

The Paris Agreement and wind energy in New Zealand

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The Paris Agreement

- Full participation
- Clearer science, clearer goal: 2/1.5 degrees
- Emphasis shifts to TRANSITION to low/net zero carbon FOR ALL
- = renewable energy



Nuclear:



- **Not economic**
- **Not practical**
- **No home-grown technology**
- **Public opposition**



Hydro:



- **> 60% of electricity supply now BUT**
- **limited potential for more**
- **conflicts with tourism**



Solar:



- Spot uses exist
- Not economic for large-scale supply
- NZ a technology taker



Marine energy: high potential, but unproven



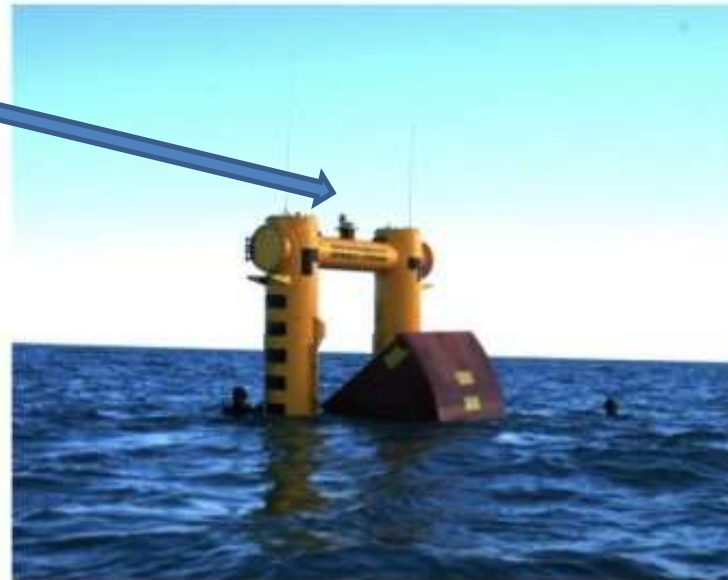
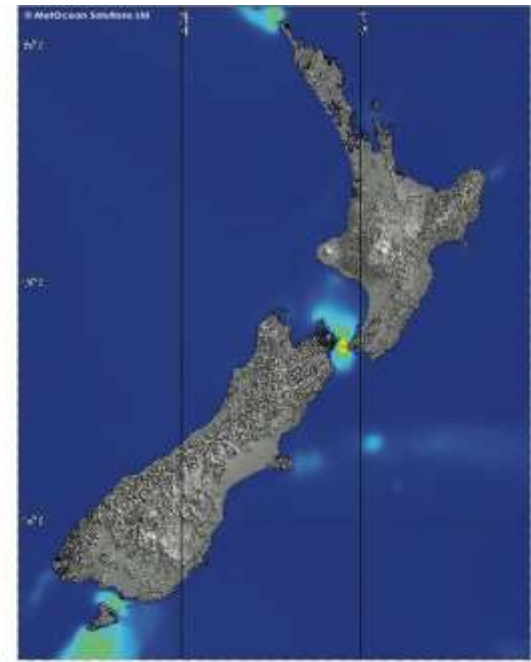
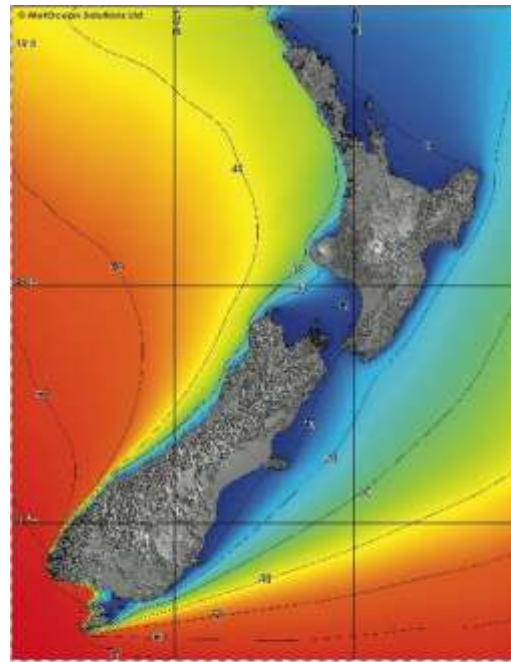
➤ Wave and tide energy
interest ; some projects

➤ None has survived

➤ Probably not ideal for NZ
innovation

➤ Economics not favourable

➤ But a resource for the future



Biofuels



- High potential
- Forestry biomass resource
- Promising research; not fully proven
- Liquid fuels for transport
- Heat for industry
- Co-benefits

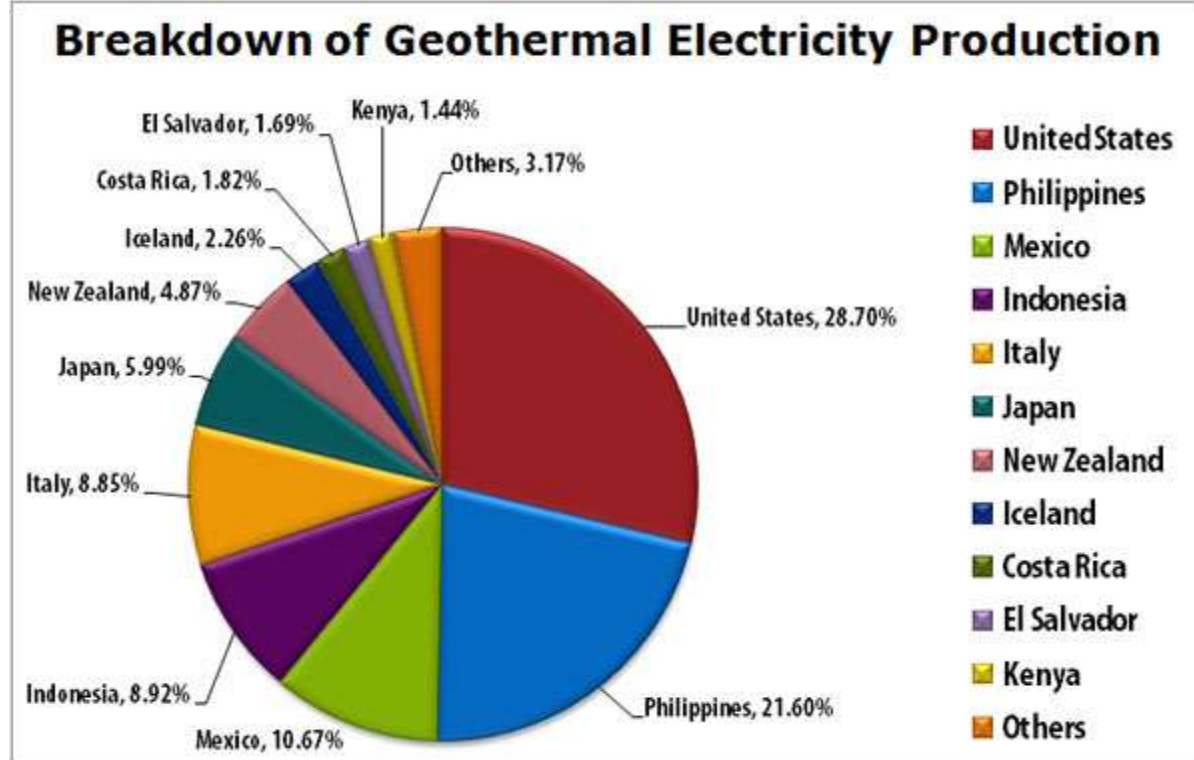


+1.8m ha of forest could meet 60% of liquid fuel demand by 2035

Geothermal: NZ was a world leader



- Potential for revival
- Economics good
- Technology is proven



Wind :



- Economic with no subsidies
- 5% of generation but large consented potential
- High velocity technology:
Windflow



In the wind 2017-2019

- Kyoto or post-Kyoto framing?
- Domestic transition and carbon budgets
 - Regulations – energy, transport, industrial heat?
 - Carbon price?
- NZ's international positioning - “fair share”?
- Domestic carbon market/ETS?
- International carbon market(s)?
- Domestic and international market linkage?

References

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