in oil and gas exploration, development and production in Ireland is made by private enterprise, with no funding, nor PSO levy, from the Irish state. As such, it is not an “either or” scenario.

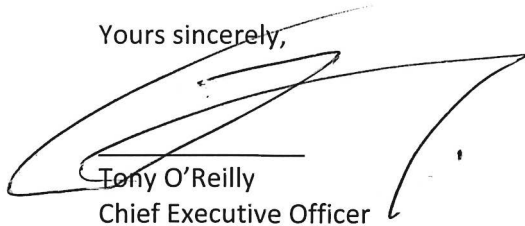
Indeed, as reported by the Irish Times on July 13, 2018, whilst not abandoning its core business of investing in Irish oil and gas exploration and development, Providence is even looking at the potential to expand its business base and this may include investments in renewables, subject to sustainable economic investment returns being achievable.

<https://www.irishtimes.com/business/energy-and-resources/oil-explorer-providence-looks-to-renewables-1.3563103>

I trust that the above points of clarification have been helpful to address questions and/or comments made at the hearings which apply to either directly to Providence Resources P.l.c. and or its licence interests.

As an Irish based and managed company, Providence is very proud to be the leading independent oil and gas exploration and development company focused on the development of Ireland’s natural resources.

Yours sincerely,

A large, stylized handwritten signature in black ink, appearing to read 'Tony O'Reilly', is written over the typed name and title.

Tony O'Reilly
Chief Executive Officer

APPENDIX A CONCESSION MAP

