FORSYTH BARR

NEW ZEALAND EQUITY RESEARCH

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Energy Sector
The Rubber Hits the Road — CCC Draft Report

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The Climate Change Commission (CCC) has released its draft report, setting out its recommendations on how NZ can meet its 2050 climate change obligations. Overall, the winner is the electricity sector with the report highlighting the central role of electricity in decarbonising the economy. The move to replace thermal fuel in the home is an additional boost to electricity demand we had not foreseen. The oil & gas sector is the loser. Whilst this is no surprise, the recommendation to ban fossil fuelled light vehicle imports in the early 2030s will have a modest negative impact on our view of Z Energy's (ZEL) long-term value. The short and medium-term implications to 2030 are relatively small.

CCC recommends acceleration of decarbonisation efforts in the wider energy sector

The report contains various recommendations across a wide range of sectors. It also contains a reference path of how to achieve a low carbon economy making certain assumptions that can be viewed as inferred recommendations. The 188 page report can be found here: https://www.climatecommission.govt.nz/get-involved/our-advice-and-evidence/

Electricity generators to benefit the most (with a minor exception or two)

The CCC's report highlights the important role electricity has in decarbonising the economy. It is the default energy of choice to replace fossil fuels. Relative to expectations, the CCC is advocating an early move away from household gas and LPG consumption, wanting a ban of new gas and LPG connections from 2025. The lift in electricity demand is positive for electricity generators as it helps support wholesale electricity prices. The CCC also advocates setting a 60% renewable energy goal, not a 100% renewable electricity goal.

Whilst positive for the sector, the report is not helpful for Genesis Energy's (GNE) Kupe sales process and will curtail its LPG growth strategy. Given GNE's renewable energy focus, closure of its thermal generation is already assumed and GNE will benefit from increased electricity demand. Vector (VCT) also faces an end to gas and LPG connection growth, although it also benefits from increased electricity demand. The bigger challenge for VCT (and the distribution sector) will be keeping up with the required capex due to increased peak electricity demand as households switch away from gas and LPG to electricity for space heating and hot water.

Oil & gas sector most challenged

It is of little surprise that the report promotes EVs and that banning fossil fuel light vehicle imports from as early as 2030 is the headline recommendation. This is more aggressive than our current ZEL EV assumptions, with CCC looking at 40% of the light vehicle fleet being electric in 2035, vs. our current assumption of 20%. Whilst we are not convinced the current EV technology improvements will deliver the required price points to enable the banning of fossil fuel cars without political backlash, initial analysis suggests our ZEL DCF declines ~-15% to ~NZ$4.20 (and vs. our target price of NZ$4.30) if an import ban was implemented. The value implications are limited due to the fact earnings implications are still several years away. In addition, the proposed mandating of biofuels should benefit ZEL as it currently has NZ's only manufacturing plant. We do not see a material impact on Refining NZ (NZR) from the CCC recommendations, as it is likely to be an import terminal, with jet fuel delivered into Auckland the mainstay of its business by 2030.

A draft report with political ramifications

The report findings and recommendations are open to consultation, with the last date for submissions 14 March 2021. The CCC will provide a final report by 31 May 2021. The government then has the task of implementing the recommended policies, which is where the politics will come in. Initial comments from the government indicate there is support for the report and a desire to implement the recommendations. However, with many recommendations likely to have an unpopular element (e.g. banning petrol/diesel imports, banning new gas/LPG connections), it is not a foregone conclusion every element of the report will be implemented.

Recommendations and reference assumptions

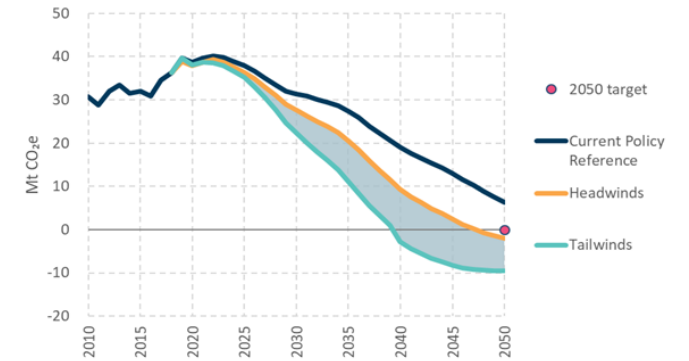
Figure 1. Summary of recommendations and reference assumptions

Recommendation	Comment
Transport	
No new imported petrol/diesel vehicles after 2035 (and preferably 2030). The reference case assumes a 2032 ban	The Greens went to the last election pushing for a 2030 ban (tying NZ to the UK's ban to prevent importing second hand vehicles). This will be an interesting political test as in our view it will not be a popular policy in some segments of the country and has significant practical challenges as well. A lot will depend on technological improvements delivering a wide variety of EVs with the required range at the desired price point. Japan and the UK (to a lesser extent) are the main sources of imported second-hand EVs and the EV ramp-up rate in those countries will also be important — at present second-hand EV supply is constrained. Under the reference case, 40% of light vehicles fleet would be EVs by 2035
Introduce measures to incentivise EVs	A feebate scheme was proposed in the government's last term, but was kaiboshed by NZ First. We had anticipated the feebate policy to return now that NZ First is not in government. Of critical importance will be how the government balances the timing of when to bring in road user charges on EVs, which is currently the biggest EV incentive in place
Introduce emissions target for light vehicles new to NZ of 105 grams CO_2/km by 2028	The government has recently announced the introduction of this policy, with an implementation date of 2025
Set a target and policies for 140m litres of low carbon liquid fuels (i.e. bio-fuels) by the end of 2035	Probably the only good news for ZEL. It has a currently moth-balled 20m litre biodiesel plant which can be easily increased to 40m litres. The government has recently announced a biofuel mandate (in conjunction with the lower emissions target)
Investigate/evaluate various mechanisms to encourage EVs/remove barriers including leasing schemes, tax policy and bulk procurement	There are various things the government could do — the most significant is in the area of fringe benefit tax, which currently results in a signficiant incentive for businesses to buy utes
Energy and process heat	
Set a renewable energy target of 60% by the end of 2035	The CCC has again (the Productivity Commission and Interim Climate Change Commission have also stated this) effectively stated the 100% renewable electricity goal is not sensible, diplomatically describing it as "aspirational"
Set a date by which coal-fired electricity must be retired. The reference case assumes 2030	This is consistent with GNE's stated goals
Ban the installation of new coal boilers immediately	With coal boilers lasting ~40 years, the CCC understandably wants to avoid new ones being installed now. The CCC assumes biomass will be the most likely alternative fuel due to the capital costs associated with retrofitting electro-boilers (both boiler cost and electricity transmission/distribution costs)
Introduce measures to reduce process heat emissions -1.4Mt CO_2e by 2030 and -2.0Mt CO_2e by 2035	This target will be one of the most challenging as it effectively requires one or two dairy processing factories to convert to electricity/biomass every year
Buildings	
Set a date (no later than 2025 and earlier if possible) by when no new natural gas connections are permitted, and where feasible, all new or replacement heating systems installed are electric or bioenergy.	This has significant implications for gas distribution businesses. Whilst the loss of gas growth will be offset by electricity demand growth, there is likely a need for signficant additional capital expenditure as household gas use is typically at peak electricity demand times. The reference case also talks about banning new LPG connections from 2025. The long-term goal is no households use fossil fuels by 2050
Reference assumptions	
Electricity	
NZAS closes in 2026	The CCC, in essence, wants to use the electricity from NZAS for decarboninsing NZ. Whilst from an NZ Inc perspective this make sense, from a global CO_2 emissions perspective, closing NZAS is not helpful as its is currently powered by renewable electricity
High carbon emitting geothermal fields to close by 2030	There are two fields in NZ with high carbon emissions (similar to that of a gas generation plant), CEN's Ohaaki field and Top Energy's Ngawha field. Ohaaki is one of CEN's smallest fields, producing ~8% of CEN's geothermal generation (~3% of CEN's total generation). Ohaaki was commissioned in 1989. Ngawha, however, is more of an issue for Top Energy as it is a relatively new plant, with the latest expansion only just commissioned (ouch)

Source: CCC, Forsyth Barr analysis

CCC charts of note

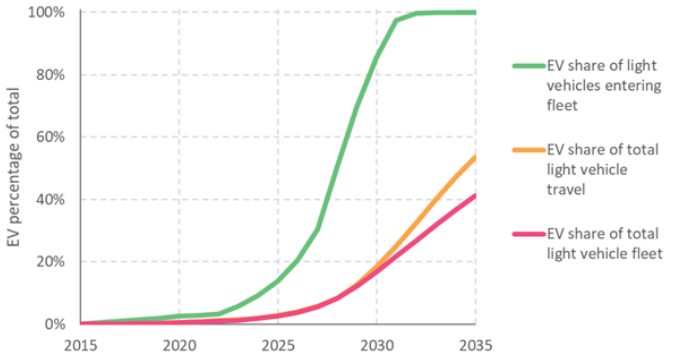
Figure 2. CCC net emissions scenarios vs. current policy



Source: CCC

The reference base case is very close to the "tailwind" scenario and sees NZ achieve the net zero greenhouse gas emissions goal in 2040. It is notable that the medium-term emissions trajectory is materially lower than the current policy in the 2030s.

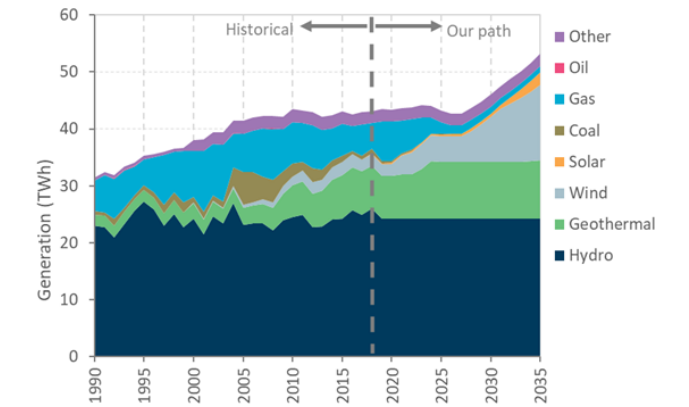
Figure 3. CCC's light EV uptake in reference case



Source: CCC

The CCC's recommendation is to ban fossil fuel imports before 2035 and as early as 2030. Its reference case is 2032. Our current long-term ZEL forecasts assume 10% and 20% EV penetration by 2030 and 2035 respectively. Our EV penetration forecast is very similar to the CCC figures until ~2027.

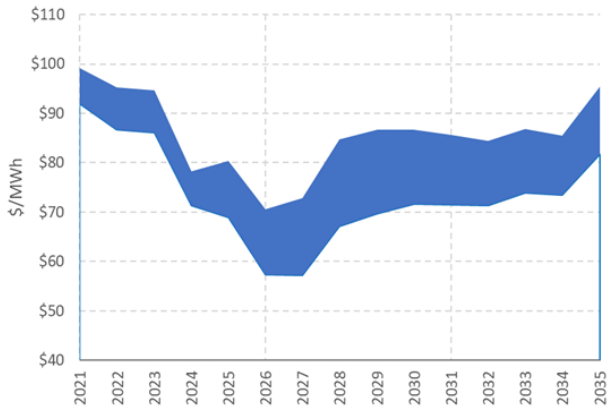
Figure 4. Electricity generation by fuel type



Source: CCC

CCC assumes NZAS closes in 2026 (hence the dip in demand at that point). Most new generation comes from wind, augmented by solar. This is consistent with our view. The assumed electricity demand increase equates to ~+1.6% per annum from 2020 onwards (increasing to ~+2.2% per annum if NZAS remains open).

Figure 5. Estimated wholesale electricity prices



Source: CCC

The assumed closure of NZAS weighs on the CCC's assumed wholesale electricity price path in the middle of the 2020s. However, the price path as a whole is largely consistent with our current forecasts which assume prices between NZ$88/MWh and NZ$94/MWh by 2035.

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