

AWATEA BLUE ENERGY, INNOVATION AND BUSINESS CONFERENCE

Hon. Wayne Mapp, Minister of Science and Innovation

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"Awatea" stands for the Aotearoa Wave and Tidal Energy Association. As you may know, the word Awatea in Maori means "new dawn".

It is hard to think of a more appropriate abbreviation for this exciting area of renewable energy generation.

Like most Auckland politicians, I spend a lot of time flying into Wellington airport.

Whenever I approach from the south, I always look out at a Cook Strait that is backed by 6000 miles of ocean on one side and another 1500 miles on the other side, and wonder about the latent power of the current flow that is squeezed through that space.

When we further consider that waves and tides are both inexhaustible in any human timeframe, and backed by laws of physics that are well beyond even mankind's capacity to fundamentally disrupt, it is interesting to contemplate how we can effectively harness something that nature has truly provided for nothing.

Last year I travelled to Hawaii and the continental United States. Wave and tidal energy was discussed at a number of the meetings I attended.

I must confess that I was surprised by two things.

The first was that there was actually less research happening internationally in deriving energy from these sources than I had appreciated.

The second was that New Zealand is well linked with the major research players. When you consider where we sit in the world, this is natural. But the fact is, we have a lot to contribute – and a lot to gain.

Those gains are not just relevant to this country. For example, a real problem with the development of the small island nations in the Pacific is sustainable, economic energy generation.

One thing they all have in common is plenty of ocean. Breakthroughs in economic electricity generation derived from waves or tides will exponentially shift the prospects for these countries.

However, I can also say that I didn't need to go offshore to be informed and intrigued by developments in this area.

I have been kept well informed of the projects that our CRIs and research institutions are involved with in this area.

Nick Inskip from HERA has given me a thorough briefing on progress.

Just a few days ago, Wellington Mayor Celia Wade-Brown also briefed me on where she sees this research going, in the Wellington region.

The fact is that there are many opportunities for New Zealand in our rich and varied marine environment.

That environment extends from sub-tropical to sub-Antarctic latitudes. We are positioned on an active plate boundary and are surrounded by major water masses.

Obviously, this gives us a marine environment that offers significant opportunities for generating marine energy.

We are also working to increase New Zealand's generation of electricity from renewable sources.

Technologies are viable, and in New Zealand we have begun to move on from pure research and high-level proposals. Now we are starting to include pre-commercial development.

Other parts of the marine supply chain are beginning to be interested in the opportunities that exist in the wave and tidal energy sectors.

A proposal to deploy tidal turbines in the Kaipara harbour has resource consent.

Given that Cook Strait, Foveaux Strait and some of our harbour entrances have strong tidal currents, I am expecting further developments to follow.

The west coasts of both islands also have high levels of wave energy. They are ideal testing and generation grounds.

I acknowledge concerns about the potential impacts of marine energy devices. But that is where science can help.

For example, we need to ensure that the snapper fishery in the Kaipara harbour is not affected by tidal turbines.

Your sector shows promise and potential that is, as yet, largely untapped.

These are exciting times to be involved, and this progression is reflected in the title of your conference, the Business of Marine Energy.

The role of the Ministry of Science and Innovation in supporting marine energy has primarily been in research and development of initial models of wave energy devices.

This funding has supported the development and testing of a prototype quarter-scale wave device by IRL and Power Projects Limited.

The prototype was the basis for a larger device currently under development, funded by MSI and EECA's Marine Deployment Fund.

This new device will be deployed this year. It will generate electricity that will be used to provide power onshore.

The same group has also received funding totalling \$2 million from the US Department of Energy to build and test a quarter-scale version of the device off the coast of Oregon.

We have also invested in research by NIWA on tidal energy optimisation.

The work is improving our knowledge of tidal systems flows as well as the variability in those flows.

The aim is for efficient extraction of energy from tidal systems. By understanding how individual devices behave, researchers can also determine the physical impact of a farm of such devices.

I would like to congratulate those researchers and businesses involved in these projects on your achievements to date.

I understand that this afternoon Richard Morris will be sharing his experience at the European Marine Energy Centre in Scotland.

I am following with interest the proposal to establish a testing centre here in New Zealand. A twinned Marine Energy Centre is an interesting concept and one that has opportunities for New Zealand as a gateway to the Asia-Pacific region.

We have a wave climate that is second to none. If a device can work and function in New Zealand, it will work anywhere.

This is the sort of export industry we want to get into. We need to grow more high-tech exporters to sit alongside our other sectors, like primary industries and tourism.

The Government's innovation agenda

Expanding our innovation base has been the main objective of science and innovation policy under this Government.

This is one of this Government's six pillars of economic growth, to build a strong economy that will provide New Zealanders with better jobs, higher incomes and improved living standards.

The Prime Minister has taken a personal interest in the contribution of science to our future.

Science and innovation have been well supported over the last two Budgets, and the Government is continuing that support in Budget 2011.

Our first Budget in 2009 focused on boosting basic research and raising the profile of science.

Budget 2010 was primarily about boosting business R&D.

This year, the Budget has focused on building links between science and business.

We all know that money is tight. We are focusing funding into high priority areas that will diversify and grow the economy.

There is quite a contrast between this and the ideas that the Opposition recently announced. A blanket tax credit might sound like a nice idea. In reality, it transfers the definition of what actually is R&D into the hands of accountants.

Our approach is to concentrate on business research that will get results. It's not about picking winners. If the Government could pick winners, we would spend all our money at the TAB.

In fact, markets pick winners. There are lots of great ideas. But there are not so many ideas that can be developed, commercialised, and delivered to customers at a price they are willing to pay.

Our policies are about backing winners.

That is why this year a further \$24 million of funding is being reprioritised to grow successful and innovative companies through R&D.

We are also not forgetting what has happened in Canterbury. We are redirecting a further \$12 million into earthquake research to help inform the rebuilding of Christchurch as a smart, modern city.

Investment in business R&D is also continuing to rise due to decisions made in the 2010 Budget.

For example, funding for the Technology Development Grants is rising from \$22.5 million in 2010/11 to \$45 million in 2011/12 and \$60 million in 2012/13. This grant is 20% of the value of R&D undertaken by companies that have proved themselves as successful innovators.

The Government's strong investment in business innovation has helped produce growing business interest in investing in R&D. The latest R&D survey shows that there has been a 13% rise in investment in R&D over the past two years.

The total R&D investment across all providers is now nearly \$2.5 billion. Of particular note is a 10% rise in business investment to around \$1 billion. This has happened during tough economic times. Clearly our policies are helping stimulate this increased investment.

Business-facing funding is one strand of our policy. Making the science and innovation system more efficient and less complicated is another.

This Government has made the biggest changes to New Zealand's science and innovation system in the past 20 years.

The changes include the formation of the new Ministry of Science and Innovation. One of the ministry's major tasks is improving knowledge and technology transfer from the research sector to businesses.

We also led a round of reforms for the Crown Research Institutes. The aim is to allow them to focus on their core science roles and ensuring that their innovations get from lab bench to end user - including business.

From the feedback thus far, these reforms have succeeded. CRIs now have more long-term funding certainty. They are more focused on sector needs. They can spend more on science, and less on bureaucracy.

Conclusion

This AWATEA conference is a great example of what we are doing. It is taking innovative technologies, and looking at how to apply them to achieve business

The Marine Energy Centre and other initiatives certainly have potential to address New Zealand's energy needs, and contribute to a secure, competitive and resilient economy here.

I applaud AWATEA for what you have achieved to date.

The links you have established between business and research are exemplary.

The programme you have put together for this conference demonstrates how well connected you are, nationally and internationally. And the attendance here today is evidence of the value that Awatea provides to the sector.

As I said in my opening, Awatea translates as "new dawn".

The sun is rising in New Zealand for these new energy sources. There are many opportunities for our country in wave and tidal energy. It is exciting to see some of these opportunities beginning to be realised.

I am sure that this conference will help catalyse some relationships, ideas and projects that will advance your theme, the Business of Marine Energy, in New Zealand.

Thank you.