

PEPANZ Questions and Answers – Oil and Gas Exploration

What does this decision mean to ordinary New Zealanders?

It means a lot of uncertainty in the future around our energy supply – for example, how to keep our hot water and heaters running. What is going to replace natural gas and how much it will cost households? What about extra costs to businesses, and what that means for prices and jobs?

There will also be real concern about the long-term future of jobs in Taranaki.

Aren't you at least pleased to have certainty?

Not really – it is such a surprise decision, with no consultation and no mention in any pre-election policy that it will shake international investor confidence in New Zealand.

Isn't this a relatively soft, gentle way to transition without much immediate effect on your industry or New Zealand?

It is pleasing that existing contracts will be honoured, and that onshore exploration will continue in Taranaki.

But it will hurt our future energy supply. There is only around 11 years left of known natural gas supplies in New Zealand and the most promising new fields are offshore.

So it's not just our industry concerned; it's the 280,000 homes, businesses, schools and hospitals that depend on it.

The way it has been handled will shake investor confidence in New Zealand.

Are you saying we shouldn't do anything about climate change then?

No – we just need to choose the right tool. We support the Emissions Trading Scheme (ETS) which is demand-focussed, targeting emissions which actually contribute to climate change.

Because petroleum is produced around the world, bans on exploration in New Zealand will do nothing to reduce emissions or reduce the world's supply or use of oil and gas.

Instead, other countries will produce it instead and we will have to import it at higher cost.

How could this be worse for the environment?

A ban on exploration here will simply mean New Zealand imports more fuel rather than producing it here ourselves. This would be a worse overall outcome for the environment given that overseas fuels are likely to result in higher emissions.

This is because New Zealand natural gas has half the emissions of coal, and oil produced here has a relatively lower emissions footprint than oil produced overseas.

Why should we keep exploring for oil and gas when we can't afford to burn half the world's known reserves of fossil fuels?

Because not all fossil fuels are the same. New Zealand natural gas has half the emissions of coal, and oil produced in New Zealand has a relatively lower emissions footprint than oil produced overseas.

If we don't explore and produce in New Zealand then the world is likely to use other sources, such as Canadian tar sands and Venezuelan bitumen with much higher emissions and often worse standards of human rights and health and safety.

What are the main differences between onshore and offshore drilling?

The largest identified resources (especially natural gas) are offshore, so this shuts the door on our biggest potential new resources. The onshore Taranaki area is already largely explored.

There is no difference in the emissions produced from onshore or offshore, so it is hard to see any logical reason to distinguish between the two.

Isn't offshore drilling too environmentally risky anyway?

The industry already operates offshore in Taranaki in a very safe and highly regulated way. We are proud of our track record with no major incident in the 50 years it has operated in New Zealand.

We plan meticulously and train our people well. It takes years to get approval and no project would ever get the go-ahead unless it could meet the highest safety standards around design, equipment and systems, training and safety barriers.

But you can't 100% guarantee the safety of offshore drilling?

No more than you can guarantee an airplane won't crash. It is highly unlikely and no project would get the go-ahead unless it could meet the highest safety standards.

If a guarantee of absolute zero risk is the required standard then pretty much no industry or human activity would ever be allowed.

Most of the public want to see stronger action on climate change?

Yes but this is the wrong tool. It will do nothing to reduce New Zealand's emissions or the global supply of oil and gas.

This is about showing moral leadership on climate change

We strongly agree that climate change is a major issue and we all need to reduce net emissions, but this policy will not achieve that.

But we don't believe it's worth doing something just for symbolism if it means a worse outcome for the environment and economy.

Didn't the Government consult with you at the Petroleum Conference last month?

No. The Minister's speech said a decision was a few weeks away, and that no decision had been made yet. The full speech is available at <http://www.scoop.co.nz/stories/PA1803/S00293/hon-megan-woods-speech-to-the-petroleum-conference.htm>

Wasn't this signalled clearly through Labour's policy of net-zero emissions by 2050?

Labour's energy manifesto specifically talked of an on-going role for the petroleum sector. For example: page 11 *"Labour supports the idea of environmental effects being considered at the Crown's initiative during, or prior to, the block offer process."*

And *"Not allow offshore petroleum drilling to occur unless high environmental standards and stringent safeguards are in place, as well as robust contingency plans."*

https://d3n8a8pro7vhmx.cloudfront.net/nzlabour/pages/8572/attachments/original/1505175664/Energy_Manifesto.pdf?1505175664

Any reasonable person or investor reading those comments would interpret that to mean Block Offers and offshore exploration would continue.

Those policy positions were not specifically over-ridden or contradicted by anything in the coalition agreements with the Green Party and New Zealand First.

Won't this help reduce the global supply of fossil fuels?

No. New Zealand is a small producer on the world stage making up 0.014% of global oil supply. If we stop producing overnight that would easily be made up by other markets.

Isn't this a dinosaur industry? How long do you think the oil industry has before it dies out?

Nearly every energy forecast still predicts an on-going role for oil and gas for decades to come. For example, the International Energy Agency forecasts oil and gas to still make up around half of the world's energy by 2040 and a 45% increase in demand for natural gas.

The world is growing, people are being lifted out of poverty (especially in Asia) and we'll need more energy from all sources, including renewable, to keep up.

Shell's *Sky Scenario* illustrates a technically possible, but challenging pathway for society to achieve the goals of the Paris Agreement through reduced emissions and the use of sinks: <https://www.shell.com/energy-and-innovation/the-energy-future/scenarios/shell-scenario-sky.html>

Aren't renewables the way of the future?

They will definitely grow but they have their own challenges to overcome around affordability, reliability and practicality.

As we say this week, coal was used for electricity generation to ensure security of supply following the interrupted gas supply from Taranaki. When the gas supply is affected, it is coal we use to keep the lights on, not wind or solar.

How important is oil and gas to everyday life?

Oil and gas are widely used in so many ways many people don't realise. Not just petrol for your car but in heating homes, industrial processes like milk plants, planes and ships to transport goods, and in all kinds of everyday products like plastics. That's not going to stop in a hurry.

Are your figures on employment a bit over-inflated?

No. The most recent study is The Wealth Beneath our Feet (Venture Taranaki) March 2015 which puts the figure at **11,720** jobs.

This includes 7,070 FTEs in Taranaki and the rest mainly in Auckland and Wellington.

It includes indirect and induced effects (i.e. without oil and gas these jobs would not exist.)

It would also be correct to say the employment number fluctuates as the industry goes through cycles, but this is still the most up to date figure we have.

What does this decision mean for Taranaki and the local workers there?

It is a real blow for Taranaki's future. There is still plenty of unknown and unallocated resources off the Taranaki coast, with a major seismic survey completed this summer. Available prospects on land are much more limited.

Not a lot of people work on the offshore rigs directly, but there are a lot of jobs involved in supporting those operations.

How is this unfair to industry?

It's similar to an individual who is encouraged to build a house by the Government and spends money on environmental assessments, meets with the local community and hires lawyers only to find the rules changed at the last minute with no warning.

Is it correct that natural gas isn't exported?

Natural gas is exported in the form of petrochemicals like methanol and urea (fertiliser). 48% of our gas is used this way, but without a reliable long-term future supply these industries will be at risk.

Isn't it unlikely that New Zealand could ever have the infrastructure to export liquid natural gas?

One of the key scenarios of the Barque prospect is directly exporting liquid natural gas overseas, so it is not an unlikely prospect. This could then be used to displace higher emitting fuels like coal, lowering the world's net emissions.

Investors would require long-term certainty though to make such a commitment.

How can there be job losses in the short-term if all the existing contracts will continue?

Our industry makes long-term decisions and to do that they need certainty. This completely undermines confidence in New Zealand as a place to invest and operate, and not just in the oil and gas sector.

Already we have heard of one company immediately placing a freeze on hiring any new staff and others already considering the possibility of a move to Australia.

Is the 'carbon leakage' argument false?

No. Carbon leakage occurs when policies in one jurisdiction shift production of traded goods elsewhere.

Methanol for example is a major user of natural gas and could be produced elsewhere to meet unchanged demand. Leakage to other jurisdiction would therefore be expected.

If we no longer produce the gas that we use domestically, this would be imported as long as it is economic to do so. LPG is currently imported from Australia for example.

This policy will reduce emissions – production of methanol can't just shift to China, because they now have a cap and trade policy limiting their emissions?

China has a limited cap and trade policy that applies only to electricity, so it won't stop methanol production moving offshore from New Zealand and using coal, resulting in higher emissions.

Even if it did apply, it would still be a very expensive policy likely to cost the New Zealand economy billions of dollars for what would be a relatively small reduction in emissions.

Importantly, there are other ways that ending exploration could increase emissions. If it means we have to import more coal or LPG to use instead of natural gas, there will be higher emissions resulting from both their transport (shipping) and consumption (coal has twice the carbon dioxide emissions of natural gas).

It also undermines the ability to discover more natural gas which could displace coal for industrial use both in New Zealand and around the world.

All of these reasons explain why the Ministry for Business, Innovation and Employment (MBIE) say that ending exploration will likely have a “negligible impact” on domestic emissions and likely to increase global net emissions.

With 32 existing permits, won't there be lots of gas coming online soon?

All 32 petroleum exploration permits have *drill commitments* or *surrender or partial surrender* commitments coming up in the next three years, so that's not a long time at all. And with exploration having an average success rate of around 10%, we should only expect about four discoveries.

That also assumes all current exploration permits are actually drilled, which is not typical. And then, companies need to decide to develop any commercial discoveries.

This kind of decision is also likely to have a cooling effect on permit holders' ability to attract the necessary investment to develop these resources. This in turn may further reduce the levels of activity under existing exploration permits.

So of the 32 petroleum exploration permits, not all will necessarily yield more production. It explains the importance of continued exploration and granting of permits, because exploration is the lifeblood of the sector.

It would be very risky to rely on hoping we strike it lucky within existing permits when we need energy to keep the lights on and keep New Zealand moving.

The last major gas discovery in New Zealand was Pohokura in 2000.

Doesn't New Zealand have many decades left on production permits?

Despite 2046 being mentioned, the only production permits with any reserves expires by 2036, with one ending in 2037. The several permits out to 2040s either have no reserves or are extremely small or used for reinjection for gas storage.

Gas will run out long before the permits do if we don't have a major discovery soon.

Won't reducing supply in New Zealand push up global prices and therefore reduce quantity-demanded?

Not really given that New Zealand is a tiny producer (0.014 of global supply). Also, OPEC has spare capacity of a few million spare barrels per day, with very low marginal costs of production so other producers can fill that demand easily.

Won't ceasing exploration here send a signal for other countries to do so?

Even if we imagine that some other countries followed suit, major reserve holders like Russia, Venezuela and Arab states are highly unlikely to cease exploration and production given there is growing consumer demand.

This is especially unlikely given their economies are heavily reliant on oil revenues and their undemocratic Governments are unlikely to respond to popular pressure.