

## Address to the Downstream Energy Conference (7 March 2017)

### Hon Judith Collins, Minister Energy and Resources

Good morning and welcome everyone. Thank you for inviting me to your Downstream 2017 conference.

Having an affordable and secure supply of energy underpins everything we do- from the economic viability of our businesses, to the well-being of our households, to our individual quality of life.

At the same time, it is striking, coming into this industry, to see the amount and the rate of change you are experiencing now, and are likely to experience in the coming years.

### Technological and consumer changes

In the short term, there are some proposed regulatory changes going on, such as changes to the Transmission Pricing Methodology. This is a longstanding issue for the sector. It's important it gets resolved but it's also important the cost to consumers and communities are considered.

However, broader changes are coming from developments in technology. Distributed generation, batteries and demand management technologies are beginning to penetrate the market. I understand New Zealand is experiencing some of the international trend of exponential growth in the uptake of solar photovoltaics (albeit off a low base) despite it not yet being economic for most households.

These technologies are exciting - when coupled with the 'internet of things' - and are giving consumers greater choice and control in meeting their power needs.

Meeting the expectations of empowered consumers will challenge the operation of the energy system as we know it.

It will also disrupt existing business models. And given New Zealand's open and competitive energy markets, this disruption may not be led by businesses typically identified as 'energy companies'.

These changes are occurring against the wider energy challenges that we all face too – such as volatile oil prices, and the global response to the Paris Agreement on climate change.

In my view, these challenges also provide a lot of opportunity.

To be resilient, ensure continuous security of supply, affordable energy, and to meet the environmental and consumer demands of the market, the energy sector must do more than just respond to change- it must drive the change.

And I'm excited to already be seeing examples of this in my engagement with the sector.

The Government is focused on encouraging, and removing any barriers to, market-led innovation.

I'm sure as an industry; you are positioning yourself to make the most of the opportunities that change provides. I believe in this new environment we are well placed to thrive.

### New Zealand's energy advantage: enhancing innovation in the energy sector

Last year the Smart Grid Forum assessed New Zealand's rate of uptake of the opportunities offered by smart technology.

While we haven't yet seen the same scale of smart grid development activity as some other countries, New Zealanders are enthusiastic about technologies such as solar PV and electric vehicles.

The Forum identified that there are difficulties for people in evaluating the benefits of different options.

We need to assist consumers to cut through some of the complexity associated with new technologies and ensure prices reflect the value of services, so that opportunities for consumer benefit can be realised.

It is encouraging to see so many New Zealand firms embracing the challenges posed by new technologies.

Many companies are developing innovative ways to use technology, engage consumers, and provide an enhanced service which leaves them more competitive and better positioned in the market.

Our competitive electricity market has allowed the sector to innovate, and the retailing space is changing rapidly, with the new entrants forcing the incumbents to think harder and respond with a range of more flexible products, forcing downward pressure on prices.

There are 32 electricity retail brands operating in the market today – more than double the number in 2010.

Our long history of developing our domestic resources has led to us having an international reputation for our knowledge and skills in many areas of energy technology and development, and energy system management.

There are many opportunities to innovate within the energy sector, and there is a significant international demand for our expertise, technologies, and services.

I believe, with your help, we can continue to grow our high-value energy technology exports to achieve greater returns for New Zealand.

Globally New Zealand is well placed –

First, we have a renewable energy advantage.

New Zealand's renewable energy resources are amongst the best in the world. In 2015, 40 per cent of our total primary energy was generated from renewable sources, leaving New Zealand ranked fourth amongst the Organisation for Economic Co-operation and Development (OECD) countries.

And in 2016, New Zealand ranked 9th out of 130 comparator countries in the World Energy Council's Energy Trilemma Index, which ranks countries on how well they achieve the energy 'trilemma' balance of security, equity and sustainability. New Zealand was the best performing country in the Asia-Pacific region.

We are a world leader in geothermal energy, have excellent wind resources, extensive hydroelectricity, and forestry resources as a source for bioenergy.

These resources have a key role to play in helping us transition to lower-carbon future, along with improving energy efficiency and productivity to do more with less.

But, New Zealand also has abundant non-renewable energy resources.

Oil, gas, and mineral resources already make an important contribution to the New Zealand economy.

Gas continues to be an important contributor to domestic industries and is used in around 260,000 homes. Gas also accounts for about 15 per cent of our electricity generation. It is an important fuel for supporting electricity security of supply during peak demand periods and dry years.

And we shouldn't forget that coal is still a vital source of energy in the South Island – heating hospitals, schools and dairy processing.

Resources, like petrol, diesel, gas and coal, play a significant role in meeting domestic energy security and global energy demand and will do so for some time.

The fact is we need to have a mix of energy options. This ensures we have security of supply that makes good economic and environmental sense. It also positions New Zealand for higher economic growth and a lower-emissions future.

The Government's priority areas, set out in our Energy Strategy, are diverse resource development, environmental responsibility, efficient use of energy, and secure and affordable energy. These areas are all important.

Our collective challenge is balancing these priorities so that we can deliver the energy that New Zealand households and businesses need, in a way that meets their changing expectations.

### **Progressing the Government's initiatives – My priorities**

Another striking thing about the energy sector is that renewable energy technology is now a major growth industry. The latest Bloomberg New Energy Finance figures show that global investment in renewable energy grew in 2015 to nearly six times what it was in 2004.

The International Energy Agency's (IEA) latest renewable energy market report highlights a growing global focus on the transport and industrial sectors as areas where large gains can be made in both energy efficiency and emissions reduction.

The IEA's analysis shows that renewable electricity alone will not get countries to where they need to be to meet their climate change commitments. It reports that progress in renewable penetration into the heat and transport sectors will be needed.

Given that New Zealand has already largely decarbonised our electricity generation - which was 81 per cent renewable in 2015, third in the OECD - our greatest potential for reducing emissions in the wider energy sector lies in process heat and transport.

Both of these areas have a very high proportion of non-renewable energy and are key areas of focus for me this year. They are also opportunities for the electricity industry, particularly transport.

The Government's Electric Vehicles Programme is one of the ways New Zealand can make more of new technology and leverage our existing renewable electricity advantage.

Research commissioned by EECA found that electric vehicles driven in New Zealand result in 80 percent fewer carbon emissions than an equivalent non-electric car over the whole life cycle, as a result of our highly renewable electricity generation.

Last year Minister Bridges told you about the Government working with industry and councils to explore a wide range of options for encouraging EV uptake.

I'm pleased at the progress we have made.

First, we have introduced the Energy Innovation Bill which includes:

- changes to EECA's levy funding, which will give it the ability to focus on encouraging energy efficiency and the use of renewables in process heat and transport; and

- measures to encourage the uptake of electric vehicles (EVs) – such as extending the road user charge exemption to heavy electric vehicles and allow bylaws for EVs to use special lanes.

The Bill is now currently before select committee and I expect that it will be passed by mid-year.

Second, the Government has recently conditionally approved 15 projects to receive around \$3.5 million from the Low Emission Vehicles Contestable Fund. This first funding round was heavily oversubscribed with around 80 applications, which shows the enthusiasm New Zealand has to demonstrate and use low emission vehicle technologies.

There's some exciting projects, for example:

- The Warehouse will install, and provide free for six months, electric vehicle charging stations at 20 stores in areas that are underserved for EV charging.
- Auckland Transport are giving EVs priority parking and installing 60 charging stations at their parking and park and ride sites across the region.
- The Thames-Coromandel District Council are setting up three fast charging stations around the Coromandel Peninsula.
- In Southland, PowerNet will support local businesses to incorporate electric vehicles (EVs) or plug-in hybrid electric vehicles (PHEVs) into their fleet mix.

These initiatives are a great way to raise the profile of EVs and their charging infrastructure. They will be seen by thousands of people – from shoppers, public transport users to tourists.

In the industrial sector, I am encouraged to see large industry players investigating transitioning to lower emissions fuels such as gas, geothermal and bioenergy for process heat.

I intend for process heat to be a focus of the refreshed New Zealand Energy Efficiency and Conservation Strategy (NZECS). The strategy sets the overarching direction for government support and intervention to promote energy efficiency and renewable energy use.

As you are aware, consultation has been undertaken and I am working with officials to finalise the strategy in the coming months.

The strategy guides EECA, which is already working in partnership with more than 100 large energy-using businesses to use energy more efficiently. I want to make sure EECA focusses on where the most gains can be made and that it has a well-targeted work programme to deliver the refreshed NZECS and unlock New Zealand's renewable energy, energy efficiency and productivity potential.

Last year the previous Minister announced that he was going to develop energy targets and he engaged with a lot of stakeholders about what the targets might look like.

I too want to signal the Government's vision for the sector. I agree that this will help businesses with capital investments decisions and help align research and development investments with Government priorities. I'm really interested in using targets to do this, and this work is currently underway.

I know there has been a lot of debate about what the targets should be but I think the correct areas we should be focussing on are:

- improving our energy productivity (getting more value out of the energy we use);
- increasing our amount of renewable energy in electricity (Government's 90% target), and;
- increasing renewables in our total energy supply (which includes transport energy and process heat).

Finally, I have a strong desire to ensure that our electricity, gas and fuel markets remain competitive and there is downward pressure on prices.

For example, I am very concerned that fuel prices are unreasonably high and that consumers are not getting a fair deal. We need to know why this is happening and determine if what people are paying at the pump is reasonable.

My officials have begun a fuel market financial performance study which will offer new insights into our fuel sector and help us understand if there is an issue and, if there is, show where we need to focus to address it.

I'll have more to say on this once they report back to me in June.

## **The future of the energy sector**

One thing is certain, in the future the energy sector will be very different than it is today.

I can't tell you what it will look like. But I venture that the businesses and markets that will deliver it are not those that we are currently familiar with.

We will see changes in the fuels and technologies we use, and the way households engage with, and control the use of, their energy.

In response, business models will change and adapt to accommodate and drive these changes.

While renewables make up a significant proportion of electricity generation, electricity makes up only 25 percent of our total energy demand.

We need to broaden our renewable energy use beyond electricity, and increase its use in the transport and process heat sectors.

A continued focus on the effectiveness of market signals is essential if New Zealand is to navigate these changes in a way that is economically efficient and maintains energy security, while reducing emissions.

Energy is an enabler across the economy – a part of everything we do. There are choices that we all, government, businesses and consumers, can and will make about energy in this transition.

Thank you.

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