

Office of Hon Simon Bridges

MP for Tauranga

Minister of Energy and Resources

Minister of Labour

Associate Minister for Climate Change Issues

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2 1 MAR 2014

Mr Gary Cranston fyi-request-1467-4954bec5@requests.fyi.org.nz

Dear Gary

I refer to your Official Information Act 1982 request received 16 February 2014 regarding

- any briefings provided to the Minister in relation to discussions between the Minister and US Secretary of Navy Ray Mabus held on the 3rd February 2014;
- the Minister's recollections of the meeting, including specific technologies, companies, corporate entities, specific contracts (existing or not yet existing) and projects discussed;
- any briefings or discussions the Minister may have delivered to cabinet colleagues in relation to this meeting.

Attached is a briefing provided to myself titled "Meeting with US Secretary of the Navy, Ray Mabus". Some information has been withheld in accordance with s9(2)(j) where the withholding of information is necessary to enable a Minister of the Crown or any Department or organisation holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations). Other information has been withheld under s6(a) where the release of information would be likely to prejudice the international relations of New Zealand. I do not consider that the withholding of this information is outweighed by public interest considerations in making the information available.

Secretary Mabus and I did discuss issues of mutual interest such as respective country experiences with biofuels and energy efficiency and conservation measures. However, no formal minutes of the meeting were taken so I am, therefore, obliged to decline your request under section 18(e) of the Official Information Act 1982.

I have not briefed or had discussions with my Cabinet colleagues in relation to my meeting with Secretary Mabus. I am, therefore, again obliged to decline your request under section 18(e) of the Official Information Act 1982.

You have the right to ask the Ombudsman to investigate and review my decision to withhold information.

Yours sincerely

Hon Simon Bridges

Minister of Energy and Resources

Meeting with US Secretary of the Navy, Ray Mabus

| То | Hon Simon Bridges | Priority | Medium |
|------|-------------------|----------|-----------------|
| Date | 31 January 2014 | Deadline | 3 February 2014 |

Purpose

This briefing provides background information for your meeting with the United States Secretary of the Navy, Ray Mabus, from 9:00-9:30am on Monday, 3 February.

Recommendation

2 We recommend that you note the contents of this briefing

Talking points

- I understand that you have ambitious goals to increase the use of biofuels in the Naval fleet, and that you ran a successful demonstration in 2012. What did you learn from the demonstration, and how are you taking things forward from there?
- The New Zealand Covernment is actively investing in advanced biofuels R&D. While the scale of our research of course continued that of the United States, I think there is still significant potential for collaboration between New Zealand and US researchers. For example, we have some specific knowledge and research around making biofuels from softwoods.

Information withheld

- We've faced quite some challenges convincing high-level business executives of the benefits of energy efficiency, especially given their other priorities. What lessons have you learned from trying to catalyse change among the leadership of the Navy?
- I understand that you also have an interest in leveraging the Navy's position as a large buyer of goods and services to catalyse more energy efficient behaviour up the supply chain. Have there been any developments in this area?
- As we review New Zealand's Oil Spill Response Strategy this year, I would be interested to hear any insights you may have gained from your work on recovery planning following the Deepwater Horizon oil spill.

The US Secretary of the Navy, Ray Mabus

3 Ray Mabus is the 75th United States Secretary of the Navy and leads America's Navy and Marine Corps. He is responsible for an annual budget of over US\$170 billion and leadership of almost 900,000 people.

- 4 His last visit to New Zealand was in January 2010, when he met the Prime Minister and Minister of Defence, along with defence, foreign affairs and energy officials (including Mike Underhill of EECA). His current visit includes a call on the Minister of Defence, and meetings with officials from selected agencies.
- Secretary Mabus' priorities in his role include improving the quality of life of sailors, marines and their families, decreasing the Department's dependence on fossil fuels, strengthening partnerships and revitalising the Navy's shipbuilding program.
- 6 He has a particular interest in alternative energy and energy efficiency, and has set a number of ambitious goals for the Navy in these areas. He also has experience in the area of marine oil spill recovery and planning.
- 7 Annex 1 provides further biographical information on Secretary Mabus.

Alternative energy and energy efficiency

- 8 The US Department of Defense accounts for around 93 percent of total US government petroleum consumption, with the Navy accounting for around 22 percent of this. While the majority of Navy energy consumption is in tactical use (such as in ships and aircraft in the field), the energy consumption onshore (e.g. in vehicles and housing) is still, in absolute terms, very significant.
- 9 In this context, Secretary Mabus established the tollowing energy-related goals for the US Navy:
 - a. Energy Efficient Acquisition Evaluation of energy factors will be mandatory when awarding Department of the Navy (DoN) contracts for systems and buildings.
 - Sail the "Great Green Fleet": DoN will demonstrate a Green Strike Group in local operations by 2012 and sail it by 2016.
 - c. Reduce Non-Tactical Petroleum Use: By 2015, DoN will reduce petroleum use in the
 - of shore-based energy requirements from alternative sources; 50 percent of Navy and Marine Corps installations will be net-zero.
 - e. Increase Alternative Energy Use DoN-Wide: By 2020, 50 percent of total energy consumption will come from alternative sources.
- 10 Under the Secretary's leadership, the US Navy has been exploring and implementing a range of renewable energy and energy efficiency opportunities. These include hybrid-electric ships, biofuel use and energy efficiency improvements in naval vessels, and solar photovoltaics and energy efficiency improvements at bases.

Alternative transport fuels and energy efficiency in Naval fleets

11 In 2012 the US Navy demonstrated the "Great Green Fleet" through a carrier strike group in which every participating ship and type of aircraft operated on alternative energy sources including nuclear energy and biofuels (primarily from cooking grease and algae oil).

¹ A Carrier Strike Group fuelled by alternative sources of energy such as advanced biofuels and nuclear power.

- 12 There was some criticism over the cost of this demonstration since the 50 percent biofuel blend used was around four times more expensive per gallon than conventional fuels. Nevertheless, Secretary Mabus considered it a success by proving that the green-fuels blend was safe and effective in combat situations.
- 13 The next step is developing an industry that can produce 'green' fuels in sufficient volumes and at an affordable cost.

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Catalysing change

- 18 Secretary Mabus has been an advocate for changing institutional cultures and the way those in leadership positions think about energy efficiency and alternative energy. This approach is consistent with EECA's new approach to business programmes, which has a stronger focus on partnering with large energy-using businesses (in particular) to influence change at executive levels.
- 19 He is also interested in how the US Navy may be able to leverage its position as a large buyer of goods to catalyse behaviour change and energy efficiency along the supply chain.
- 20 For your reference, Annex 2 provides a summary of key New Zealand Government policies related to alternative transport fuels and energy efficiency.

Marine oil spills

21 In June 2010, as an additional duty, President Obama appointed Secretary Mabus to prepare the long-term recovery plan for the Gulf of Mexico following the Deepwater Horizon oil spill. Secretary Mabus' report was released in September 2010 and received broad bipartisan support, with most recommendations passed into law by Congress as the Restore Act 2012. To date, civil penalties of more than US\$ 800 million have been distributed to a fund to aid in the Gulf Coast's recovery.

New Zealand policy

- 22 New Zealand has used the lessons learned from the Gulf of Mexico incident and has applied a stronger and more robust regulatory regime to offshore exploration and drilling in New Zealand. The new regime requires operators to prove that they can undertake drilling activities in a safe and responsible way.
- 23 Maritime New Zealand's Oil Spill Response Strategy is being reviewed this year, following the review of the Rena response in 2013. The review of the Strategy will likely be informed further with lessons learned from the Gulf of Mexico incident, and best practices from around the world.
- 24 With respect to financial costs related to oil spills, New Zealand imposes an Oil Pollution Levy on marine vessels based on the principle of the potential polluter paying. The levy is intended to meet the outgoing expenditure of Maritime New Zealand's Oil Pollution Fund. The New Zealand Government is currently reviewing the minimum insurance level that offshore oil installations are required to hold, with a view to increasing this in 2014.
- 25 On 28 February, you are due to visit BP in Houston to discuss oil spill prevention, immediate clean-up, environmental restoration and economic recovery, and lessons from the Deepwater Horizon incident. This will include meeting executives from BP's Gulf Coast Restoration Organization, which is managing the company's long-term response to the Deepwater Horizon incident and the MCZ52 oil and gas spill. The detailed programme for your visit is being provided to your office separately.

Collaboration between the US Wavy and New Zealand

Existing collaboration

- 26 The New Zealand and United States Governments currently collaborate on various areas of energy policy, both on a bilateral basis and through major multi-lateral fora such as the International Energy Agency, International Renewable Energy Agency, and Asia Pacific Economic Co-operation.
- 27 NATE is working with a number of New Zealand energy companies active in the United States, some of which are in the defence arena.
- 28 Annex 3 provides examples of existing energy-related collaboration between the New Zealand Government and/or New Zealand companies and US defence agencies.

Future collaboration

29 The United States-New Zealand defence partnership is stronger now than ever, following the Wellington and Washington Declarations². This may provide scope for further increasing the level of cooperation.

² The Washington Declaration is a new defence cooperation arrangement between the United States and New Zealand, signed in June 2012. It is a companion document to the 2010 Wellington Declaration. These documents have two key elements: regular high-level dialogue, and enhanced cooperation within the Asia Pacific region.

- 30 The RNZN is very interested to be involved with the initiatives arising out of the Great Green Fleet initiative. Any initial RNZN input would likely be very modest but, at a minimum, would support sharing of information, alignment of trials, and methods of achieving savings through technology advancement or improved operating procedures.
- 31 Similarly, the New Zealand biofuels research industry and biofuels companies could benefit from the findings of US Navy research.

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Simon Lawrence

Manager, Energy Markets Policy

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Hon Simon Bridges

Minister of Energy and Resources

Annex 1 Biographical information on US Secretary of the Navy, Ray Mabus

Background

Ray Mabus is the 75th United States Secretary of the Navy and, since May 2009, has led America's Navy and Marine Corps.

Secretary Mabus is responsible for conducting the affairs of the Department of the Navy, including recruiting, organizing, equipping, training and mobilizing. He also oversees the construction and repair of naval ships, aircraft, and facilities, and formulates and implements policies and programs consistent with the national security policies established by the President and the Secretary of Defense. He is responsible for an annual budget of over US\$170 billion and leadership of almost 900,000 people.



Mabus' priorities in his role are improving the quality of life of Sailors, Marines and their families, decreasing the Department's dependence on fossil fuels, strengthening partnerships and revitalizing the Navy's shipbuilding program.

Leading the world's only global back Mabus has traveled nearly to over 95 countries to maintain and develop relationships with national and international officials and visit Sailors and Marines deployed or stationed around the world. To prepare service members and their families for the high tempo operations of today's Navy and Marine Corps, Mabus announced in 2012 the "21st Century Sailor and Marine" initiative, designed to build and maintain the most resilient and ready force possible.

Energy initiatives

Mabus also directed the Navy and Marine Corps to change the way they use, produce and acquire energy, and set an aggressive goal that, no later than 2020, the Navy and Marine Corps obtain at least 50 percent of their energy from alternative sources. In pursuit of that goal, the Department has achieved several milestones. In 2012, President Obama announced in his State of the Union address that the Department will purchase or facilitate the production of 1 GW of renewable energy for use on Navy and Marine Corps installations. The Navy also demonstrated the Great Green Fleet in 2012, a carrier strike group in which every participating US Navy ship and type of aircraft operated on alternative energy sources including nuclear energy and biofuels.

In 2013 he received a "Star of Energy Efficiency" award from the Alliance to Save Energy, for his commitment to helping make the US Navy a global leader in energy efficiency and helping to elevate the issue at the Pentagon.

In June 2010, as an additional duty, President Obama appointed Secretary Mabus to prepare the

long-term recovery plan for the Gulf of Mexico following the Deepwater Horizon oil spill. Secretary Mabus' report was released in September 2010 and received broad bipartisan support, with most recommendations passed into law by Congress as the Restore Act 2012. To date, civil penalties of more than US\$ 1 billion have been distributed to a fund to aid in the Gulf Coast's recovery.

Prior to appointment as Secretary of the Navy

Before his appointment, Mabus held a variety of leadership positions. From 1988 to 1992, he served as Governor of Mississippi, the youngest elected to that office in more than 150 years. He was Ambassador to the Kingdom of Saudi Arabia from 1994-1996 and later was Chairman and CEO of a manufacturing company.

Mabus has been recognized for his leadership of the Mayy and Marine Corps on multiple occasions. In 2013, he was named one of the top 50 highest rated CEOs by Glassdoor, an online jobs and career community. Wabus was the only leader of a federal agency to receive this award.

Education

Secretary Mabus is a native of Ackerman, Mississippi, and received a Bachelor's Degree, summa cum laude, from the University of Mississippi, a Master's Degree from Johns Hopkins University, and a Law Degree, magna cum laude, from Harvard Law School. After Johns Hopkins, he served in the Navy as an officer aboard the cruiser USS Liftle Rock

Annex 2 New Zealand Government activities to promote alternative fuels and energy efficiency

For reference, this section outlines major New Zealand Government activities related to alternative transport fuels, heavy transport energy efficiency and industrial energy efficiency and fuel switching.

Biofuels

- In February 2007 the then Government of New Zealand announced a Biofuels Sales Obligation, requiring biofuels to be introduced into the New Zealand fuels market. The sales obligation was to take effect on 1 October 2008 and require all oil companies to supply biofuels as a fixed percentage of their total sales (increasing to a minimum of 3.4 percent by 2012).
- On 17 December 2008, Parliament agreed to revoke the obligation. It was determined that the biofuel industry in New Zealand was not yet large enough for the obligation to be met from domestic sources, and would need to rely on imports. The new Government introduced a Biodiesel Grants Scheme instead.
- 4 The Biodiesel Grants Scheme ran from 1 July 2019 to 30 June 2012 and aimed to kickstart New Zealand's biodiesel production inclusive. The scheme was designed to:
 - a. provide support for the growth Wew Zealand biodiesel manufacturing industry as an economic development measure
 - b. Offer comparable treatment with bioethanol for biodiesel
 - c. diversify the New Zealand fuel market; and
 - encourage the adoption of environmentally-responsible fuels that reduce greenhouse gas emissions.
- 5 kinds the scheme, a grant of up to 42.5 NZ cents per litre for biodiesel or biodiesel content of a biodiesel blend was available to biodiesel producers. The grant was payable monthly in arrears to producers whose product sales amounted to, or were in excess of, 10,000 litres, B100 content (100% biodiesel) per month.
- 6 Uptake under the Scheme was lower than expected, and the Scheme encouraged first-generation biofuels (made from plant seed oils or waste cooking oil) and did little to explicitly encourage the more promising advanced biofuels (made from wood waste or solid municipal waste). The biodiesel grants scheme came to an end, as scheduled, in 2012.
- The government's focus is now on bringing forward advanced biofuels rather than first-generation biodiesel. Between 2008 and 2014 the New Zealand Government is investing NZ \$42 million in a number of research projects on advanced biofuels. A variety of feedstocks are being considered through this research (such as wood, and algae from wastewater).

- We are also providing NZ\$ 6.75 million of co-funding for the NZ\$ 13.5 million Stump-to-Pump project. This project is studying the feasibility, including the cost-effectiveness, of making biofuel from forestry waste. It will determine the commercial viability of establishing a modular test plant to process New Zealand forest waste into sustainable transport fuel.
- As part of the 2014 Science Contestable Funding Round, MBIE is looking to invest up to \$1 million p.a. into bioenergy research. The focus of this investment is targeted at leveraging New Zealand's natural resources through energy-related research that will support industrial symbiosis projects centred around wood waste usage.

Electric vehicles (EVs)

- 10 The New Zealand Government's current activities to support EVs include:
 - a. an exemption from the Road User Charge for light EVs (which has been extended to 30 June 2020)
 - b. promoting the uptake of EVs in public sector fleets (e.g. through EECA's Crown Loans and partnership with Mitsubishi on a demonstration project in Christchurch)
 - c. ensuring Kiwis get accurate, authoritative information about the benefits of EVs and the choices available to them (e.g. through the EECA website and Vehicle Fuel Economy Label)
 - d. promoting performities for businesses and agencies to trial the use of EVs, as a means to reduce scenticism of the new technology and increase a ready market ahead of EVs becoming economic.
- 11 Siven that the main patrier to faster EV uptake is the current relatively high cost, and that New Zealand is largely a technology-taker, government involvement may be most valuable in the form of providing information to consumers, ensuring there are no regulatory barriers to increased EV uptake, and ensuring the electricity market can cope with increased demand from EVs.

Transport energy efficiency

- 12 EECA's Heavy Vehicle Fuel Efficiency programme aims to improve the fuel efficiency of heavy vehicle fleets through expert advice and funding assistance. In particular, EECA provides trained heavy vehicle performance advisers to review the operations of heavy vehicle fleets and identify where fuel efficiency opportunities exist and how to implement changes.
- 13 EECA also administers a mandatory vehicle fuel economy label, which helps consumers factor in efficiency and running costs when choosing a vehicle.

Industrial energy efficiency and fuel switching

- 14 EECA's Business programme provides a range of support and grants to assist investment in energy efficiency. These include:
 - a. group-wide energy management grants, which help businesses put in place energy management plans across their sites, or across industry groups, to identify opportunities, share knowledge and ensure benefits are bedded in for the long term.

- b. *technology demonstration grants*, which encourage the uptake of new technologies, and showcase what is possible.
- c. training courses and webinars to educate businesses and support capability development of the service provider community.

It also provides information and resources to support businesses in making better choices of fuel, such as to assist businesses considering switching from fossil fuels to renewable energy. For example, the Wood Energy Knowledge Centre provides tools and information for using wood residue as a renewable energy source, enabling more use of the vast wood energy resource available in New Zealand. Project grants and feasibility studies are available across a variety of sectors.

Annex 3 Existing collaboration between New Zealand and the US military

There are several examples of the New Zealand Government and/or New Zealand companies collaborating with the United States Navy or other US military organisations. A few are outlined below.

Collaboration involving the New Zealand Government

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Withheld under s6(a)

4 New Zealand Trade and Enterprise continues to enjoy a good working relationship with many parts of Lockheed Martin, a leading global defence and technology company headquartered in the United States. The company's New Zealand staff focuses primarily on servicing a major logistics management contract with the New Zealand Defence Force and Police, and the US Government's Antarctic Programme in Christchurch. Lockheed Martin is dedicated to commercialising new technologies within the alternative energy space, in particular the potential to develop ocean-based power. You may recall meeting a New Zealand representative of Lockheed Martin in November 2013.

Collaboration involving New Zealand companies

- 5 10 2011, Sean energy technology company LanzaTech was awarded funds from the Defense Advanced Research Projects Agency (DARPA)3 to perform research focusing on hovel. low-cost routes for the production of jet fuel from carbon monoxide-rich sources.
- Blended Fuel Solutions New Zealand Limited is a distributor for the US company Alternative Petroleum Technologies. The companies' activities include using patented processes and chemicals to make each litre of fuel go further and/or to reduce tailpipe emissions.
- 7 Aquaflow has been working closely with UOP, a Honeywell Corporation in the US, to optimise the refining of Green Crude™, a product of algal biomass. This oil was successfully refined into diesel and jet fractions.
- Windflow Technologies has been working with US company General Dynamics, through which some Windflow wind turbines have gone into United States military installations.

Briefing No: 1609 - 13-14

MBIE-MAKO-14246756 Prepared by: Anna Morris

DARPA is a US government agency that commissions advanced research for the US Department of Defense.

9 Started in 1983 in Christchurch, **Arvus Group** (NZ) and Arvus Global (USA) is a multi-disciplinary, international business [Information withhold

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