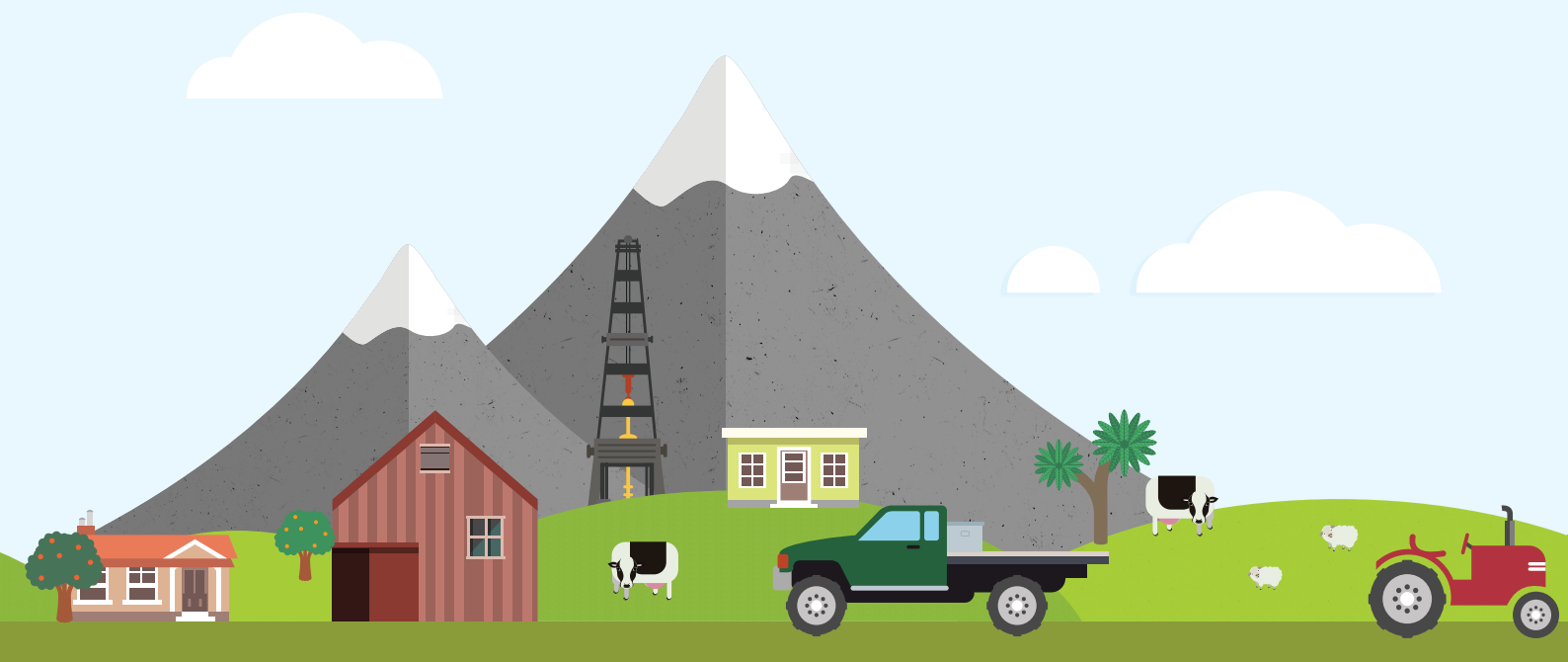


BRIEFING TO THE INCOMING MINISTER OF ENERGY AND RESOURCES

November 2017





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EXECUTIVE SUMMARY

Oil and gas production plays a vital role in New Zealand's energy system, society and economy, and supports the transition to net-zero emissions.

The energy they provide is a fundamental part of our daily life. It is used to move people and goods, to heat our homes, cook our food and create a huge range of essential goods from fertilisers to medical supplies and cosmetics. As we saw with the recent rupture of the fuel pipeline to Auckland, any disruption in supply can potentially have major impacts on people's lives.

As an industry we recognise the role we must play in reducing emissions, both in New Zealand and at a broader global level. The further development of petroleum in New Zealand can support this through efficient production and providing gas to businesses and markets currently heavily reliant on higher emitting coal.

The upstream oil and gas sector annually contributes over \$2.5 billion to New Zealand's GDP, and every year the Government collects approximately \$500 million from royalties and income tax from the sector. Oil exports are worth approximately \$1.5 billion per annum.

Our industry is especially important to the Taranaki region where it is a major part of the local economy and community. However this is just one of 17 sedimentary basins around New Zealand, and discoveries in other areas could be transformational to both our national and regional economies.

Oil and gas resources are owned by the Crown on behalf of all New Zealanders. PEPANZ, therefore, strongly believes all New Zealanders should benefit as much as possible from their appropriate development and use as part of the evolving global energy mix.

Our industry is also deeply committed to strong health and safety and environmental practices and supports having a robust and workable regulatory framework.

At a broad level New Zealand has good policy settings, however there are some strategic and regulatory issues for the new Government to consider.

In a highly competitive world where capital is increasingly mobile, it is vital that New Zealand has enabling and stable policy settings, a world class regulatory environment, and good information available on the geology of its prospective petroleum basins. Only then will New Zealand's petroleum sector maximise its contribution to regional economic growth, national prosperity and global energy sustainability.



HOW OUR INDUSTRY CAN HELP THE NEW GOVERNMENT ACHIEVE ITS GOALS

Labour–NZ First Coalition Agreement

Policy Goal	Our Role
Sustainable economic development	The upstream oil and gas sector contributes over \$2.5 billion to GDP. Potential to grow this through increased exploration and production.
Regional economic development	Oil and gas production accounts for 41 percent of Taranaki's regional GDP, and there are potentially resources of scale in other regions such as off the east coasts of both the North and South Islands.
Decent jobs paying higher wages	The industry creates 11,000 jobs nationally and many of these jobs are highly skilled and specialised. Oil and gas workers earn twice the national average salary.
Increased exports	Oil exports are worth approximately \$1.5 billion per annum. Potential to grow this as the world oil price improves and we move to the export of gas.



Labour–Green Confidence and Supply Agreement

Policy Goal	Our Role
Net Zero Emissions Economy by 2050	Natural gas generates the least emissions of any fossil fuel (half that of coal). By producing and exporting more natural gas we can help the world lower its overall emissions by enabling less use of coal.
Aim to end energy poverty in New Zealand and ensure that every New Zealander has a warm, dry, secure home, whether they rent or own	Natural gas provides affordable power to 268,000 homes, businesses, industries and community facilities. Direct use of gas is more efficient and can be cheaper than electricity for some consumers.



Labour-Green Confidence and Supply Agreement (continued)

Policy Goal	Our Role
Reduce poverty and inequality	Our industry has generated around half a billion dollars in royalties and income tax for the Crown annually in recent years. There is potential to grow this figure and create jobs in regions as oil prices recover, and especially if major new developments take place.
Look to establish a Taranaki blue whale sanctuary	We are keen to see evidence-based, consistent, fair and stable policy settings for the use and protection of the marine environment.

New Zealand Labour Party - Energy Manifesto

Policy Goal	Our Role
A just transition swiftly but smoothly towards a fully renewables-based energy system that is affordable, sustainable and reliable	Natural gas generates the least emissions of any fossil fuel, underpins large-scale commercial and industrial activity and is an important backup for electricity generation. It will remain an important part of the world's energy mix and help in the transition to net-zero emissions.
Most known fossil fuel reserves must be kept in the ground	By producing and exporting more natural gas we can help the world lower its overall emissions by displacing coal – a win-win situation for the economy and the environment.
Ensuring security of electricity supply	Natural gas is an important supplement and back-up for renewable energy sources which can be vulnerable to uncertain supply (e.g. daily peaking requirements and dry years affecting hydro power).
A switch from coal to cleaner fuels	Natural gas discovery and production in the South Island and elsewhere could allow industrial use to switch away from coal.
Upgrading environmental standards	We strongly support high quality health and safety and environmental practices.





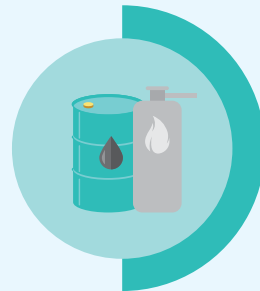
**A GROWING WORLD
POPULATION MEANS WE WILL NEED
MORE ENERGY FROM ALL SOURCES**



**OUR INDUSTRY
CREATES
11,000
JOBS**

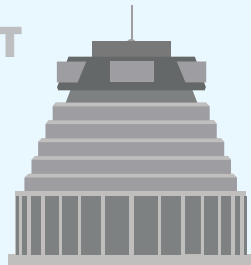


**NATURAL GAS POWERS
268,000
HOMES, BUSINESSES AND
COMMUNITY FACILITIES**



**HALF OF
OUR ENERGY
COMES FROM
OIL & GAS**

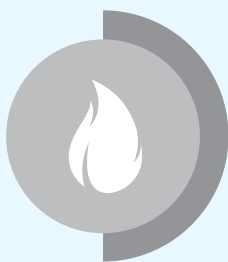
**THE GOVERNMENT
COLLECTS
APPROX. \$500m
IN ROYALTIES
AND INCOME TAX**



**NZ MAKES UP 0.2%
OF GLOBAL EMISSIONS**



**OUR INDUSTRY
CONTRIBUTES
\$2.5b
TO NEW ZEALAND'S
ECONOMY**



**NATURAL GAS HAS
HALF THE
EMISSIONS
OF COAL**



NEW ZEALAND
NATURAL GAS 
CAN HELP THE WORLD

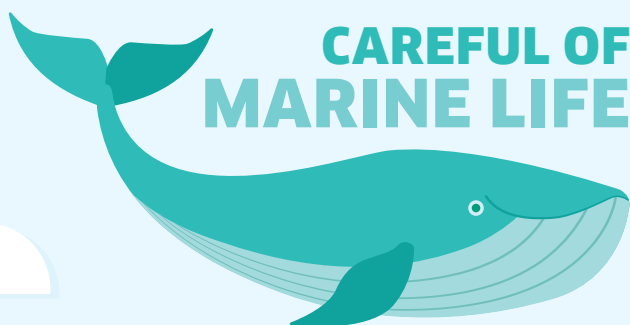
LOWER
ITS EMISSIONS



READY TO
DEAL WITH
UNLIKELY
SPILLS



A SMALL, MODEST
ENVIRONMENTAL
FOOTPRINT



CAREFUL OF
MARINE LIFE



STRONGLY REGULATED FOR
HEALTH, SAFETY
& ENVIRONMENT
BY GOVERNMENT AGENCIES

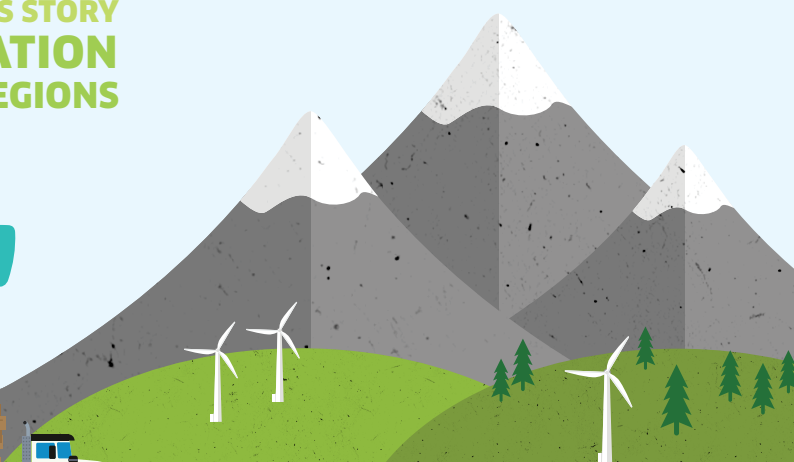


HALF OF
OUR EMISSIONS
COME FROM
ANIMALS



TARANAKI
A GREAT SUCCESS STORY
AN INSPIRATION
FOR OTHER REGIONS

EXCELLENT
TRACK RECORD



WHY OUR INDUSTRY IS IMPORTANT TO NEW ZEALAND AND THE WORLD

In Our Daily Life

The energy provided by oil and gas is a fundamental part of our daily life. It is used to move people and goods, heat our homes and water, cook our food and create a huge range of essential goods from fertilisers to medical supplies and cosmetics.

Natural gas powers 268,000 homes, businesses, industries and community facilities like schools, hospitals and swimming pools. It also provides a reliable, cost competitive and clean burning fuel for electricity generation, functioning as an important back-up to renewable energy which can be vulnerable to inconsistent supply.

Currently around half of global energy comes from oil and gas and this is the same for New Zealand. As we saw with the recent rupture of the fuel pipeline to Auckland, any disruption in supply can potentially have major impacts on people's lives.

New Zealand is a net importer of oil and oil products, which means increased domestic production would improve our self-sufficiency (currently only around 35%), boost exports and improve our balance of payments.

New Zealand is self-sufficient in natural gas with our natural reserves currently forecast to last for another 10 years. This means further exploration and development are continually needed, otherwise we are likely to need to import gas from overseas in the form of LNG. This would hurt our energy self-sufficiency and increase energy prices for consumers and businesses.

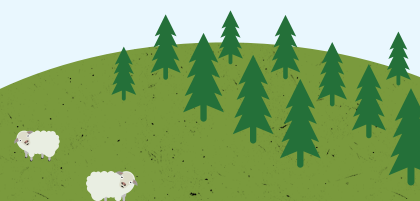
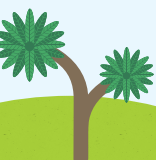
This emphasises the importance of continued exploration and development through the annual Block Offer to ensure we keep up with our energy needs.

Tackling Climate Change

Reducing greenhouse gas emissions (including carbon dioxide) is a critical global issue that requires worldwide engagement and action.

Our industry absolutely recognises the profound challenges this presents and the need to reduce our carbon footprint. Meeting the goals of the 2015 Paris Agreement will require the world to find ways to reduce net emissions across all aspects of the economy and society by:

- using energy more efficiently
- transitioning from higher carbon energy sources (such as coal) to lower-carbon sources (such as natural gas)
- exporting lower carbon energy sources to areas without access to sufficient domestic supplies
- significantly increasing renewable energy in the global energy mix
- deploying new technologies such as electric vehicles
- improving efficiency standards for other vehicles
- capturing and storing carbon dioxide and other emissions
- managing methane emissions
- offsetting emissions (e.g. reforestation and new planting).





At the same time, demand for energy is growing strongly as the world population increases, economies develop, living standards increase and we become more urbanised.

While there is no doubt the world's energy mix will change significantly, to meet this demand we will need to produce and use more of most energy sources over the coming decades.

Natural gas will be an important transition fuel as the world seeks to reduce greenhouse gas emissions because it generates the least CO₂ of the fossil fuels while retaining the advantages of security and flexibility. It can be instantly available at scale, offsetting the intermittency of supply by solar, wind and hydro power – the sun does not always shine and the wind does not always blow.

This is why the International Energy Agency forecasts that demand for natural gas will increase by 45% by 2040.

Around the world, significant amounts of electricity is generated by coal fuelled power stations (approximately 40% globally) and they are still being constructed at a rapid rate in some countries. The substitution with natural gas (which has half the carbon emissions of coal) in electricity is one of the fastest, lowest cost and most secure routes to reducing emissions for many countries.

This is the reason why overall US emissions have declined in six out of the past 10 years, and energy-related CO₂ emissions in 2016 were 14% below 2005 levels.

The UK is also switching from coal to natural gas in electricity generation as a key part of their efforts to reduce emissions under their Climate Change Act.

Therefore it's important to take a global view of greenhouse gases, rather than a purely national view. This recognises that while New Zealand makes up just 0.2% of global emissions, by producing and exporting more natural gas we can help the world lower its overall emissions by displacing coal – a win-win situation for the economy and environment.

For example, the recent report by New Zealand Oil and Gas into the Barque prospect off the east coast of the South Island estimates it could contain reserves of up to five trillion cubic feet of gas. By our calculations, if a gas resource of this size was used to displace coal globally the reduced emissions would be equal to five years of New Zealand's energy and transport emissions.

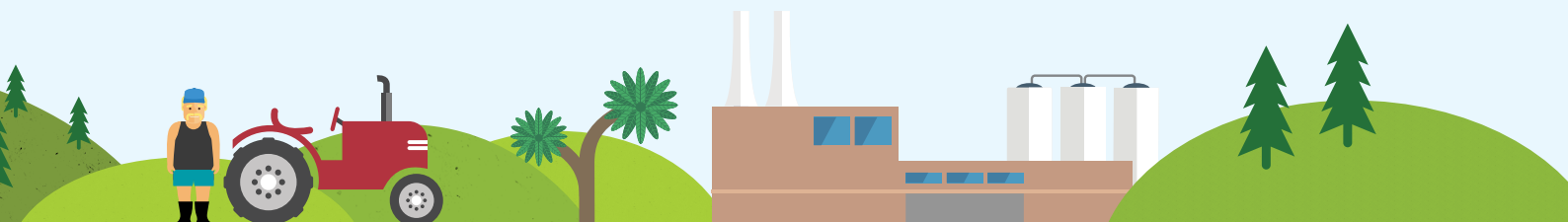
It is often stated that the world cannot afford to burn all the known reserves of fossil fuels and meet the Paris targets. While this is technically correct, it is somewhat misleading as it doesn't take into account the potential benefits from substituting natural gas for coal. Many of the world's existing fossil fuel reserves are coal or high emission petroleum (e.g. oil sands and extra heavy oil). This is why it is still crucial to search for and develop new gas reserves which could replace known coal reserves around the world – as illustrated by the Barque example above.


What ultimately matters for climate change is how much of each fossil fuel is burned, how many emissions are created to produce that fuel and the extent to which emissions are captured. With a clear and consistent policy on emissions, over time new reserves of cleaner and more efficient hydrocarbons should displace less efficient existing reserves.

This is why we support the ETS as the consistent primary mechanism for managing emissions, rather than arbitrary and distortionary ad-hoc policy approaches.

In taking measures to reduce emissions domestically, New Zealand has to be very mindful of 'carbon leakage'. Aside from the economic costs to New Zealand, this could cause a net increase in global emissions if our production (e.g. of steel, oil or methanol) is more carbon-efficient overall compared to that which might otherwise take place overseas.

The emissions associated with producing oil and gas in New Zealand are already subject to emissions charges through the emissions trading scheme, which is not the case for much of the world's oil and gas production.





Accordingly, we have an incentive to reduce and/or offset our emissions which may not be present elsewhere.

It's also worth noting New Zealand's unique emissions profile, with around half being produced by agricultural animals. There needs to be a fair and consistent focus on all emission sources.

Economic and Social Development

Even with current low global prices for oil, the upstream oil and gas sector still contributes around \$2.5 billion to New Zealand's Gross Domestic Product (GDP). The Government collects approximately \$500 million in royalties and income tax from the sector annually, and oil exports are worth approximately \$1.5 billion per annum.

This revenue is used by the Government to pay for important services for all New Zealanders like health, education and social support.

As market prices improve and new development takes place, these returns to the Crown and New Zealanders will only increase.

The industry generates 11,000 jobs nationally and many of these jobs are highly skilled and specialised. In fact, oil and gas workers earn twice the national average salary, money that is spent in local communities.

Gas is also an essential feedstock for many industrial activities, such as methanol production and urea fertiliser for agriculture – industries that simply wouldn't exist in New Zealand without a consistent, growing and sustainable supply of reliable natural gas. Otherwise these products would need to be imported at greater cost to New Zealanders.

Gas also supports a range of economic activities that require heat, such as furnaces, milk drying, timber processing and steel production.

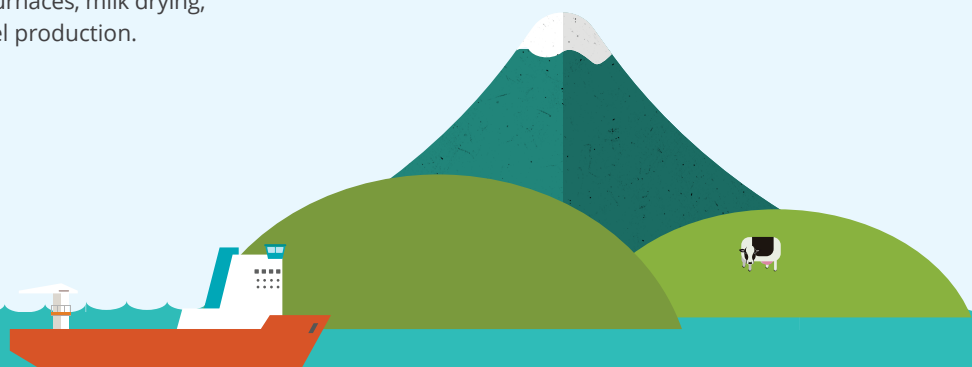
There is also scope for gas to displace higher emission coal-fired processes and heat applications.

Currently New Zealand's oil and gas production is concentrated in one region – Taranaki. The contribution the sector has made to Taranaki over the last fifty years has been profound. Oil and gas production has led to Taranaki having the highest regional GDP per capita in New Zealand, at over \$71,000 (compared to a national average of \$54,000). Oil and gas production accounts for 41 percent of Taranaki's regional GDP.

The Taranaki basin, however, is one of only 17 sedimentary basins that surround New Zealand and each of these other basins has the potential for oil and gas deposits. Analysis has shown that a significant find in just another basin could have a profound economic benefit, both in the region where the discovery is found as well as to the national economy.

For example, the recent study looking at the potential of the Barque prospect 60km off the coast of Oamaru shows it could have a transformational economic impact for the wider region. The option of bringing gas-to-shore could generate \$450 million in annual GDP from operations and \$700 million each year in Government royalties and taxes over the life of the field. Construction alone could create 5700 jobs per year and add \$7.1 billion to New Zealand's GDP.

For these benefits to be enjoyed in other regions however, there needs to be workable and consistent standards and guidance for local councils. Taranaki is currently updating its regional and district plans and provides a good example of how the industry can operate safely and sustainably to benefit and reflect the local communities in which they operate.



THE NORWEGIAN MODEL

AN EXAMPLE OF A STRONG OIL AND GAS ECONOMY

Petroleum has fundamentally transformed the Norwegian economy.

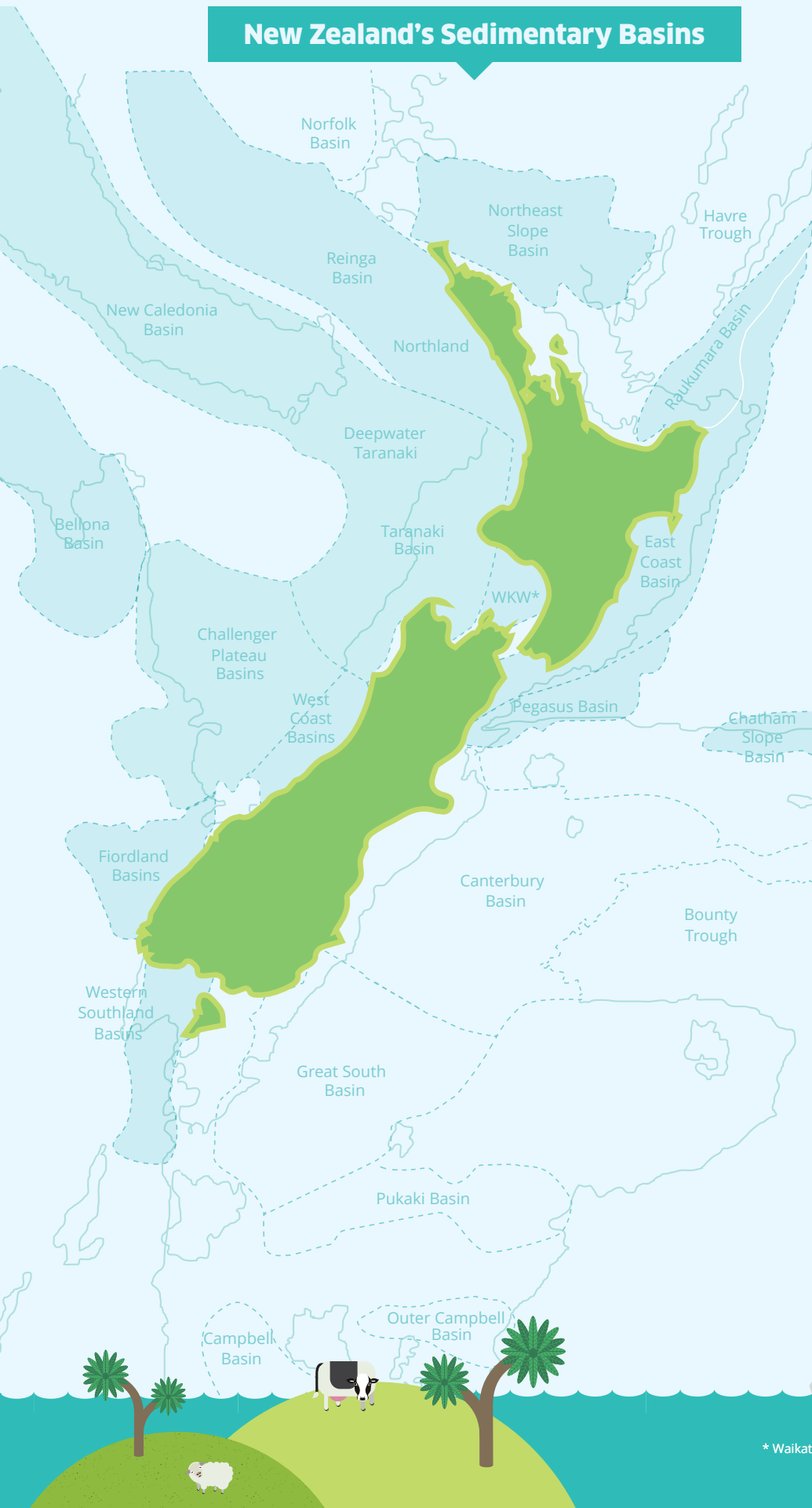
In many ways, Norway is like New Zealand, with around the same number of people and an extensive coastline and marine area. Oil was first discovered off Norway's coast in 1969, and this was followed by a number of major discoveries.

Petroleum exploration and the development of many offshore fields has fuelled economic growth and the benefits of this have contributed significantly to the funding of the Norwegian state and social services – lifting Norway from a middle income European country, to one of the wealthiest in the world, with extremely high living standards.

To ensure future generations benefit from their natural resources, Norway put aside a proportion of the revenue it receives from producing its petroleum reserves – building a massive sovereign fund valued at approximately \$US1 trillion, and which owns around one percent of global equity markets. By comparison, New Zealand's current GDP is around \$US185 billion.

Petroleum has also fuelled a services, engineering and construction industry to support the petroleum sector, with services to the petroleum industry also becoming a major earner and export industry for Norway.

New Zealand's Sedimentary Basins



* Waikato, King Country and Whanganui Basins

Meeting Global Demand

Global energy demand is enormous and will continue to grow as the world's population and economy grows. As people become wealthier, they consume more energy to enjoy the lifestyles afforded by the modern world.

Meeting this demand will require massive global investments in all forms of energy supply. While the use of renewables will grow significantly in some areas, they still face challenges around availability, supply and capital restraints. This means for the foreseeable future oil and gas will still be a cornerstone of world energy.

The International Energy Agency predicts that 50% of the world's primary energy demand will still be met by oil and gas in 2040, with the use of cleaner burning natural gas in particular expected to grow by 50% over that time. Around the world this will require massive investment in finding and developing gas resources to meet this demand and displace coal use, particularly in Asia.

New Zealand has the opportunity to meet this need for lower carbon energy through developing our natural gas resources, such as the Barque prospect off the Canterbury coast.

Industry Efforts to Improve Sustainability

While the vast majority of greenhouse gas emissions associated with hydrocarbons are created when energy-users consume energy products, oil and gas companies nonetheless have a role to play in mitigating emissions in the production of those products.

The industry is working to reduce emissions within its own operations through energy efficiency improvements and flaring, venting and fugitive-emissions reductions. A number of oil and gas companies apply internal carbon prices to appropriately inform their investment decisions.

PEPANZ has established a committee to further progress the sector's work in reducing emissions and achieving wider sustainability goals. We also recently joined IPIECA which is a not for profit association that provides a forum for encouraging continuous improvement in the industry's environmental and social performance.

IPIECA has worked to connect the oil and gas industry to the United Nations sustainable development goals, particularly Goal 7 (ensuring access to affordable, reliable, sustainable and modern energy) and Goal 15 (taking urgent action to combat climate change and its impacts).



RECAP: SO WHY SEARCH FOR AND DEVELOP NEW OIL AND GAS, GIVEN THE GOAL OF NET ZERO EMISSIONS BY 2050?

- Because oil and gas makes up around half of the world's energy supply and as the global population grows and develops we will need more energy from all sources.
- New Zealand has great potential to find and produce more natural gas which has half the carbon footprint of coal. This could be exported overseas, helping lower global emissions and giving a real boost to the New Zealand economy at the same time.
- Stopping exploration and production in New Zealand would have little impact on global emissions because production would simply shift elsewhere in the world, potentially to countries with lower environmental and social standards.
- If other sources of energy are used (such as coal) the outcome for the global environment could well be worse.
- We would have to import energy from overseas, weakening our energy self-sufficiency and balance of payments.
- We would also miss out on the economic benefits of exploration and production which could be significant – as shown by the Barque prospect off the coast of the South Island.
- With a clear and consistent policy on emissions, over time new reserves of cleaner and more efficient hydrocarbons should displace less efficient existing reserves.
- A lot of work is also going into how we can use fossil fuels more efficiently with lower emissions, investigating new technologies like carbon capture and developing energy from new sources, but this will take time.



A BACKGROUND TO OIL AND GAS IN NEW ZEALAND

Oil and gas are naturally found together and their production has a long history in New Zealand. In fact, the very first well in the British Commonwealth was drilled at Moturoa, on the New Plymouth foreshore, in 1865.

Over subsequent years, numerous other wells appeared but production was modest and sporadic. The development of new technologies, such as seismic surveying and deep rotary drilling, resulted in the discovery of the large onshore Kapuni gas-condensate field in South Taranaki in 1959. This discovery encouraged further exploration and allowed the development of a North Island gas transmission network, bringing gas directly to homes and businesses in nine urban centres including Auckland, Wellington and other regional centres.

In 1969, the massive Maui gas-condensate field was discovered. At the time, it was one of the largest offshore gas fields in the world and provided New Zealand with cheap and abundant gas for more than two decades following its commencement of production in 1979 and is still producing today. There are now approximately twenty producing oil and gas fields in New Zealand, all of them located in Taranaki.

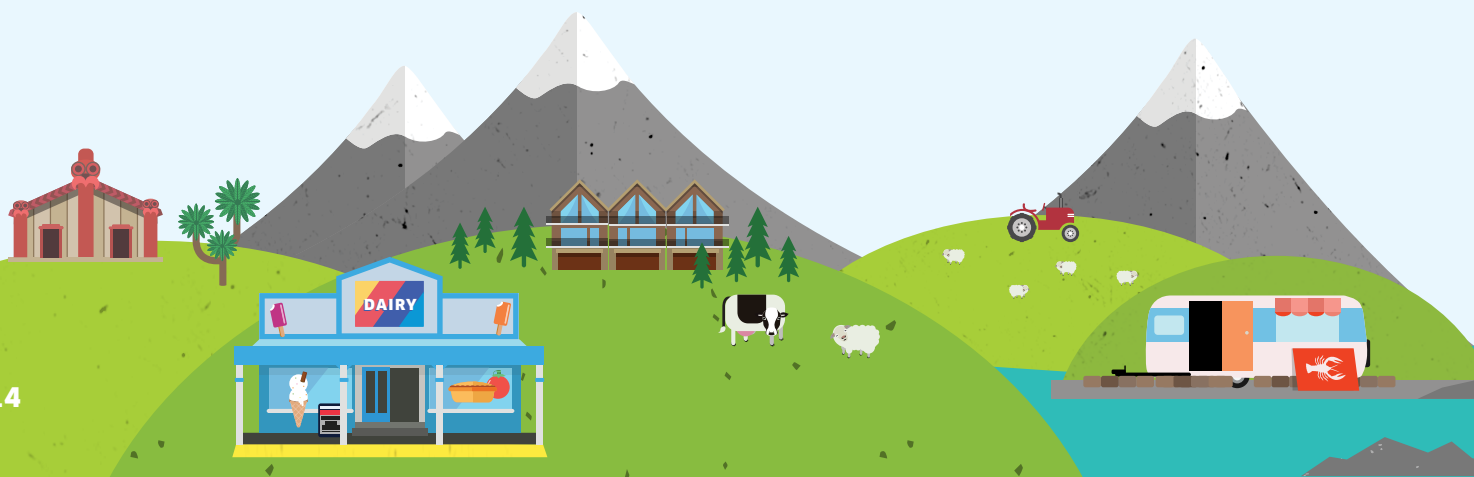
While production varies in any given year, in the last 10 years New Zealand has generally produced anything from 10 to 20 million plus barrels of oil, around 200 petajoules (PJ) of natural gas, and around 8 PJ of Liquefied Petroleum Gas (LPG) every year.

The development of New Zealand's petroleum resources over the last 50 years from just one petroleum basin in Taranaki has generated wealth, underpinned the country's energy system and enabled the development of a range of industries.

Royalty and tax income from the sector has delivered billions of dollars to the Government which has been used to fund investment in social and economic infrastructure and public services. Billions of dollars more have been invested by the industry into the development of New Zealand's oil and gas fields, and more still on midstream and downstream infrastructure and related industries.

By international standards, New Zealand remains underexplored but there is genuine international interest in New Zealand's potential, with exploration activities occurring in Taranaki and off the east coast of both the North and South Islands. While a commercial quantity of oil and gas has yet to be found in these areas, exploration activities have shown promising signs of working hydrocarbon systems.

New Zealand's locally-produced oil is generally exported because of its high quality and therefore high value on the international market. In contrast, all of our gas is produced for domestic consumption.





NATURAL GAS PROVIDES 20% OF NEW ZEALAND'S ENERGY

30% used for electricity generation

15% goes to key industries – dairy, meat, timber, steel, food processing, petroleum refining

45% is used in the making of petrochemicals, methanol, and urea fertiliser

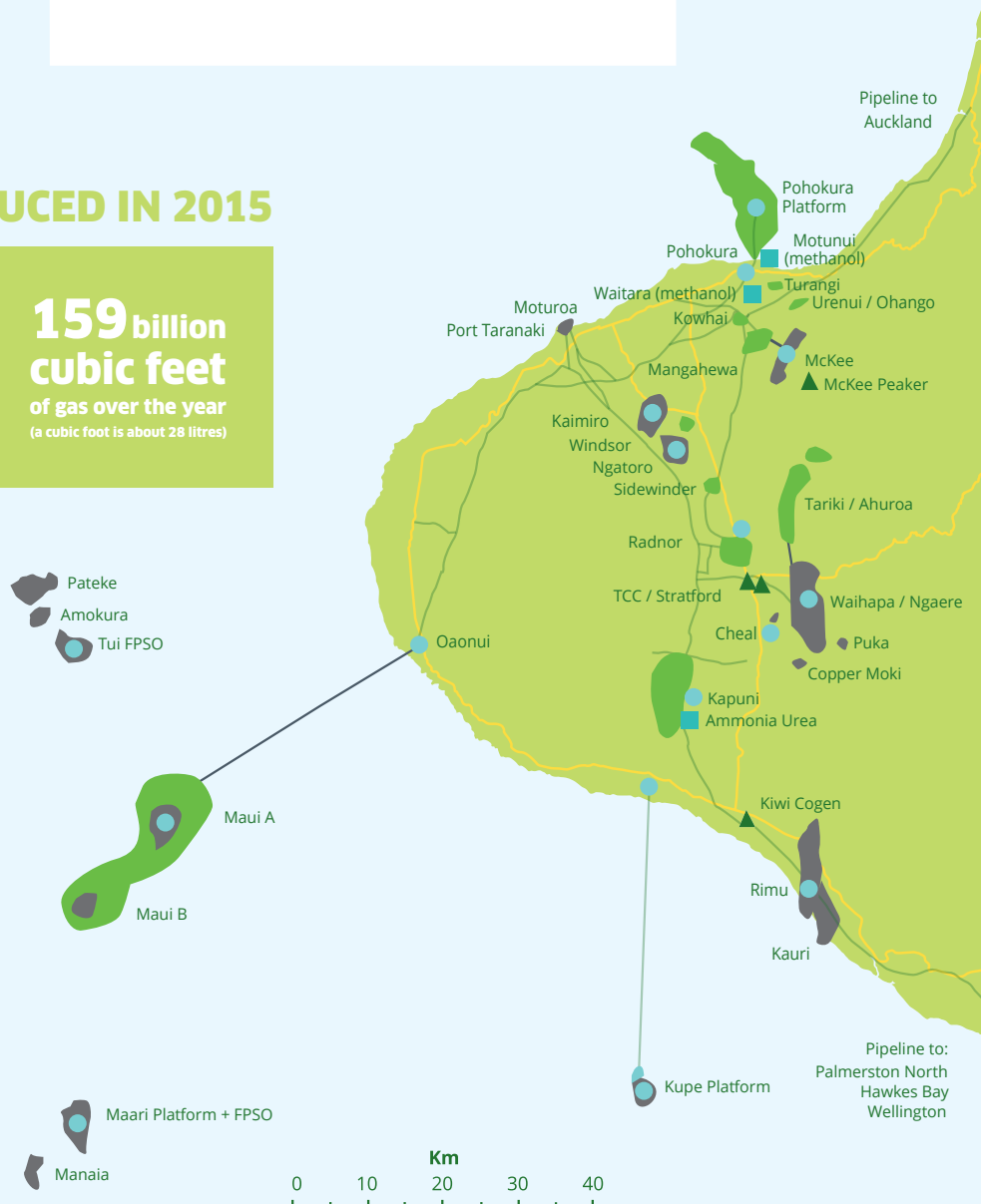
10% used by homes and communities

WHAT WE PRODUCED IN 2015

40,900 barrels of oil per day
(a barrel is 159 litres)

159 billion cubic feet of gas over the year
(a cubic foot is about 28 litres)

- Gas Field
- Oil Field
- ▲ Power Station
- Petrochemical Plant
- Production Station
- Pipelines
- Roads



PROTECTING PEOPLE AND THE ENVIRONMENT

Good health and safety practices are integral to the operation of the oil and gas industry. The sector has some of the most developed approaches to health and safety management and the industry's culture in New Zealand is internationally regarded, stringent and uncompromising, ensuring our workers and the environment they work in are safe.

PEPANZ considers good health and safety practices and minimising the environmental effects of the industry's activities are fundamental and non-negotiable. We support robust regulatory frameworks so long as they are integrated, workable, proportional, efficient, evidence based and recognise the practicalities and evolving nature of the business environment.

The upstream sector has a constrained footprint and discrete environmental effects. It has primarily operated in Taranaki and regulators both there and nationally have long standing experience with the sector.

No oil and gas activity takes place until every risk has been identified, addressed and planned for. The industry also spends significant amounts of money to avoid spills through cutting edge technology and multiple barriers separating oil and gas from the surrounding environment.

All operators must produce detailed plans on how they will maintain well control through the full lifecycle of the well, and in the extremely unlikely event that well control is lost, how they will regain control of a well and respond to an oil spill. In the unlikely event that an incident did occur it is a fundamental principal that maintaining and recovering well control is the responsibility

of the operator, who is liable to pay all costs of bringing the incident under control, the clean-up and recovery.

Maritime New Zealand owns a range of equipment to respond to an offshore oil spill, including skimmers, booms and dispersants and has arrangements in place with international providers. This equipment is purchased and maintained through the collection of the Oil Pollution Levy, which is collected from maritime industries, including the oil and gas industry. The equipment is stored around the country and can be deployed quickly in the event of an incident.

Regional Equipment Stockpiles





In recent years, major regulatory reform of health, safety and environmental legislation has taken place to bring New Zealand's regime into line with global best practice approaches. Key changes have included commencement of the *Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act*, the *Health and Safety at Work Act 2015* and specific supporting regulations for the upstream petroleum sector, and recently significant increases in required levels of financial assurance for offshore drilling and production.

Regulator capability has also been increased along with the new legislation and regulation. WorkSafe NZ's specialist High Hazard Unit oversees all drilling and production activities onshore and offshore. The Environmental Protection Authority (EPA) and Maritime New Zealand also oversee offshore operations with district and regional councils responsible for environmental regulation onshore and in coastal areas. Oversight by these regulators includes audits and physical site inspections both onshore and offshore.

The result of these regulatory reforms and practices is a comprehensive and rigorous regime for health and safety and the environment, which is supported by industry. There are some areas where work underway needs to be completed (e.g. decommissioning) or where discrete but important reform is urgently required, notably the inconsistent treatment of aligned activities under the EEZ (Discharge and Dumping) Regulations.

It is also important to take a strategic, science-based, practical approach to marine protected areas to provide certainty to all affected parties – including iwi and industries. For example, some activity in marine mammal sanctuary areas is not inconsistent with the goals of such areas. This is why we would be keen to see the previous Government's Marine Protected Areas Act progressed.

We note it is no surprise that marine mammal sightings are high in areas that industry have been active in and have had the opportunity to spot and report these mammals.

Science and Innovation in Our Industry

Carbon capture storage is an exciting new technology that will be a key tool in reducing net emissions. Carbon dioxide can be separated from produced natural gas and re-injected into mature oil fields, burying it forever. While it is not a silver bullet, it is happening already and will play an increasingly important part in the future.





DEVELOPING NEW ZEALAND'S OIL AND GAS POTENTIAL

New Zealand's oil and gas resources have the potential to enrich New Zealand, providing abundant and reliable energy to support businesses and households while also contributing constructively to reducing global emissions over the coming decades. If this potential is to be realised, New Zealand's policy framework for the industry needs to be comprehensive, appropriately designed and integrated.

The oil and gas industry is one of the most internationalised industries and New Zealand is competing with many other locations for mobile investment capital. While in many respects New Zealand is a favourable investment destination, it does have challenges, including the small size of our domestic market, limited infrastructure, the cost of mobilising equipment to this part of the world, and the relatively limited knowledge of what resources might exist due to limited exploration and available information.

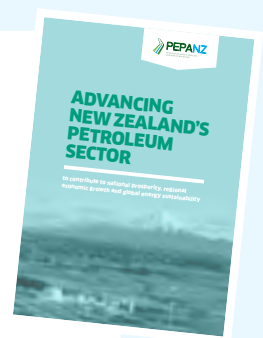
The fall in oil prices has also seen global exploration activity slow markedly since late 2014, with discoveries falling to the lowest level since the 1940s. Although confidence is returning to the sector this steep decline in exploration investment is laying the foundation for a future supply gap, which will likely lead to increasing oil and gas prices in future years. This will in turn encourage new exploration necessary to bring on new supplies. It is important to remember that due to the natural decline in production levels at existing fields, simply maintaining production levels requires major ongoing investment in exploration and field development.

It is critical New Zealand is positioned to take advantage of current and future exploration efforts. While the regulatory

environment is in good shape, there are a range of initiatives and changes that can be made to maximise the value to New Zealand of its oil and gas resources. There are also areas where we believe it is important that the current direction is maintained.

Earlier this year PEPANZ released "Advancing New Zealand's Petroleum Sector to contribute to national prosperity, regional economic growth and global energy sustainability".

This document (copy enclosed) outlines the existing role of the petroleum sector in New Zealand and the potential for further development of it to contribute to national prosperity, regional economic growth and global energy sustainability. It then highlights the policy settings and initiatives required to support this goal over the medium to long term.



NEW ZEALANDERS' VIEW ON OUR INDUSTRY

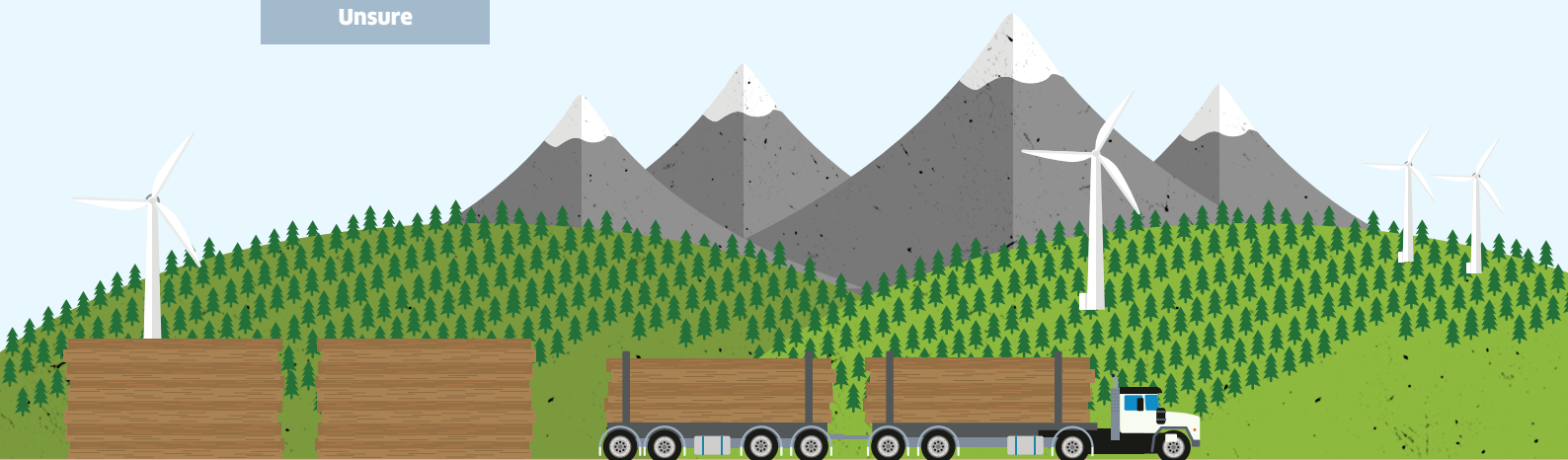
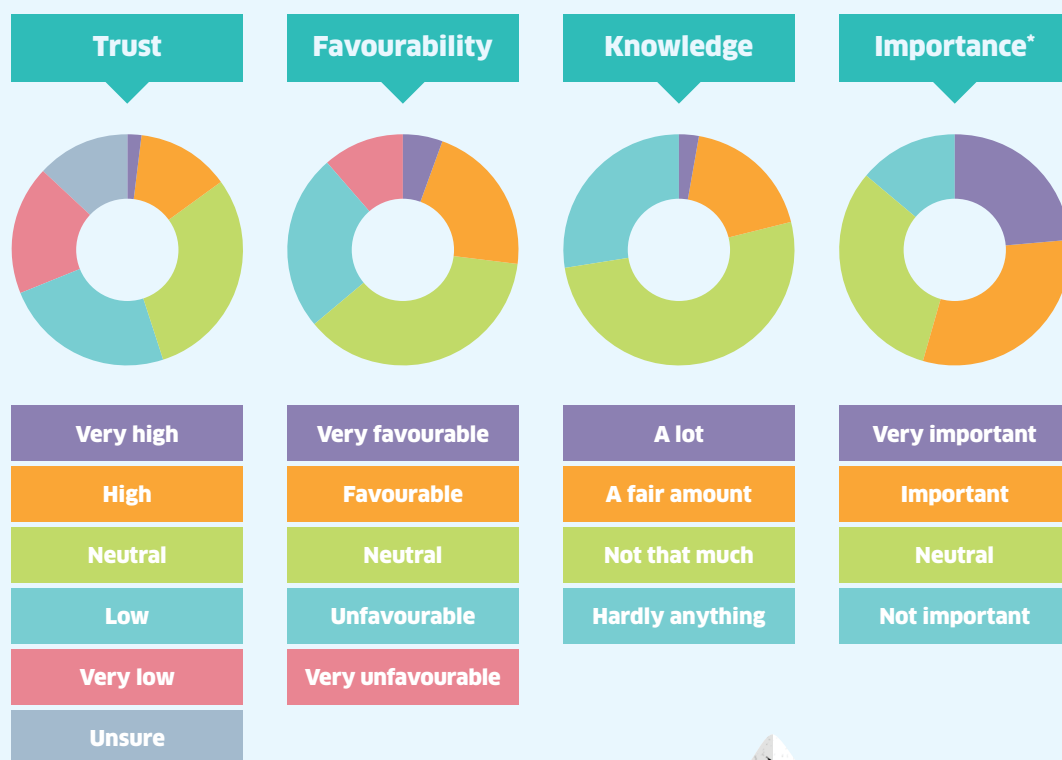
Last year PEPANZ undertook a public perceptions survey. The overarching finding of the survey was that while the oil and gas industry is valued, it is not well understood by New Zealanders.

The survey shows more than half of respondents have a neutral or favourable view of our industry.

Both knowledge and favourability of the sector were significantly higher among males than for females, and older respondents were

more likely to hold the view that the oil and gas sector is important to the economy.

This survey will be updated before the end of the year and will guide our communications and stakeholder work in 2018.





BLOCK OFFER

The New Zealand Government allocates petroleum exploration permits in an annual tender process called a Block Offer.

The Block Offer process has been undertaken annually since 2012, and the selection of areas for inclusion in a Block Offer is based on their prospectivity and commercial interest. It has provided important certainty the sector requires to help meet New Zealand's lower emissions energy production potential, and has helped send a positive signal to international investors about New Zealand as an international investment destination.

As part of the process, New Zealand Petroleum and Minerals asks the industry to nominate areas to include in the allocation, consults with iwi and hapū in the proposed areas, and discusses the proposed areas with local government. Information gathered during this consultation process guides the Minister of Energy and Resources' decision on the final make-up of the Block Offer.

The release areas are announced annually at the New Zealand Petroleum Conference, with applications for permits closing approximately six months later. Permit awards are made several months after that.

Bids are assessed on their proposed work programme, and criteria including the applicant's technical and financial capability and capability to meet expected health, safety and environmental requirements.

Recent uptake has been lower due to the low global price for oil, but like all markets, this will change as supply decreases and demand increases. The sector is seeing increasing interest in New Zealand as an investment destination via the Block Offer.



Block Offer 2014

15 new petroleum exploration permits were granted for Block Offer 2014, with a combined acreage of 47,690 square kilometres. At the time of bidding oil price reached a peak of \$US112 per barrel.



Block Offer 2015

Nine new oil and gas exploration permits were granted in December 2015, all in the Taranaki Basin. The successful permits included three onshore permits and six offshore permits. Collectively the permits included a committed work programme expenditure of \$4.4 million, with the potential of more than \$364 million if all contingent work is realised. The oil price was around \$US50 a barrel at the time of bidding.



Block Offer 2016

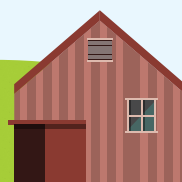
Block Offer 2016 was launched at the New Zealand Petroleum Conference in March 2016, with a successful bid announced on 15 December 2016. One onshore Taranaki permit was granted to Todd Energy. Interest in Block Offer 2016 was subdued due to the world oil price which was around \$US43 per barrel at the time of bidding, the lowest since 2004. At the start of 2016 it fell to just \$US28.



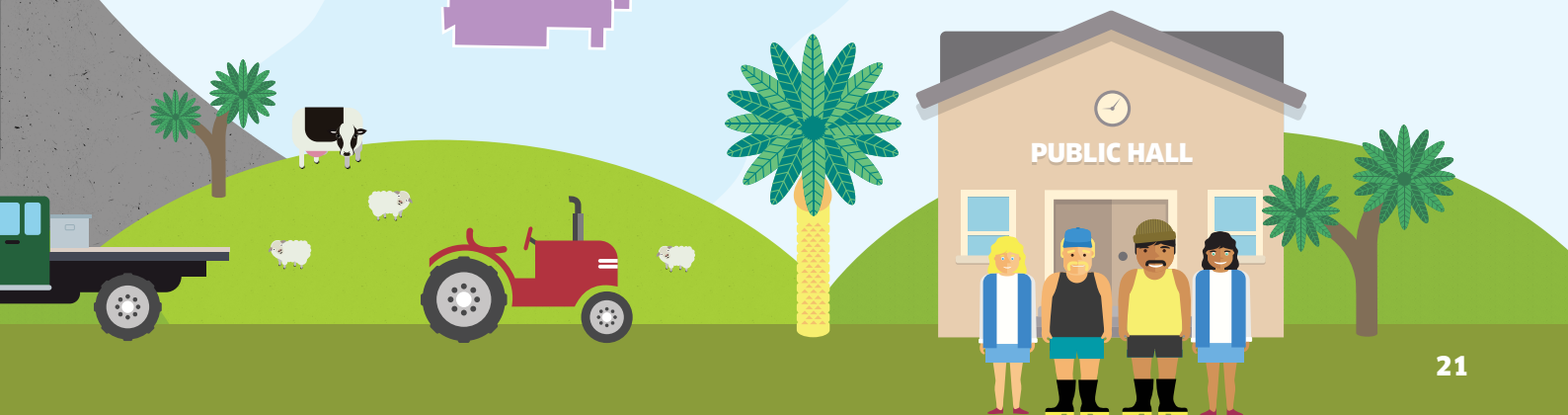
Block Offer 2017

Block Offer 2017 was launched at the New Zealand Petroleum Conference in March 2017 and included two onshore, five offshore and one offshore/onshore release areas. Successful bids are expected to be announced in December.

The oil price at the time of bidding was around \$US50 per barrel and has since risen to \$64. More importantly, it has remained stable in the range of \$US50 – 64 over the last 18 months.



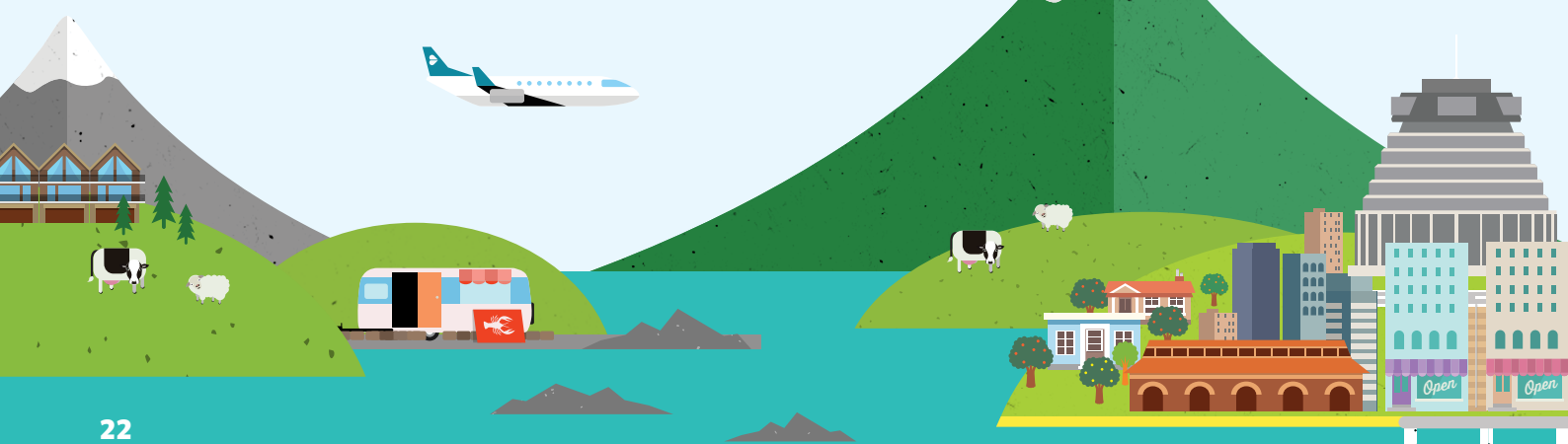
**Current
Exploration
Blocks**



IMMEDIATE REGULATORY PRIORITIES

There are some regulatory issues that require attention in the short term and policy programmes underway that must be progressed to conclusion.

- **Aligning the treatment of discharges from offshore installations** by resolving an issue that has been identified by industry and regulators with the *EEZ Discharge and Dumping Regulations* through initial consent applications. The misaligned classification of a type of discharge, “offshore processing drainage”, that requires a notified marine consent is unnecessary, inappropriate and impractical. It is not logical for marine consent applications for the discharge of offshore processing drainage to be notified. The effects are at most minor and temporary and the timeline for notified marine consents does not align with the ‘non-notified’ treatment of other aspects of drilling activity. While this issue is discrete, it is important it is resolved quickly through minor amendments to the discharge regulations. The misalignment of consenting processes is already creating issues for future work programmes due to the length of a notified consent process.
- Progress the **development of a comprehensive regime for decommissioning** to completion in 2018. Since 2015 government officials across a number of departments including MBIE, the Ministry of Environment and Inland Revenue have been working on various projects with the intent of putting in place a regime for offshore decommissioning that provides a robust and balanced approach that addresses technical feasibility, as well as environmental, health and safety, and economic matters.
- The provisions applying to decommissioning in the *Taxation (Annual Rates for 2017–18, Employment and Investment Income, and Remedial Matters) Bill* should be brought into force at the earliest practical opportunity. These are intended to align the tax treatment of decommissioning to that of similar activities.
- Ensure guidance is finalised by February 2018 to support recent changes to Maritime Rules Part 102 to significantly increase the required levels of offshore financial assurance. Meeting this timeline is critical to enable timely implementation of the increased assurance levels as key aspects of detail for the framework (e.g. how to calculate required assurance levels) will be included in the guidance material.



REGULATORY WORK UNDERWAY

Labour Party Energy Manifesto

Ensure the implementation of the PCE's 2014 recommendations, including the preparation of a NPS on onshore oil and gas exploration to provide direction to councils.

Consider the PCE's report with regard to onshore drilling, in terms of what this means for offshore drilling and its consequences.

Insist on high environmental standards and stringent safeguards, to international best practice, for oil and gas and other minerals activities, especially in the EEZ.

Ensure that penalties for breaches of the EEZ Act provide a major disincentive to such breaches occurring and that bonds are sized accordingly.

Ensure that substantial parent companies are fully liable for any mistakes, spill clean-ups and financial losses (rather than a smaller New Zealand subsidiary), by way of a bond or liability insurance or both.

Progress Made

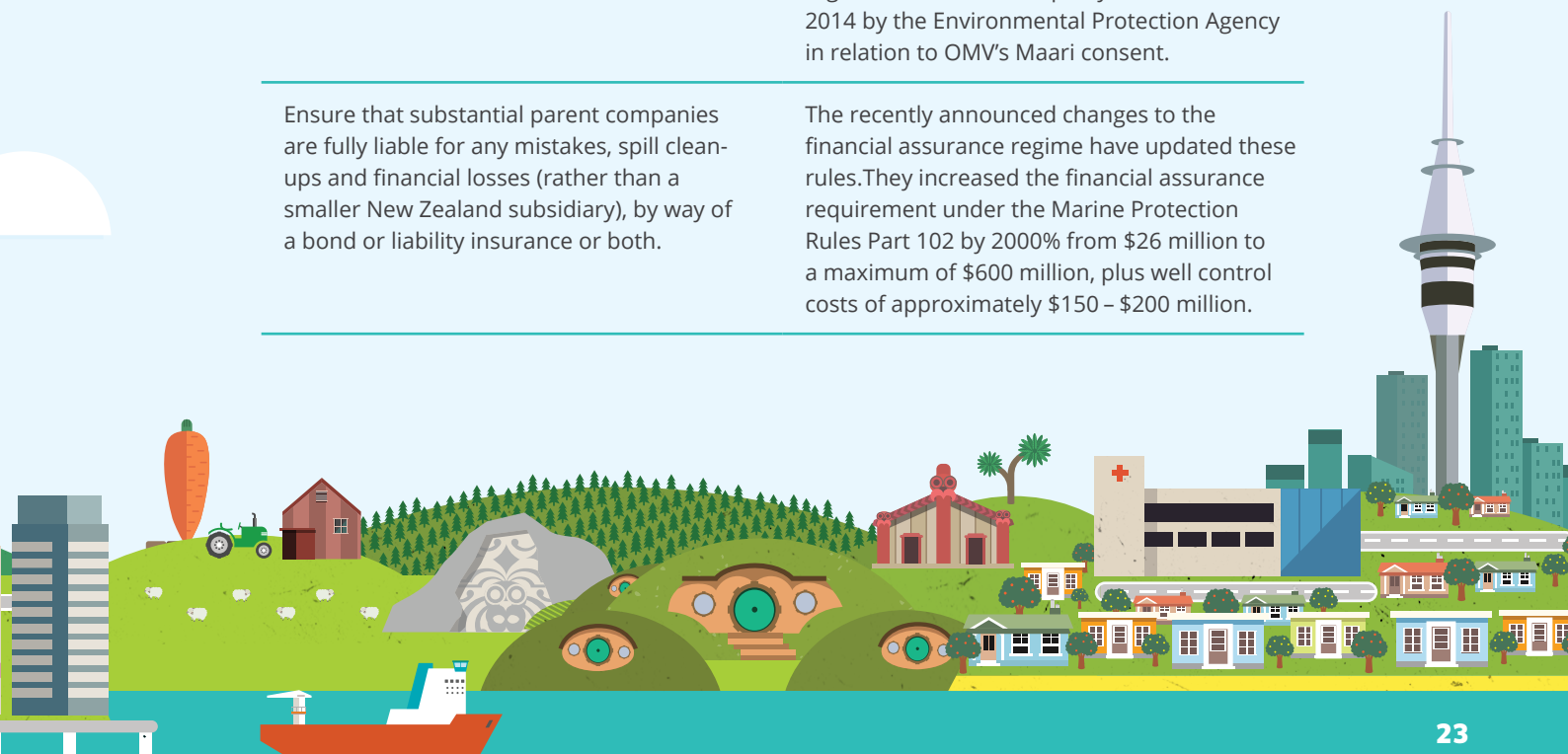
MBIE have been progressively working through these and are on track to have implemented or responded to them all in the coming 6 – 12 months.

We are ready and willing to discuss this.

We are confident that our regulation, extensive consent conditions, etc. are very high and at or close to international best practice. We are ready and willing to discuss any further improvements.

There are a range of financial and non-financial consequences for breaches of the EEZ Act, including at the extreme the withdrawal of consent or order to stop any breaching activities. This would have a material financial and reputational impact. There are also powers under other relevant regulatory regimes which were helpfully summarised in 2014 by the Environmental Protection Agency in relation to OMV's Maari consent.

The recently announced changes to the financial assurance regime have updated these rules. They increased the financial assurance requirement under the Marine Protection Rules Part 102 by 2000% from \$26 million to a maximum of \$600 million, plus well control costs of approximately \$150 – \$200 million.



Labour Party Energy Manifesto

Progress Made

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

We are confident that our regulation, consent conditions, etc. are very high and that contingency plans (including “Oil Spill Contingency Plans” and “Marine Discharge Consents”) are robust. We are happy to discuss any further improvements.

Adopt the robust Norwegian regulatory model, which includes physical audits rather than just paper-based systems. This will include having expert independent observers present on each drilling rig, with the cost of their employment being paid for by the operator.

We are ready and willing to discuss this, and note the current in-person inspections and monitoring of consent conditions that takes place by the EPA, MNZ and Worksafe.

Require operators to have an effective rapid response capability if an incident occurs, including capping devices being readily available.

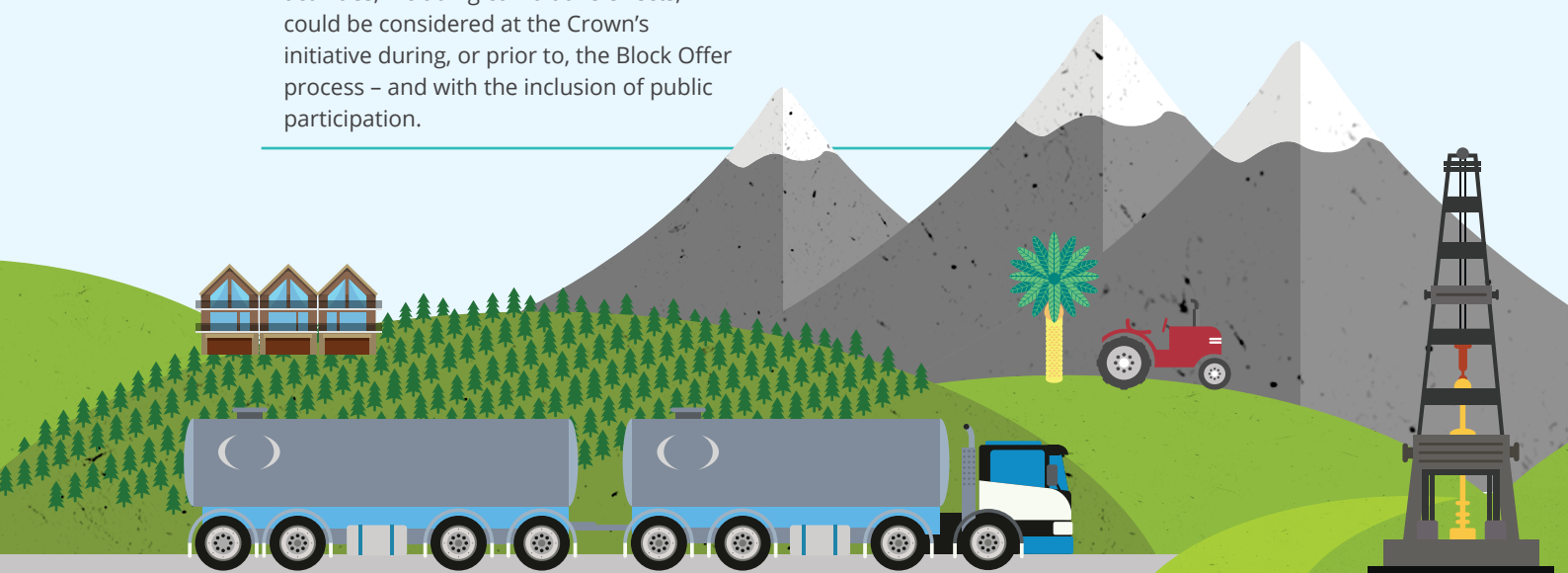
Oil Spill Contingency Plans and Marine Discharge Consents (including relevant spill response capability) are required. This sits as a part of the marine consents required and the wider risk-assessed and marine industry funded “National Marine Oil Spill Contingency Plan” (overseen by Maritime NZ). Capping devices are readily available as a part of plans associated with drilling activities, although they would need to be flown in from one of the regional specialist stockpiles.

Consult with interested parties, including the industry and other stakeholders, as to what rapid response capability is appropriate and where it is to be located.

Maritime NZ conduct a three-yearly review of the National Marine Oil Spill Contingency Plan which was last updated in March 2017 and involved consultation. Current capability is located in areas of greatest identified risk.

Investigate how environmental effects of activities, including cumulative effects, could be considered at the Crown’s initiative during, or prior to, the Block Offer process – and with the inclusion of public participation.

We are ready and willing to discuss this.



2018 NEW ZEALAND PETROLEUM CONFERENCE

The 2018 New Zealand Petroleum Conference will be held in Wellington from 26 to 28 March 2018.

The Conference provides a unique opportunity to showcase the industry in action. It will attract around 500 delegates from New Zealand and around the world, bringing together senior government officials, regulators, industry leaders, international experts and service providers.

Next year's Conference will consist of three concurrent streams: Geoscience; Technology and Engineering; and Community, Commercial and Regulatory. It will also feature a number of international keynote speakers including:

- **Brian Sullivan**, the Executive Director of IPIECA, which has a 40-year history of developing, sharing and promoting good practice and knowledge to help the industry and improve its environmental and social performance.
- **Kylie Cochrane** who is Aurecon's global lead for community engagement, and also chairs the International Association for Public Participation (IAP2), will discuss lessons from her extensive experience in managing challenging stakeholder and community engagement for key rail, road and water infrastructure projects with significant community interest.

The Conference will also feature an Environment Leaders Panel featuring:

- Vicky Robertson, Chief Executive of the Ministry for the Environment
- Brian Sullivan, Executive Director of IPIECA
- Liv Esterhazy, CEO of WWF New Zealand.

Traditionally the New Zealand Petroleum Conference has included the launch of the Government's annual Block Offer. We hope that you are able to attend the Conference in March to fulfil this function, and outline your policy priorities to a large and important audience of interested stakeholders.



PEPANZ – WHO WE ARE

PEPANZ is the industry association of the upstream oil and gas sector.

Established in 1972, PEPANZ works with local and central government to ensure New Zealand's regulatory and commercial framework promotes quality investment, and that the return from the country's oil and gas resources is maximised for industry, government and the community.

PEPANZ works to increase community and government understanding of the industry by publishing information about the sector's activities and economic importance to the nation.

As representatives of New Zealand's oil and gas industry, PEPANZ also provides its members with strong representation and advocacy, leadership for industry wide issues, while engaging openly and honestly with New Zealanders.

PEPANZ members currently account for an estimated 95 percent of New Zealand's petroleum production. We also represent more than 50 associate member companies that provide a range of goods and services to the industry.

PEPANZ believes that developing New Zealand's oil and gas sector can enrich New Zealand's future – the future of member companies, communities and the economic future of New Zealand's regions and help in New Zealand's transition to a net-zero emissions economy.

PEPANZ Priorities

Advocate

Fair, transparent and workable regulatory environment

- Policies needed to responsibly advance the sector are understood and advanced
- Specific issues resolved (e.g. Decommissioning regulations, EEZ regulations and guidance to Maritime Transport Rules)
- Sensible district plans
- Evidence-based, consistent, fair and stable policy settings for marine use and protection
- Economically and environmentally reasonable and rational framework for emissions reduction
- Effective relationships with key stakeholders

Engage

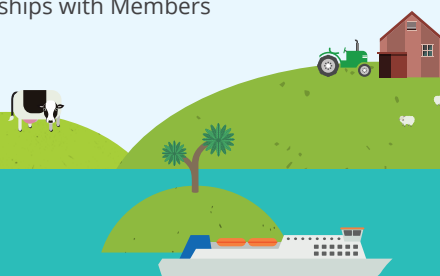
Trusted by New Zealanders

- Regarded as an authoritative and reasonable voice in the debate about the future of energy and the environment
- Increase public knowledge, favourability and trust in the sector
- Promote evidence-based discussions about the sector and its role in providing energy and reducing emissions
- Effective relationships with key stakeholders

Support

Valued by Members

- Increased networking opportunities for Members
- Responsible and responsive to Members
- Relevant and regular communication with Members
- Outstanding conference
- More guidelines developed
- Effective relationships with Members



OUR BOARD

PEPANZ is governed by a Board that is elected annually from our membership base. The Board meets quarterly, and sets the strategy for the organisation as well as monitoring the delivery of our Business Plan.



Rob Jager

Chairman
Shell New Zealand



David Coull

Deputy Chairman
Bell Gully



Gabriel Selischi

Representing Large Producers
OMV



Maceon Cooper

Representing Large Producers
Lattice Energy



Joanna Breare

Representing Large Producers
Todd Energy



Max Murray

Representing Medium Producers
TAG Oil



Andrew Jefferies

Representing Medium Producers
New Zealand Oil & Gas



Alan Seay

Representing Exploration Companies
Anadarko Petroleum Corporation



Jason Peacock

Representing Small Producers /
Small Exporters AWE



Nick Jackson

Representing Associate Members
Elemental Group



OUR STAFF > Meet our team of professionals



Cameron Madgwick

Chief Executive

Cameron is the Chief Executive of PEPANZ, a role he took up in September 2014. Cameron's interest in the oil and gas industry started at an early age. Growing up in Taranaki he saw first-hand how a strong and robust oil and gas industry can truly benefit a community – both their financial and social well-being.

With the knowledge he has gained as Chair of the Community Law Centres o Aotearoa, his background as a lawyer and the work he has done in various community engagement roles, Cameron is committed to ensuring New Zealanders have access to factual, honest and transparent information about the oil and gas industry, and strongly believes that growing the industry is vital to ensuring our energy security and strengthening our regional economies in a responsible and environmentally friendly manner.



Andrew Saunders

Policy Manager

Andrew leads the PEPANZ Policy and Regulatory Work Programme and works closely with both central and local government, ensuring the industry's views are strongly represented.

Andrew joined PEPANZ from the Ministry of Economic Development, where he developed an in-depth understanding of all aspects of policy development and its resulting implementation, including engagement with Ministers, select committees and stakeholders.

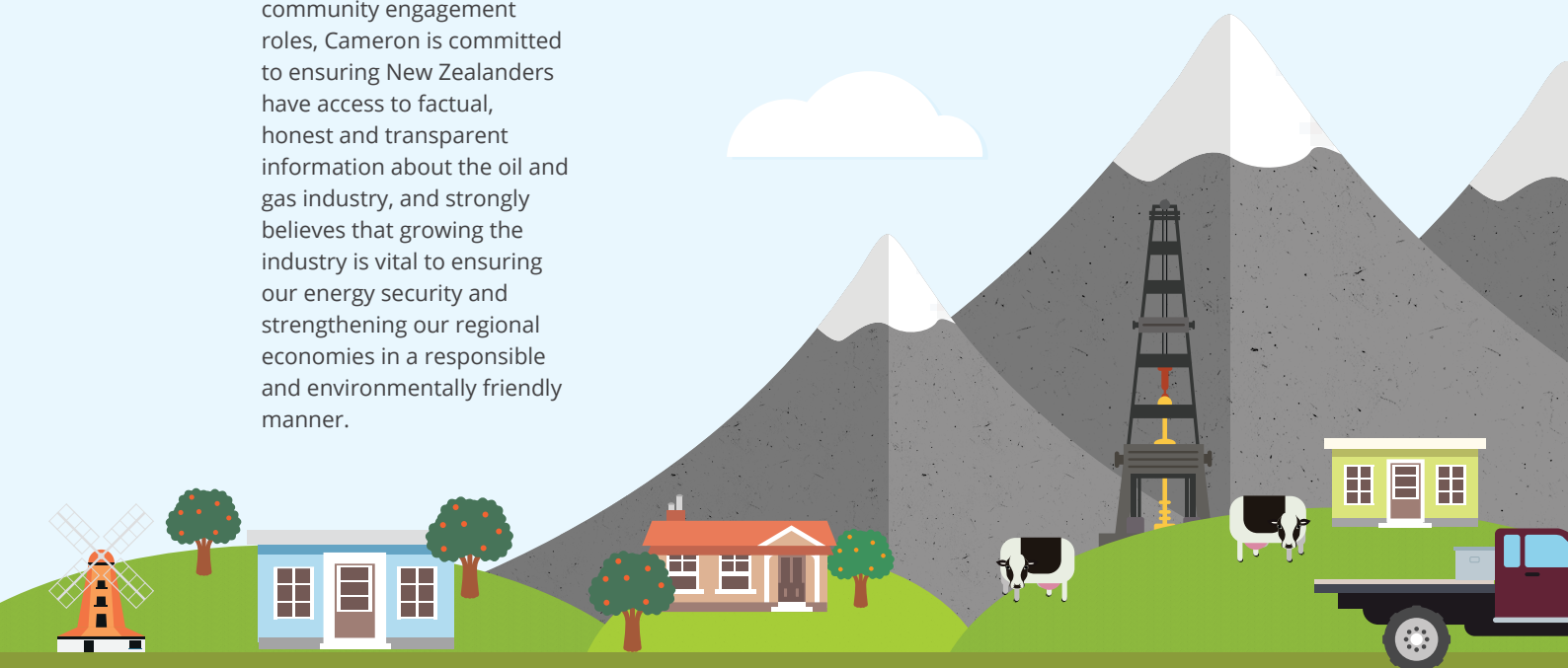


Phil Rennie

Communications Manager

Phil leads PEPANZ's communications work, helping engage with and tell the story of the industry to stakeholders, the public and media. He is the first point of contact for any media enquiries.

Before joining PEPANZ, Phil worked as a Press Secretary to a Government Minister for eight years and has also worked in communications roles for professional membership bodies in New Zealand and overseas.



INTRODUCING...

NEW ZEALAND'S ENERGY MIX



Carolyn Clark

Office and Events Manager

Carolyn is involved in the execution of all PEPANZ events, and takes the lead role in managing the annual New Zealand Petroleum Conference. She also ensures the smooth running of our Wellington office.

Carolyn brings with her a wide range of relevant experience. She has ensured the successful execution of many events, having worked in hospitality over a number of years, as well as having been a successful business manager.

She also brings with her nine years' industry experience, having worked at BP Oil NZ – based in Wellington, the central North Island and Auckland.

In 2016, PEPANZ was proud to launch www.energymix.co.nz, a website providing accessible and easy to understand information on New Zealand's oil and gas sector right to the home computers and smartphones of New Zealanders.

The website provides honest and transparent information about the industry, including the challenge of ever increasing demands for energy, the future role of oil and gas given the need to respond to a changing climate, and the economic benefits our industry can deliver to the country.



www.energymix.co.nz



OUR MEMBERS

We are proud to both represent and advocate on behalf of our 68 Members, who through their activities are helping grow the New Zealand economy and secure New Zealand's long-term energy security.

Our membership is made up of a wide range of companies in the oil and gas sector – from some of the world's largest multinationals, right through to local companies who provide a range of essential services. Together, our membership is responsible for an estimated 95 percent of New Zealand's petroleum production and this scale allows us to advocate successfully on their behalf.

Large Producers



Medium Producers



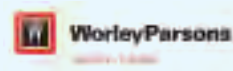
Large Explorers



Small Producers/Small Explorers



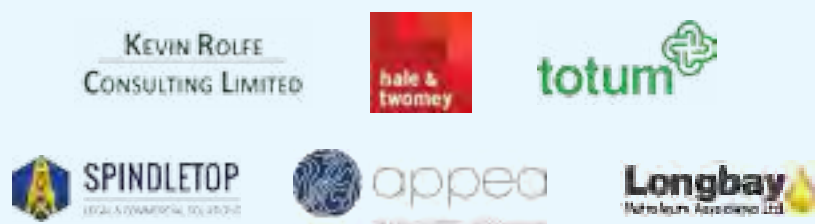
Field Operations Servicer Providers



Non-field Service Providers



Others



Dr. Peter Kamp

Star Offshore Services

Safe Work Solutions

