

Power Points

Sector Powers Down – April 2020

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The Electricity Sector has seen the sharpest and largest fall in electricity demand in history, dropping ~-15% in the first 10-days of the lockdown. This is greater than NZAS demand. Whilst there has been a commensurate drop in wholesale electricity prices, we expect short-term earnings to hold up well vs. most other sectors, with high cost thermal generation declining to offset lower demand. We continue to like the Electricity Sector and believe it will perform well both during and after the upcoming economic downturn.

Figure 1. Summary company valuation metric

Company	Price	Target Price	Target Return	Rating	EV/EBITDA	FY20 PE	Gross Yield	EBITDAF NZ\$m
Contact Energy (CEN)	\$5.71	\$8.00	46.9%	OUTPERFORM	11.3	17.6	8.4%	441
Genesis Energy (GNE)	\$2.49	\$3.15	33.5%	OUTPERFORM	12.4	21.7	9.3%	366
Mercury (MCY)	\$4.04	\$4.60	17.8%	NEUTRAL	13.2	23.3	5.4%	501
Meridian Energy (MEL)	\$4.35	\$4.40	6.1%	NEUTRAL	14.8	22.3	6.2%	864
Tilt Renewables (TLT)	\$2.91	\$3.70	27.1%	OUTPERFORM	13.1	16.0	0.0%	135
Trustpower (TPW)	\$6.00	\$7.70	34.0%	OUTPERFORM	13.4	22.2	7.9%	187

Source: Company reports, Forsyth Barr analysis

Electricity demand down ~-15% so far

Electricity demand is tracking ~-15% down on pre-lockdown levels, with demand falls greater in the North Island. This is broadly in line with expectations and we expect it will remain at these levels for much of the lockdown as some of the lockdown restrictions ease slightly, offset by NZAS closing potline 4 at the weekend.

Wholesale electricity prices have averaged between \$40/MWh and \$45MWh for much of the last week, providing a rough indication of where wholesale electricity could initially trade if NZAS were to exit (we believe prices would likely be higher as the COVID-19 demand impact is greater than NZAS closure).

RIO's self-imposed deadline comes and goes

Rio Tinto's (RIO) self-imposed deadline to complete its NZAS Strategic Review by the end of March 2020 has passed without comment from RIO. This is not a great surprise and we suspect COVID-19 is pre-occupying RIO's time more than its NZAS decision. RIO has not provided MEL with any indication of when a decision will be made. Whilst we maintain our view that NZAS will remain open, the option of RIO deferring potline 1 maintenance capex (~\$60m) and temporarily consuming 400MW (instead of the contract standard 572MW) is an increasingly valid option given current business conditions.

Sector likely to perform well during and after COVID-19 shocks have dissipated

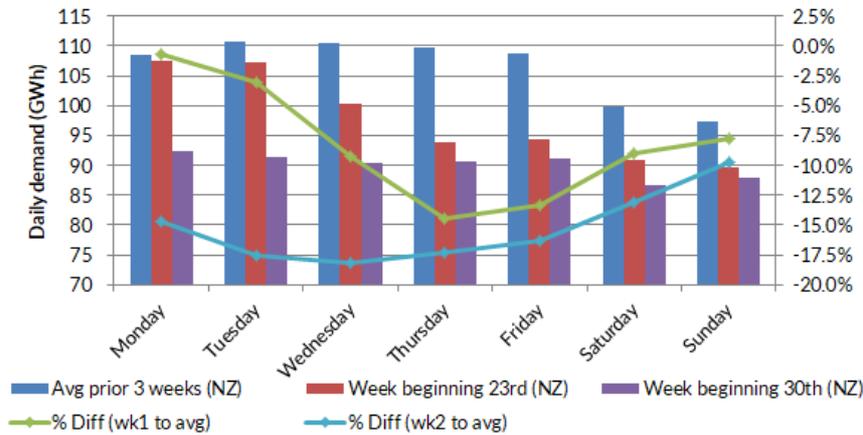
We expect the Electricity Sector to perform well during the COVID-19 downturn and afterwards, during the economic recovery. As discussed in our note *COVID-19's Modest Electric Shock* (30 March), earnings effects are likely to be minor and we expect all of the electricity companies will be able to maintain dividends. In addition, as the economy improves post COVID-19, the stable dividends that the sector provides investors will look increasingly attractive in a low interest rate environment. We are positive on the sector overall and we see the best value in CEN, GNE, TLT and TPW (OUTPERFORM ratings). However, MCY and (to a lesser extent) MEL are also offering attractive entry points for companies with the best generation assets in the country.

Power Points April 2020

Early lockdown effects sees demand dip ~-15%, wholesale prices averaging ~\$40/MWh

Almost two weeks into the lockdown and electricity demand is down ~-15%, but may head a little higher following NZAS shedding 40MW (~-0.8%) of demand at the weekend. Weekday demand is down ~-17% vs weekend demand down ~-11% (which is no surprise). Week two of the lockdown has seen demand fallen more than the first week as more businesses shut down operations.

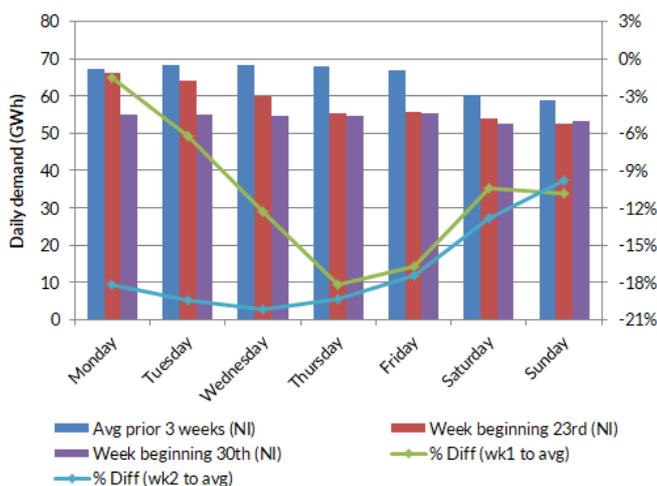
Figure 2. Daily electricity demand vs. first three weeks of March



Source: Electricity Authority, Forsyth Barr analysis

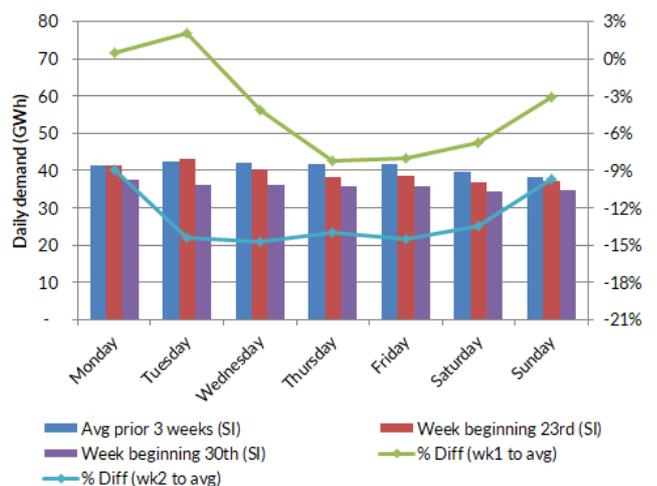
North Island demand has fallen more than South Island demand, which was again expected as there is greater commercial demand in the North Island. That said, South Island demand fell more in the second week, although we suspect falling irrigation load is a contributing factor.

Figure 3. North Island electricity demand



Source: Electricity Authority, Forsyth Barr analysis

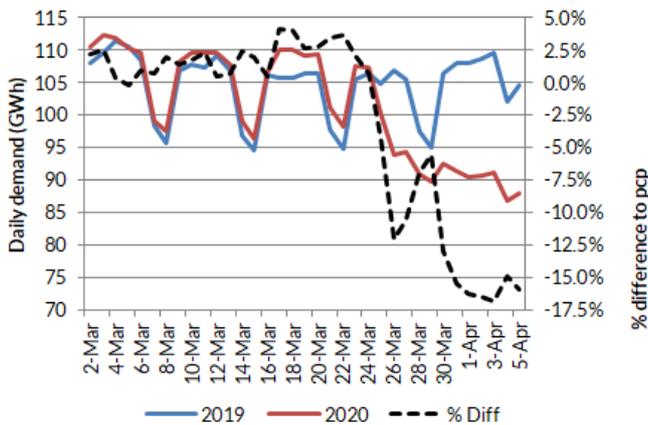
Figure 4. South Island electricity demand



Source: Electricity Authority, Forsyth Barr analysis

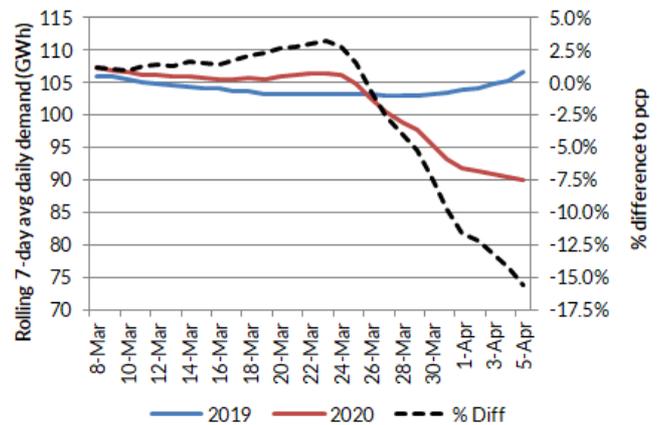
Relative to electricity demand at this time last year, the story is not dissimilar. In early March 2020, electricity demand was tracking ~+2% higher than the pcp but the lockdown has seen demand fall between -15% and -17%. However, there was a cold snap in early April 2019 that has distorted the last few days comparisons.

Figure 5. Daily electricity demand vs. pcp



Source: Electricity Authority, Forsyth Barr analysis

Figure 6. Rolling 7-day electricity demand vs. pcp



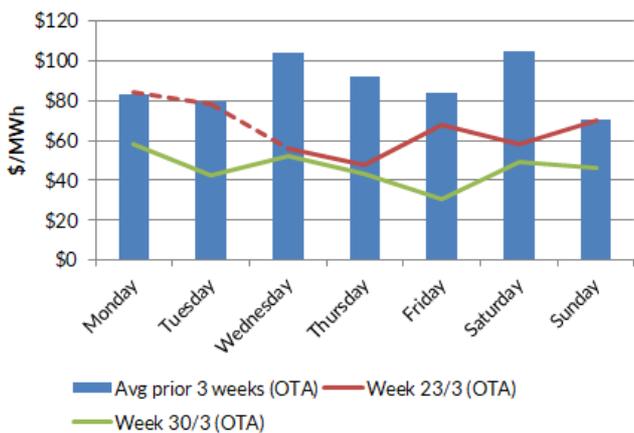
Source: Electricity Authority, Forsyth Barr analysis

Wholesale electricity prices fall with demand

The fall in electricity demand has also led to a decline in wholesale electricity prices. However, it is difficult to draw too many conclusions because of HVDC outages during March. That said, North Island Otahuhu prices are down -\$42/MWh to \$46/MWh in the past week (week ending 5 April) compared to the average price in the three weeks prior to the lockdown. South Island prices at the Benmore node are little changed, due to the HVDC work that has been ongoing through most of March.

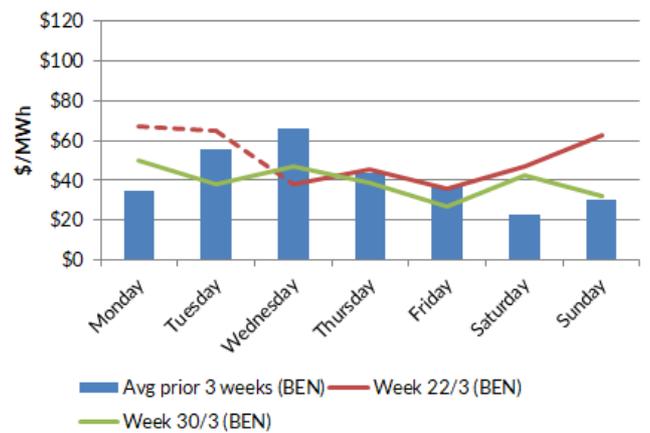
Whilst there are challenges in the analysis, current wholesale prices are the best indication yet of what might happen if NZAS were to close suddenly, before the electricity market could adjust. Demand is down more than the NZAS load (down -16.4GWh/day vs -13.7GWh/day for NZAS) and there has been no thermal plant closure (which we would expect if NZAS were to close). In fact, Todd Energy has been running its new 100MW gas peaking plant near full capacity in the last few days, meaning there is more thermal load than would normally be expected. With national wholesale electricity prices averaging ~\$40/MWh to ~\$45/MWh, the wholesale electricity price declines are manageable for the sector.

Figure 7. Otahuhu wholesale electricity price pre and during lockdown



Source: Electricity Authority, Forsyth Barr analysis

Figure 8. Benmore wholesale electricity price pre and during lockdown

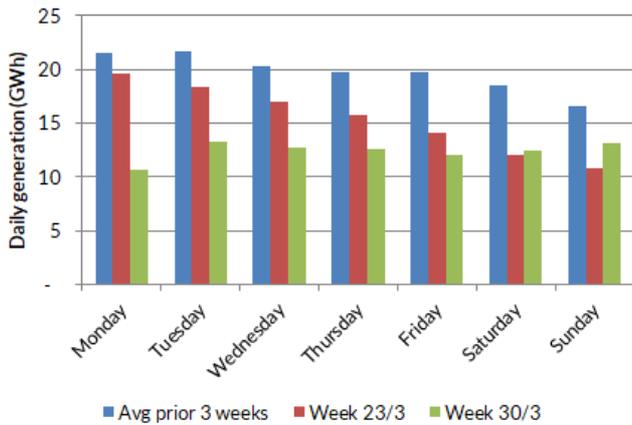


Source: Electricity Authority, Forsyth Barr analysis

Thermal generation backs off with the fall in demand

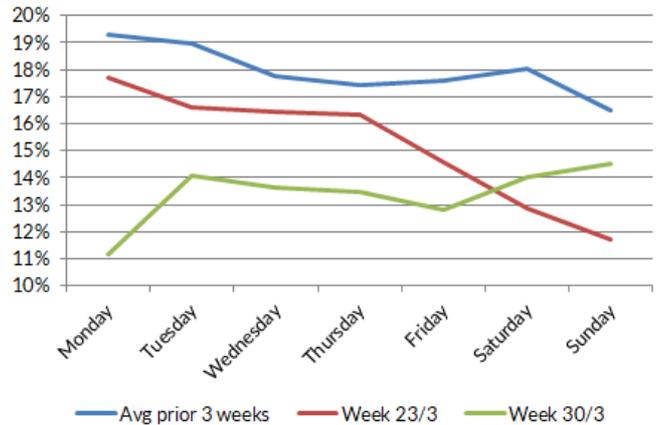
As expected, thermal generation (including thermal co-generation plants) has fallen -37% in the past week vs. the three weeks prior to the lockdown. As a share of market generation, thermal generation has fallen from ~18% to ~14% for much of the past week. Thermal generation is more expensive to run, hence, we do not expect sector earnings to be materially impacted by the low wholesale electricity prices. However, if conditions persist, and the long-dated ASX futures prices are impacted, that will have an effect on medium-term earnings.

Figure 9. Daily thermal/co-generation generation



Source: Electricity Authority, Forsyth Barr analysis

Figure 10. Generation market share



Source: Electricity Authority, Forsyth Barr analysis

RIO's self-imposed deadline passes with no news

Rio Tinto's (RIO) self-imposed deadline to complete its Strategic Review of NZAS by the end of March 2020 has passed without comment from RIO. This is not a great surprise and we suspect COVID-19 is pre-occupying RIO's time more than its NZAS decision. RIO has not provided MEL with any indication of when a decision will be made.

That said, one of the options on the table for RIO is to reduce electricity consumption from the base 572MW to 400MW. With potline 1 needing significant maintenance capex spent on it (~\$60m), the option of deferring that capex in light of COVID-19 will be looking more appealing to RIO.

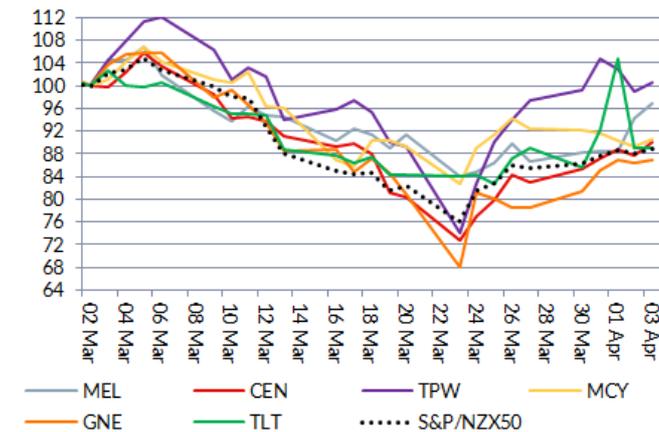
In the meantime, local NZAS staff have closed potline 4, dropping its electricity contract with MEL to 572MW from 622MW. At the weekend, NZAS dropped its consumption -40MW. The closure of potline 4 is due to staffing concerns around COVID-19. It enables NZAS to have spare employee capacity should COVID-19 impact its workforce directly. This is a legitimate fear given one of the biggest COVID-19 clusters in New Zealand is centered on Bluff.

We maintain our view that when RIO finally makes a decision, it will be to keep NZAS open.

Share market performance: March 2020

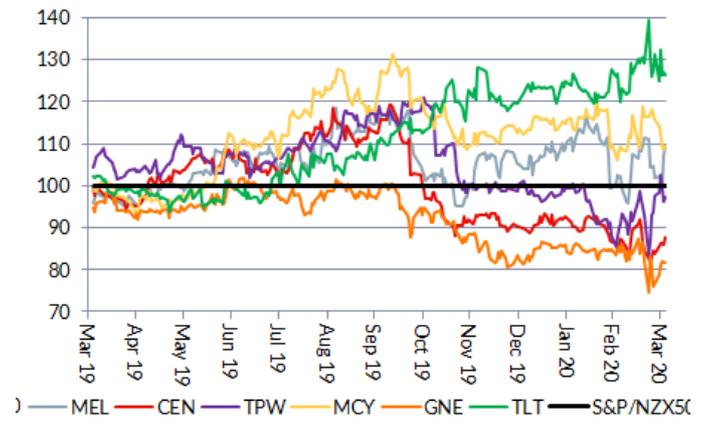
COVID-19 has caused extreme market volatility. In addition, renewed NZAS closure fears are putting more pressure on electricity stock prices. TPW had the best month, and was the only electricity stock to register an increase, up +0.7% from 2 March to 3 April while TLT essentially matched the market, down -11% vs the S&P/NZX50C down -11.2%. CEN, GNE, MCY and MEL all went ex-dividend in March 2020, and accounting for this, MEL had the best month of the four, down only ~-2%, whilst CEN, GNE, and MCY were down ~-8%, ~-10% and ~-9% respectively.

Figure 11. Stock performance vs. S&P/NZX50C



Source: Thomson Reuters, Forsyth Barr analysis

Figure 12. 12 month performance relative to S&P/NZX50C



Source: Thomson Reuters, Forsyth Barr analysis

Market multiples and target returns

- Our electricity target prices are based on a combination of our DCF valuation (30%), market multiples (30%) and gross dividend yield (40%). We focus on year two earnings to avoid short-term hydrological conditions impacting the multiples. We continue to like the long-term outlook for the sector and maintain our view that NZAS will not be closing. Our preferred stocks are CEN, GNE, TPW & TLT (OUTPERFORM), whilst the other stocks, MCY & MEL are NEUTRAL.

Figure 13. EBITDAF multiples

Company	Code	Price	Target	Target	Rating	Mkt Cap \$m	EBITDAF (x)		EBITDAF - capex (x)	
			Price	Return			FY20	FY21	FY20	FY21
Contact Energy	CEN	\$5.71	\$8.00	46.9%	OUTPERFORM	4,086	11.3	10.6	13.7	12.6
Genesis Energy (excl Kupe)	GNE	\$2.49	\$3.15	33.5%	OUTPERFORM	2,214	12.4	11.2	15.2	13.4
Mercury	MCY	\$4.04	\$4.60	17.8%	NEUTRAL	5,498	13.2	12.6	15.5	14.7
Meridian Energy	MEL	\$4.35	\$4.40	6.1%	NEUTRAL	11,149	14.8	15.8	15.9	17.1
Trustpower	TPW	\$6.00	\$7.70	34.0%	OUTPERFORM	1,878	13.4	12.1	15.5	13.8
Sector average							13.0	12.3	15.1	14.2
Tilt Renewables	TLT	\$2.91	\$3.70	27.1%	OUTPERFORM	1,366	13.1	15.9	14.1	17.4
Genesis Energy (incl Kupe)	GNE	\$2.49	\$3.15	33.5%	OUTPERFORM	2,563	10.4	9.4	12.2	10.9

Source: Forsyth Barr analysis

Figure 14. PE multiples and dividend yields

Company	PE (x)		Adjusted PE (x)		Cash Div Yield		Gross Div Yield		Free Cash Flow Yield	
	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21
Contact Energy	31.2	29.5	17.6	16.4	6.8%	6.8%	8.4%	8.4%	4.6%	2.9%
Genesis Energy (excl Kupe)	107.3	57.7	21.7	17.0	5.0%	5.3%	6.7%	7.3%	4.6%	6.5%
Mercury	39.2	31.3	23.3	20.2	3.9%	4.0%	5.4%	5.6%	1.3%	1.3%
Meridian Energy	35.1	41.3	22.3	24.7	4.9%	4.9%	6.2%	6.2%	3.4%	3.8%
Trustpower	25.4	20.8	22.2	18.6	5.7%	5.7%	7.9%	7.9%	2.9%	5.2%
Sector average	41.1	34.0	21.3	19.2	5.3%	5.4%	6.9%	7.1%	3.4%	3.9%
Tilt Renewables	2.9	11.6	16.0	20.6	0.0%	0.0%	0.0%	0.0%	3.1%	6.2%
Genesis Energy (incl Kupe)	63.4	36.8	15.7	12.9	6.9%	7.0%	9.3%	9.6%	5.7%	7.0%

Source: Forsyth Barr analysis

Note: In calculating the GNE excl Kupe multiples, the value of Kupe is assumed to be \$410m. Debt and interest has been apportioned 10% to Kupe and 90% to Energy (in line with EV proportion) and dividend in line with adjusted NPAT.

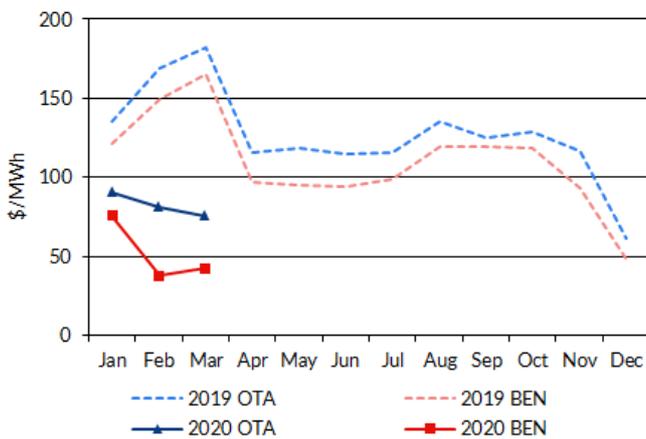
Wholesale electricity market: March 2020

Spot wholesale electricity prices and ASX futures

March 2020 the last month of HVDC maintenance-related constraints

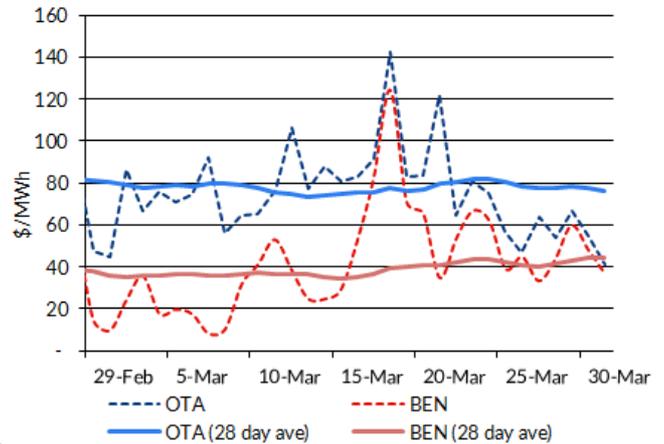
- The average Benmore (BEN) wholesale electricity price was \$42/MWh in March, up +12% from February. Whilst Otahuhu (OTA) wholesale electricity prices averaged \$76/MWh, down -7% from the month prior. The average price gap between OTA and BEN decreased from \$43/MWh in February to \$33/MWh in March, narrowing materially at month end as the COVID-19 related demand reduction and the HVDC link returning to full service on 28 March meant the HVDC link did not constrain.
- There continued to be high volatility in wholesale electricity prices, with OTA prices between \$142/MWh and \$41/MWh, whilst BEN prices ranged between \$124/MWh and \$8/MWh.

Figure 15. Average monthly wholesale electricity prices



Source: NZX Energy, Forsyth Barr analysis

Figure 16. Average daily wholesale electricity prices



Source: NZX Energy, Forsyth Barr analysis

ASX futures down across the board due to COVID-19 and NZAS closure fears

- Short-dated OTA and BEN futures were down -26% and -21% in March, to end the month at \$85/MWh and \$70/MWh respectively. Short-dated futures were down in the month due to the material drop in demand expected due to COVID-19.
- Long-dated BEN futures were materially affected by NZAS concerns, down -21% from the end of February to end March at \$70/MWh. Long-dated OTA futures were more stable, down -4% to sit at \$96/MWh.

Figure 17. ASX futures prices (last three years)



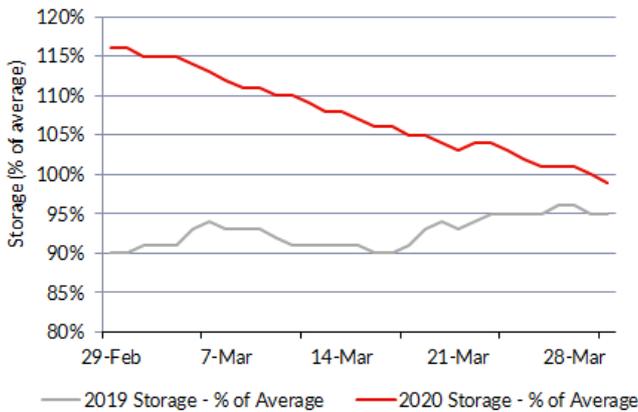
Source: Electricity Authority, Forsyth Barr analysis

Hydro storage volumes

Little rain in March sees hydro storage decline towards average

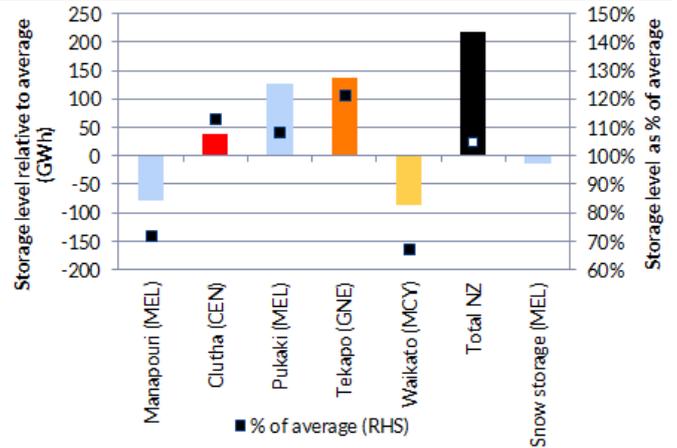
- Hydro storage volumes are currently roughly in line with average for this time of year, with total New Zealand hydro storage sitting at 3,073GWh. South Island hydro is at 108% of average, with most South Island dams comfortably above average, although Manapouri hydro storage is currently only at 72% of average. Lake Taupo is also well below average, with 177GWh of hydro storage.

Figure 18. Average lake storage levels



Source: NZX Energy, Forsyth Barr analysis

Figure 19. Key storage lake levels relative to avg (as at 2 April)



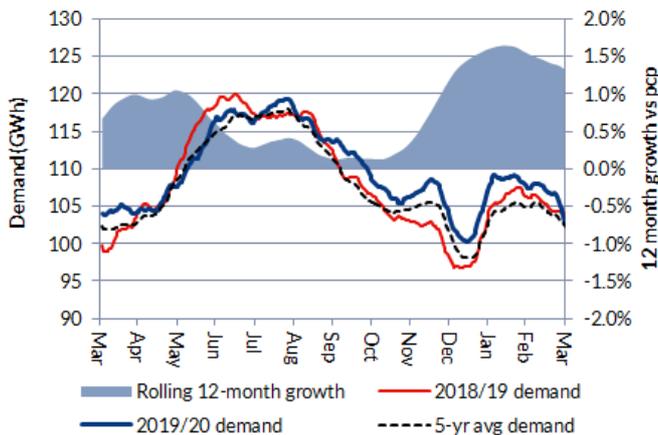
Source: EnergyLink, MEL, Forsyth Barr analysis

Demand and generation analysis

Demand relatively stable

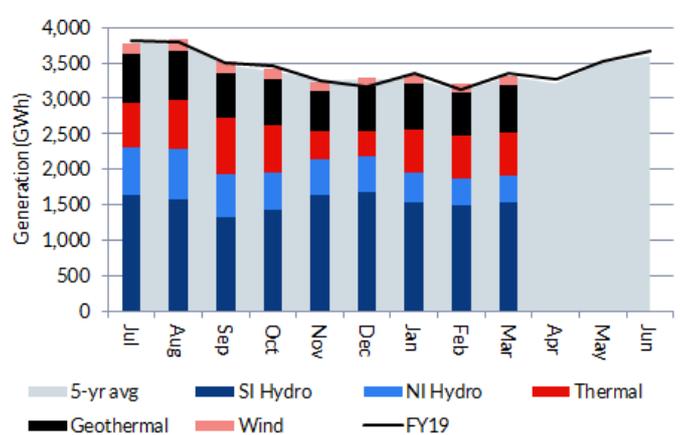
- Average daily electricity demand was 103.3 GWh/day, down -0.5% on the pcp and -4.2% on the prior month. The end of March includes the first 6 days of the nationwide lockdown, electricity demand was down ~-13% vs. the beginning of March. Tiwai demand in March was down -2.1% on the pcp, and we expect this to continue to fall with the announcement of the closure of Potline 4 as a result of the COVID-19 lockdown.
- In March 2020 total New Zealand generation was 3,297GWh, down -1.7% on the pcp. The percentage of generation from both North and South Island hydro was largely unchanged over the month, however, North Island hydro generation was up +20% on the pcp. The percentage of generation from thermal was down, with thermal generation being 14.8% of total generation in March, well below the pcp which was 19.3% and below the prior months 15.7%.

Figure 20. Rolling 28-day avg demand & rolling 12-m growth



Source: NZX energy, Forsyth Barr analysis

Figure 21. NZ generation (by technology) – fiscal year to June



Source: NZX energy, Forsyth Barr analysis

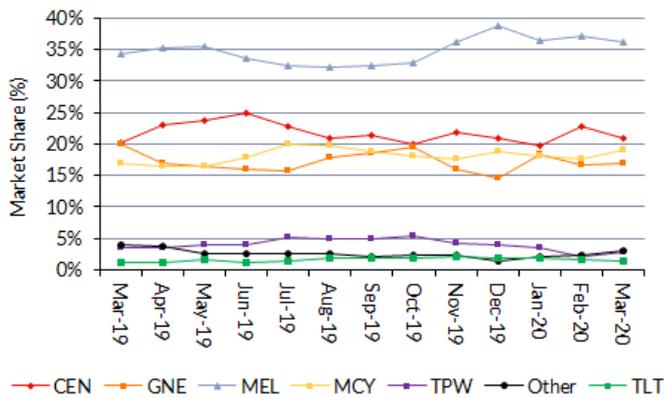
Generation market share – Good month for MCY

- MCY gained +1.5% of market share in March, to have 19.1% of total generation. TPW and GNE both also gained market share, with an extra +0.7% and +0.2% respectively. MEL, CEN and TLT all lost market share over the month, with CEN having the worst month losing -2% to reverse the majority of its +3% market share gain it had in February 2020.

CEN – TCC reduction

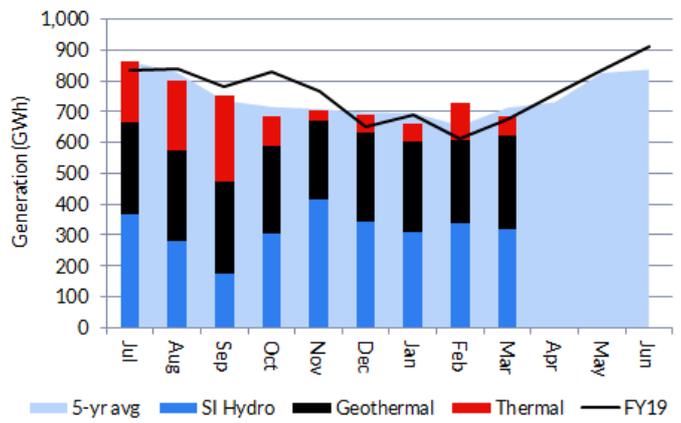
- CEN generation in March was 684GWh, down -6% on the prior month but broadly flat compared to the same period last year. The decrease in generation comes largely from CEN's TCC unit producing only 4GWh after producing 67GWh in February. Hydro was also down ~-6% on the prior month, while average daily geothermal generation was up +6% on February.

Figure 22. Monthly generation market share



Source: EnergyLink, Forsyth Barr analysis

Figure 23. CEN monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

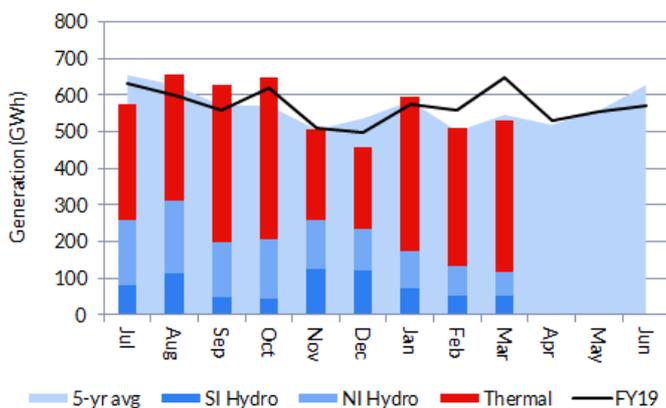
GNE – North Island hydro continues to decline

- Total GNE generation was 553GWh in March 2020, down -18% compared to March 2019. Average daily generation also decreased -2% from February.
- GNE's thermal generation, which is the majority of GNE's total generation, decreased by -24% vs the pcp, however, average daily thermal generation increased +2% against the prior month. South Island hydro (Tekapo) generation decreased by -15% on the pcp, where as North Island hydro (Tongariro) was up +50% vs March 2019.

MCY – Bounce back from low February

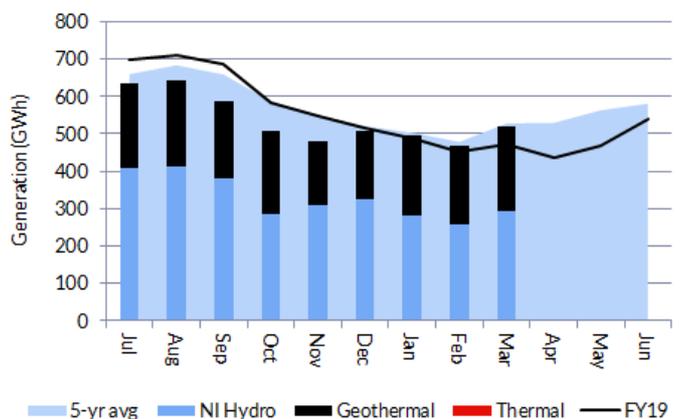
- March generation for MCY was 519GWh, up +10% on the pcp, and also a ~+4% increase from February in terms of average daily generation, albeit February was a particularly low generation month for MCY. This increase was largely due to MCY's hydro generation increasing in the month, with average daily hydro generation increasing +7% compared to February.

Figure 24. GNE monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

Figure 25. MCY monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

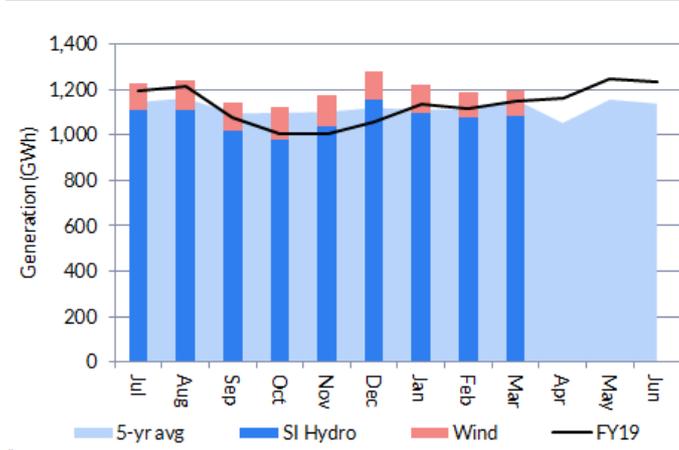
MEL – Generation up on March 2019

- MEL generation in March was up +4% on the pcp, to total 1,194GWh, with hydro generation up +2% and wind generation up +34%. However, average daily generation was down -6% from February, with average daily hydro and wind down by the same amount.
- MEL's Waitaki average daily hydro generation grew by +20% in March compared to February, and total Waitaki generation was up +14% on the pcp, where as Manapouri average daily hydro generation was down -36% compared to February.

TPW – Generation

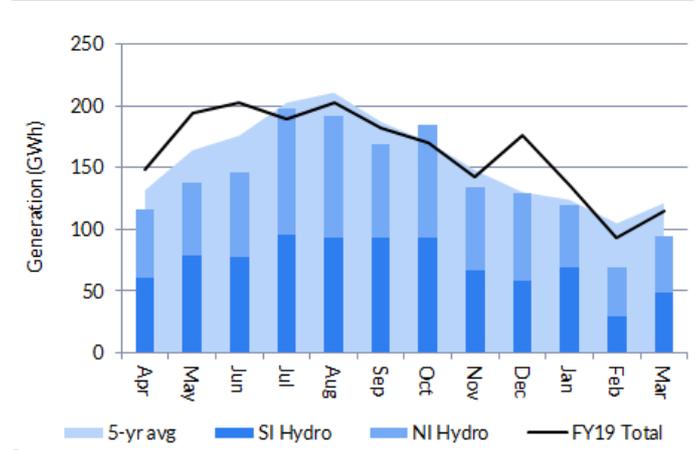
- We estimate that TPW's average daily generation grew +27% in March compared to last month, with total generation of 94GWh, albeit this follows very low generation in February, and total generation is down -18% on the pcp. The large increase in average daily generation was in part due to North Island hydro generation up +14% mom, as well as a +55% mom increase in average daily South Island hydro generation.

Figure 26. MEL monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

Figure 27. TPW monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

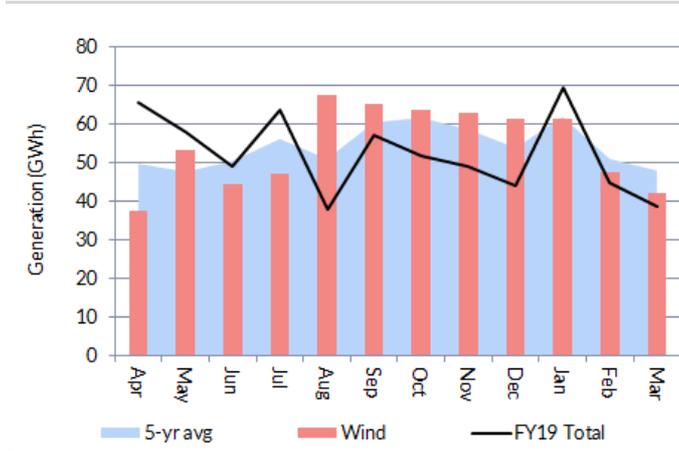
TLT – Wind generation down

- TLT generation was down in March, with total generation of 42GWh, making it two consecutive months of mom declines for TLT following a six-month period of strong stable wind generation. However, March generation was still up +9% on the pcp.

Generation prices – GWAP down sharply on March 2019

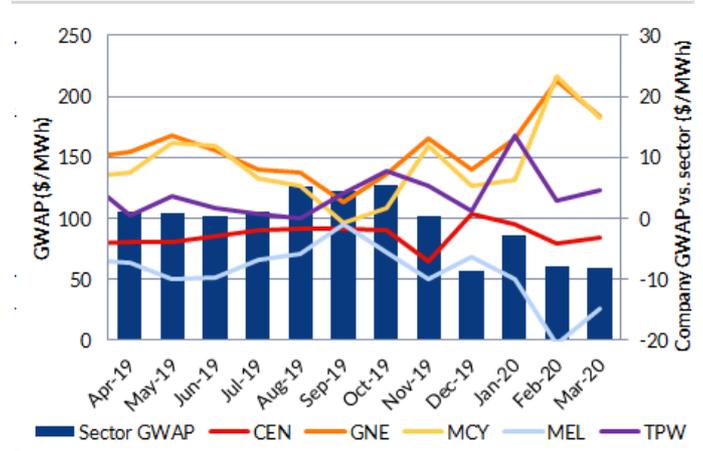
- The average generation weighted average price (GWAP) \$60/MWh in March 2020, which is largely the same as the prior month, but down -66% on the pcp. Compared to last month, MEL GWAP increased the most, up +11% to average \$45/MWh, whilst TPW was also up +1% to average \$64/MWh. GNE and MCY were down -8.3% and -9.4% respectively to both average ~\$76/MWh, whilst CEN was unchanged to average \$56/MWh.

Figure 28. TLT monthly generation (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

Figure 29. Avg generation weighted average price (GWAP)



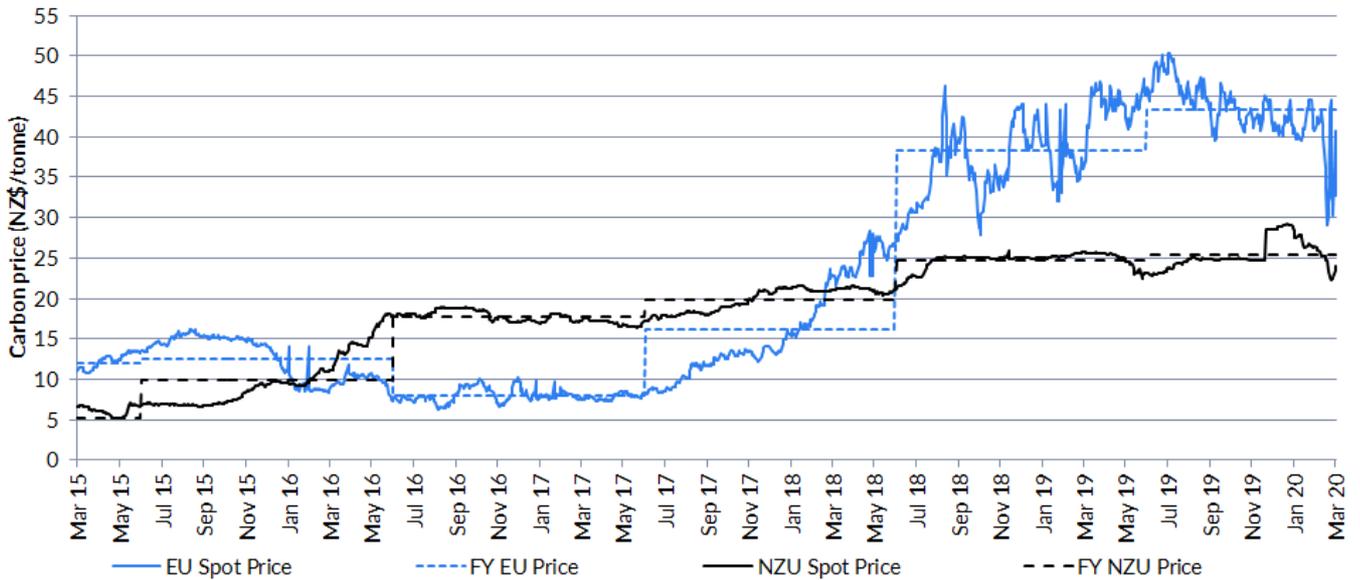
Source: EnergyLink, Forsyth Barr analysis

Carbon prices

NZ carbon prices – Unit prices continue to fall

- NZ carbon units were down again in March, down from \$26.50/unit at the start of the month, to end the month at \$24/unit. Prices have continued to decline from the highs of \$29/unit that were experienced following the Government's announcement it would remove the unit price cap in December 2019.
- EU carbon units were also down in March, falling from €23.9/unit (~NZ\$41/unit) at the end of February, to €17.7/unit (~NZ\$33/unit) at the end of March. However, EU carbon prices were very volatile in March, down -27% between 30 and 31 March.

Figure 30. Price of carbon (NZ\$/tonne)



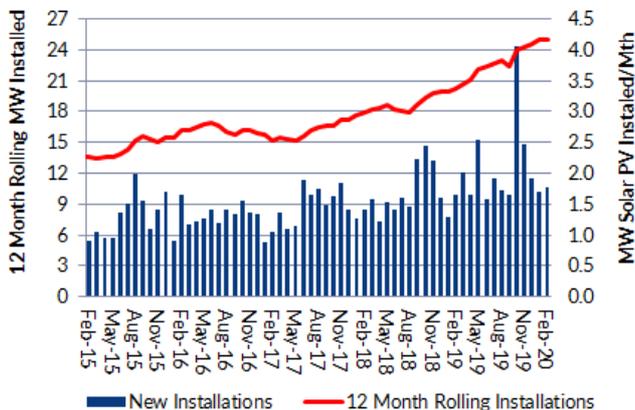
Source: Bloomberg, Forsyth Barr analysis

Solar PV installations

Installation rate rises slightly

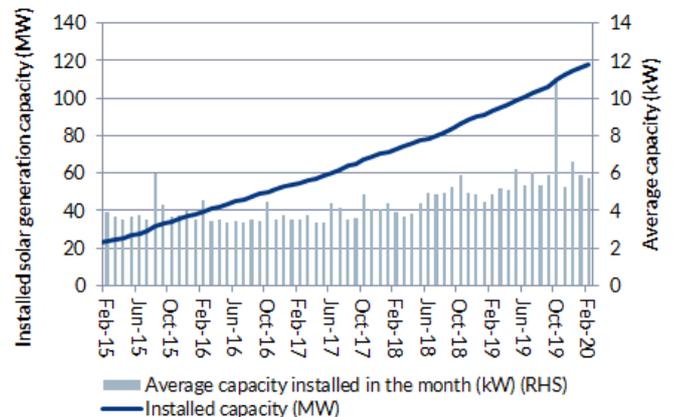
- There was 1.77MW of new solar capacity installed in February 2020, with 315 new solar connections. This is a +4% increase in monthly MW installed compared to the prior month, and a +7% increase on the pcp. Total solar capacity is now 118MW with 26,704 solar ICPs. Rolling 12-month installations were down -5% in March, making it 8 months in a row of declines.

Figure 31. Solar PV capacity (MW) installed



Source: Electricity Authority, Forsyth Barr analysis

Figure 32. Average size of system and total capacity installed

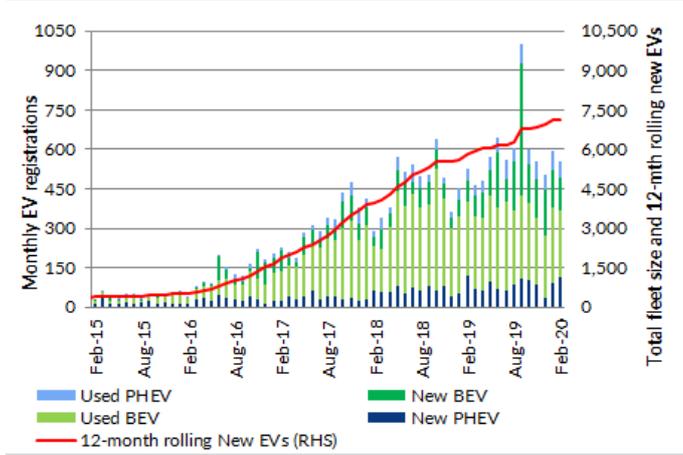


Source: Electricity Authority, Forsyth Barr analysis

Electric vehicle (EV) registrations

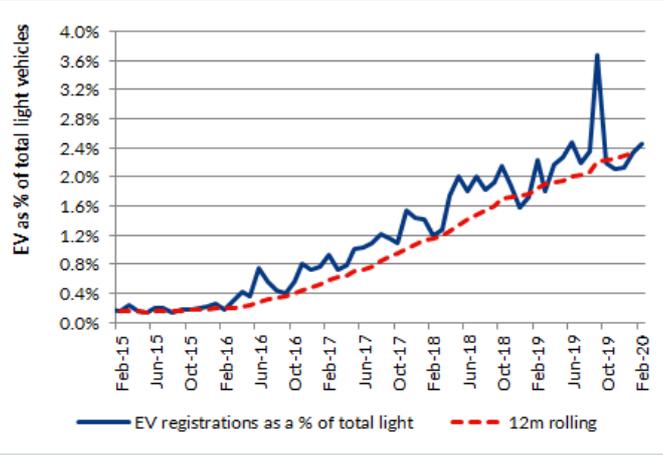
At the time of publishing, March 2020 EV registrations had not been released.

Figure 33. EV registrations



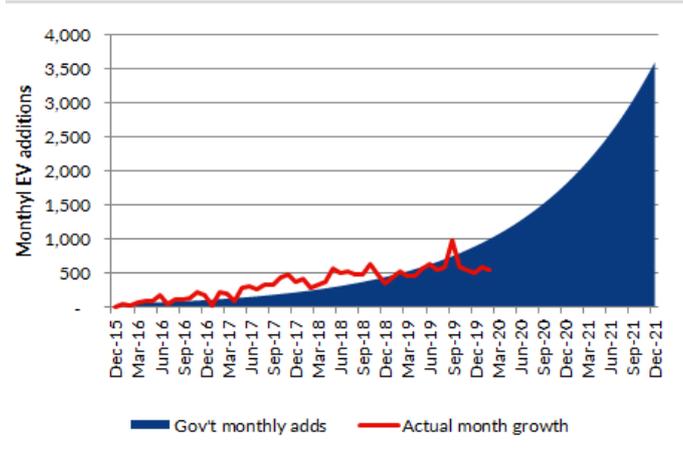
Source: Ministry of Transport, Forsyth Barr analysis

Figure 34. EV registrations % of total light vehicle registrations



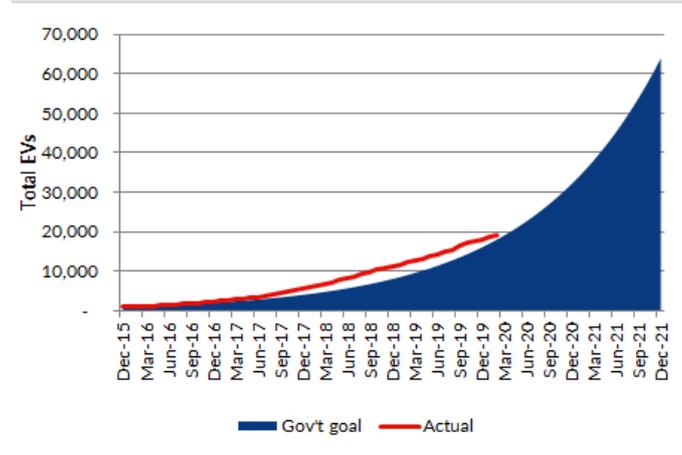
Source: Ministry of Transport, Forsyth Barr analysis

Figure 35. Monthly EV registrations vs. govt target



Source: Ministry of Transport, Forsyth Barr analysis

Figure 36. Total EVs registered vs. govt target

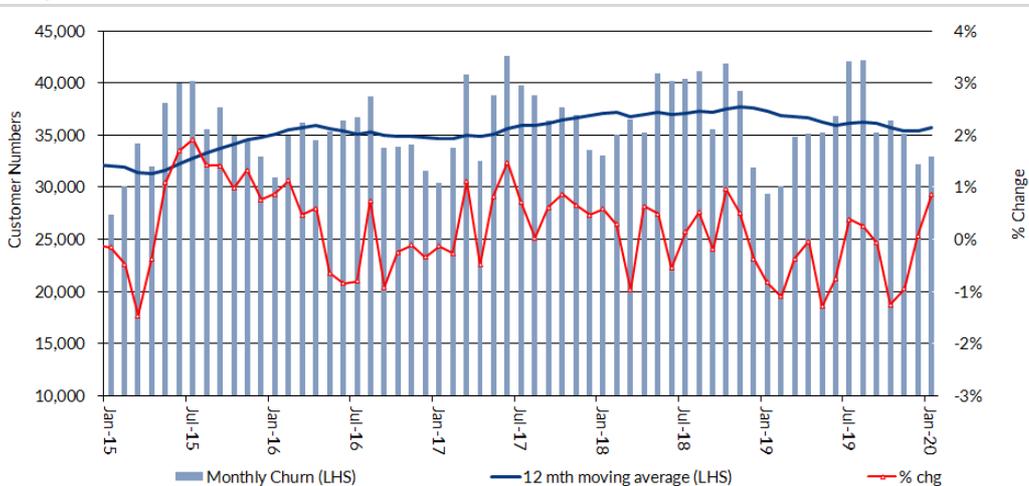


Source: Ministry of Transport, Forsyth Barr analysis

Retail electricity connection churn

- In February 2020 there were ~36,000 customer switches, up +21% vs. pcp and is the third consecutive month of pcp growth.

Figure 37. Electricity connection churn



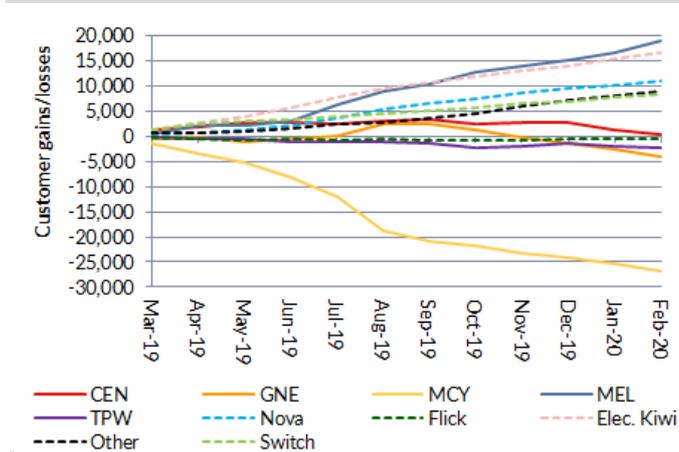
Source: EA, Forsyth Barr analysis

Retail electricity customers

MEL once again the only big retailer to gain connections

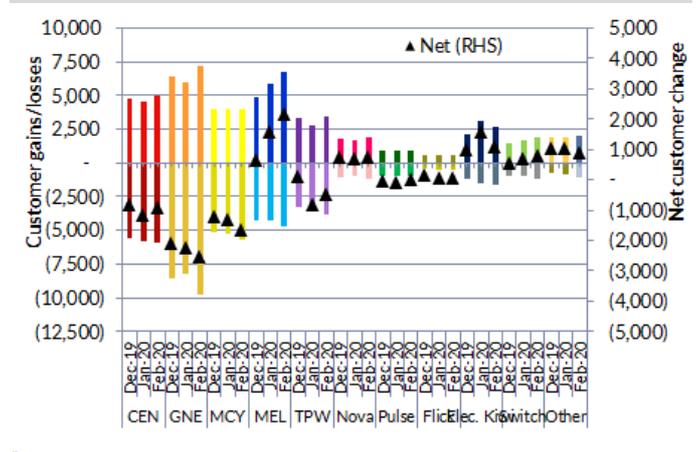
- MEL gained +2,561 connections in February 2020, as it continues its run of month-on-month connection gains. TPW was relatively flat, losing -349 connections over the month, whilst CEN, GNE and MCY lost -857, -1,340, and -1,552 respectively. This makes it 25 months in a row of month-on-month connection losses for MCY.
- Of the tier 2 retailers, Electric Kiwi again had the best month, adding +1,213 connections. Switch Utilities and Todd Energy also gained connections over the month, adding +773 and +779 respectively.
- In February MEL was also the only large retailer to gain customers through switching (which excludes market growth), gaining +2,139 connections.

Figure 38. Cumulative 12-mth electricity customer gains/losses



Source: EA, Forsyth Barr analysis

Figure 39. Customer switches (excludes market growth)



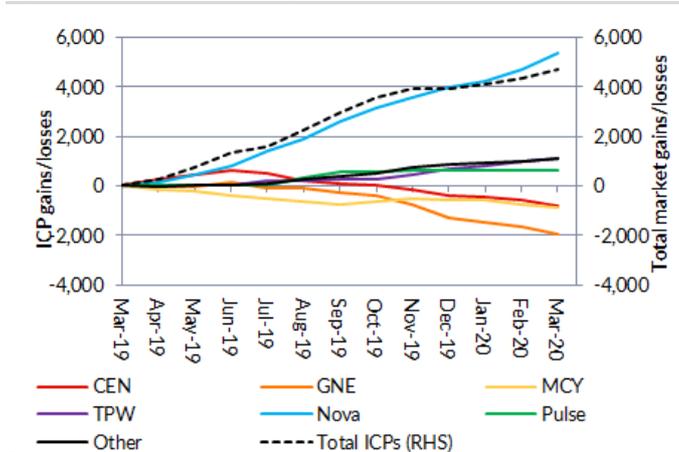
Source: EA, Forsyth Barr analysis

Retail gas customers

Another good month for TPW

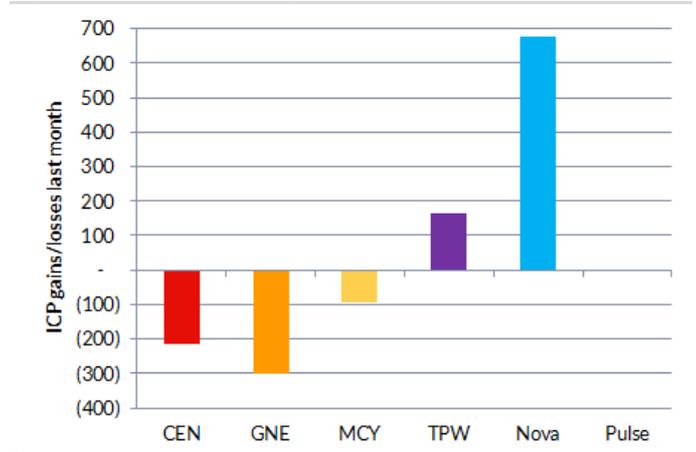
- TPW gained +166 gas connections in March, whilst GNE, CEN and MCY lost -214, -296 and -95 connections respectively. This is similar to February where TPW was again the only big retailer to gain gas connections over the month. Nova was once again the best performing gas retailer, adding +675 connections in March.
- In the past 12 months Nova has gained the most connections, with +5,389 added since March 2019. Of the listed companies TPW has performed the best, gaining +1,134 connections over the 12 months, whereas CEN, GNE, and MCY have all lost gas connections over the same time period.

Figure 40. Gas connection gains/losses over the past 12-months



Source: Gas Industry Co, Forsyth Barr analysis

Figure 41. Gas connection gains/losses in March 2020



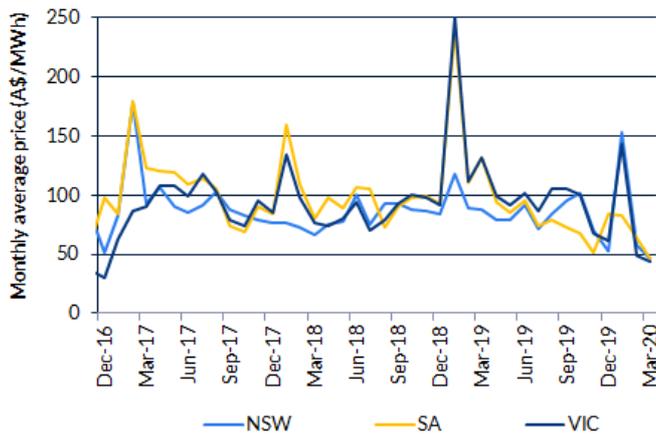
Source: Gas Industry Co, Forsyth Barr analysis

Australian electricity market

Wholesale electricity prices and futures both decline

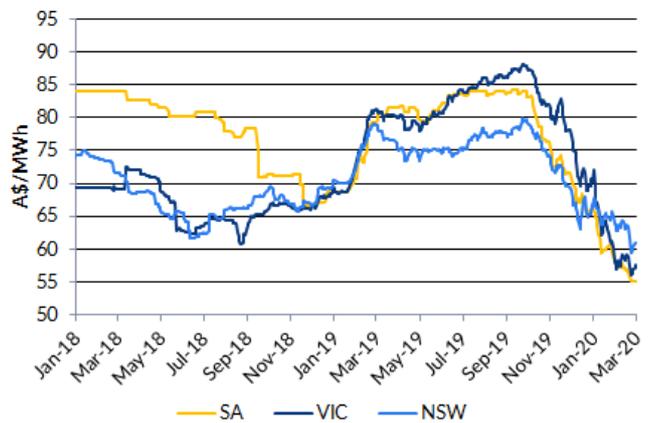
- NSW, SA and VIC wholesale electricity prices were all down on the pcp, down -48%, -64% and -67% respectively. SA averaged A\$47/MWh throughout March which is the lowest monthly average wholesale electricity price for the state since early 2016. NSW and VIC wholesale electricity prices averaged A\$46/MWh and A\$43/MWh over the month.
- FY21 futures were down across the board over the month, with NSW, SA and VIC futures down -6%, -7% and -5% respectively from the end of February, and all are down over -20% from the end of March 2019. NSW futures ended March at A\$61/MWh, and SA and VIC futures prices were A\$55/MWh, and A\$58/MWh at the end of the month.

Figure 42. Australian wholesale electricity price (A\$/MWh)



Source: AEMO, Forsyth Barr analysis

Figure 43. Australian FY21 futures prices (A\$/MWh)

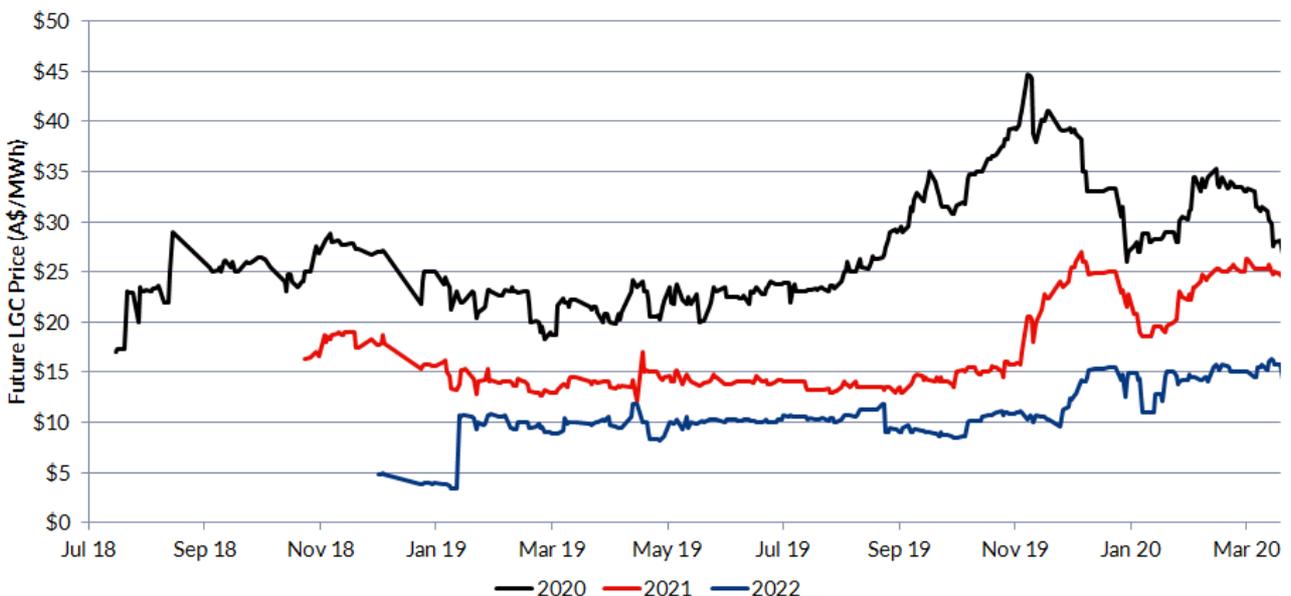


Source: Thomson Reuters, Forsyth Barr analysis

Renewable energy certificates (LGC) futures remain flat

- Spot LGC prices ended the month at A\$27/MWh, down from A\$33/MWh at the start of March. Prices were hovering around ~A\$30/MWh in the last week but dropped on the last day of the month.
- Long-dated LGC prices were relatively flat over the month, with 2021 prices sitting around ~A\$25/MWh and 2022 prices ~A\$15/MWh.

Figure 44. Renewable energy certificate prices (LGC)



Source: Bloomberg, Forsyth Barr analysis

Key statistics

New Zealand electricity market statistics

Figure 45. Key statistics – New Zealand

	Mar-19	Feb-20	Mar-20	% Chg pcp	% Chg mom
Average Monthly Prices					
OTA avg (\$/MWh)	\$ 182.4	\$ 81.0	\$ 75.5	-58.6%	-6.9%
HAY avg (\$/MWh)	\$ 171.8	\$ 74.3	\$ 71.5	-58.4%	-3.8%
BEN avg (\$/MWh)	\$ 165.2	\$ 37.8	\$ 42.2	-74.5%	11.5%
Avg Daily Generation (GWh)					
CEN	21.8	25.1	22.1	1.1%	-12.1%
% of NZ Generation	20.2%	22.8%	20.8%	3.2%	-8.6%
GNE	21.7	18.3	17.8	-17.6%	-2.3%
% of NZ Generation	20.0%	16.6%	16.8%	-15.8%	1.6%
MCY	18.4	19.4	20.2	10.1%	4.3%
% of NZ Generation	17.0%	17.6%	19.1%	12.4%	8.5%
MEL	37.0	40.9	38.5	4.1%	-5.7%
% of NZ Generation	34.2%	37.1%	36.4%	6.3%	-1.9%
TPW	5.0	4.0	4.4	-11.4%	9.1%
% of NZ Generation	4.6%	3.7%	4.1%	-9.5%	13.5%
Daily Demand (GWh)					
Demand (excl Tiwai)	89.4	93.6	89.2	-0.2%	-4.7%
NZAS demand	14.4	14.2	14.1	-2.1%	-0.7%
Total NZ Demand	103.8	107.8	103.3	-0.5%	-4.2%
Hydrology (% of average)					
Average hydro inflows	126%	146%	86%	-32.0%	-41.4%
Average hydro storage	84%	123%	107%	27.5%	-12.7%
Month end hydro storage	102%	116%	99%	-2.9%	-14.7%
ASX futures as at:					
	28-Feb-19	28-Feb-20	31-Mar-20		
Short-dated OTA	\$ 139.1	\$ 114.6	\$ 85.4	-38.6%	-25.5%
Long-dated OTA	\$ 94.6	\$ 99.6	\$ 95.8	1.2%	-3.8%
Short-dated BEN	\$ 124.8	\$ 89.0	\$ 69.9	-44.0%	-21.4%
Long-dated BEN	\$ 84.6	\$ 88.0	\$ 69.8	-17.6%	-20.7%

Australian electricity market statistics

Figure 46. Key statistics – Australia

	Mar-19	Feb-20	Mar-20	% Chg pcp	% Chg mom
Average Monthly Prices					
NSW avg (A\$/MWh)	\$ 87.9	\$ 57.5	\$ 46.2	-47.5%	-19.7%
SA avg (A\$/MWh)	\$ 131.6	\$ 64.2	\$ 47.0	-64.3%	-26.8%
VIC avg (A\$/MWh)	\$ 131.1	\$ 48.3	\$ 43.3	-67.0%	-10.4%
Electricity Futures for FY21:					
	1-Apr-19	28-Feb-20	31-Mar-20		
NSW avg (A\$/MWh)	\$ 78.8	\$ 65.0	\$ 60.9	-22.7%	-6.4%
SA avg (A\$/MWh)	\$ 79.4	\$ 59.6	\$ 55.2	-30.5%	-7.4%
VIC avg (A\$/MWh)	\$ 81.3	\$ 60.3	\$ 57.6	-29.2%	-4.5%
Spot and Future LGC Prices					
	31-Mar-19	29-Feb-20	31-Mar-20		
Spot (A\$/MWh)	\$ 32.5	\$ 33.0	\$ 27.0	-16.9%	-18.2%
2020 (A\$/MWh)	\$ 21.5	\$ 33.3	\$ 26.8	24.4%	-19.5%
2021 (A\$/MWh)	\$ 14.1	\$ 25.0	\$ 24.5	74.4%	-2.0%
2022 (A\$/MWh)	\$ 9.9	\$ 15.7	\$ 14.2	42.9%	-9.6%

Source: Bloomberg, AEMO, Thomson Reuters, Forsyth Barr analysis

Industry news

Listed sector company news

Contact (CEN)

- CEN has suggested that a new thermal Crown entity may be needed to operate a strategic reserve system, in response to the Government's renewable energy discussion document. CEN points out that hydro can't meet all baseload requirements in a dry year and the next cheapest alternative is the Huntly Rankine coal units. In CEN's suggestion, the Crown Entity "ReserveCo" would buy the Rankine Units and the coal from GNE and operate the units. However, MCY has said that it is against a strategic reserve. MCY's view is that the market will determine an efficient outcome without intervention. They also noted the Crown's poor historical performance of being the 'generator of last resort', and that the proposed system could actually risk the security of the power supply.
- CEN has suspended its four-well drilling campaign at the Tauhara geothermal field, as it is now only operating its essential services during the national lockdown. The drilling campaign was said to be around half of the way done before the temporary suspension.
- CEN has been fined \$245k by the courts after pleading guilty to the charges laid by ComCom in relation to misleading or unfair advertising. The fines are in relation to the companies advertising of its fuel rewards plan that it ran involving the AA Smartfuel rewards scheme.

Meridian (MEL)

- MEL has announced that both Jason Wooley and Claire Shaw have been promoted to the executive team effective immediately. Wooley in the role of GM of Corporate Affairs and sustainability, and Shaw as General Counsel and Company Secretary. Wooley has been with MEL for eight years and Shaw has been with the company for more than ten.

Mercury (MCY)

- Vince Hawksworth took up the role as CEO of MCY earlier than planned, starting on 30 March as a response to the COVID-19 pandemic. Hawksworth was initially due to start with the company on 28 April.
- Work will stop at MCY's construction sites across the country as a result of the lock-down. This includes MCY's Turitea wind farm, as well as its drilling program at the Rotokawa geothermal field.
- MCY's \$67m project at its Whakamaru hydro plant has increased capacity +20% to ~124MW. This increases the peaking capacity of the plant, but does not change annual generation volumes.

Tilt Renewables (TLT)

- Work has stopped on TLT's Waipipi wind farm until the end of the level four lockdown after the Government announced that the construction of the farm was not deemed an essential service. TLT had said there were minor delays in manufacturing of some of its turbine components following the lockdowns in China through parts of February and March, but that the manufacturing facilities were now operating again. TLT has said the lockdown won't materially affect Waipipi.
- TLT generated the first power from its 336MW Dundonnell wind farm on 11 March; however, full commercial operations are not expected from the Western Victorian wind farm until the third quarter of this year.

Vector (VCT)

- VCT has announced its plans to install a 524KW solar system on the roof of an industrial plant in Hamilton. The owners of the commercial property, the Udy group, will own the system and sell the power to the tenant, Fletcher Building's Laminex.

Political / regulatory news

- The Electricity Authority (EA) has made changes to the voluntary market making agreements that will apply during the level four lockdown. These changes include an increase in the number of withdrawals a market maker can have from futures market obligations, up from 5 to 7, as well as the ASX now being able to use discretion as to whether a market maker who has not met all their obligations is in breach. These temporary changes apply for either three months, or until the end of lockdown level four in both Wellington and Auckland.

Other industry news

- Transpower has updated its demand outlook report, Te Mauri Hiko, highlighting that it expects to see increased electricity demand growth from 2025 as a result of the electrification of transport and process heat, but also indicates reduced demand growth compared to the previous report released in 2018, with a +68% increase now predicted by 2050, versus the forecast +100% in the 2018 report. Transpower also predicts that New Zealand can achieve 95% renewable generation by 2035, but has said the sector, government and regulators need to start planning for this now.
- A Venture Taranaki commissioned report has said that Taranaki offshore wind generation could double New Zealand's electricity supply. The report indicates two separate blocks could generate 12GW and 2.4GW respectively if fully developed. Whilst this may be technically feasible, offshore wind will be more expensive than onshore options, so don't expect anything to be built any time soon. Nevertheless, the potential is huge.
- NZAS has announced that it will shutdown potline four in response to the COVID-19 level four lockdown, with the shutdown commencing at the weekend. NZAS CEO Stewart Hamilton has said that this will help to segregate teams and reduce contact between staff. Potline four had only been operating again since May 2018 after having been shuttered in early 2012. The decision to close the potline is independent of RIO's strategic review of the plant that was announced in October 2019.
- Transpower has announced that the HVDC link is now back to full capacity as at 28 March, having been under reduced capacity since early January for project and maintenance work to be completed. The General Manager of Grid Delivery Mark Ryall had said that the project was well-advanced but that the COVID-19 situation had meant that the HVDC link should be brought back to maximum capacity as soon as possible.
- Aurora energy has been fined \$5m by the Wellington high court for breaching its network quality standards during the regulatory assessment periods between 2016 and 2019. The Commerce Commission (ComCom) brought on the charges to Aurora and have said they will return to court if Aurora does not pay the fine within a reasonable time frame.
- Onshore production from Pohokura came back online on 25 March following reductions in production as a result of works that began on 6 March. Pohokura off-shore production wells, however, remain off as pipeline inspection works continue.
- The Government has committed \$19.9m of its provincial growth fund toward a green hydrogen project in Taranaki being undertaken by Ballance Agri-Nutrients and Hiringa Energy. The four turbine, 16MW wind farm will supply electricity, which with water will produce the hydrogen that produces the ammonia.

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