FORSYTH BARR

NEW ZEALAND EQUITY RESEARCH

4 NOVEMBER 2020

Power Points
Labour Retains Power — November 2020

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The Labour Party's landslide victory in the 2020 election should help boost medium-term electricity demand through incentives to electrify transport and industrial heat, however, it also increases long-term uncertainty due to the 100% renewable electricity policy, in our opinion. The sector had a strong month, with all of the large listed generator/retailers outperforming the S&P NZX50 Index, and we continue to see upside if NZAS remains open for longer as a result of increased dividend expectations. There continues to be positive signs for the smelter, and we expect an announcement from the company sooner as opposed to later now the government has been formed. If NZAS remains open for longer, we expect Contact Energy (CEN) & Genesis Energy (GNE) to be the key beneficiaries in the sector, and remain our preferred sector picks.

Figure 1. Summary company valuation metric

					FY21			
Company	Price	Target price	Target return	Rating	EV/EBITDA	PE	Gross Yld	EBITDAF
CEN	$7.53	$8.60	18.5%	OUTPERFORM	13.9	21.8	5.2%	463
GNE	$3.06	$3.38	15.0%	OUTPERFORM	13.2	22.9	6.4%	402
MCY	$5.32	$5.37	4.1%	NEUTRAL	16.7	27.6	4.4%	501
MEL	$5.50	$5.44	2.1%	NEUTRAL	20.8	32.5	4.0%	754
TLT	$3.90	$4.00	2.6%	NEUTRAL	17.5	36.8	0.0%	75
TPW	$7.11	$7.78	13.7%	NEUTRAL	14.6	24.5	6.0%	194

Source: IRESS, Forsyth Barr analysis

Hydro conditions improve in the South, North Island conditions remain below average

In the wholesale market, a recovery in South Island hydro conditions led to increased generation (meaning a better month for Meridian Energy (MEL) and hydro storage recovering to above average for this time of year (just). North Island hydro generation remains below average — so another tough month for Mercury (MCY). Electricity demand was broadly flat on October 2019 despite being ~+20% warmer, and Potline 4 remaining offline. Wholesale electricity prices declined during the month, with Benmore (BEN) prices down -11% to average NZ$114/MWh.

Government priorities have some positives, but also increased uncertainty for the electricity sector

With Labour emphatically winning the 2020 election, it is reasonable to assume that its energy and climate change policies will be progressed. The main positive comes from the pushing of electrification of transport and process heat, boosting electricity demand, albeit not till the back-end of the decade. The main uncertainty we see comes from the goal of 100% renewable electricity by 2030 and the possible Lake Onslow pumped-hydro project as it is unclear whether the current market mechanisms, in place for the last 24 years, would survive.

NZAS situation continues to be major sector overhang

The election resulted in a pause on NZAS speculation as the government was not in a position to negotiate a deal. We expect coming to a final decision on NZAS will be high priority for the incoming government, and the election result should help speed up the process as no coalition agreement is required. That said, our understanding is that December is more likely than November for a final decision.

No change to investment views, CEN and GNE remain our preferred picks

The electricity sector has had a positive October, with most stocks outperforming the S&P/NZX50 Index. Although, like the S&P/NZX50 Index all of the gains came in the first two weeks of the month, before retreating over the past week. Our preferred stocks remain CEN and GNE. In our view, these two stocks have the greatest upside should NZAS remain open for longer.

Election supportive of electricity demand growth, but long-term political/regulatory risks rise, in our view

With Labour comfortably winning the 2020 election, we can expect its energy policies to be implemented (or at least take a step towards implementation). With Green Party co-leader, James Shaw, continuing as the Minister of Climate Change, there is a reasonable chance some of the Green's policies will also get traction. Megan Woods will continue as the Minister of Energy & Resources. The key things we expect over the next three years are:

- **Negotiation of RIO deal:** We are picking December as the most likely month for a decision from RIO whether it will keep NZAS open for longer or not. Now that the 2020 election is behind us and the government has been formed, we expect resolving, one way or the other, the future of NZAS will be a top priority and that both the government and RIO would prefer to have a final decision prior to Christmas.

- **Support for electric vehicle up-take:** Labour's EV policy is centred around a clean car standard and increased funding for EV charging stations. In addition, we expect the feebate scheme that was stymied by NZ First (and recommended by the Productivity Commission) in the last term will be resurrected. The Green's transport policy calls for a ban on the importation of petrol/diesel vehicles, at a date linked to when the UK does the same. The current UK plan is to ban fossil-fuelled vehicles from 2040, but that could be brought forward to 2030. Implementing such a policy is possible.

- **100% renewable electricity by 2030 and the Lake Onslow project:** Pumped-hydro and the possible Lake Onslow scheme received significant attention pre-election. Initially this was in the context of NZAS closing, but in light of Labour's goal to achieve 100% renewable electricity by 2030, the massive Lake Onslow scheme is even more important. The study into Lake Onslow will take place in 2021, although it is unclear whether it will be completed in 2021 or early 2022. The Productivity Commission and the Interim Climate Change Commission both said in their respective 2018 and 2019 reports that 100% renewable electricity is the wrong goal given the cost of achieving it. In our view there is increased uncertainty for the electricity sector as there is the risk certain initiatives required to achieve the goal, such as the Lake Onslow pumped hydro scheme, cut across current market mechanisms. The key question for those opposing the scheme is whether the project can get past of the point of no return in the next three years (i.e. can construction be committed to), which we think is unlikely.

- **Ongoing scrutiny of wholesale and retail market performance:** Whilst the sector largely received a clean bill of health from the Electricity Price Review undertaken by the 2017–2020 government, electricity is a sector that will always be watched closely by politicians. Two issues that are currently bubbling under the surface are the Undesirable Trading Situation related to South Island hydro trading in November/December 2019 and the lack of obvious decline in electricity retail prices following the drop in most lines company charges from 1 April 2020. Six years ago the Labour/Green's went to the 2014 election with their NZ Power policy. Whilst that policy was subsequently dropped, the sector needs to take care not to over-step the political/regulatory boundary.

In our view the political/regulatory risks for the electricity sector have increased, albeit they are still small at this point in time. The conclusions of the report into pumped-hydro and the government's reaction to that report will be an important indicator of whether current market mechanisms continue, or whether there is the risk of more fundamental change at some point in the future.

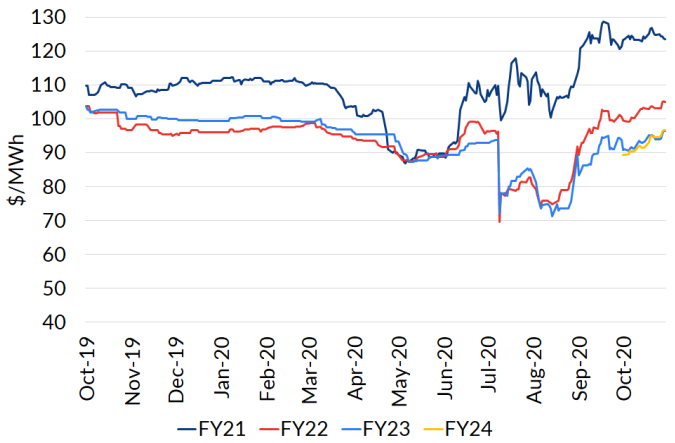
What's the electricity futures market factoring in for NZAS?

We continue to maintain our view that the decision whether the life of NZAS will be extended or not is a 50/50 call. There are too many unknowns with regard to RIO's intentions and rationale behind its July announcement to be overly confident that NZAS will remain open for longer.

That said, the electricity futures have firmed further in October, with FY22 and FY23 futures prices rising between +1% to +5%. However, the firming of prices can be due to factors other than NZAS being more likely to stay open. The OTA FY22 future prices is now higher than the price before RIO announced it was undertaking a strategic review. Interestingly, the spread between OTA and BEN futures prices has widened in October — which actually suggests there is less confidence NZAS will be open.

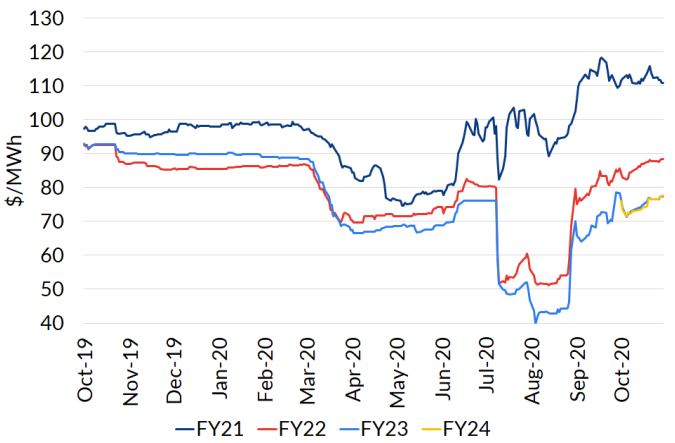
We estimate that on an absolute basis, the ASX futures market is indicating there is a 90% chance NZAS will remain open in FY22 and a 60% to 70% chance in FY23. However, spread analysis suggests the probability of NZAS staying open is closer to 60% in both FY22 and FY23.

Figure 2. OTA ASX futures prices



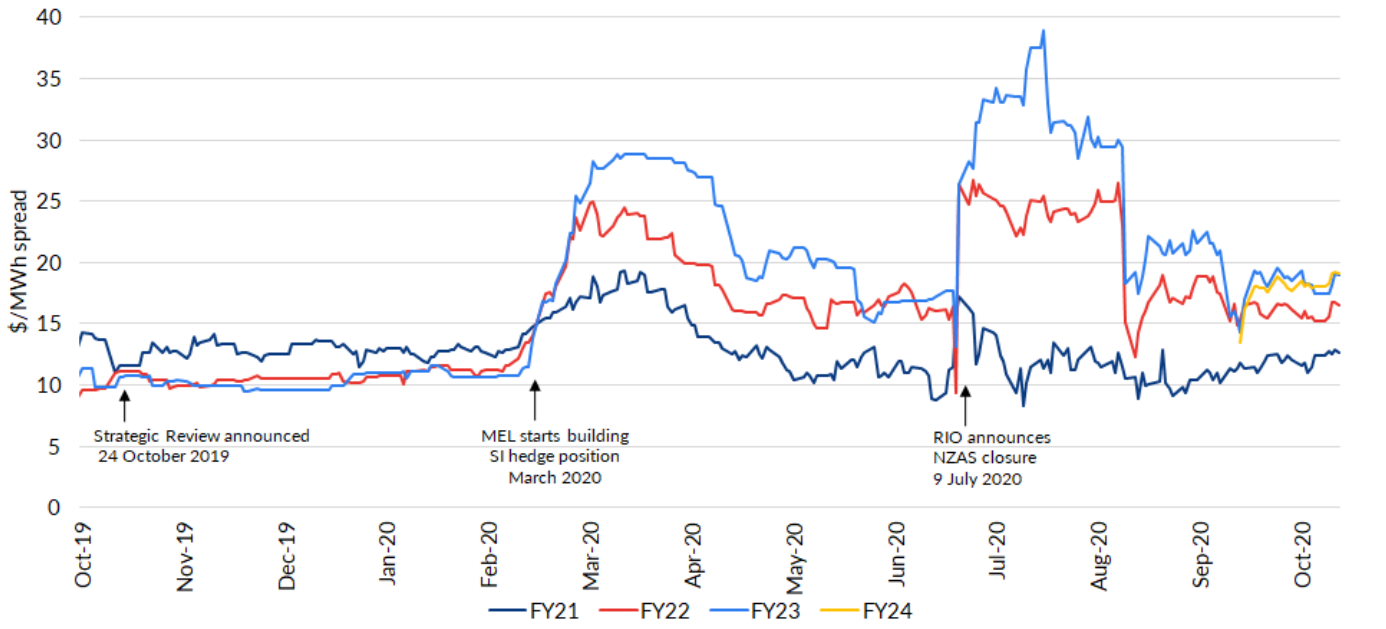
Source: IRESS, Forsyth Barr analysis

Figure 3. BEN ASX futures prices



Source: IRESS, Forsyth Barr analysis

Figure 4. BEN ASX futures prices spread

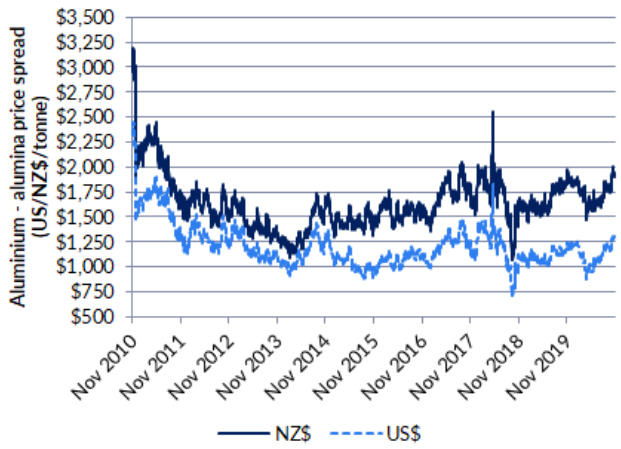


Source: IRESS, Forsyth Barr analysis

Aluminium prices surge (although that is unlikely to be a significant factor in the decision)

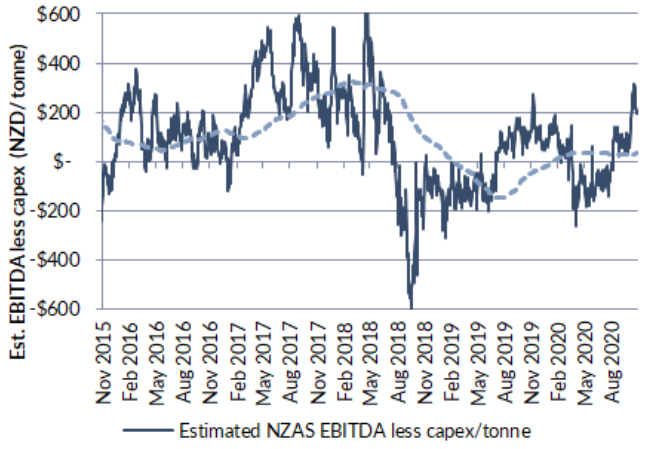
Aluminium prices have had a strong run over the past month, lifting +~US$100/tonne (+6%). In addition, the Japanese premium has also increased and the raw material alumina price is little changed. The all important aluminium/alumina spread is ~NZ$1,900/tonne, which is upper quartile on a ten year view. This all translates to NZAS making good money at present, ~NZ$200/tonne by our estimate — and that's before any electricity discount to keep NZAS open for longer which would more than double that figure. That said, RIO's NZAS closure decision did not appear to be based on the smelter's profitability, hence, we do not believe the current strong prices will have a significant bearing on RIO's final decision.

Figure 5. Aluminium/alumina spread last 10 years



Source: Bloomberg, IRESS, Forsyth Barr analysis

Figure 6. Estimated NZAS profitability last 5 years



Source: Bloomberg, IRESS, Forsyth Barr analysis

Transpower starts consultation on prudent discount policy

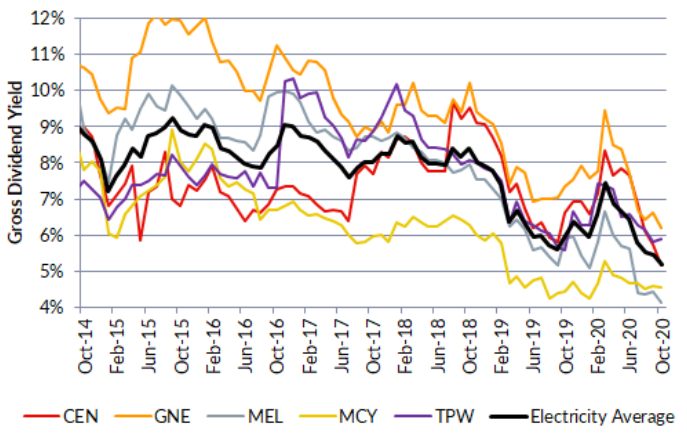
Transpower has started consultation on how a prudent discount policy could look. One of the key issues for RIO has been the transmission charges it faces. The proposed transmission pricing methodology allows for discounted transmission charges, if it can be proved "stand-alone" transmission charges would notionally be less than current charges. i.e. NZAS needs to prove that its own dedicated lines would be cheaper than current charges. It currently pays a share of all transmission lines in NZ, even though it can argue it does not use/need any lines north of the Clyde Dam.

Whilst it may be too little too late from RIO's perspective, it is a further step towards transmission charges that are more reasonable. Without knowing what the final policy will look like, we have previously estimated NZAS's transmission charges could halve to ~NZ$30m under a prudent discount policy.

Yield upside if NZAS stays open

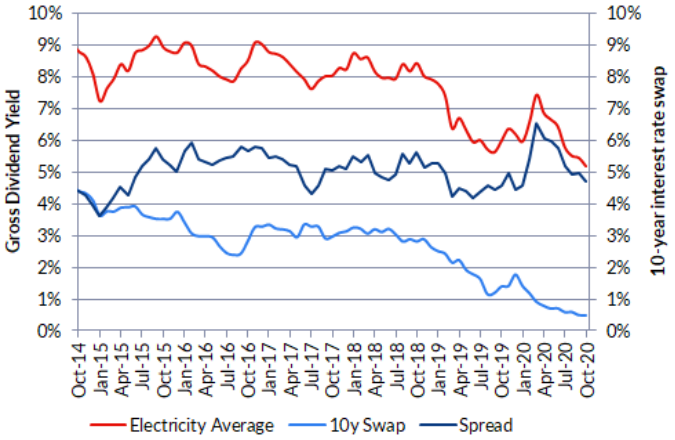
Positive share price movements in October sees further gross yield compression — but if NZAS stays open, yields are still attractive relative to alternative options. The average sector gross yield at month end is 5.2%, the lowest on record. However, relative to the 10-year swap rate, the spread of 4.7% is only the lowest since January this year, but is closing in on the 2019 4.5% average. Whilst there is a little more share price upside given the 2019 average spread is lower than current spreads, for further rerate, NZAS needs to remain open for longer, which will lift our FY21 dividend forecasts for CEN, GNE and TPW. Our short-term FY21 dividend forecast for MEL and MCY is likely to remain unchanged, with NZAS staying open having a greater impact on medium-term dividend growth.

Figure 7. Electricity stock yields



Source: Eikon, Forsyth Barr analysis

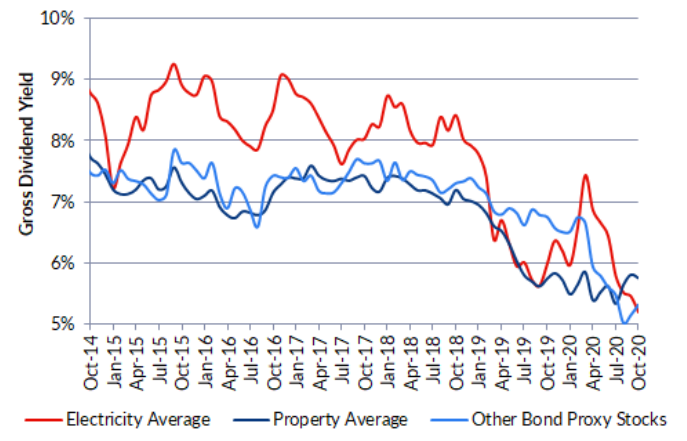
Figure 8. Relative yields



Source: Eikon, Forsyth Barr analysis

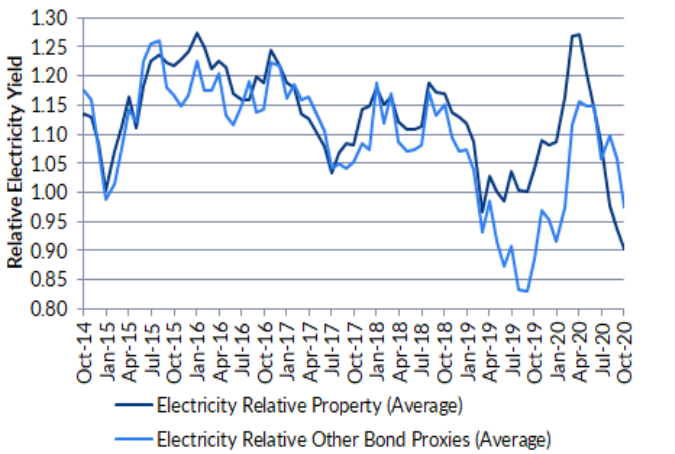
Compared to other yield-focussed sectors, the average electricity gross dividend yield has fallen further and the average electricity yield is trading on a record low vs. property and an eight month low vs. other bond proxy stocks. This is further evidence electricity stocks are close to fair value, with the NZAS decision the key catalyst for further upwards share price movement.

Figure 9. Electricty vs Property sector yields



Source: Eikon, Forsyth Barr analysis

Figure 10. Electricity vs other ond proxy yields



Source: Eikon, Forsyth Barr analysis

TPW & TLT to report 1H21 results in the next week

TPW and TLT are reporting their 1H21 results on Thursday 5 November and Monday 9 November respectively. We are expecting both results to be soft. TPW has had a weak hydrology period and TLT is reporting its first full period without Snowtown 2 wind volumes.

Figure 11. TPW and TLT earnings forecasts

	Trustpower (TPW)			Tilt Renewables (TLT)		
	1H20 (NZ$)	1H21F (NZ$)	% Chg	1H20 (A$)	1H21F (A$)	% Chg
EBITDAF ($m)	107	111	+4%	71	32	-56%
Normalised NPAT ($m)	49	53	+9%	19	5	-71%
EPS (cps)	15.5	16.9	+9%	4.0	1.4	-64%
Dividend (cps)	17.0	15.5	-9%	0.0	0.0	0%

Source: Company reports, Forsyth Barr analysis

Sept 2020 quarterly operating statistics summary — CEN the best performer

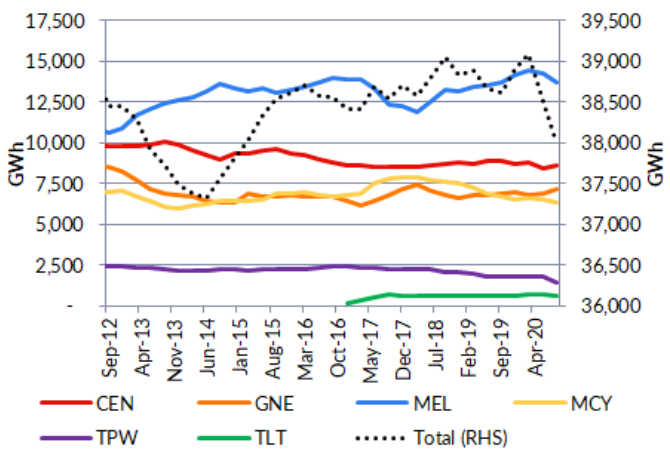
During October 2020 all of the electricity companies reported September quarter operating statistics. CEN had the best quarter with very strong hydro generation volumes during a period of firm wholesale electricity prices.

Key take-outs from the quarter are:

- Hydro generation was down -7% vs. the Sept 2019 quarter (and -5% below average). MCY and MEL were the worst affected hydro generators. CEN was the stand-out exception, with hydro generation +26% higher than the Sept 2019 quarter.
- Thermal generation lifted +15% to compensate for the below average hydro generation, with GNE's generation increasing the most (up +20%). GNE's thermal generation volume of 1,304GWh is its highest since the June 2013 quarter and is the third quarter in a row where GNE has produced more than 1,200GWh of coal/gas fired generation for the first time since the drought of 2012.
- Renewable generation fell to 80% of total generation (of the big five generators), the lowest since March 2015.
- MEL was once again the retailer that lifted its volumes the most, increasing fixed price variable volume (FPVV) sales +11%, with both mass market and commercial volumes increasing a similar amount. MCY lost the most mass market volumes (down -7%), but made up for that in the commercial market. CEN and TPW are the two retailers that have lost commercial sales volumes.
- MEL is the only large generator to add connections (+4,000) in the September 2020 quarter, with CEN and MCY losing -7,000 and -6,000 customers respectively. In CEN's case it appears to have lost a high proportion of the ~12,000 EnergyClub customers it acquired in June 2020.
- FPVV prices increased for all of the retailers with MCY and MEL reporting the largest increases — in large part due to their fast growing commercial sales contracted at high ASX futures prices.

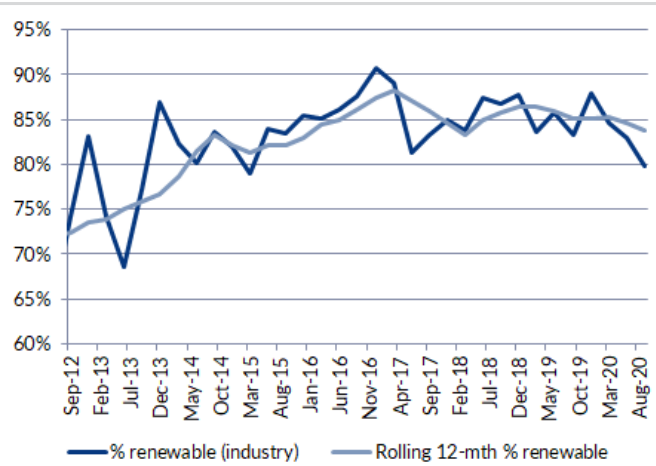
September 2020 quarter — sector trends tables and charts

Figure 12. Generation volumes



Source: Company reports, Forsyth Barr analysis

Figure 13. Renewable generation percentage



Source: Company reports, Forsyth Barr analysis

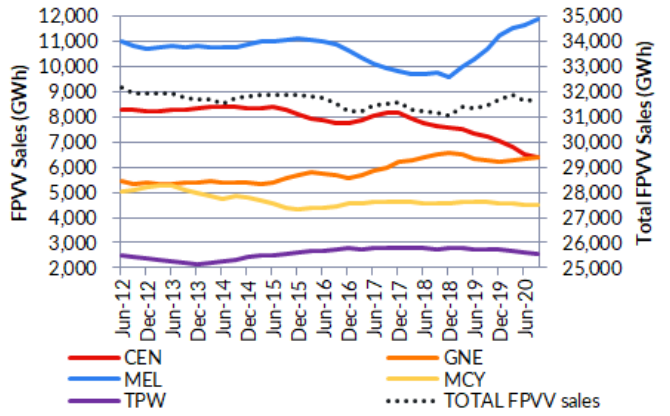
Figure 14. September quarterly stats summary

	Quarter ending Sep-19						Quarter ending Sep-20						% Change					
	CEN	GNE	MEL	MCY	TPW *	Total	CEN	GNE	MEL	MCY	TPW *	Total	CEN	GNE	MEL	MCY	TPW *	Total
Generation (GWh)																		
Hydro	820	759	3,232	1,214	575	**6,600**	1,030	781	2,758	1,044	522	**6,135**	26%	3%	-15%	-14%	-9%	**-7%**
Geothermal	854			734		**1,588**	798			734		**1,532**	-7%			0%		**-4%**
Wind		6	377		181	**564**		6	385		177	**568**		0%	2%		-2%	**1%**
Total renewable	*1,674*	*765*	*3,609*	*1,948*	*756*	**8,752**	*1,828*	*787*	*3,143*	*1,778*	*699*	**8,235**	*9%*	*3%*	*-13%*	*-9%*	*-8%*	**-6%**
Thermal generation	670	1,086				**1,756**	708	1,304				**2,012**	6%	20%				**15%**
TOTAL generation	**2,344**	**1,851**	**3,609**	**1,948**	**756**	**10,508**	**2,536**	**2,091**	**3,143**	**1,778**	**699**	**10,247**	**8%**	**13%**	**-13%**	**-9%**	**-8%**	**-2%**
% Renewable	71%	41%	100%	100%	100%	**83%**	72%	38%	100%	100%	100%	**80%**	1%	-9%	0%	0%	0%	**-4%**
GWAP ($/MWh)	**116**	**125**	**115**	**123**	**122**	**119**	**128**	**137**	**127**	**137**	**139**	**131**	**10%**	**10%**	**10%**	**12%**	**14%**	**11%**
Electricity sales (GWh)																		
Mass market	1,060	1,230	1,075	892	572	**4,829**	1,065	1,204	1,188	832	571	**4,860**	0%	-2%	11%	-7%	0%	**1%**
Commercial	603	488	735	348	208	**2,382**	462	572	829	425	137	**2,425**	-23%	17%	13%	22%	-34%	**2%**
TOTAL FPVV sales	**1,663**	**1,718**	**1,810**	**1,240**	**780**	**7,211**	**1,527**	**1,776**	**2,017**	**1,257**	**708**	**7,285**	**-8%**	**3%**	**11%**	**1%**	**-9%**	**1%**
Gas sales (PJ)	1.06	2.81			0.37	**4.24**	1.02	2.80			0.41	**4.23**	-4%	0%			10%	**0%**
LPG sales (000 tonnes)		13.12				**13.12**		13.10				**13.10**		0%				**0%**
Customers added (000)																		
Electricity	1	6	7	(12)	0	**1**	(7)	(2)	4	(6)	(1)	**(12)**						
Gas	(1)	(1)		0	1	**0**	(1)	0		(1)	1	**0**						
LPG		2				**2**		2				**2**						
Customer numbers (000)																		
Electricity	411	502	309	361	266	**1,849**	411	491	329	342	263	**1,835**	0%	-2%	6%	-5%	-1%	**-1%**
Gas	66	106		47	40	**259**	65	105		46	42	**258**	-2%	-1%		-2%	5%	**-1%**
LPG		70				**70**		75				**75**		7%				**7%**
MM volume/customer																		
Electricity (MWh/customer)	2.6	2.5	3.5	2.4	2.2	**2.6**	2.6	2.4	3.6	2.4	2.2	**2.6**	0%	-1%	4%	-1%	1%	**1%**
Gas (GJ/customer)	16.0	26.3			9.4	**16.3**	15.8	26.6			9.8	**16.4**	-2%	1%			5%	**0%**
LPG (kg/customer)		189.0				**189.0**		176.3				**176.3**		-7%				**-7%**
FPVV prices ($/MWh)	**238.8**	**217.7**	**112.9**	**117.4**			**241.4**	**221.5**	**119.3**	**125.8**			**1.1%**	**1.8%**	**5.7%**	**7.1%**		
LWAP ($/MWh)	**122.2**	**125.7**	**119.9**	**128.1**	**125.5**	**123.8**	**137.2**	**140.2**	**135.0**	**141.8**	**140.1**	**138.4**	**12%**	**12%**	**13%**	**11%**	**12%**	**12%**
LWAP/GWAP	**1.052**	**1.009**	**1.043**	**1.041**	**1.029**	**1.042**	**1.073**	**1.024**	**1.067**	**1.033**	**1.007**	**1.053**	**2%**	**1%**	**2%**	**-1%**	**-2%**	**1%**

Source: Company reports, Forsyth Barr analysis

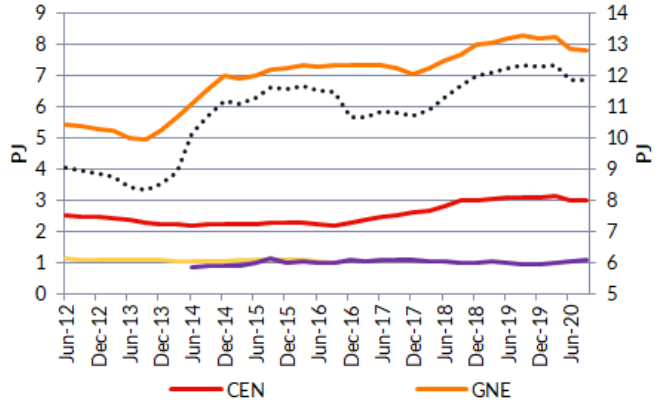
Note: TPW wind generation is acquired from Tilt Renewables generation

Figure 15. Electricity sales volumes (incl NZAS contracts)



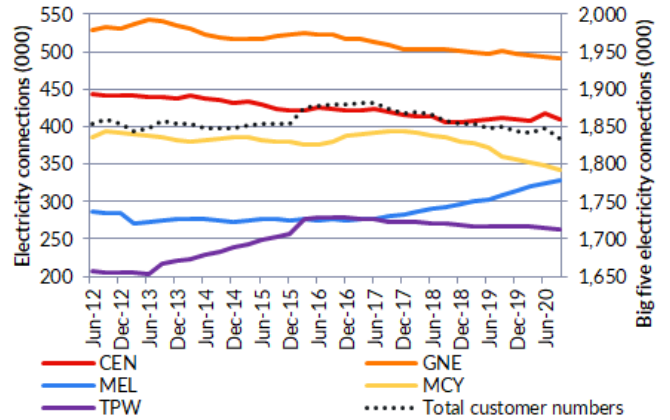
Source: Company reports, Forsyth Barr analysis

Figure 16. Gas sales volumes



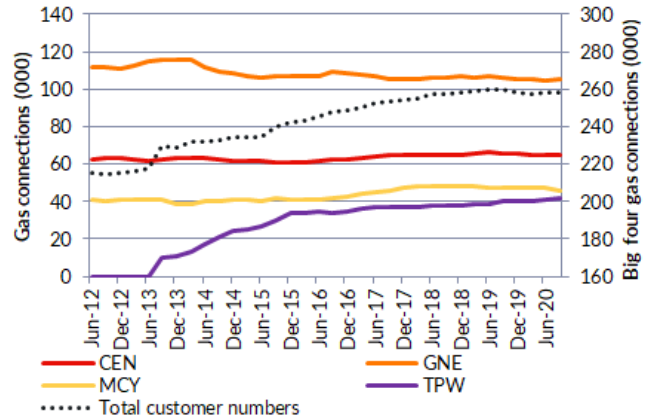
Source: Company reports, Forsyth Barr analysis

Figure 17. Electricity connection numbers



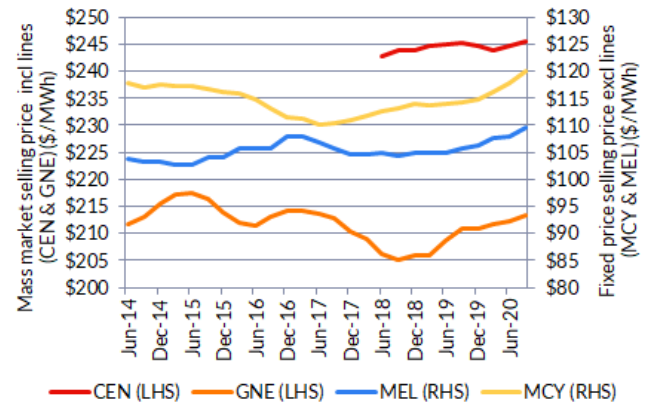
Source: Company reports, Forsyth Barr analysis

Figure 18. Gas connection numbers



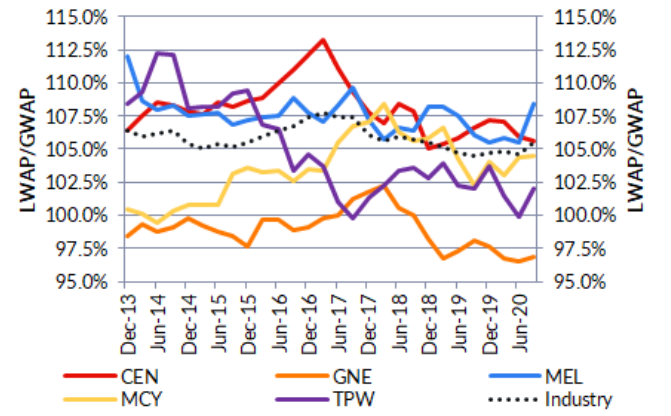
Source: Company reports, Forsyth Barr analysis

Figure 19. Selling price trend (Rolling 12 month prices)



Source: Company reports, Forsyth Barr analysis

Figure 20. Rolling 12-mth LWAP/GWAP ratio

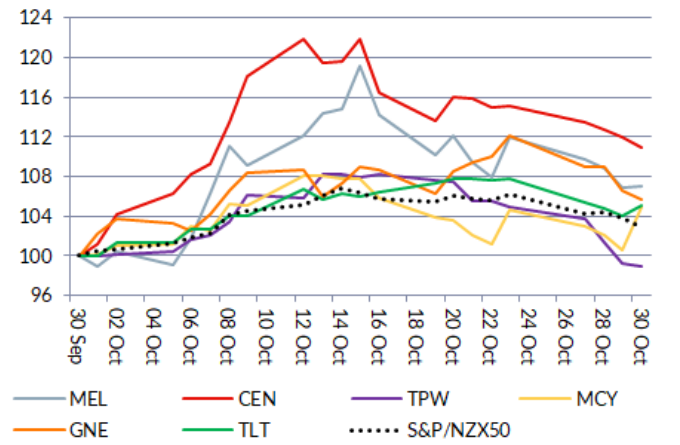


Source: Company reports, Forsyth Barr analysis

Share market performance: October 2020

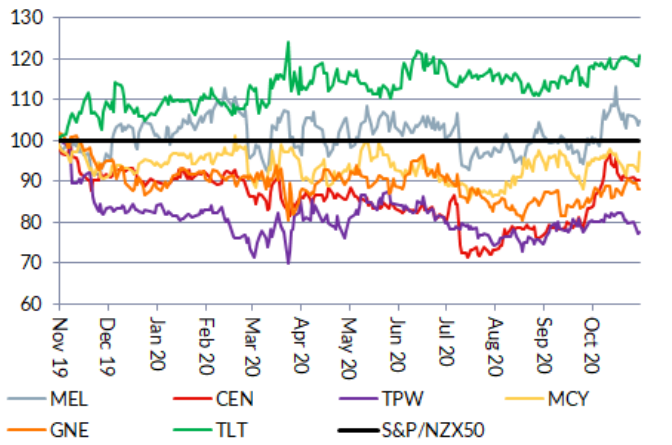
October was another strong month for the listed electricity stocks. CEN again had the best month, up +11.0% from the end of September to the end of October. GNE, MCY, MEL and TLT all experienced price increases over the period, up +5.6%, +4.9%, +7.1% and +5.1% respectively whilst TPW was the only listed stock to decline, falling -1.0% over the month. The S&P/NZX50C was up +2.9% over the period.

Figure 21. Stock performance vs. S&P/NZX50C



Source: Thomson Reuters, Forsyth Barr analysis

Figure 22. 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. Our preferred stocks are CEN and GNE (OUTPERFORM), whilst we rate MCY, MEL, TPW and TLT as NEUTRAL.

Figure 23. EBITDAF multiples

			Target	Target		Mkt Cap	EBITDAF (x)		EBITDAF - capex (x)	
Company	Code	Price	Price	Return	Rating	$m	FY21	FY22	FY21	FY22
Contact Energy	CEN	$7.53	$8.60	18.5%	OUTPERFORM	5,388	13.9	16.2	16.5	20.0
Genesis Energy (excl Kupe)	GNE	$3.06	$3.38	15.0%	OUTPERFORM	2,859	13.2	15.4	15.8	19.1
Mercury	MCY	$5.32	$5.37	4.1%	NEUTRAL	7,240	16.7	17.0	19.7	20.0
Meridian Energy	MEL	$5.50	$5.44	2.1%	NEUTRAL	14,084	20.8	23.4	22.6	25.8
Trustpower	TPW	$7.11	$7.78	13.7%	NEUTRAL	2,225	14.6	14.7	16.8	16.8
Sector average							**15.6**	**17.1**	**18.1**	**20.1**
Tilt Renewables	TLT	$3.90	$4.00	2.6%	NEUTRAL	1,467	17.5	12.0	20.2	13.2
Genesis Energy (incl Kupe)	GNE	$3.06	$3.38	15.0%	OUTPERFORM	3,193	11.0	11.9	12.8	13.9

Source: IRESS, Forsyth Barr analysis

Figure 24. PE multiples and dividend yields

	PE (x)		Adjusted PE (x)		Cash Div Yield		Gross Div Yield		Free Cash Flow Yield	
Company	FY21	FY22	FY21	FY22	FY21	FY22	FY21	FY22	FY21	FY22
Contact Energy	45.5	60.3	21.8	26.9	4.2%	4.2%	5.2%	5.1%	5.1%	5.1%
Genesis Energy (excl Kupe)	80.8	104.3	22.9	24.3	3.4%	3.1%	4.7%	4.3%	6.7%	4.3%
Mercury	46.4	53.8	27.6	29.3	3.2%	3.2%	4.4%	4.3%	1.0%	2.2%
Meridian Energy	55.3	67.7	32.5	36.7	3.1%	3.1%	4.0%	4.0%	3.1%	2.4%
Trustpower	29.8	29.9	24.5	24.6	4.3%	4.2%	6.0%	5.9%	4.2%	4.5%
Sector average	**48.9**	**58.5**	**25.6**	**28.1**	**3.6%**	**3.6%**	**4.8%**	**4.7%**	**4.0%**	**3.7%**
Tilt Renewables	>100	>100	36.8	25.1	0.0%	0.0%	0.0%	0.0%	1.7%	6.2%
Genesis Energy (incl Kupe)	42.9	44.3	16.9	16.6	4.6%	4.6%	6.4%	6.3%	8.6%	6.6%

Source: IRESS, Forsyth Barr analysis

Note: In calculating the GNE excl Kupe multiples, the value of Kupe is assumed to be $225m. Debt and interest has been apportioned 5% to Kupe and 95% to Energy (in line with EV proportion) and dividend in line with adjusted NPAT.

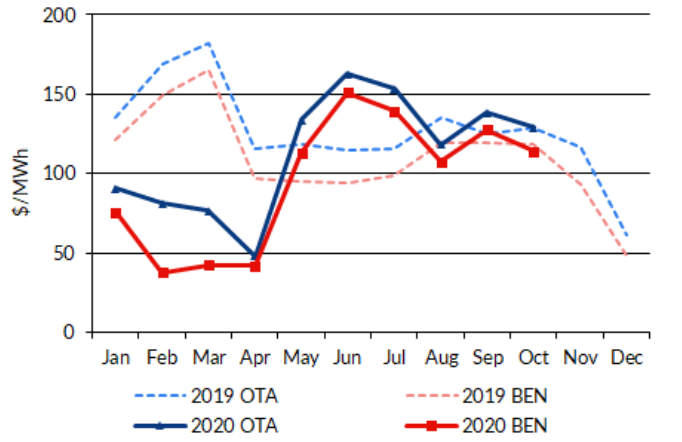
Wholesale electricity market: October 2020

Spot wholesale electricity prices and ASX futures

Wholesale prices decline, but still high in historic terms

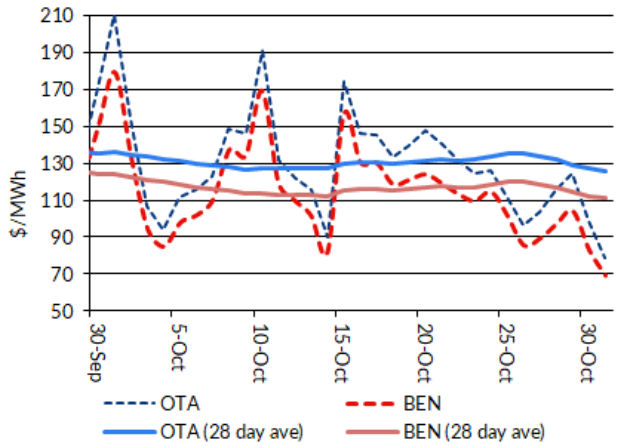
- Benmore (BEN) wholesale electricity prices averaged $114/MWh in October 2020, down -4% on the pcp and -11% on the prior month. Otahuhu (OTA) prices were flat on the pcp (+0.5%) but down -7% on the prior month to average $129/MWh in October.
- The price gap between the North Island (OTA) and South Island (BEN) was $15/MWh in October up from $11/MWh the prior month.
- Volatility in wholesale electricity prices remained high in October, with daily OTA prices fluctuating between $79/MWh and $210/MWh, while BEN daily prices were between $69/MWh and $179/MWh throughout the month.

Figure 25. Average monthly wholesale electricity prices



Source: NZX Energy, Forsyth Barr analysis

Figure 26. Average daily wholesale electricity prices

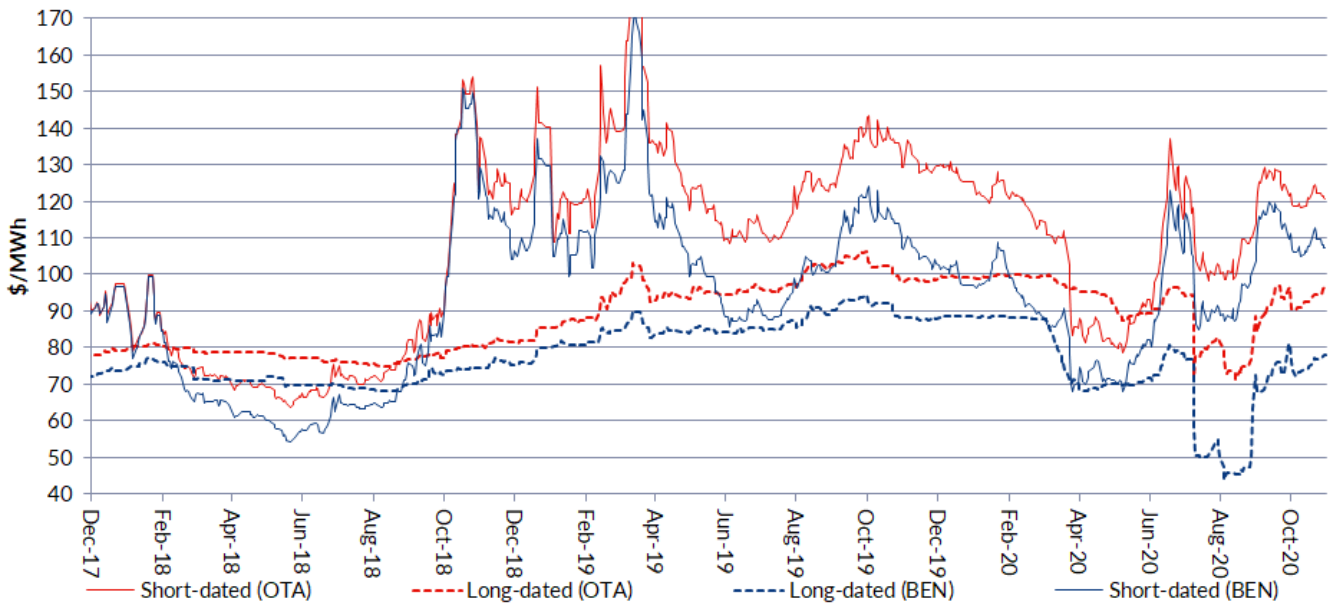


Source: NZX Energy, Forsyth Barr analysis

Futures prices increase

- Long dated BEN futures were up +2.8% to sit at $78/MWh. This follows a strong increase in September and subsequent sharp fall to $72/MWh at the start of October due to the rolling over of contracts. Long-dated OTA futures were up +6.6% to $97/MWh.
- Short-dated BEN and OTA futures were up +0.4% and +1.4% in October to sit at $107/MWh and $121/MWh respectively.

Figure 27. ASX futures prices (last three years)



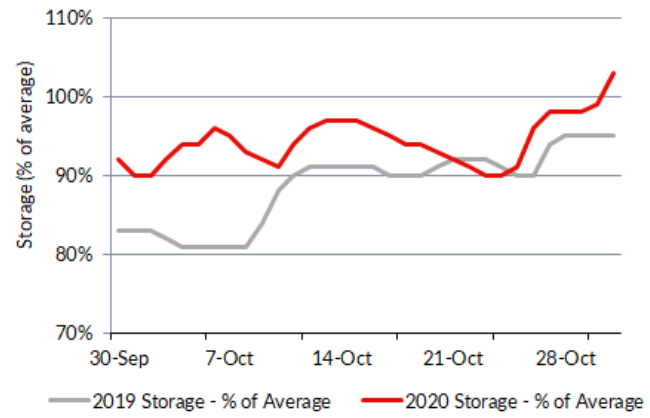
Source: Electricity Authority, Forsyth Barr analysis

Hydro storage volumes

Hydro levels largely stable

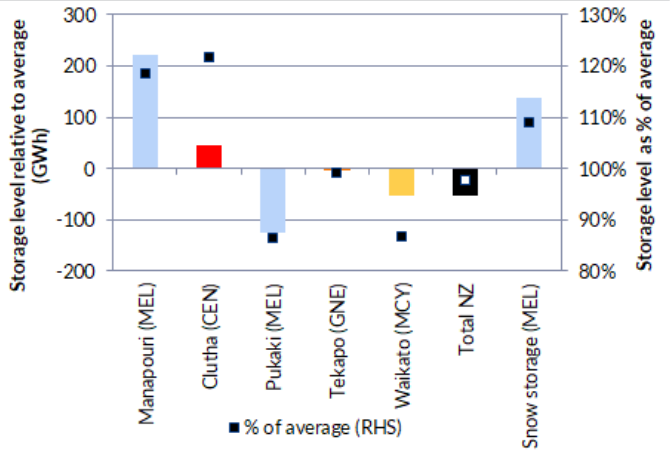
- Hydro storage improved in October and as at 31 October is 103% of average. CEN's Clutha is the highest at 122% of average and MEL's Pukaki (New Zealand's largest hydro storage lake) is the lowest at 86% of average.
- MEL's estimate of its current snow storage is 1,657GWh, ~+138GWh above average for this time of year.

Figure 28. Average lake storage levels



Source: NZX Energy, Forsyth Barr analysis

Figure 29. Key storage lake levels relative to avg (as at 29 Oct)



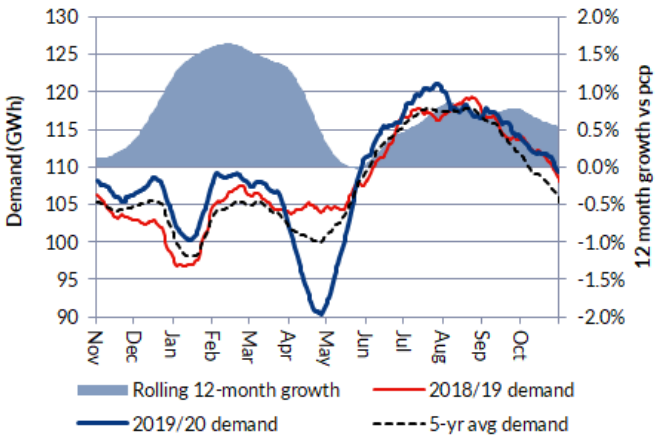
Source: EnergyLink, MEL, Forsyth Barr analysis

Demand and generation analysis

Demand flat on prior year

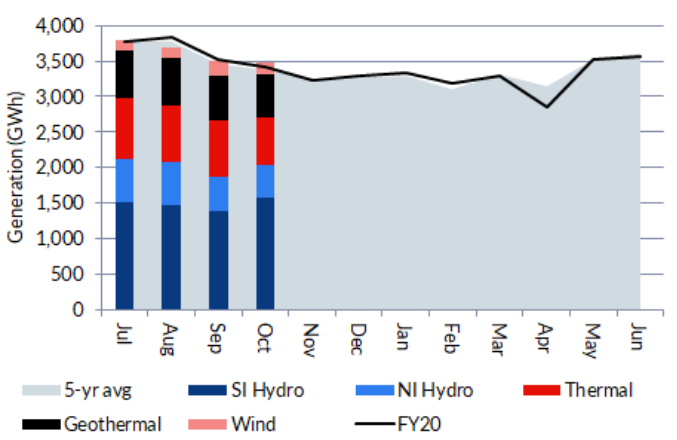
- New Zealand electricity demand averaged 109.8GWh/day in October, unchanged from the pcp (+0.1%). However, with Tiwai demand decreasing by -5.6% on the pcp as the Potline 4 contract remains suspended, underlying demand is up ~+0.9%.
- New Zealand generation totalled 3,478GWh in October 2020, a +1.6% increase on the pcp. Average daily generation from North Island hydro fell -10% on the prior month, as hydro storage levels in the North remained low for a large part of the month, whilst South Island hydro experienced an +11.5% increase in average daily generation vs. September 2020. Wind generation was off sharply, with average daily generation declining by -23% following a record September. Overall, the percentage of renewable generation was 80.7%, up +3.6% from the prior month.

Figure 30. Rolling 28-day avg demand & rolling 12-m growth



Source: NZX energy, Forsyth Barr analysis

Figure 31. NZ generation (by technology) — fiscal year to June



Source: NZX energy, Forsyth Barr analysis

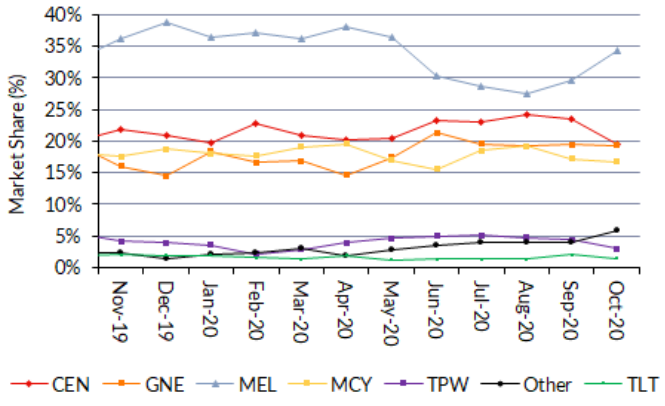
Generation market share — Strong month for MEL

- MEL was the only generator to gain market share in October, adding +4.6% compared to the prior month, to reach 34.3% of market share. CEN had the worst month, losing -4.0% of market share to total 19.5%. MCY, GNE, TPW and TLT lost -0.5%, -0.2%, -1.3% and -0.7% to sit at 16.7%, 19.3%, 3.0% and 1.6% respectively.

CEN — TCC unit production down sharply

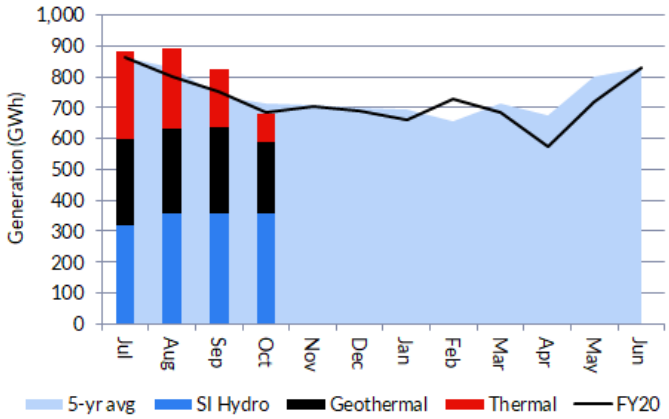
- Total CEN generation was 678GWh in October 2020, -13% below the long term October average. CEN's Te Mihi geothermal plant experienced its lowest generation since December 2016, down -60% compared to average October generation as it undergoes maintenance, and CEN's TCC thermal production was down -66% on average and down -77% (-109GWh) on the prior month as it was not needed. Hydro generation remains above average, with October +6% production +6% more than normal.

Figure 32. Monthly generation market share



Source: EnergyLink, Forsyth Barr analysis

Figure 33. CEN monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

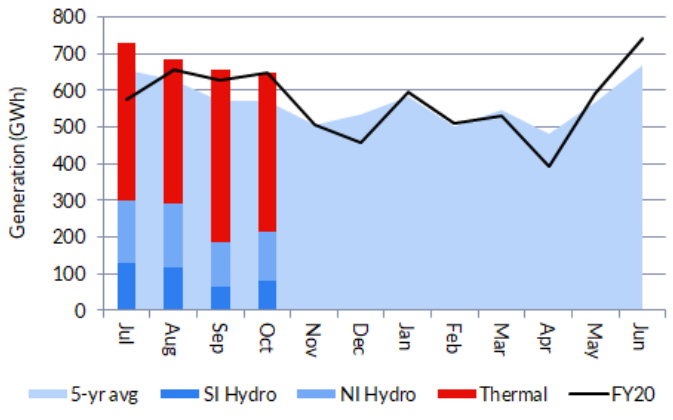
GNE — Above average October

- GNE generation was +14% above average to total 670GWh in October 2020. GNE's North Island hydro plants generated -29% less than average for October, whilst GNE's South Island hydro (Tekapo) was up +29% on an October average as improved hydro inflows boosted hydro generation. GNE ran its Huntly thermal plant less, generating -26% less generation per day in October than September 2020.

MCY — Generation down again

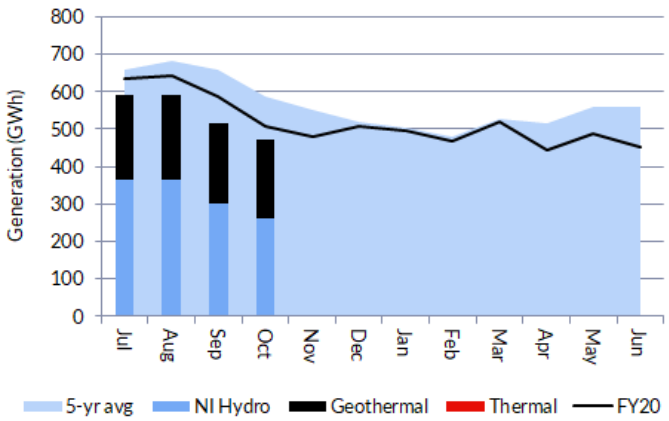
- MCY's October average daily generation of 19GWh was down -6% on the pcp. MCY's Waikato hydro scheme generated -31% less than average (-116GWh). The Ngatamariki geothermal plant average daily generation was down -24% compared to last month, and generation from MCY's Mokai plant recovered from a weak September to be down only -4% from average.

Figure 34. GNE monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

Figure 35. MCY monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

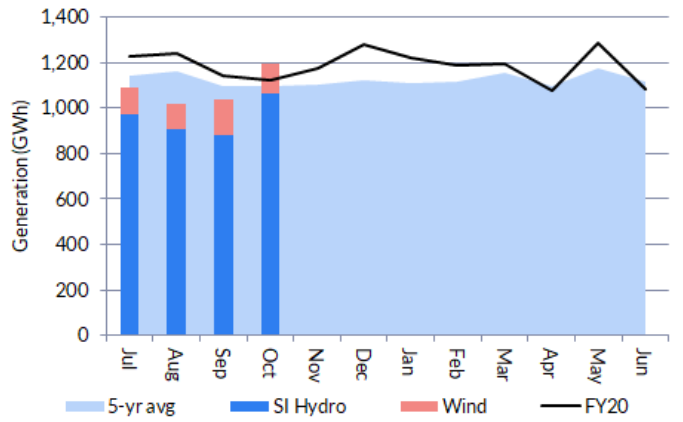
MEL — Above average hydro and ahead of pcp

- MEL generation of 1,192GWh in October was +8% above average for October and +6% ahead of October 2019. MEL's Waitaki hydro system generated +34% more per day, whilst MEL's Manapouri daily hydro generation increased by +5%. Following a strong wind month in September, three of MEL's five wind farms generated less than average production, with total wind -6% below an October average.
- MEL's hydro storage was stable throughout October, and current hydro storage now sits at ~96% of average.

TPW — South Island hydro remains low

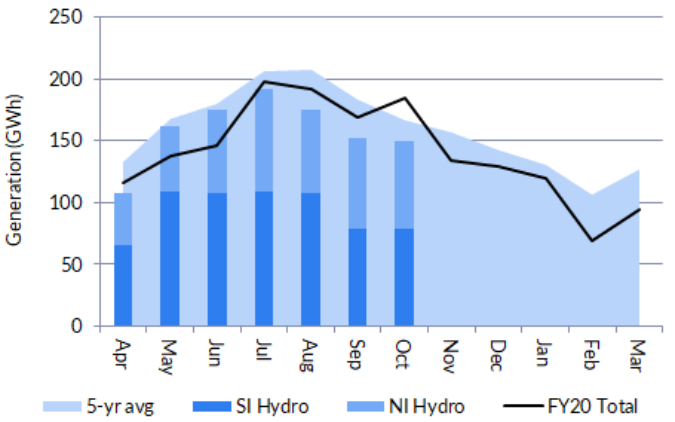
- We estimate that TPW generation was 149GWh in October, down -19% on the pcp. The decline in generation came predominantly from TPW's South Island hydro generation which remains low

Figure 36. MEL monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

Figure 37. TPW monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

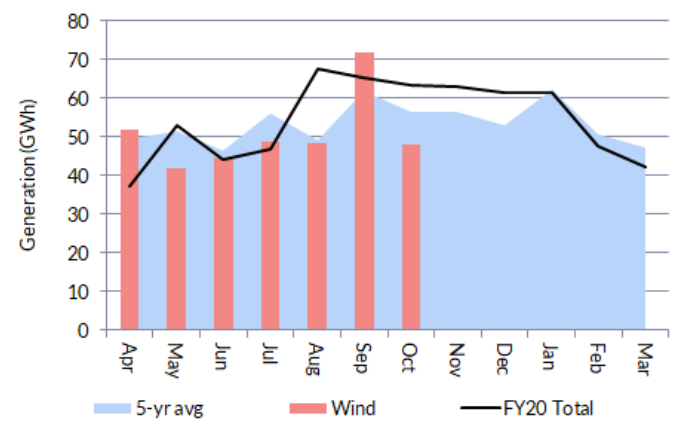
TLT — Down from record September

- Our estimate of TLT's NZ generation is 54GWh, an average daily generation decline of -27% compared to the record September 2020 and a -15% decrease from the pcp.

Generation prices — GWAPs down across the board

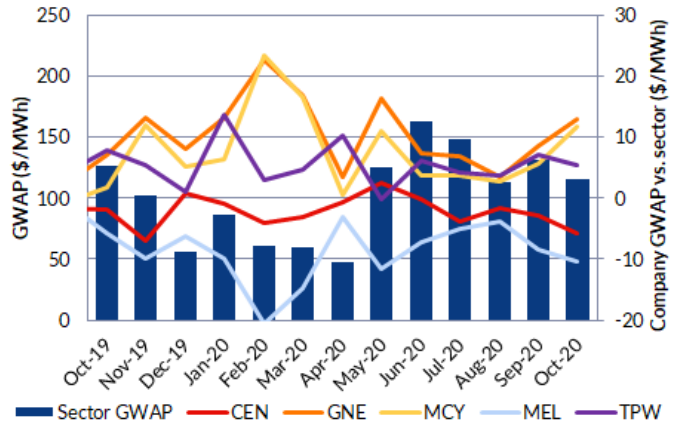
- The average generation weighted average price (GWAP) was $115/Wh in October, a -12% decrease from September. GNE had the highest GWAP at $128/MWh, while MEL received the lowest GWAP over the month of $105/MWh. MCY, TPW and CEN received $127/MWh, $121/MWh and $109/MWh respectively.

Figure 38. TLT monthly generation mix (current, pcp & 5y avg)



Source: EnergyLink, Forsyth Barr analysis

Figure 39. Avg generation weighted average price (GWAP)



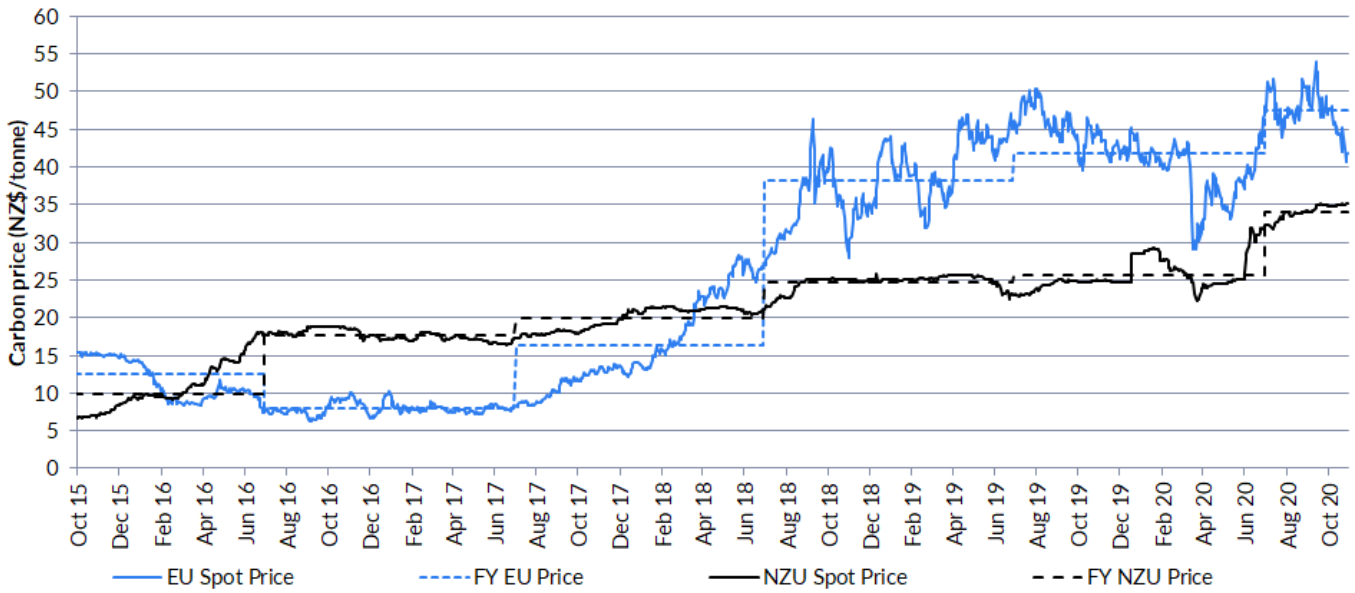
Source: EnergyLink, Forsyth Barr analysis

Carbon prices

NZ carbon prices — Units above Fixed Price Option (FPO)

- NZ carbon units ended October at $35.10/unit after reaching $35.15/unit in the middle of the month. This is the highest unit price recorded, and was above the new Fixed Price Option (FPO) of $35 that was raised from $25 in June 2020.
- EU carbon units were €23.7/unit (~NZ$41.8/unit) at the end of October, a -12% decrease from the €26.9/unit (~NZ$47.7/unit) price recorded at the end of September.

Figure 40. Price of carbon (NZ$/tonne)



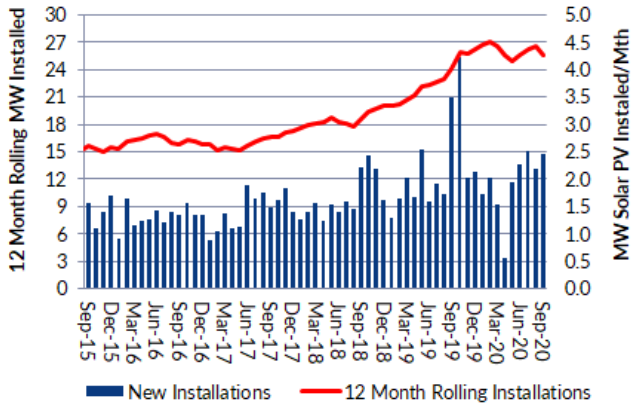
Source: Bloomberg, Forsyth Barr analysis

Solar PV installations

Rate of installation flat

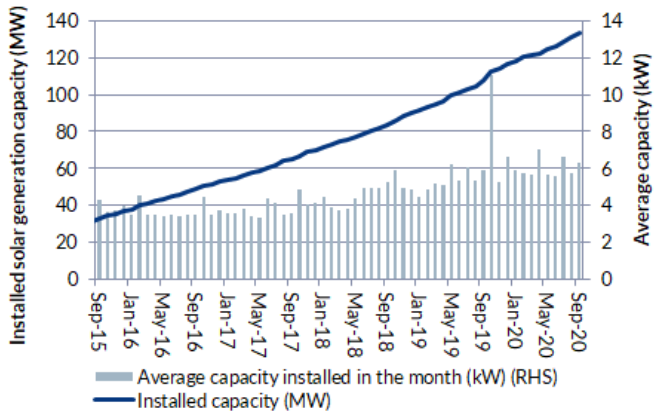
- There was 2.47MW of new solar capacity installed in September 2020, with 390 new connections. This is a +13% increase on August 2020. Total installed capacity is now ~134MW with 29,171 solar ICPs.

Figure 41. Solar PV capacity installed



Source: Electricity Authority, Forsyth Barr analysis

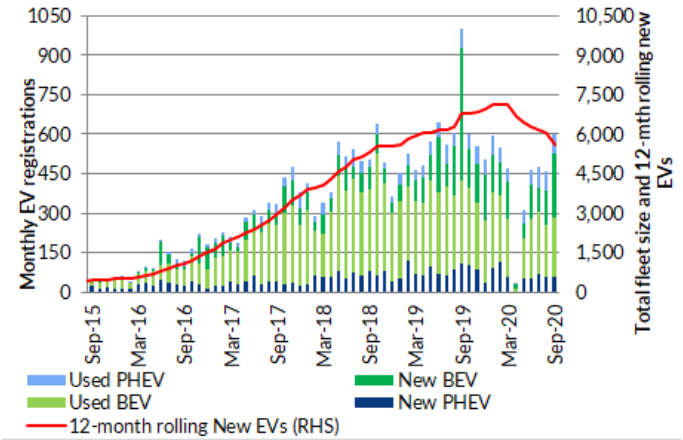
Figure 42. Average size of system and total capacity installed



Source: Electricity Authority, Forsyth Barr analysis

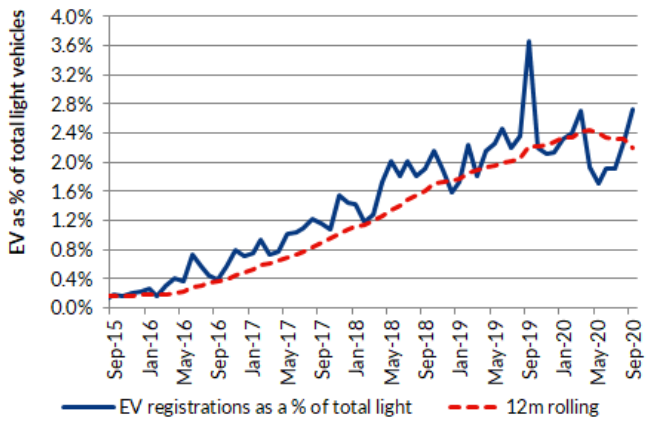
Electric vehicle (EV) registrations

Figure 43. EV registrations



Source: Ministry of Transport, Forsyth Barr analysis

Figure 44. EV registrations % of total light vehicle registrations

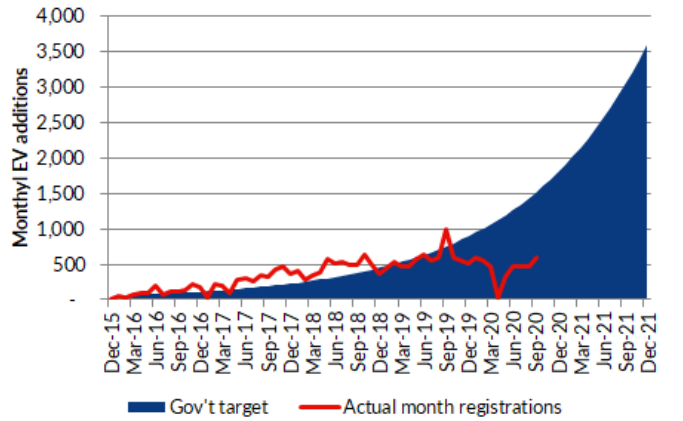


Source: Ministry of Transport, Forsyth Barr analysis

EV registrations increase

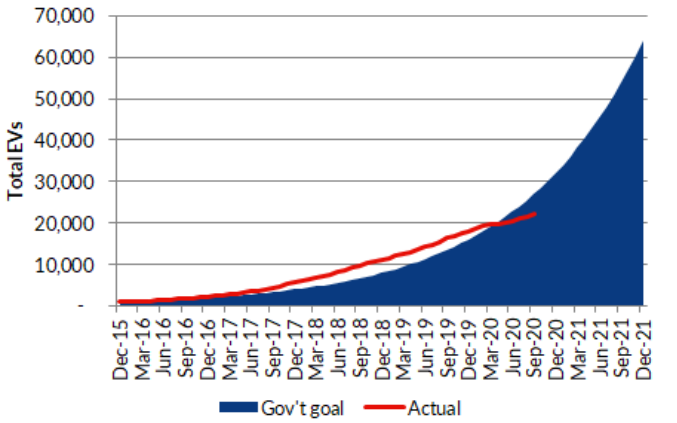
- There were 602 EVs registered in September 2020, of which 299 were new. This is the highest number registered in a month since the Tesla 3 fuelled September 2019. The total number of EVs registered is 22,074, -4,835 below the government target number of EVs to have been registered by now. Monthly EV registrations have averaged ~515 per month since May 2018.
- New EVs made up ~2.8% of total new light vehicles registered in September 2020, up from 1.8% in August 2020. The overall number of EVs registered per light vehicle registered (including used vehicles) was 2.7%, the highest percentage in the past twelve months. The rolling 12-month percentage of EVs per light vehicle declined to 2.2%.

Figure 45. Monthly EV registrations vs. govt target



Source: Ministry of Transport, Forsyth Barr analysis

Figure 46. Total EVs registered vs. govt target



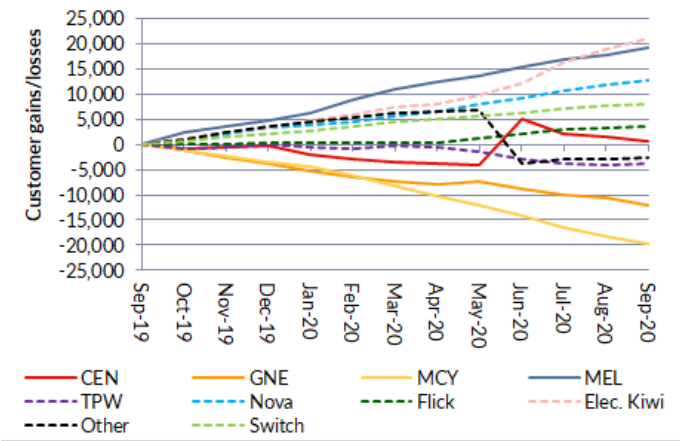
Source: Ministry of Transport, Forsyth Barr analysis

Retail electricity customers

Another strong month for MEL

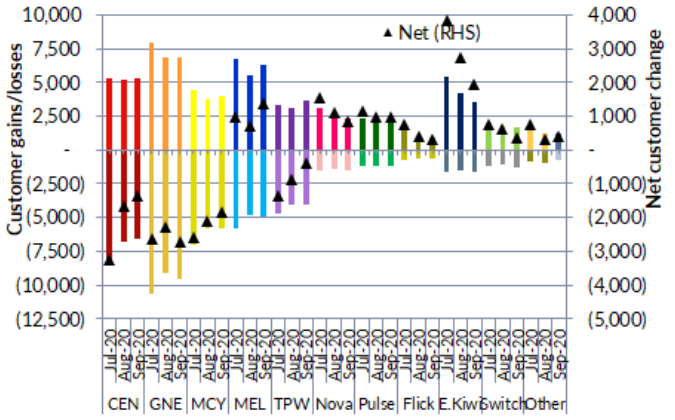
- GNE lost -1,520 customer connections in September 2020, and had the worst month of the large generator/retailers. MEL had the best month of the big retailers, gaining +1,473 connections, whilst TPW added +146. CEN and MCY lost -1,331 and -876 customers over the month respectively.
- Electric Kiwi gained +1,883 connections, again having the best month of all retailers. All Tier 2 retailers gained connections in September, with Pulse Energy, Flick Electric, Switch Utilities and Nova adding +929, +325, +380 and +901 respectively.
- In September, MEL gained the most customers through switching (which excludes market growth), gaining +1,386 connections.

Figure 47. Cumulative 12-mth electricity customer gains/losses



Source: EA, Forsyth Barr analysis

Figure 48. Customer switches (excludes market growth)

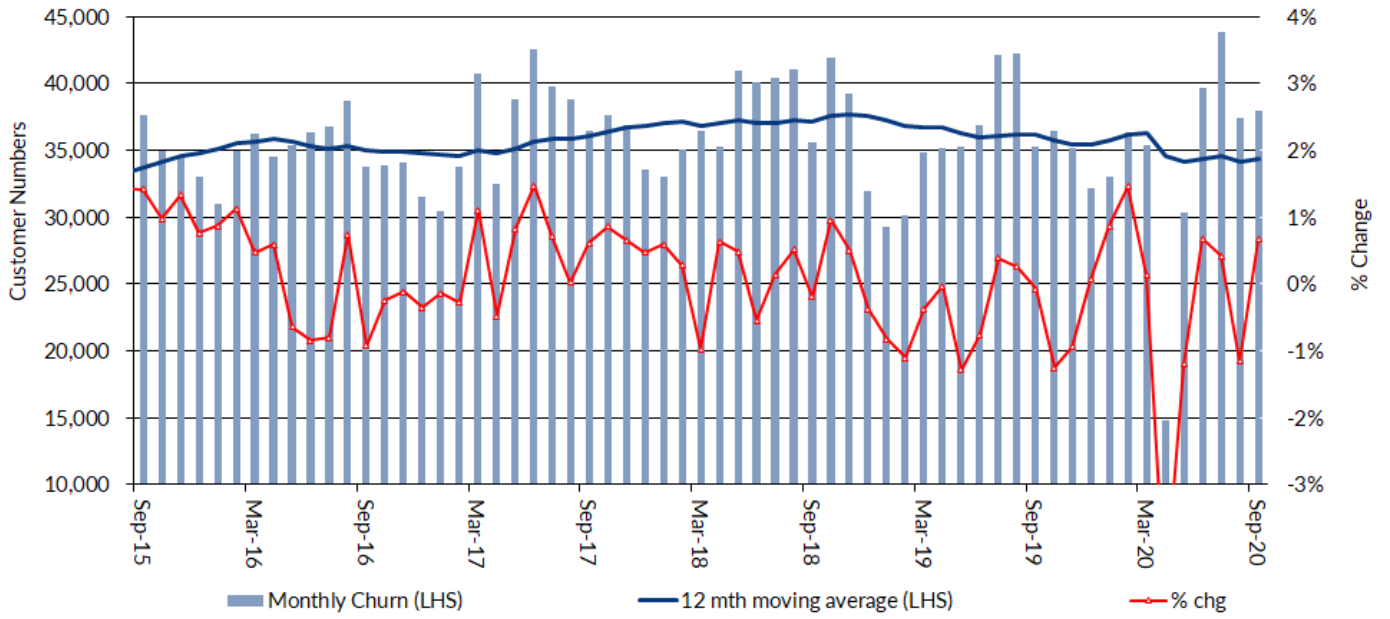


Source: EA, Forsyth Barr analysis

Connection churn

- There were ~39,000 customer switches in September 2020. This is a +2% increase on the prior month and an +8% increase on the pcp.
- The percentage of switches from both trading and switches were largely flat on the prior month at 35% and 65% respectively.

Figure 49. Electricity connection churn



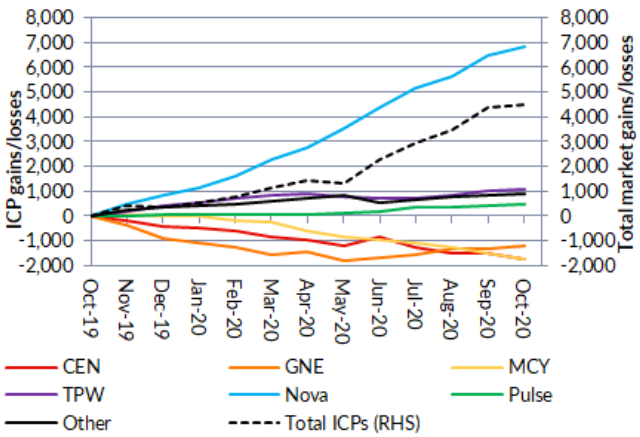
Source: EA, Forsyth Barr analysis

Retail gas customers

MCY continues its run of losses

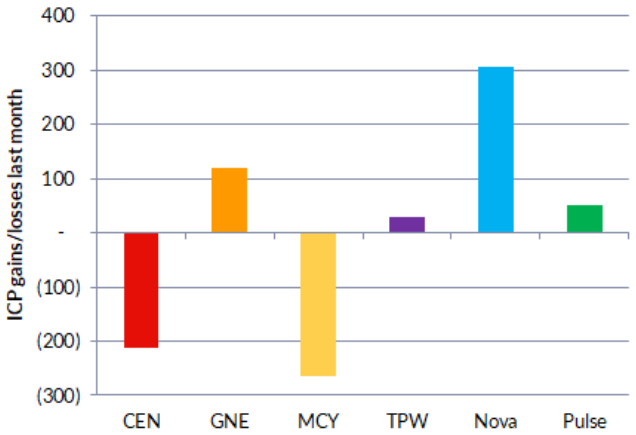
- Nova again gained the most gas connections in October 2020, adding +307 over the month. GNE gained the most of the listed retailers, adding +120 connections, whilst TPW also gained connections, adding +30. MCY again had the worst month, losing -263 customers and CEN also had a bad month, losing -212 connections.
- In the past 12 months TPW is the only listed retailer to gain connections, adding +1,046. Nova, however, has added the most overall, gaining +6,802 gas customers since October 2019.

Figure 50. Gas connection gains/losses over the past 12-months



Source: Gas Industry Co, Forsyth Barr analysis

Figure 51. Gas connection gains/losses in October 2020



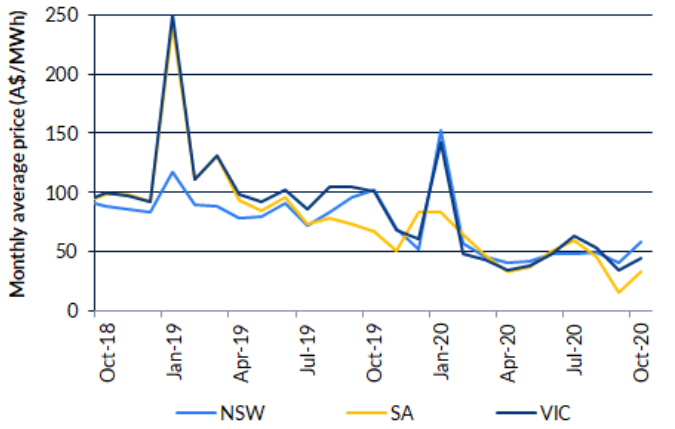
Source: Gas Industry Co, Forsyth Barr analysis

Australian electricity market

Wholesale electricity prices down on prior year

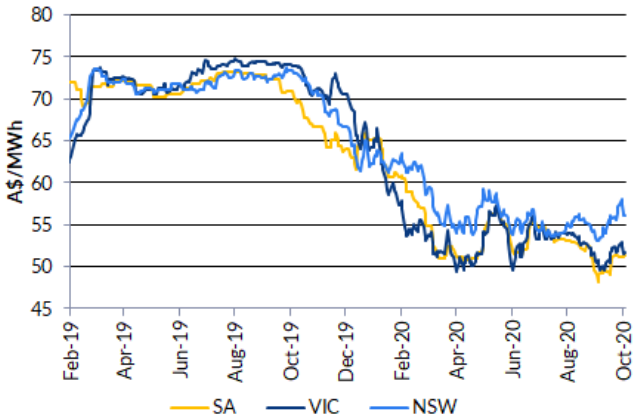
- NSW, VIC and SA prices were up materially on the prior month in October, due to low September 2020 prices. However, all were down sharply on the pcp. SA averaged A$33/MWh, down -51% on the pcp, whilst VIC and NSW were down -47% and -43% on the pcp to average A$54/MWh and A$58/MWh respectively.
- 2021 futures were also up in October. SA had the largest increase, up +7% compared to the end of September to finish the month at A$51/MWh. NSW and VIC futures were up +6% and +2% to end the month at A$56/MWh and A$52/MWh respectively.

Figure 52. Australian wholesale electricity price (A$/MWh)



Source: AEMO, Forsyth Barr analysis

Figure 53. Australian 2021 futures prices (A$/MWh)

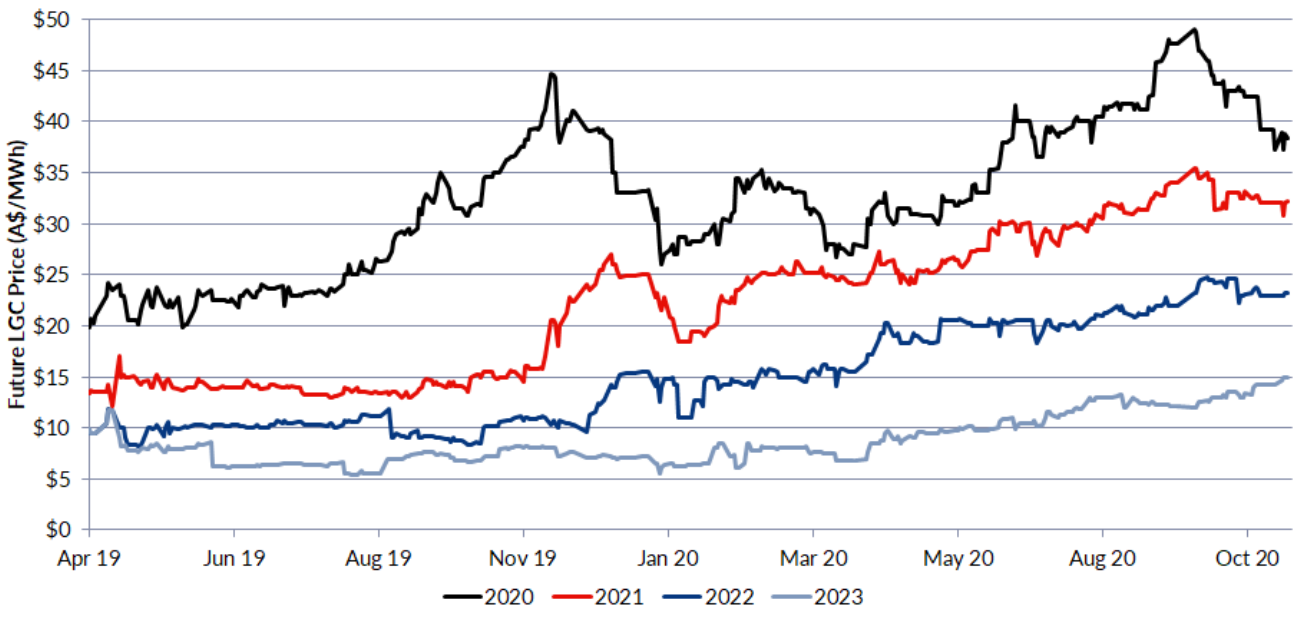


Source: Thomson Reuters, Forsyth Barr analysis

Renewable energy certificates (LGC) prices mixed

- 2020 LGC prices were down -8% from the end of September to the end of October and are currently A$38.0/MWh. This is above the pcp where the LGC price was A$36.5/MWh.
- 2021 LGC prices also increased in October, up +2% to currently be trading at A$32.0/MWh. 2022 prices are currently A$23.0/MWh, a -3% decrease on the prior month.

Figure 54. Renewable energy certificate prices (LGC)



Source: Bloomberg, Forsyth Barr analysis

Key statistics

New Zealand electricity market statistics

Figure 55. Key statistics — New Zealand

	Oct-19	Sep-20	Oct-20	% Chg pcp	% Chg mom
Average Monthly Prices					
OTA avg ($/MWh)	$ 128.4	$ 138.3	$ 129.0	0.5%	-6.7%
HAY avg ($/MWh)	$ 121.9	$ 130.0	$ 118.1	-3.2%	-9.2%
BEN avg ($/MWh)	$ 118.9	$ 127.6	$ 113.8	-4.2%	-10.8%
Avg Daily Generation (GWh)					
CEN	22.1	27.4	21.9	-1.2%	-20.3%
% of NZ Generation	20.0%	23.5%	19.5%	-2.7%	-17.1%
GNE	21.6	22.7	21.6	0.1%	-4.8%
% of NZ Generation	19.5%	19.4%	19.3%	-1.4%	-0.9%
MCY	20.0	20.1	18.7	-6.4%	-6.7%
% of NZ Generation	18.1%	17.2%	16.7%	-7.8%	-2.9%
MEL	36.2	34.6	38.5	6.1%	11.0%
% of NZ Generation	32.8%	29.7%	34.3%	4.5%	15.6%
TPW	8.0	7.5	5.1	-36.4%	-31.6%
% of NZ Generation	7.3%	6.4%	4.5%	-37.3%	-28.8%
Daily Demand (GWh)					
Demand (excl Tiwai)	95.4	101.2	96.3	0.9%	-4.8%
NZAS demand	14.3	13.4	13.5	-5.6%	0.2%
Total NZ Demand	109.7	114.6	109.8	0.1%	-4.2%
Hydrology (% of average)					
Average hydro inflows	81%	113%	107%	31.8%	-5.6%
Average hydro storage	89%	69%	94%	6.3%	36.1%
Month end hydro storage	95%	92%	103%	8.4%	12.0%
ASX futures as at:	**31-Oct-19**	**30-Sep-20**	**31-Oct-20**		
Short-dated OTA	$ 129.1	$ 122.4	$ 120.8	-6.5%	-1.3%
Long-dated OTA	$ 98.1	$ 95.9	$ 96.5	-1.6%	0.7%
Short-dated BEN	$ 107.2	$ 111.1	$ 107.2	0.0%	-3.5%
Long-dated BEN	$ 88.0	$ 80.7	$ 78.0	-11.4%	-3.4%

Source: NZX Energy, EnergyLink, Thomson Reuters, Forsyth Barr analysis

Australian electricity market statistics

Figure 56. Key statistics Australia

	Oct-19	Sep-20	Oct-20	% Chg pcp	% Chg mom
Average Monthly Prices					
NSW avg (A$/MWh)	$ 101.8	$ 43.8	$ 57.9	-43.1%	32.2%
SA avg (A$/MWh)	$ 67.3	$ 15.2	$ 33.0	-51.0%	116.8%
VIC avg (A$/MWh)	$ 100.7	$ 38.7	$ 53.7	-46.7%	38.8%
Electricity Futures for FY21:	**31-Oct-19**	**30-Sep-20**	**31-Oct-20**		
NSW avg (A$/MWh)	$ 73.1	$ 53.1	$ 56.0	-23.3%	5.5%
SA avg (A$/MWh)	$ 70.2	$ 48.1	$ 51.3	-26.9%	6.6%
VIC avg (A$/MWh)	$ 73.8	$ 50.8	$ 51.6	-30.1%	1.6%
Spot and Future LGC Prices	**31-Oct-19**	**30-Sep-20**	**31-Oct-20**		
2020 (A$/MWh)	$ 36.5	$ 41.5	$ 38.0	4.1%	-8.4%
2021 (A$/MWh)	$ 15.7	$ 31.5	$ 32.0	104.5%	1.7%
2022 (A$/MWh)	$ 10.8	$ 23.8	$ 23.0	114.0%	-3.2%
2023 (A$/MWh)	$ 8.0	$ 13.0	$ 14.8	84.4%	13.5%

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

Industry news

Listed sector company news

Genesis (GNE)

- GNE is refurbishing its Tekapo hydro station, including installing a new 49 tonne intake gate that drops and stops water flow in the event of a major earthquake. Work is expected to be completed by February next year.
- Beach energy indicated that a compression project at Kupe is expected to restore production to the maximum 77 TJ/day and is to be completed in mid 2021. GNE indicated in its 1Q21 report that a single well will be taken offline in November and re-instated in 4Q21 to manage production in line with seasonal demand. This will lead to production falling between -6.5 and -9.0 TJ/day.

Trustpower (TPW)

- TPW has appointed Sara Broadhurst as General Manager of People and Culture. Broadhurst has two decades of experience in people performance and 10 years of experience in executive teams.
- TPW's transmission pricing methodology (TPM) High Court proceedings against the Electricity Authority (EA) are underway, with hearings beginning on 21 October. TPW is strongly opposed to the new TPM, including the removal of the regional coincident peak demand charge (RCPD), which the company says is too risky. TPW has said that the proposed TPM will cause significant wealth transfers away from its customers with flow on effects for the whole economy.

Political/regulatory news

- The Ministry of Business, Innovation and Employment (MBIE) has published submissions on its *Accelerating renewable energy and energy efficiency* discussion paper. The submissions show there is support for developing a demand response market in New Zealand to help with the integration of variable renewables. However, a number of submissions also highlight concerns over the government's approach, proposing that a flexible demand side response will take time.
- Transpower is consulting on the expansion of the prudent discount policy under the new TPM. The prudent discount policy is aimed at large customers, ensuring they do not pay more in transmission charges than they would pay if they were to build their own transmission.
- Megan Woods has retained the Energy and Resources portfolio, and Science and Innovation and Associate Finance portfolios. James Shaw remains Minister of Climate Change.
- The EA has received several submissions in response to its plan to move to an incentive based market making system with commercial providers. The submissions suggest that vertical integration in the wholesale market requires regulatory intervention, otherwise vertically integrated participants are able to discriminate in favour of their own retail businesses. Those to make submissions include a number of independent retailers such as Electric Kiwi, Haast Energy Trading, Flick Electric, Ecotricity and Pulse, as well as emh Trade and Vector (VCT). The EA initially made the announcement in August and the transition period will likely take a number of years.
- The EA will release a supplementary consultation paper on the undesirable trading situation (UTS) on Friday, 6 November. The consultation paper seeks further input on the 2019 UTS claimed against MEL. Consultation will last two weeks with the EA intending to make a final decision in December 2020.

Other industry news

- Transpower has revealed that the likely La Niña conditions in the coming summer could lead to fluctuations in hydro inflows. After analysing NZX inflow data from 1926 until present, Transpower found that there appear to be above-average inflows between June and December and below-average inflows from January to May, which thus far matches 2020 inflows.
- Alexandra-based Pioneer Energy has reported a subdued FY21 result, as a result of lower spot prices and decreased generation productivity. Pioneer's Pulse Energy retail brand had its growth plans halted due to wholesale market volatility and a rise in forward prices.
- Norske Skog has placed the Kawerau pulp and paper mill under strategic review citing subdued demand as a result of COVID-19. The mill uses around 500GWh per annum of electricity, of which ~220GWh is produced via cogeneration. The review will consider establishing a bleached chemical thermos-mechanical pulp facility amongst other options. KPMG has been selected to help run the review process.
- Hiringa Energy has said that there is potential for large-scale export of hydrogen to drive offshore wind development in Taranaki and Southland. The company believes that there needs to be more renewable generation in key areas to facilitate the development of export hydrogen.

- The Sustainable Business Council and Climate Leaders Coalition have released a briefing paper highlighting that the decarbonisation of transport and process heat is more important that the government's 100% renewable target. The two organisations, which combined represent more than 150 business leaders, recommend a renewable target for the whole energy sector, including transport, process heat and electricity.
- Top Energy has been granted an exemption by the EA from complying with the Electricity Industry Act. The lines company will be able to generate electricity from five diesel/bio-diesel sites on its network without corporate and management separation for 365 days. Within the timeframe Top is required to conduct a registration of interest and tender for technology neutral network support services.

Source: Energy News, Company reports, Forsyth Barr analysis

Contact Energy Limited (CEN)

Priced as at 03 Nov 2020 (NZ$)	**7.53**

12-month target price (NZ$)*	**8.60**
Expected share price return	14.2%
Net dividend yield	4.2%
Estimated 12-month return	18.5%

Spot valuations (NZ$)	
1. DCF	8.32
2. Market multiples	7.91
3. Dividend yield	7.64

Key WACC assumptions	
Risk free rate	1.30%
Equity beta	0.84
WACC	5.2%
Terminal growth	1.5%

DCF valuation summary (NZ$m)	
Total firm value	7,157
(Net debt)/cash	(1,201)
Less: Capitalised operating leases	
Value of equity	5,956

Profit and Loss Account (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Sales revenue	2,519.0	2,073.0	2,068.5	1,693.2	1,661.6
Normalised EBITDA	**518.0**	**451.0**	**463.3**	**397.0**	**417.3**
Depreciation and amortisation	(205.0)	(220.0)	(253.1)	(228.7)	(210.8)
Normalised EBIT	**313.0**	**231.0**	**210.2**	**168.3**	**206.6**
Net interest	(70.0)	(55.0)	(57.8)	(59.2)	(55.5)
Depreciation capex adjustment	102	120	137	121	108
Tax	(72.0)	(46.0)	(42.7)	(30.5)	(42.3)
Minority interests	0	0	0	0	0
Adjusted normalised NPAT	**277.5**	**248.5**	**246.6**	**200.0**	**216.5**
Abnormals/other	67	(124)	(137)	(121)	(108)
Reported NPAT	**345.0**	**125.0**	**109.8**	**78.5**	**108.8**
Normalised EPS (cps)	38.8	34.7	34.5	27.9	30.2
DPS (cps)	39.0	39.0	32.0	32.0	32.0

Growth Rates	**2019A**	**2020A**	**2021A**	**2022A**	**2023A**
Revenue (%)	10.7	-17.7	-0.2	-18.1	-1.9
EBITDA (%)	8.1	-12.9	2.7	-14.3	5.1
EBIT (%)	18.6	-26.2	-9.0	-19.9	22.7
Normalised NPAT (%)	21.4	-10.4	-0.8	-18.9	8.3
Normalised EPS (%)	21.4	-10.4	-0.8	-18.9	8.3
Ordinary DPS (%)	21.9	0.0	-17.9	0.0	0.0

Cash Flow (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EBITDA	**518.0**	**451.0**	**463.3**	**397.0**	**417.3**
Working capital change	(20.0)	(24.0)	(8.7)	3.5	(4.6)
Interest & tax paid	(111.0)	(118.0)	(130.0)	(79.6)	(119.5)
Other	14.0	32.0	0	0	0
Operating cash flow	**401.0**	**341.0**	**324.6**	**320.8**	**293.2**
Capital expenditure	(63.0)	(100.0)	(60.0)	(57.0)	(58.1)
(Acquisitions)/divestments	382.0	(6.0)	0	0	0
Other	0	0	0	0	0
Funding available/(required)	**720.0**	**235.0**	**264.6**	**263.8**	**235.1**
Dividends paid	(251.0)	(280.0)	(279.1)	(229.0)	(229.0)
Equity raised/(returned)	0	0	0	0	0
(Increase)/decrease in net debt	**469.0**	**(45.0)**	**(14.6)**	**34.8**	**6.1**

Balance Sheet (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Working capital	(3.0)	19.0	25.7	20.3	22.9
Fixed assets	4,097.0	3,999.0	3,808.9	3,640.2	3,490.5
Intangibles	425.0	406.0	406.0	406.0	406.0
Right of use asset	29.0	27.0	27.0	27.0	27.0
Other assets	132.0	173.0	173.0	173.0	173.0
Total funds employed	**4,680.0**	**4,624.0**	**4,440.6**	**4,266.5**	**4,119.4**
Net debt/(cash)	990.0	1,036.0	1,050.6	1,015.8	1,009.7
Lease liability	25.0	22.0	22.0	22.0	22.0
Other liabilities	883.0	940.0	907.0	878.7	853.6
Shareholder's funds	2,782.0	2,626.0	2,461.1	2,350.0	2,234.1
Minority interests	0	0	0	0	0
Total funding sources	**4,680.0**	**4,624.0**	**4,440.6**	**4,266.5**	**4,119.4**

Valuation Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EV/EBITDA (x)	12.7	14.2	13.8	16.2	15.4
EV/EBIT (x)	21.0	27.7	30.5	38.2	31.1
PE (x)	19.4	21.7	21.9	27.0	24.9
Price/NTA (x)	2.3	2.4	2.6	2.8	2.9
Free cash flow yield (%)	6.3	4.5	4.9	4.9	4.4
Net dividend yield (%)	5.2	5.2	4.2	4.2	4.2
Gross dividend yield (%)	6.5	6.5	5.2	5.1	5.6

Capital Structure	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Interest cover EBIT (x)	4.9	4.8	3.9	3.0	4.0
Interest cover EBITDA (x)	7.4	8.2	8.0	6.7	7.5
Net debt/ND+E (%)	26.2	28.3	29.9	30.2	31.1
Net debt/EBITDA (x)	1.9	2.3	2.3	2.6	2.4

Key Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Return on assets (%)	9.8	4.6	4.5	3.7	4.8
Return on equity (%)	6.3	4.9	4.5	3.3	4.9
Return on funds employed (%)	9.3	4.4	4.3	3.6	4.6
EBITDA margin (%)	20.6	21.8	22.4	23.4	25.1
EBIT margin (%)	12.4	11.1	10.2	9.9	12.4
Capex to sales (%)	2.5	4.8	2.9	3.4	3.5
Capex to depreciation (%)	31	45	24	25	28
Imputation (%)	64	64	55	50	80
Pay-out ratio (%)	101	112	93	115	106

Operating Performance	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Hydro generation (GWh)	4,232	3,752	4,018	3,096	3,755
Geothermal generation (GWh)	3,257	3,331	3,070	3,324	3,324
Thermal generation (GWh)	1,422	1,360	1,439	385	385
Total Generation (GWh)	**8,911**	**8,443**	**8,527**	**6,804**	**7,463**
GWAP ($/MWh)	129	100	99	65	59
Gas consumed (PJ)	13.9	13.2	13.7	3.8	3.8
Gas price ($/GJ)	7.1	6.8	6.9	7.0	5.9
Retail electricity volumes (GWh)	6,554	5,694	5,615	5,561	5,395
Electricity customers (000)	411	418	409	401	393
Average usage/customer (MWh)	8.6	8.5	8.6	8.6	8.6
Average retail price ($/MWh)	191	199	201	194	193
LWAP ($/MWh)	136	108	107	72	64
LWAP/GWAP	1.06	1.08	1.08	1.11	1.10
Retail gas volumes (PJ)	3.1	3.0	3.0	3.0	3.0
Gas customers (000)	67	65	65	65	65
Average gas sales price ($/GJ)	23.6	24.5	25.4	25.8	24.8

Genesis Energy Limited (GNE)

Priced as at 03 Nov 2020 (NZ$)	**3.06**

12-month target price (NZ$)*	**3.38**
Expected share price return	10.5%
Net dividend yield	4.6%
Estimated 12-month return	15.0%

Key WACC assumptions	
Risk free rate	1.30%
Equity beta	0.84
WACC	5.1%
Terminal growth	1.5%

Spot valuations (NZ$)	
1. DCF	2.90
2. Market multiple	2.90
3. Dividend yield	3.07

DCF valuation summary (NZ$m)	
Total firm value	4,347
(Net debt)/cash	(1,320)
Less: Capitalised operating leases	
Value of equity	3,027

Profit and Loss Account (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Sales revenue	3,410.0	3,354.5	3,345.0	2,657.7	2,421.6
Normalised EBITDA	**369.4**	**355.6**	**402.4**	**373.8**	**319.6**
Depreciation and amortisation	(201.7)	(209.8)	(213.9)	(221.9)	(221.4)
Normalised EBIT	**167.7**	**145.8**	**188.5**	**151.9**	**98.2**
Net interest	(77)	(71)	(66)	(62)	(58)
Associate income	0	0	0	0	0
Tax	(26)	(22)	(34)	(25)	(11)
Deprecation capex adjustment	96	101	101	127	126
Adjusted normalised NPAT	**160**	**154**	**189**	**192**	**155**
Abnormals/other	(101)	(108)	(101)	(127)	(126)
Reported NPAT	**59**	**46**	**88**	**65**	**29**
Normalised EPS (cps)	15.7	14.9	18.0	18.2	14.6
DPS (cps)	17.1	17.2	14.0	14.0	14.0

Growth Rates	**2019A**	**2020A**	**2021A**	**2022A**	**2023A**
Revenue (%)	48.0	-1.6	-0.3	-20.5	-8.9
EBITDA (%)	2.5	-3.7	13.2	-7.1	-14.5
EBIT (%)	8.3	-13.1	29.3	-19.4	-35.4
Normalised NPAT (%)	24.6	-3.8	22.4	1.8	-19.2
Normalised EPS (%)	22.7	-5.0	21.1	0.9	-19.9
Ordinary DPS (%)	0.9	0.9	-18.6	0.0	0.0

Cash Flow (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EBITDA	**369.4**	**355.6**	**402.4**	**373.8**	**319.6**
Working capital change	(27.3)	21.8	56.1	0.4	1.5
Interest & tax paid	(123.1)	(119.2)	(114.3)	(105.5)	(89.9)
Other	15.1	(12.4)	0	0	0
Operating cash flow	**234.1**	**245.8**	**344.3**	**268.7**	**231.2**
Capital expenditure	(68.5)	(69.0)	(74.0)	(59.5)	(60.7)
(Acquisitions)/divestments	(0.2)	(7.6)	0	0	0
Other	0	0	0	0	0
Funding available/(required)	**165.4**	**169.2**	**270.3**	**209.2**	**170.5**
Dividends paid	(131.6)	(138.4)	(131.7)	(118.8)	(119.9)
Equity raised/(returned)	(1.3)	(0.1)	0	0	0
(Increase)/decrease in net debt	**32.5**	**30.7**	**138.6**	**90.4**	**50.6**

Balance Sheet (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Working capital	111.8	99.4	43.3	42.9	41.4
Fixed assets	3,773.1	3,675.1	3,557.3	3,400.9	3,249.0
Intangibles	364.0	353.4	356.1	352.1	346.3
Right of use asset	0	0	0	0	0
Other assets	120.8	163.3	158.4	158.4	158.4
Total funds employed	**4,369.7**	**4,291.2**	**4,115.1**	**3,954.4**	**3,795.1**
Net debt/(cash)	1,293.1	1,334.9	1,216.3	1,127.9	1,080.3
Lease liability	0	0	0	0	0
Other liabilities	931.6	886.5	872.6	854.2	833.3
Shareholder's funds	2,145.0	2,068.0	2,024.4	1,970.5	1,879.7
Minority interests	0	1.8	1.8	1.8	1.8
Total funding sources	**4,369.7**	**4,291.2**	**4,115.1**	**3,954.4**	**3,795.1**

Valuation Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EV/EBITDA (x)	11.9	12.5	10.9	11.6	13.5
EV/EBIT (x)	26.3	30.4	23.3	28.5	44.0
PE (x)	19.5	20.6	17.0	16.8	21.0
Price/NTA (x)	1.8	1.9	1.9	2.0	2.1
Free cash flow yield (%)	5.2	5.5	8.5	6.6	5.3
Net dividend yield (%)	5.6	5.6	4.6	4.6	4.6
Gross dividend yield (%)	7.3	7.4	6.4	6.3	5.8

Capital Structure	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Interest cover EBIT (x)	2.1	1.9	2.8	2.5	1.7
Interest cover EBITDA (x)	4.8	5.0	6.1	6.1	5.5
Net debt/ND+E (%)	36.6	37.6	35.8	34.5	34.6
Net debt/EBITDA (x)	3.4	3.5	2.8	2.8	3.1

Key Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Return on assets (%)	3.4	2.9	4.3	3.7	2.5
Return on equity (%)	3.0	2.6	4.4	3.3	1.6
Return on funds employed (%)	3.6	3.2	4.3	3.6	2.5
EBITDA margin (%)	10.8	10.6	12.0	14.1	13.2
EBIT margin (%)	4.9	4.3	5.6	5.7	4.1
Capex to sales (%)	2.0	2.1	2.2	2.2	2.5
Capex to depreciation (%)	34	33	35	27	27
Imputation (%)	80	80	100	95	70
Pay-out ratio (%)	109	116	78	77	96

Operating Performance	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Renewable generation	2,835	2,340	2,754	2,724	2,724
Gas generation	2,586	3,121	2,935	1,511	893
Coal generation	1,410	1,340	1,140	219	219
Total GNE generation (GWh)	**6,831**	**6,801**	**6,829**	**4,455**	**3,836**
GWAP ($/MWh)	143	114	125	78	79
Retail electricity					
Electricity customers (000)	499	493	470	441	412
MM/SME volumes	4,077	4,111	4,021	3,806	3,571
TOU volumes	1,992	2,134	2,113	1,415	948
Total fixed price volumes (GWh)	**6,068**	**6,245**	**6,134**	**5,222**	**4,519**
Average MM usage/cust (kWh/yr)	8,126	8,333	8,315	8,345	8,362
Average FPVV price ($/MWh)	210	212	210	215	218
LWAP ($/MWh)	139	110	124	75	75
LWAP/GWAP	0.97	0.96	0.99	0.95	0.95
Line losses (%)	5.4	5.6	5.6	5.6	5.6
Kupe production					
Gas production (PJ)	11.8	10.7	11.2	11.8	11.3
Oil production (k barrels)	472.9	374.3	359.8	497.1	432.6
LPG production (k tonnes)	50.6	46.6	49.3	52.3	50.7
Kupe EBITDAF ($m)	109	94	98	113	107
Energy EBITDAF ($m)	260	262	304	261	213
GNE EBITDAF ($m)	**369**	**356**	**402**	**374**	**319**

Mercury NZ Limited (MCY)

Priced as at 03 Nov 2020 (NZ$)	**5.32**

12-month target price (NZ$)*	**5.37**
Expected share price return	0.9%
Net dividend yield	3.2%
Estimated 12-month return	4.1%

Spot valuations (NZ$)	
1. DCF	5.04
2. Market multiple	5.06
3. Dividend yield	5.14

Key WACC assumptions	
Risk free rate	1.30%
Equity beta	0.84
WACC	5.1%
Terminal growth	1.5%

DCF valuation summary (NZ$m)	
Total firm value	8,133
(Net debt)/cash	(1,277)
Less: Capitalised operating leases	
Value of equity	6,856

Profit and Loss Account (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Sales revenue	2,000.0	1,750.0	1,843.3	1,609.1	1,638.8
Normalised EBITDA	**505.0**	**476.0**	**500.9**	**494.8**	**491.4**
Depreciation and amortisation	(204.0)	(214.0)	(223.0)	(230.8)	(236.2)
Normalised EBIT	**301.0**	**262.0**	**277.9**	**264.0**	**255.3**
Net interest	(75.0)	(54.0)	(54.6)	(61.6)	(67.1)
Associate income	1.0	18.0	1.3	1.7	1.9
Tax	(73.0)	(41.0)	(64.9)	(59.1)	(55.2)
Depreciation capex adj	77.8	72.0	103.0	101.7	102.6
Adjusted normalised NPAT	**239.0**	**236.1**	**262.7**	**246.7**	**237.5**
Abnormals/other	118.0	(29.1)	(103.0)	(101.7)	(102.6)
Reported NPAT	**357.0**	**207.0**	**159.7**	**144.9**	**134.9**
Normalised EPS (cps)	17.6	17.3	19.3	18.1	17.5
DPS (cps)	15.5	15.8	17.0	17.0	18.0

Valuation Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EV/EBITDA (x)	16.1	16.9	16.2	16.6	16.7
EV/EBIT (x)	27.0	28.7	29.1	30.9	31.9
PE (x)	30.3	30.7	27.6	29.3	30.5
Price/NTA (x)	2.1	2.0	2.0	2.0	2.1
Free cash flow yield (%)	3.3	1.8	1.0	2.1	3.4
Net dividend yield (%)	2.9	3.0	3.2	3.2	3.4
Gross dividend yield (%)	4.0	4.1	4.4	4.3	4.4

Growth Rates	**2019A**	**2020A**	**2021A**	**2022A**	**2023A**
Revenue (%)	11.2	-12.5	5.3	-12.7	1.8
EBITDA (%)	-10.8	-5.7	5.2	-1.2	-0.7
EBIT (%)	-17.7	-7.3	-0.3	-4.8	-3.2
Normalised NPAT (%)	-6.5	-1.2	11.3	-6.1	-3.7
Normalised EPS (%)	-6.4	-1.2	11.3	-6.1	-3.7
Ordinary DPS (%)	2.6	1.9	7.6	0.0	5.9

Capital Structure	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Interest cover EBIT (x)	6.7	5.6	5.1	4.3	3.8
Interest cover EBITDA (x)	6.7	8.8	9.2	8.0	7.3
Net debt/ND+E (%)	61.8	63.2	67.2	71.7	75.7
Net debt/EBITDA (x)	2.2	2.4	2.5	2.7	2.7

Cash Flow (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EBITDA	**505.0**	**476.0**	**500.9**	**494.8**	**491.4**
Working capital change	2.0	92.0	(31.7)	(33.4)	(6.9)
Interest & tax paid	(148.0)	(136.0)	(148.3)	(144.6)	(142.3)
Other	2.0	(76.0)	0	0	0
Operating cash flow	**361.0**	**356.0**	**320.9**	**316.7**	**342.3**
Capital expenditure	(122.0)	(223.0)	(250.2)	(162.3)	(93.6)
(Acquisitions)/divestments	215.0	0	54.5	0	0
Other	12.0	4.0	(2.4)	(2.6)	(2.9)
Funding available/(required)	**466.0**	**137.0**	**122.9**	**151.9**	**245.8**
Dividends paid	(208.0)	(214.0)	(220.5)	(231.4)	(235.4)
Equity raised/(returned)	0	0	0	0	0
(Increase)/decrease in net debt	**258.0**	**(77.0)**	**(97.6)**	**(79.5)**	**10.3**

Key Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Return on assets (%)	7.8	4.4	4.1	3.9	3.9
Return on equity (%)	4.6	4.4	4.3	4.0	3.9
Return on funds employed (%)	4.7	3.9	4.1	3.9	3.8
EBITDA margin (%)	25.3	27.2	27.2	30.7	30.0
EBIT margin (%)	15.1	16.0	15.1	16.5	15.7
Capex to sales (%)	6.1	12.7	13.6	10.1	5.7
Capex to depreciation (%)	67	120	127	79	44
Imputation (%)	100	100	100	90	80
Pay-out ratio (%)	88	91	88	94	103

Balance Sheet (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Working capital	63.0	(14.0)	17.7	51.0	57.9
Fixed assets	5,528.0	5,898.0	5,935.3	5,872.5	5,730.9
Intangibles	62.0	55.0	50.9	48.8	48.0
Right of use asset	0	0	0	0	0
Other assets	521.0	587.0	536.1	540.5	545.3
Total funds employed	**6,174.0**	**6,526.0**	**6,539.9**	**6,512.7**	**6,382.1**
Net debt/(cash)	1,096.0	1,149.0	1,246.6	1,326.1	1,315.7
Lease liability	0	0	0	0	0
Other liabilities	1,498.0	1,575.0	1,552.1	1,531.8	1,512.1
Shareholder's funds	3,580.0	3,802.0	3,741.3	3,654.9	3,554.3
Minority interests	0	0	0	0	0
Total funding sources	**6,174.0**	**6,526.0**	**6,539.9**	**6,512.7**	**6,382.1**

Operating Performance	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Hydro	4,006	3,708	3,713	4,016	4,016
Geothermal	2,894	2,812	2,841	2,841	2,841
Wind	0	0	77	543	838
Total MCY Generation (GWh)	**6,900**	**6,520**	**6,632**	**7,399**	**7,695**
GWAP ($/MWh)	139	110	121	74	73
Electricity sales					
Electricity customers (000)	373	348	343	349	356
MM volumes	3,182	2,892	2,778	2,799	2,857
TOU volumes	1,319	1,469	1,602	1,750	1,894
Total Fixed Price volumes (GWh)	**4,501**	**4,361**	**4,380**	**4,549**	**4,751**
Spot Sales	780	746	750	753	757
Net CFD's	1,665	1,289	1,524	1,524	1,524
Total Sales (GWh)	**6,946**	**6,396**	**6,653**	**6,826**	**7,032**
Average usage per cust (MWh/yr)	11.8	12.2	12.7	13.1	13.5
LWAP ($/MWh)	145	115	127	78	78
LWAP/GWAP	1.04	1.05	1.05	1.05	1.06
Average FPVV price ($/MWh)	113	118	119	113	111
Line losses (%)	5.1	4.9	5.2	5.1	5.2
Energy margin ($m)	667	652	678	676	675
Operating costs ($m)	(199)	(190)	(192)	(195)	(199)
Other revenue ($m)	37	14	14	14	15
MCY EBITDAF ($m)	**505**	**476**	**501**	**495**	**491**

Meridian Energy Limited (MEL)

Priced as at 03 Nov 2020 (NZ$)	**5.50**

12-month target price (NZ$)*	**5.44**
Expected share price return	-1.1%
Net dividend yield	3.1%
Estimated 12-month return	2.0%

Spot valuations (NZ$)	
1. DCF	5.15
2. Market multiple	4.93
3. Dividend yield	5.46

Key WACC assumptions	
Risk free rate	1.30%
Equity beta	0.81
WACC	5.1%
Terminal growth	1.5%

DCF valuation summary (NZ$m)	
Total firm value	15,113
(Net debt)/cash	(1,903)
Less: Capitalised operating leases	
Value of equity	13,210

Profit and Loss Account (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Sales revenue	4,104.0	4,102.0	3,700.8	2,962.1	2,900.8
Normalised EBITDA	**838.0**	**855.0**	**753.6**	**669.6**	**639.1**
Depreciation and amortisation	(276.0)	(312.0)	(308.1)	(303.6)	(300.6)
Normalised EBIT	**562.0**	**543.0**	**445.6**	**366.0**	**338.5**
Net interest	(83.0)	(84.0)	(79.5)	(81.4)	(86.7)
Associate income & other	(7.0)	(219.0)	(22.0)	(4.0)	0
Tax	(133.0)	(63.0)	(94.8)	(76.7)	(68.5)
Minority interests	0	0	0	0	0
Reported NPAT	**339.0**	**177.0**	**249.3**	**203.8**	**183.3**
Abnormals/other	143.0	333.3	184.1	179.4	176.5
Adjusted normalised NPAT	**482.0**	**510.3**	**433.4**	**383.3**	**359.8**
Normalised EPS (cps)	18.8	19.9	16.9	15.0	14.0
DPS (cps)	21.3	19.3	16.9	16.9	16.9

Valuation Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EV/EBITDA (x)	18.5	18.3	20.9	23.5	24.6
EV/EBIT (x)	27.6	28.8	35.3	43.0	46.5
PE (x)	29.2	27.6	32.5	36.8	39.2
Price/NTA (x)	2.6	2.8	2.9	3.1	3.2
Free cash flow yield (%)	4.0	3.8	2.9	2.2	2.6
Net dividend yield (%)	3.9	3.5	3.1	3.1	3.1
Gross dividend yield (%)	4.9	4.5	4.0	4.0	3.8

Growth Rates	**2019A**	**2020A**	**2021A**	**2022A**	**2023A**
Revenue (%)	24.5	0.0	-9.8	-20.0	-2.1
EBITDA (%)	25.8	2.0	-11.9	-11.2	-4.6
EBIT (%)	41.2	-3.4	-17.9	-17.9	-7.5
Normalised NPAT (%)	33.6	5.9	-15.1	-11.6	-6.1
Normalised EPS (%)	33.6	5.9	-15.1	-11.6	-6.1
Ordinary DPS (%)	10.9	-9.2	-12.6	0.0	0.0

Capital Structure	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Interest cover EBIT (x)	6.7	3.9	5.3	4.4	3.9
Interest cover EBITDA (x)	10.1	10.2	9.5	8.2	7.4
Net debt/ND+E (%)	76.9	96.6	108.8	126.4	152.0
Net debt/EBITDA (x)	1.7	1.9	2.2	2.6	2.9

Cash Flow (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EBITDA	**838.0**	**855.0**	**753.6**	**669.6**	**639.1**
Working capital change	(36.0)	49.0	(33.7)	(6.9)	(15.2)
Interest & tax paid	(200.0)	(251.0)	(218.0)	(202.9)	(200.3)
Other	33.0	(48.0)	(22.0)	(4.0)	0
Operating cash flow	**635.0**	**605.0**	**480.0**	**455.7**	**423.6**
Capital expenditure	(69.0)	(63.0)	(75.4)	(139.4)	(55.4)
(Acquisitions)/divestments	0	(2.0)	0	0	0
Other	0	0	0	0	0
Funding available/(required)	**566.0**	**540.0**	**404.6**	**316.4**	**368.1**
Dividends paid	(500.0)	(546.0)	(433.1)	(433.1)	(433.1)
Equity raised/(returned)	(2.0)	(2.0)	0	0	0
(Increase)/decrease in net debt	**64.0**	**(8.0)**	**(28.5)**	**(116.7)**	**(65.0)**

Key Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Return on assets (%)	5.7	3.4	4.6	4.0	3.8
Return on equity (%)	6.1	6.3	5.1	4.4	4.2
Return on funds employed (%)	5.9	5.8	4.9	4.1	3.9
EBITDA margin (%)	20.4	20.8	20.4	22.6	22.0
EBIT margin (%)	13.7	13.2	12.0	12.4	11.7
Capex to sales (%)	1.7	1.5	2.0	4.7	1.9
Capex to depreciation (%)	28	22	27	50	20
Imputation (%)	66	75	75	75	65
Pay-out ratio (%)	113	97	100	113	120

Balance Sheet (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Working capital	(24.0)	(64.0)	(13.9)	(9.5)	(1.4)
Fixed assets	8,825.0	8,594.0	8,366.0	8,202.9	7,957.4
Intangibles	59.0	65.0	60.4	59.2	59.6
Right of use asset	0	0	0	0	0
Other assets	383.0	441.0	419.0	415.0	415.0
Total funds employed	**9,243.0**	**9,036.0**	**8,831.4**	**8,667.6**	**8,430.6**
Net debt/(cash)	1,424.0	1,616.0	1,644.5	1,761.3	1,826.2
Lease liability	0	0	0	0	0
Other liabilities	2,362.0	2,337.0	2,293.3	2,248.6	2,203.5
Shareholder's funds	5,457.0	5,083.0	4,893.6	4,657.8	4,400.9
Minority interests	0	0	0	0	0
Total funding sources	**9,243.0**	**9,036.0**	**8,831.4**	**8,667.6**	**8,430.6**

Operating Performance	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Hydro generation	12,326	12,758	11,847	10,600	11,113
Wind generation	1,244	1,466	1,447	1,430	1,430
Total NZ generation (GWh)	**13,570**	**14,224**	**13,294**	**12,030**	**12,543**
GWAP ($/MWh)	123	89	97	55	45
Overseas generation (GWh)	730	642	771	810	810
Overseas GWAP ($/MWh) (NZD)	269	381	366	376	384
Overseas customer numbers (000)	110	136	159	174	183
NZ electricity customers (000)	**302**	**324**	**349**	**380**	**407**
Average usage per cust (MWh/yr)	13.2	13.9	13.8	13.8	13.7
Mass market volumes	3,901	4,342	4,657	5,023	5,382
Time of use volumes	2,338	3,034	3,594	4,205	4,624
Total fixed price volumes (GWh)	**6,239**	**7,376**	**8,251**	**9,228**	**10,006**
NZAS sales	5,310	5,431	5,011	842	0
Sell CFDs	2,239	2,527	1,902	2,902	2,792
Buy CFDs	(1,965)	(2,731)	(2,218)	(1,496)	(1,496)
Total Sales (GWh)	**11,823**	**12,603**	**12,946**	**11,476**	**11,302**
Average FPVV price ($/MWh)	105	108	105	98	94
LWAP ($/MWh)	132	95	108	65	56
LWAP/GWAP	1.07	1.06	1.11	1.18	1.25
Lines losses (%)	5.9	4.8	5.5	5.5	5.5

Tilt Renewables Limited (TLT)

Priced as at 03 Nov 2020 (NZ$)	**3.90**

12-month target price (NZ$)*	**4.00**
Expected share price return	2.6%
Net dividend yield	0.0%
Estimated 12-month return	2.6%

Key WACC assumptions	
Risk free rate	1.30%
Equity beta	0.86
WACC	5.5%
Terminal growth	1.5%

Spot valuations (NZ$)	
1. DCF	3.68
2. Multiple	3.76
3. n/a	n/a

DCF valuation summary (NZ$m)	
Total firm value	1,216
(Net debt)/cash	169
Less: Capitalised operating leases	
Value of equity	1,385

Profit and Loss Account (A$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Sales revenue	193.3	170.2	129.5	180.9	178.7
Normalised EBITDA	**134.8**	**117.5**	**70.5**	**102.9**	**99.2**
Depreciation and amortisation	(83.6)	(72.5)	(57.4)	(84.9)	(83.3)
Normalised EBIT	**51.2**	**45.0**	**13.1**	**17.9**	**15.9**
Net interest	(30.1)	(39.4)	(11.0)	(17.9)	(13.4)
Other	(2.0)	(8.5)	0	0	0
Tax	(6.9)	(4.7)	(0.6)	0.0	(0.7)
Depreciation capex adjustment	55.4	46.9	36.0	55.0	53.7
Normalised NPAT	**69.0**	**47.4**	**37.5**	**54.9**	**55.5**
Abnormals/other	(56.8)	431.1	(36.0)	(55.0)	(53.7)
Reported NPAT	**12.2**	**478.4**	**1.5**	**(0.0)**	**1.8**
Normalised EPS (cps)	14.7	10.1	10.0	14.6	14.7
DPS (cps)	1.1	0	0	0	0

Growth Rates	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Revenue (%)	22.4	-11.9	-24.0	39.8	-1.2
EBITDA (%)	29.9	-12.8	-40.0	45.9	-3.6
EBIT (%)	91.4	-12.2	-70.9	37.1	-11.2
Normalised NPAT (%)	49.0	-31.3	-20.8	46.5	0.9
Normalised EPS (%)	-0.6	-31.3	-1.2	46.5	0.9
Ordinary DPS (%)	-65.0	-100.0	n/a	n/a	n/a

Cash Flow (A$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EBITDA	**134.8**	**117.5**	**70.5**	**102.9**	**99.2**
Working capital change	0.6	39.8	(53.2)	(3.4)	(1.6)
Interest & tax paid	(41.7)	(57.8)	14.2	0.2	0.3
Other	(8.6)	(49.4)	0	0	0
Operating cash flow	**85.0**	**50.2**	**31.4**	**99.7**	**98.0**
Capital expenditure	(90.8)	(322.9)	(406.3)	(7.0)	(7.1)
(Acquisitions)/divestments	0	455.0	0	0	0
Other	0	(3.9)	(3.9)	(3.9)	(3.9)
Funding available/(required)	**(5.8)**	**178.3**	**(378.8)**	**88.8**	**86.9**
Dividends paid	(10.6)	0	0	0	0
Equity raised/(returned)	259.9	(1.1)	(260.0)	0	0
(Increase)/decrease in net debt	**243.5**	**177.3**	**(638.8)**	**88.8**	**86.9**

Balance Sheet (A$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Working capital	14.3	(38.3)	12.9	14.4	13.9
Fixed assets	1,066.7	1,000.7	1,350.6	1,273.7	1,198.6
Intangibles	0.5	0.5	0.5	0.5	0.5
Right of use asset	0	13.4	13.4	13.4	13.4
Other assets	114.3	9.0	9.0	9.0	9.0
Total funds employed	**1,195.9**	**985.2**	**1,386.4**	**1,310.9**	**1,235.4**
Net debt/(cash)	346.4	(417.9)	220.9	132.1	45.2
Lease liability	22.9	125.5	125.5	125.5	125.5
Other liabilities	170.6	94.3	115.2	128.6	138.2
Shareholder's funds	656.0	1,183.3	924.7	924.7	926.5
Minority interests	0	0	0	0	0
Total funding sources	**1,195.9**	**985.2**	**1,386.4**	**1,310.9**	**1,235.4**

Valuation Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EV/EBITDA (x)	13.6	11.6	17.9	15.0	15.7
EV/EBIT (x)	35.8	30.3	96.8	86.1	97.9
PE (x)	24.8	36.8	36.0	24.1	24.1
Price/NTA (x)	2.7	1.5	1.4	1.4	1.5
Free cash flow yield (%)	5.5	3.0	1.7	6.3	6.2
Net dividend yield (%)	0.3	0.0	0.0	0.0	0.0
Gross dividend yield (%)	0.3	0.0	0.0	0.0	0.0

Capital Structure	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Interest cover EBIT (x)	1.7	1.1	1.2	1.0	1.2
Interest cover EBITDA (x)	4.5	3.0	6.4	5.7	7.4
Net debt/ND+E (%)	34.6	-54.6	19.3	12.5	4.6
Net debt/EBITDA (x)	2.6	n/a	3.1	1.3	0.5

Key Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Return on assets (%)	3.3	2.6	0.6	0.9	0.8
Return on equity (%)	10.5	4.0	4.1	5.9	6.0
Return on funds employed (%)	3.6	4.2	0.8	1.2	1.2
EBITDA margin (%)	69.7	69.0	54.5	56.9	55.5
EBIT margin (%)	26.5	26.4	10.1	9.9	8.9
Capex to sales (%)	47.0	189.7	313.8	3.9	4.0
Capex to depreciation (%)	109	445	708	8	9
Imputation (%)	0	0	0	0	0
Pay-out ratio (%)	7	0	0	0	0

Operating Performance	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Australia installed capacity (MW)	440	170	506	506	506
NZ installed capacity (MW)	197	197	197	330	330
TLT installed capacity (MW)	**637**	**367**	**703**	**836**	**836**
Australia wind generation (GWh)	1,395	1,170	1,174	1,771	1,771
NZ wind generation (GWh)	658	664	667	1,119	1,119
TLT wind generation (GWh)	**2,053**	**1,834**	**1,840**	**2,890**	**2,890**
Price assumptions					
Australia REC price (A$/MWh)	78.3	65.2	29.1	24.3	18.0
SA wholesale price (A$/MWh)	81.0	56.0	42.5	46.2	43.3
VIC wholesale price (A$/MWh)		85.8	62.1	57.5	51.3
Australia PPA price (A$/MWh)	94.8	94.5	55.9	57.8	58.9
NZ PPA price (NZ$/MWh)	64.8	63.7	64.9	66.1	67.1
Australia spot sales (GWh)	155	365	730	458	458
Australia PPA sales (GWh)	1,239	805	444	1,313	1,313
Australia spot revenue (A$m)	34	53	38	23	21
Australia PPA revenue (A$m)	117	76	25	76	77
Australia revenue (A$m)	**151**	**129**	**89**	**113**	**109**
NZ revenue (A$m)	**42**	**42**	**41**	**68**	**69**
Australia EBITDAF (A$m)	**109**	**93**	**47**	**59**	**54**
NZ EBITDAF (A$m)	**25**	**24**	**24**	**44**	**45**

* Forsyth Barr target prices reflect valuation rolled forward at cost of equity less the next 12-months dividend

Trustpower Ltd (TPW)

Priced as at 03 Nov 2020 (NZ$)	**7.11**

12-month target price (NZ$)*	**7.78**
Expected share price return	9.4%
Net dividend yield	4.2%
Estimated 12-month return	13.7%

Spot valuations (NZ$)	
1. DCF	7.69
2. Market multiples	7.18
3. Dividend Yield	7.44

Key WACC assumptions	
Risk free rate	1.30%
Equity beta	0.84
WACC	5.4%
Terminal growth	1.5%

DCF valuation summary (NZ$m)	
Total firm value	3,088
(Net debt)/cash	(665)
Less: Capitalised operating leases	
Value of equity	2,407

Profit and Loss Account (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Sales revenue	1,030.1	989.9	928.1	893.2	876.6
Normalised EBITDA	**222.2**	**186.5**	**194.4**	**193.7**	**187.4**
Depreciation and amortisation	(47.2)	(42.6)	(47.2)	(47.1)	(47.1)
Normalised EBIT	**175**	**144**	**147**	**147**	**140**
Net interest	(28)	(32)	(26)	(25)	(25)
Depreciation capex adjustment	19	(2)	9	8	7
Tax	(45)	(32)	(36)	(36)	(35)
Minority interests	(2)	(3)	(3)	(3)	(3)
Normalised NPAT	**117**	**74**	**91**	**90**	**85**
Abnormals/other/depn adj	(26)	21	(6)	(6)	(5)
Reported NPAT	**91**	**95**	**84**	**85**	**80**
Normalised EPS (cps)	37.1	23.6	28.9	28.8	27.2
DPS (cps)	74.0	32.5	30.5	30.0	30.0

Valuation Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EV/EBITDA (x)	12.4	15.2	14.7	14.8	15.3
EV/EBIT (x)	15.7	19.7	19.4	19.6	20.5
PE (x)	19.2	30.1	24.6	24.7	26.1
Price/NTA (x)	1.9	2.1	2.1	2.1	2.2
Free cash flow yield (%)	4.0	3.5	4.2	4.6	4.4
Net dividend yield (%)	10.4	4.6	4.3	4.2	4.2
Gross dividend yield (%)	12.6	6.3	6.0	5.9	5.9

Growth Rates	**2019A**	**2020A**	**2021A**	**2022A**	**2023A**
Revenue (%)	5.2	-3.9	-6.2	-3.8	-1.9
EBITDA (%)	-17.6	-16.1	4.3	-0.4	-3.2
EBIT (%)	-21.6	-17.8	2.3	-0.4	-4.3
Normalised NPAT (%)	-17.3	-36.4	22.3	-0.4	-5.4
Normalised EPS (%)	-17.3	-36.4	22.3	-0.4	-5.4
Ordinary DPS (%)	0.0	-4.4	-6.2	-1.6	0.0

Capital Structure	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Interest cover EBIT (x)	6.8	4.9	6.1	6.3	6.2
Interest cover EBITDA (x)	7.9	5.9	7.4	7.7	7.5
Net debt/ND+E (%)	58.6	64.8	66.0	66.6	67.7
Net debt/EBITDA (x)	2.5	3.3	3.2	3.2	3.4

Cash Flow (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
EBITDA	**222.2**	**186.5**	**194.4**	**193.7**	**187.4**
Working capital change	(47.1)	1.7	(10.2)	(2.0)	(0.4)
Interest & tax paid	(74.8)	(77.1)	(58.2)	(58.1)	(56.8)
Other	20.0	10.9	(0.6)	(0.6)	(0.6)
Operating cash flow	**120.3**	**121.9**	**125.4**	**133.0**	**129.6**
Capital expenditure	(31.1)	(44.7)	(30.9)	(31.7)	(32.3)
(Acquisitions)/divestments	8.1	20.2	0	0	0
Other	0	(6.8)	(6.8)	(6.8)	(6.8)
Funding available/(required)	**97.3**	**90.6**	**87.8**	**94.5**	**90.5**
Dividends paid	(190.4)	(156.7)	(97.0)	(93.9)	(93.9)
Equity raised/(returned)	(1)	(1)	0	0	0
(Increase)/decrease in net debt	**(94.5)**	**(67.4)**	**(9.3)**	**0.6**	**(3.4)**

Key Ratios	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Return on assets (%)	7.2	8.0	7.0	7.0	6.7
Return on equity (%)	9.7	6.9	8.6	8.6	8.3
Return on funds employed (%)	7.2	5.6	6.2	6.2	5.9
EBITDA margin (%)	21.6	18.8	20.9	21.7	21.4
EBIT margin (%)	17.0	14.5	15.9	16.4	16.0
Capex to sales (%)	3.0	4.5	3.3	3.5	3.7
Capex to depreciation (%)	98	142	92	95	96
Imputation (%)	55	100	100	100	100
Pay-out ratio (%)	199	138	106	104	110

Balance Sheet (NZ$m)	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
Working capital	(0.3)	(8.2)	15.5	16.3	14.9
Fixed assets	1,924.7	1,836.4	1,828.5	1,820.9	1,813.2
Intangibles	37.0	38.7	37.7	37.4	37.7
Right of use asset	0	35.5	35.5	35.5	35.5
Other assets	114.8	100.2	86.7	87.9	89.7
Total funds employed	**2,076.2**	**2,002.6**	**2,003.9**	**1,998.0**	**1,990.9**
Net debt/(cash)	557.4	616.7	626.0	625.3	628.7
Lease liability	0	36.1	36.1	36.1	36.1
Other liabilities	269.8	249.8	251.9	253.2	253.8
Shareholder's funds	1,224.4	1,076.2	1,063.5	1,054.2	1,040.5
Minority interests	24.6	23.8	26.4	29.1	31.8
Total funding sources	**2,076.2**	**2,002.6**	**2,003.9**	**1,998.0**	**1,990.9**

Operating Performance	**2019A**	**2020A**	**2021E**	**2022E**	**2023E**
NZ electricity revenue	861	804	744	702	676
Gas revenue	29	30	33	35	37
Telecommunication revenue	88	98	95	105	111
Other revenue	52	58	56	52	53
Total revenue	**1,030**	**990**	**928**	**893**	**877**
Generation (GWh)	1,995	1,758	1,771	1,896	1,896
NZ GWAP ($/MWh)	125	107	123	74	62
Mass market sales (GWh)	1,845	1,817	1,834	1,788	1,773
TOU sales (GWh)	880	826	536	587	590
Spot sales (GWh)	1,021	972	866	933	937
Total Sales (GWh)	**3,746**	**3,615**	**3,235**	**3,308**	**3,300**
LWAP ($/MWh)	131	109	125	76	64
LWAP/GWAP	1.04	1.02	1.02	1.03	1.04
Electricity customers (000)	267	266	262	259	256
Usage/customer (MWh)	6.8	6.8	7.0	6.9	6.9
Revenue/MWh sold ($)	230	222	230	212	205
Gas customers (000)	39	41	43	44	44
Volume/customer (GJ)	26.5	24.9	25.9	25.9	25.9
Telco customers (000)	96	104	109	114	118
Revenue/customer ($)	963	983	987	997	1,007

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