PROACTIVE RELEASE COVERSHEET

Minister	Hon Dr Megan Woods	Portfolio	Energy and Resources, Government Digital Services, Research, Science and Innovation, Earthquake Commission
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List of documents that have been proactively released				
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Information redacted

YES / NO (please select)

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Some information has been withheld for the following reasons:

- Commercial information
- International relations

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[In Confidence]

Office of the Minister for Government Digital Services, Energy and Resources, Minister for Greater Christchurch Regeneration, Research Science & Innovation, and Minister Responsible for EQC.

Chair, Cabinet

Report on Overseas Travel: Hon Dr Megan Woods

I recommend that Cabinet note this report on my travel to Germany, the Netherlands and the United Kingdom from 6 – 14 April 2019.

Report

Germany

- In Germany I attended and spoke on a panel at the Berlin Energy Transition Dialogue, an annual event hosted by Germany which attracts 30+ ministers and a wide cross-section of industry and civil society.
- In addition, I met with my German counterpart Peter Altmaier, Alstom, Siemens, BMW, the Australian Energy Market Operator, my Chilean counterpart Susana Jimenez Schuster, and newly appointed IRENA Director-General Francesco La Camera.
- In Berlin I met with my energy counterpart Peter Altmaier in the margins of the Berlin Energy Transition Dialogue. We covered a number of topics during the short meeting. He passed on his condolences for the terrorist attack in Christchurch and noted the 'overwhelming' support in Germany for New Zealand and how impressed the German government had been by New Zealand's response to the attack, expressing his hope that Germany could support New Zealand in any way we needed.
- On Germany's energy policy, Altmaier noted that it had "more natural challenges" than New Zealand in terms of access to renewables, but that he still thought Germany had a responsibility to make change. He pointed to Norway and Qatar as examples of countries which had done very well out of oil, but were now committed to the transition to a fossil-free future.

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5	International relations

- 6 Three key themes came up frequently in energy meetings:
 - (i) decarbonisation with the aid predominantly of electrification and hydrogen, both powered by renewable sources, with hydrogen being validated by both Siemens and Alstom as a good option for transport on consistent routes and for large body vehicles whilst electrification was preferred for small, flexible and spontaneous transport. Hydrogen as a viable energy carrier and storage medium was also confirmed;
 - (ii) decentralisation in the sense of making smart use of renewable resources wherever available (e.g. a wind turbine linked directly to an electrolyser and hydrogen refuelling station for a train station) but with a strategic national network and electricity grid where needed (while NZ is advanced in this latter area, many others we spoke to lacked a national grid that could transport sufficient volumes of electricity to power different parts of the country); and
 - digitalisation to mediate between different parts of the more complex energy system expected to emerge as a result of these transformations (e.g. changing proportions of baseload and intermitt nt generation as renewable energy replaces fossil fuel sources). On the theme of digitalisation, comments were also made around energy markets and the success (or not) of competition in driving better outcomes for consumers. Some we spoke to thought that we may be at a policy turning point, headed towards greater state management and less reliance on market forces.
- It was also clear from our meetings that there may be various energy research and innovation collaboration opportunities with German companies. International relations
- With regards to my Research, Science and Innovation portfolio, I was hosted for dinner by the Parliamentary State Secretary for Education and Research, hosted a lunch for a group of MPs from the Education and Research select committee and Pacific parliamentary friendship group, met with the Federal Government Coordinator for Aerospace Policy, and with President of the German Research Foundation (DFG) Professor Dr Peter Strohschneider, and visited a privately-run innovation centre "Mittelstandscampus" focused on getting SMEs to adopt Industry 4.0. These International relations
 - in the science and innovation space, and provided an opportunity for the delegation to learn more about the extensive research and innovation landscape in Germany and explore some areas for strengthening our bilateral scientific partnership. In general, the warm engagement indicates the Germany-NZ relationship on science remains strong.
- On Industry 4.0, it was clear that the German government and business is continuing to invest heavily in this area. At the large scale end, BMW had incorporated a number of machine learning and robotics technologies into its production facilities. This was both enabling staff to become more efficient at their tasks (using collaborative robots for commonly performed tasks that are hard to repeat) and improving quality (using cameras combined with machine learning to pick up and then eliminate faults in the production chain before cars are completed).
- In terms of follow up actions on science and innovation, the most substantive meeting was with the DFG, who has previously funded International Research Training Groups in New Zealand. The DFG has found these very good for developing

	bilateral research relationships among younger researchers, who then collaborate throughout their careers. The Minister outlined New Zealand's comprehensive commitments to transitioning to a zero carbon economy and the number of research programmes existing in this and the climate science area. Dr Ingrid Krüßmann, Deputy Director for International Affairs suggested that in addition to considering
	International relations
11	I also met with Minister of State for Digitalisation Dorothee Bär. Bär expressed her condolences for the terrorist attack in Christchurch, saying she knew that Chancellor Merkel had 'promised her support' to Prime Minister Ardern and that they would meet soon.
12	International relations
13	International relations
14	Bär noted that while violent extremist content online was a real threat, there were those who would use this hreat to justify restrictions on the internet that could damage democ acy. In this regard international relations
15	There was also a brief discussion around New Zealand's Integrated Data Infrastructure and other government held data sources (which the German side was very impressed with), and the differing levels of social license in New Zealand and German society around government access to private data. MBIE has followed up with Bär's team to encourage information sharing about the way in which Statistics NZ securely manages the various data sources it holds to maintain this social license.
16	In Munich, I met with reinsurance company commercial information to thank them for their commitment to New Zealand. Interlocutors noted that commercial information sees New Zealand and Australia (which are treated as one market) as a very important market, and has approximately 300 staff in the region. Although it's a small market in GDP terms, because the population is so highly concentrated, both societies are wealthy and in their own ways very prone to natural disasters, it's a much more important market than GDP alone would suggest. Commercial information sees itself as a long-term partner for NZ on earthquake risk, to help diversify risk globally.

- As part of a discussion on wider trends in insurance, commercial information noted that risk modelling is changing because of new science e.g. new building techniques, but these need to be incorporated into standards. Of course building standards are targeted to avoid loss of life rather than property damage, so new science/techniques don't automatically mean a lower cost to insurers.
- 18 commercial information is finding today a global trend towards more small claims, with high expectations as to costs covered e.g. an expectation that a whole roof will be replaced when only a few tiles need to be, so that it matches.
- Climate change is also a big focus for commercial Information It is looking at both the risk of climate change itself, as well as risks arising from climate change mitigation measures. Commercial Information

 although existing contracts on e.g. coal power plants will be honoured. Commercial is considering what positive action it can take e.g. last year it insured some solar panel manufacturers for 25 years, and is also considering how it can assist countries to lower their physical risks from climate change.
- This was a useful and substantive first visit by Minister Woods to Germany, emphasising our commitment to the bilateral science relationship, gaining profile at the Berlin Energy Transition Dialogue and highlighting New Zealand's credentials in the renewable energy sector, and engaging with a key reinsurer. As the first visit by a New Zealand Minister to Germany since the terrorist attack in Christchurch, it also provided an opportunity for Minister Woods to receive messages of condolence and thank Germany for its support, including on countering violent extremist content online.

The Netherlands

- Whilst in the Netherlands I met with M nister of Economic Affairs and Climate Policy, Eric Wiebes. I also hosted a roundtable meeting with members of the "Roadmap Next Economy" project team which provided a useful exchange on best practice and lessons learned regarding a just transition in respective Taranaki and South Holland regions. I also visited Delft University of Technology which provided insights into the Netherlands' experience and ambitions in the development of hydrogen.
- New Zealand and the Netherlands are both highly ambitious and share many of the same challenges, for example dealing with agricultural greenhouse gas emissions. The joint cooperation in the Global Research Alliance on Agricultural Greenhouse Gases (GRA) was important, and Dutch officials welcomed the opportunity for further collaboration on solutions to incentivise decarbonisation in other sectors.
- At my meeting with Minister Wiebes we discussed out countries' parallels with regards to the just transition in its regional centres. Following a number of earthquakes as a result of decades of gas extraction, the Dutch government last year pledged to end gas production in the Groningen field by 2030 and to lower it as quickly as possible in coming years. As the nation's gas production centre, the decision will have significant impacts for the region, with job losses and the need for revitalisation of the local economy. To assist with the transition, an Energy Transition Centre has been opened in Groningen, the aim of which is to consolidate leadership and energy expertise and to contribute to the transition towards a sustainable, reliable and commercially viable energy economy. Dutch officials were open to

- sharing lessons on this and, should New Zealand establish a similar centre in the future, would welcome the possibility of facilitating links between the two centres.
- A transition is also under way at the other end of the country, in the south of Holland a region historically rooted in the fossil fuels industry. In light this, in 2015, the Mayor of Rotterdam launched the "Roadmap Next Economy" process, as a means to prepare local communities and businesses for a successful transition to a low carbon economy and to "get ahead of the curve". The Roadmap team comprises representatives from the public and private sector, academia and civil society. Members of the Roadmap team emphasized the importance of an inclusive process, developing a plan for regional economic development, and attracting businesses and innovation to the region.
- Professor Ad van Wijk (Delft University of Technology) provided a helpful update on the development of the Netherlands' hydrogen strategy. The conversation around hydrogen development in the Netherlands has been accelerated somewhat due to the decision to halt large-scale gas production in Groningen. It has raised questions regarding future energy sources, but also questions rega ding a just transition for the region. In the EU, gas pipelines begin in northern Europe which can also be used to transport hydrogen (only need to replace the compressors which can be re-fitted for hydrogen). While the north of the country produces a significant amount of wind energy, the current electricity grid infrastructure is not capable of transporting it. Capacity and costs means that it makes more sense to convert to hydrogen.
- Aside from the technical aspects, Professor van Wijk also underlined the importance of shaping the market and ensuring the right market conditions are in place it was important for countries to be in a position to scale up and reduce costs for hydrogen. Both Professor van Wijk, and officials from the Ministry of Economic Affairs and Climate Policy, emphasized the importance of amending legislation and regulations so as to ensure external parties could access the market and infrastructure.

The United Kingdom

- In London, I me with Margot James MP (Minister of State for the Department of Digital, Culture, Media and Sport) and noted that the Prime Minister was leading a programme of work on countering extremist content online. In order for our efforts to be successful, however, New Zealand would need to part of a global initiative among like-minded countries, including the UK.
- Minister James offered her condolences for the tragic events in Christchurch, saying that she had been "amazed by the affinity [she] felt" for New Zealand over the following days, and agreed that it would be important to work collectively.
- The UK Government was seized of the need to tackle online harms and had earlier that week published a White Paper which would lead to legislation over the next two to three years. The launch had gone well and the paper had been positively received. There were a number of challenges still to be addressed, however, including how to deal with encrypted content and private/closed groups and how to ensure the appropriate balance was struck between the prevention of harm and the protection of free speech. We both noted that there was a distinction between the right to free speech and the right to prominence.

- Our conversation also canvassed issues relating to digital identity and digital rights. I encouraged the UK to become more closely involved in the digital rights work of the Digital 9 (D9). Minister James responded positively and undertook to consider the invitation, noting that the digital rights agenda might be a useful avenue through which to explore questions relating to, inter alia, freedom of speech.
- Whilst in London I also met with Sir Alan Wilson, Director for Special Projects, who provided a briefing on the Alan Turing Institute (ATI). Sir Alan said that following his 2018 visit to New Zealand, and more recent visits by other members of staff, the ATI was very positive about the value of working with New Zealand. New Zealand's data sets made it a particularly good partner for the ATI, especially in areas like health, where data was difficult to access and collate in the UK due to privacy regulations. As well as the two ATI-New Zealand pilot projects currently under way (Auckland Transport and the E-Atlas), Sir Alan noted that ATI was beginning to collaborate with the New Zealand Ministry of Justice (MoJ) on using data to reduce reoffending
- In my capacity as Minister for Energy and Resources I met with Professor Jim Skea, Chair of Scotland's Just Transition Commission to discuss Scotland's experience with renewables, its approach to climate change and potential areas for collaboration with New Zealand.
- 33 Skea outlined Scotland's approach to setting emission targets and provided an update on Scotland's climate change legislation, which is currently in Stage 2 and would likely be amended in an effort to enshrine the Transition Commission in law.
- Skea noted that while the Scottish utilities sector had largely got behind renewables, the oil and gas sector remained concerned about the prospect of jobs following the sectors potential transition. Minister Woods highlighted the leadership New Zealand unions had shown in the renewables space but acknowledged that there was an ongoing need to ensure there were quality, well-paid jobs.
- In meetings with the reinsurance sector (Aon Reinsurance Solutions, Commercial Information I acknowledged the critical role the sector had played in supporting New Zealand resilience, including Christchurch earthquake recovery and reconstruction I provided an update on EQC, emphasising that the fundamentals were sound and the intention was to fine-tune the system for the 21st century. Senior industry representatives reaffirmed their commitment to reinsurance in the New Zealand market and welcomed any changes to EQC that increased the certainty and clarity of the regime.
- These meetings, and a roundtable discussion with ClimateWise (the global insurance ndustry's leadership group driving collaborative research on climate risk), also explored industry perspectives on climate risk. The sector's thought leaders noted that insurance traditionally featured "at the end of the story", and on the issue of climate risk there was a role for the sector to play "at an earlier link in the chain".
- Inoted the useful role the reinsurance sector could play by adding international context and weight to New Zealand domestic conversations on climate risk mitigation in planning and development. I also identified opportunities for the sector to link into the New Zealand conversation on climate risk, including through participation in the National Science Challenge.
- 38 My last meeting in London was with Bridges Fund Management (BFM) to discuss Commercial Information

Commercial Information

- 39 BFM works with businesses, properties and social sector organisations to drive growth, deliver financial returns to investors and create social and environmental impact. It focuses on four themes: Education and Skills, Health and Well-being, Sustainable Living and Underserved Markets.
- Kneer noted that the impact investment community was beginning to come together to consider how to measure and manage impact. BFM was one of more than 2000 enterprises that had recently agreed on a shared understanding of impact through the Impact Management Project [comment: for further information about the Impact Management Project and its framework for measuring impact see here].

Commercial Information

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Proactive release

This report will be proactively released in due course

Recommendation

I recommend that Cabinet note this report

Authorised for lodgement

Hon Dr Megan Woods

Minister for Greater Christchurch Regeneration

Minister for Government Digital Services

Minister of Energy and Resources

Minister of Research, Science and Innovation

Minister Responsible for EQC