



**Asia-Pacific
Economic Cooperation**

2017/EWG54/004

Agenda Item: 5a

Notable Energy Developments - New Zealand

Purpose: Information
Submitted by: New Zealand



**54th Energy Working Group Meeting
Wellington, New Zealand
22-23 November 2017**



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
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54th APEC EWG meeting – New Zealand update

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New Zealand Energy Efficiency and Conservation Strategy (NZEECS)

- The NZEECS is a strategy that outlines the Government's policies, objectives and targets on energy efficiency and renewable energy in NZ in the next five years.
- The refreshed NZEECS for 2017-22 was released in June 2017.
- The NZEECS identifies the **process heat, transport and electricity sectors** as priority areas for improving energy productivity.



Process Heat in New Zealand (PHINZ)



As process heat is one of the NZEECS' three priority areas...

- A process heat plan – **called Process Heat in New Zealand (PHINZ)** – is currently being developed to improve energy efficiency and the use of renewable energy in the process heat sector, and to build the evidence base to help achieve this.
- Process heat is energy used for commercial and industrial processes, manufacturing or heating. In NZ it is mainly used by the industrial sector (80 per cent).
- **60 per cent of process heat supplied using fossil fuels** (mainly coal and gas). Process heat therefore offers one of NZ's largest opportunities to improve energy efficiency and reduce energy emissions.

NZ Electric Vehicle Programme



- The Government introduced the Electric Vehicles (EVs) Programme in May 2016, with the **goal of 2% penetration by 2021** (i.e. 64,000 vehicles by 2021).

As part of this...

- The Government established a contestable fund of up to \$6 million per year to encourage and support innovative low emission vehicle projects.
- The third round of funding closed in September 2017 and the successful recipients are yet to be announced.
- \$1 million NZD annual allocation (over five years) for a nationwide EV information and promoting campaign.



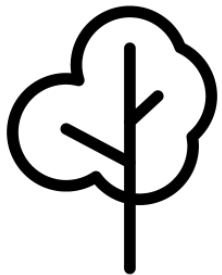
Transition to a Low Emissions Economy



The incoming Government's climate change related policies include...



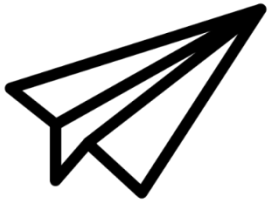
- 100% renewable electricity generation by 2035
- Introduce a Zero Carbon Act
- Establish an independent climate change commission
- All new legislation will have a climate impact assessment analysis
- Government-backed 'Green Investment Fund' of \$100 million NZD
- Billion Trees Planting Programme – planting 100 million trees per year



R&D: Endeavour Fund 2017



- The Endeavour Fund is a contestable funding mechanism, with up to \$48 million invested in research per year.

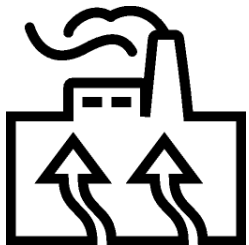


- The 2017 funding round included the following research programmes relevant to energy productivity.

- Victoria University of Wellington – \$6.3 million NZD to research **ultra-high speed superconducting machines for hybrid-electric aircraft.**



- University of Auckland – \$11.8 million NZD to develop technology that **enables EVs to be charged as they're parked** or moving along the road.

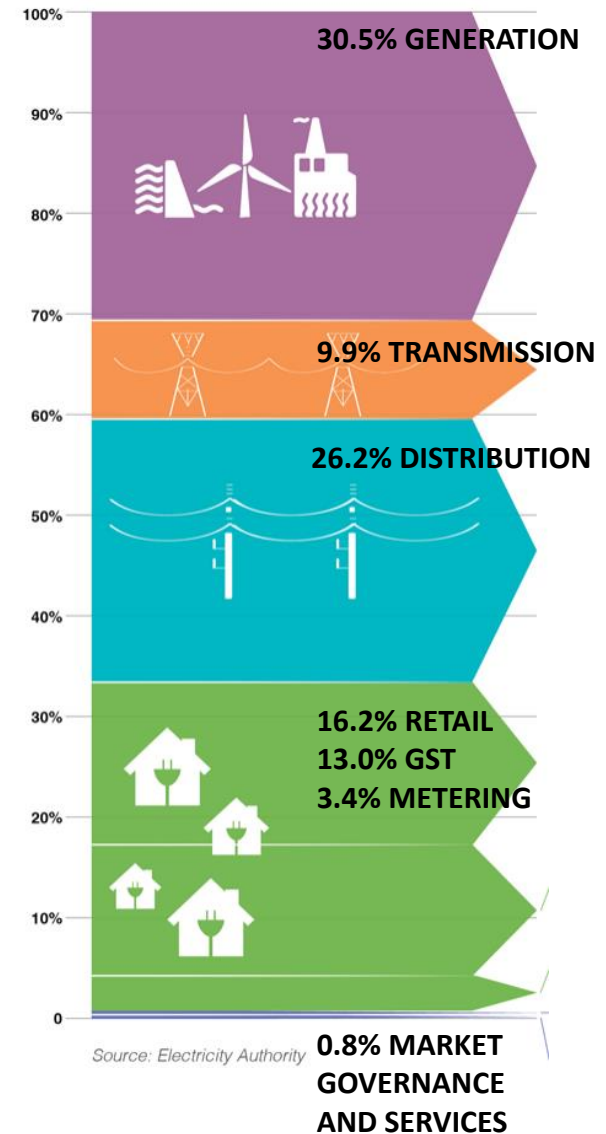


- GNS Science – \$6.25 million for the increased utilisation of geothermal energy through **new integrated geoscience methods.**



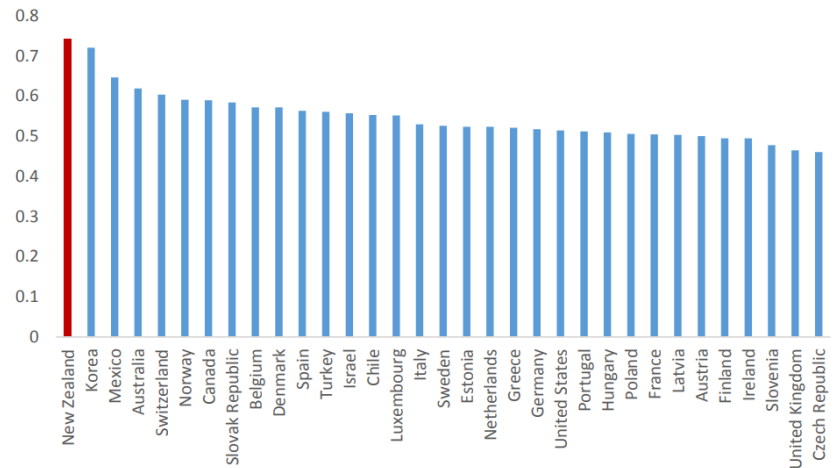
Review of Retail Power Pricing

- The incoming NZ Government has indicated a **full-scale review into retail power pricing** as a priority in its 100 day plan.
- The scope of this review is currently being determined.
- It will likely include looking at the low fixed-charge (LFC) tariff option for electricity consumers.
- The LFC regulations require electricity retailers and distributors to offer low fixed-charge tariff options to households as a way to assist low-use consumers and encourage energy conservation.



NZ Fuel Market Financial Performance Study

- The Government undertook a study looking at retail margins in the NZ fuel market, to determine **whether NZ consumers are paying a reasonable price for their fuel.**
- The Study concluded that *“we cannot definitely say that fuel prices in New Zealand are reasonable, and we have reason to believe that they might not be.”*
- The Study found that:
 - NZ’s pre-tax fuel price was the highest in the OECD (Q4 2016)
 - Gross retail margins increased significantly since 2011
 - Regional variation in margins between North and South Island
- Further work is now being undertaken to determine next steps.



Electric Vehicle and Hydrogen Technology Policy Workshop (APEC EWG 54)



Held as part of APEC EWG 54, 21 November 2017.

- EV and hydrogen technologies are **important components in both NZ and the wider APEC region's transition to a low-carbon future.**
- They offer clean and efficient solutions to reduce emissions from energy and transport, when utilising local renewable energy sources.
- Growth of the EV and hydrogen technology markets will depend heavily on well-crafted policy settings.

