

# Power Points

## September 2019—Powering Higher

Interest rates collapsing to new lows and electricity share prices surging to new highs were the main feature of August 2019. However, Trustpower (TPW) is proving to be a laggard and we believe offers the best value in the sector. In contrast, we believe Mercury (MCY) has gone too far, with its likely inclusion in the MSCI Index pushing it into the expensive category. We have downgraded MCY to UNDERPERFORM.

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### Falling interest rates turbocharges electricity share prices

Interest rates declined significantly in August 2019, with the 10-year swap rate falling -0.44% to a current figure of 1.19%. That resulted in most electricity share prices surging, led by MCY but closely followed by Contact Energy (CEN) and Meridian Energy (MEL), all of which have increased more than +17% since the end of July. In light of the further interest rate declines, we have reviewed our valuation metrics and lift all of the electricity target prices at least +1.5%, with TPW increasing the most, +6.7% to \$8.00.

### Wholesale electricity prices rise again

Electricity wholesale prices increased strongly at both OTA and BEN in August 2019. Prices at OTA averaged \$135/MWh in August, up +17% on the prior month. National electricity demand increased +0.8% vs. the pcp, partially due to a colder August, but also the additional NZAS demand. Also impacting the wholesale electricity market was a -10% decline in hydro storage levels to 101% of average at month end, with CEN and Genesis Energy's (GNE) South Island hydro storage well below average. ASX futures prices again drifted higher, with long-dated OTA ASX futures up +5% to \$102/MWh.

### Reporting season wrap-up — strong earnings

Whilst there were no earnings surprises from the four companies reporting FY19 results, it did confirm that FY19 was a record year as sector EBITDAF increased +7.4%. MEL led the way, lifting FY19 EBITDAF +26% to \$838m. Dividend growth for the sector was again solid, with MEL's stand-out result and CEN's new dividend policy (following its de-leveraging) increasing the shareholder returns. We are not expecting FY20 to be as strong as FY19, with normalised hydrology and CEN's and MCY's asset sales reducing sector EBITDAF -5.0% — although that will still represent solid growth on FY18 with the elevated wholesale electricity prices filtering through to consumer segments.

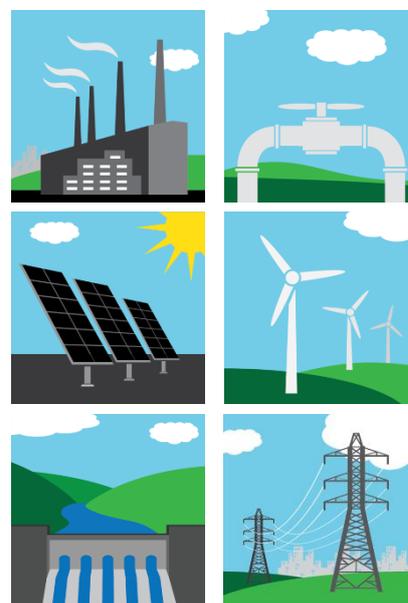


Figure 1. Summary company valuation metric

Ticker	Price	Target	Target	Rating	EV/ EBITDA(x)	FY20		EBITDAF NZ\$m
		Price	Return			Adj PE (x)	Gr Yld *	
CEN	\$8.92	\$8.22	-3.4%	NEUTRAL	15.0	24.1	5.6%	488
GNE	\$3.65	\$3.28	-5.3%	NEUTRAL	16.5	34.9	6.6%	367
MCY	\$5.47	\$4.45	-15.7%	UNDERPERFORM	17.5	32.6	4.0%	488
MEL	\$5.54	\$4.20	-20.3%	UNDERPERFORM	20.3	32.1	4.8%	769
TLT	\$2.75	\$2.50	-9.1%	NEUTRAL	11.4	15.3	0.0%	146
TPW	\$7.83	\$8.00	6.5%	OUTPERFORM	14.4	23.3	5.9%	209

Source: Eikon, Forsyth Barr analysis, \* Includes any forecast special dividend

### Key changes

	Yr 1 EBITDAF	Target Price	Rating
CEN	+\$0m 0.0%	+\$0.12	-
GNE	+\$0m 0.0%	+\$0.10	-
MCY	+\$0m 0.0%	+\$0.15	▼
MEL	+\$0m 0.0%	+\$0.20	-
TLT	+\$0m 0.0%	+\$0.00	-
TPW	+\$0m 0.0%	+\$0.50	-

### Investment View

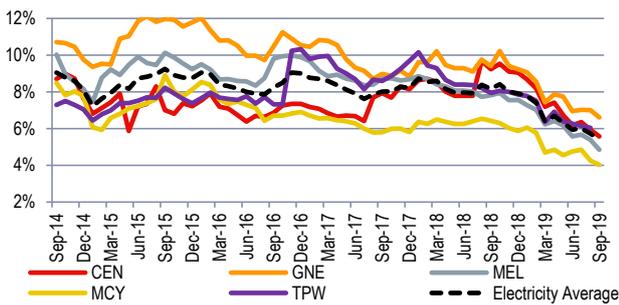
We are positive on the long-term outlook for the sector. Whilst all of the electricity stocks are trading on record multiples, the low interest rate environment and weight of money looking for new high-yielding investments is likely to be supportive near-term.

# Power Points — September 2019

## Focus remains on high quality yield

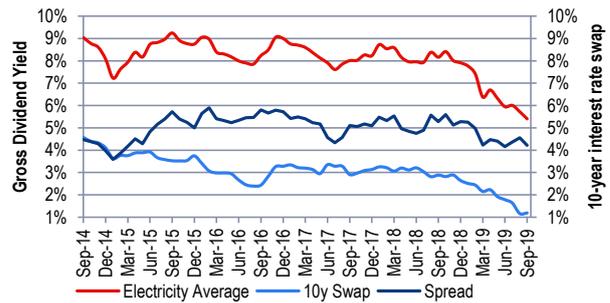
The meteoric rise of electricity stocks continued in August 2019, with the stocks lifting between +3% to +20% with MCY, MEL and CEN leading the way. More impressive is the fact all electricity stocks (except TPW) outperformed the S&P/NZX50C by at least +4% in August. The rise continues the trend of a focus on high quality dividend yield. The 10-year swap rate fell further in August, down -0.47% to 1.16% and is now down -1.35% since the start of 2019. The average generator/retailer gross yield has also fallen further and is now 5.40% vs. 7.90% at the end of December 2018. As a result the spread between the 10-year swap rate and the average sector gross yield has fallen -1.06% to 4.21%.

Figure 2. Gross dividend yields



Source: Bloomberg, Forsyth Barr analysis

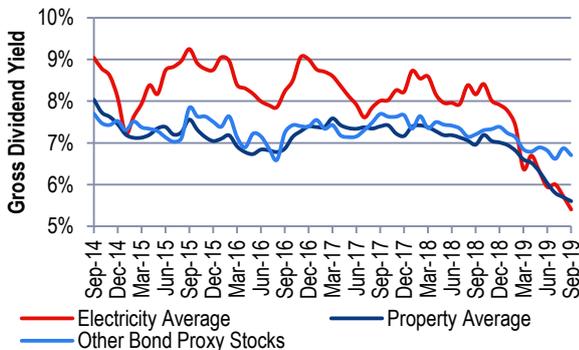
Figure 3. Electricity sector dividend yield vs 10-year swap rate



Source: Bloomberg, Forsyth Barr analysis

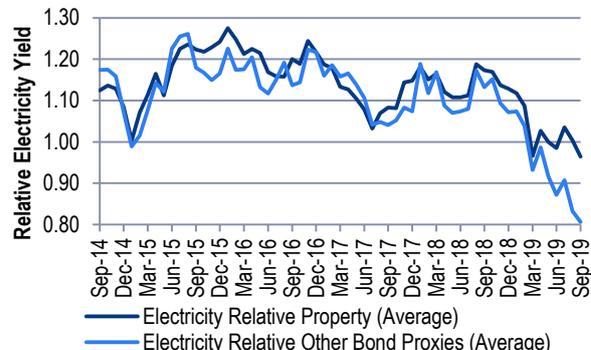
Relative to property stocks, the average electricity sector gross dividend yield is lower than the average property sector gross dividend yield and is at a record low. The electricity sector has also continued to outperform relative to other high quality yields stocks (CNU, SKC, SPK, VCT).

Figure 4. Avg. electricity sector yield vs property and bond proxies



Source: Bloomberg, Forsyth Barr analysis

Figure 5. Elec. sector yield relative to property and bond proxies



Source: Bloomberg, Forsyth Barr analysis

### MSCI Index review providing tailwind

Another factor that has been fuelling share prices is the upcoming MSCI November semi-annual review. At current pricing there are two possible outcomes:

- Number of members is kept unchanged at 7: Priority rules would dictate that MCY enters and Fletcher Builder (FBU) exits
- Number of members is increased to 8: Priority rules would dictate that both MCY and CEN enter and FBU exits

In either scenario we view it as extremely likely that MCY will enter the MSCI index. At present it is also more likely than not that the number of members will increase to 8. Under this scenario and at CEN's current share price FBU's share price would need to increase to ~\$5.00 (and CEN not change) to stop CEN entering the MSCI index. The review is still two months away so CEN's share price will have to hold-up for it to enter. The outcome of the MSCI Index review will be announced on Friday 8<sup>th</sup> November with the changes effective at close on Tuesday 26<sup>th</sup> November.

### Lower interest rates boost electricity target prices further

During the August reporting season we incorporated our revised WACC assumptions, the most important of these being the risk free rate dropping to 2.0% from 2.75%. All of our DCF valuations received a boost, typically more than +12%. Trustpower (TPW) is the last of the electricity generator/retailers to be adjusted and its DCF has increased +12.3%.

With interest rates continuing to decline further during August, we have reviewed our market multiples and dividend yield assumptions. We take into account the relative growth outlook for each company when assessing the appropriate target dividend yields and target market multiples. The net effect has seen a further modest increase in our target prices of between +1.5% and +6.7%, with TPW increasing the most.

Figure 6. Valuation changes

	Old DCF valuation	New DCF valuation	% change	Old market multiple	New market multiple	% change	Old dividend yield valuation	New dividend yield valuation	% change	Old target price	New target price	% change
CEN	\$7.50	\$7.31	-2.5%	\$8.29	\$8.43	1.7%	\$8.52	\$8.89	4.3%	\$8.10	<b>\$8.22</b>	1.5%
GNE	\$2.89	\$2.90	0.3%	\$3.17	\$3.24	2.2%	\$3.45	\$3.66	6.1%	\$3.18	<b>\$3.28</b>	3.1%
MCY	\$3.96	\$3.98	0.5%	\$4.76	\$4.86	2.1%	\$4.22	\$4.52	7.1%	\$4.30	<b>\$4.45</b>	3.5%
MEL	\$3.81	\$3.82	0.3%	\$4.08	\$4.40	7.8%	\$4.16	\$4.47	7.5%	\$4.00	<b>\$4.20</b>	5.0%
TPW	\$6.59	\$7.40	12.3%	\$7.91	\$8.08	2.1%	\$7.53	\$8.00	6.2%	\$7.50	<b>\$8.00</b>	6.7%

Source: Forsyth Barr analysis

Note: CEN's DCF value has fallen slightly as it has gone ex-div. The other minor changes are due to the time value of money effects.

MCY's strong share price performance in recent months has seen it become expensive, in our view. Much of the lift appears to be speculation MCY will enter the MSCI Index, the effects of which we would expect to reverse after inclusion in the Index.

## FY19 Reporting Season Wrap

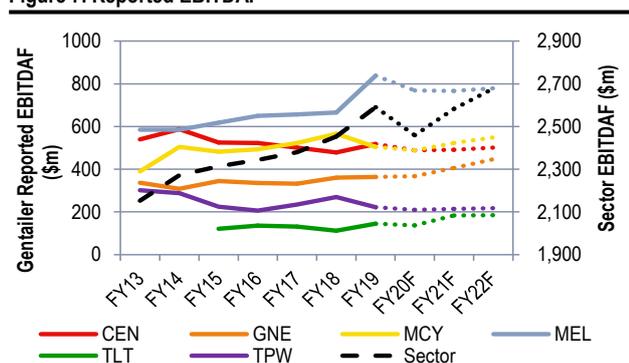
### Record Sector earnings driven by high wholesale electricity prices and MEL

FY19 was a good year for the sector. High wholesale electricity prices (the OTA price averaged \$140/MWh vs. \$89/MWh in FY18, a +57% increase) helped push up sector profitability, with the main losers being commercial and industrial customers buying their energy from the spot market. FY19 sector EBITDAF increased +7.4% to \$2,224m, the biggest lift in sector EBITDAF since FY11. MCY was the only generator/retailer (of the four that reported FY19 results in August) to report a drop in EBITDAF, however, that is because it was coming off record earnings in FY18. Including TPW and TLT FY19 earnings reported in May, and sector EBITDAF increased +5.6%, with TPW bringing down the sector average, as like MCY, it had a very strong FY18 performance.

The stand-out performer was MEL. It grew EBITDAF +25.8% (+\$172m) to \$838m and was effectively responsible for all of the sector growth itself (MCY's fall in earnings more than offset the increase from CEN and GNE).

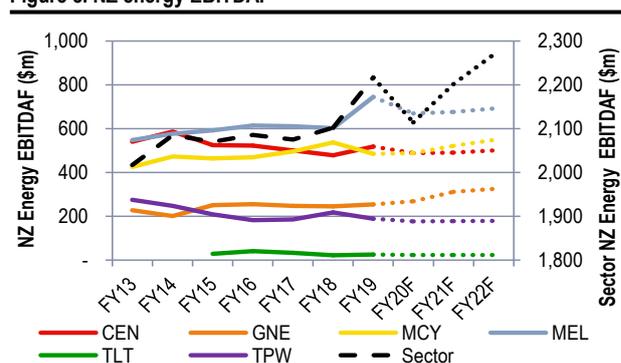
During FY19 the sector became more pure-play electricity generator/retailers, with CEN selling its Ahuroa gas storage facility and its retail Rockgas LPG business. In addition MCY sold its Metrix metering business. The sale of these businesses was a modest drag on EBITDAF. However, MEL's acquisition of Green State Power in 2018 meant it produced strong non-NZ earnings growth (+45.3% to \$93m).

Figure 7. Reported EBITDAF



Source: Company reports, Forsyth Barr analysis

Figure 8. NZ energy EBITDAF



Source: Company reports, Forsyth Barr analysis

FY19 was an unusual year with thermal plant restrictions being the main cause of the high wholesale electricity prices. Normally low hydro generation is the main issue. Renewable (hydro, wind & geothermal) generation amongst the big four generators increased +2.2%, whilst thermal (gas and coal) generation dropped -7.6%. However, coal generation increased materially due to the gas issues in the market.

**Figure 9. FY19 generator/retailer results**

	CEN			GNE			MCY			MEL			Reported Gentailers		
	FY18	FY19	% Diff	FY18	FY19	% Diff	FY18	FY19	% Diff	FY18	FY19	% Diff	FY18	FY19	% Diff
	\$m	\$m		\$m	\$m		\$m	\$m		\$m	\$m		\$m	\$m	
NZ Energy EBITDAF	479	518	8.1%	245	255	3.8%	537	485	-9.7%	602	745	23.8%	1,863	2,003	7.5%
Other EBITDAF	-	-		115	109	-5.6%	29	20	-31.0%	64	93	45.3%	208	222	6.5%
<b>TOTAL EBITDAF</b>	<b>479</b>	<b>518</b>	<b>8.1%</b>	<b>361</b>	<b>363</b>	<b>0.8%</b>	<b>566</b>	<b>505</b>	<b>-10.8%</b>	<b>666</b>	<b>838</b>	<b>25.8%</b>	<b>2,072</b>	<b>2,224</b>	<b>7.4%</b>
<b>Normalised NPAT</b>	<b>128</b>	<b>176</b>	<b>37.5%</b>	<b>58</b>	<b>67</b>	<b>15.5%</b>	<b>198</b>	<b>161</b>	<b>-18.7%</b>	<b>206</b>	<b>332</b>	<b>61.2%</b>	<b>716</b>	<b>736</b>	<b>2.8%</b>
Final dividend	19.0	23.0	21.1%	8.6	8.6	0.0%	9.1	9.3	2.2%	8.9	10.7	19.9%	576	654	13.6%
<b>Ordinary FY div</b>	<b>32.0</b>	<b>39.0</b>	<b>21.9%</b>	<b>16.9</b>	<b>17.1</b>	<b>0.9%</b>	<b>15.1</b>	<b>15.5</b>	<b>2.6%</b>	<b>14.3</b>	<b>16.4</b>	<b>14.7%</b>	<b>972</b>	<b>1085</b>	<b>11.7%</b>
Special FY dividend	0.0	0.0		0.0	0.0		0.0	0.0		4.9	4.9	0.0%	125	125	0.0%
<b>Total FY dividend</b>	<b>32.0</b>	<b>39.0</b>	<b>21.9%</b>	<b>16.9</b>	<b>17.1</b>	<b>0.9%</b>	<b>15.1</b>	<b>15.5</b>	<b>2.6%</b>	<b>19.2</b>	<b>21.3</b>	<b>10.9%</b>	<b>1,097</b>	<b>1,211</b>	<b>10.3%</b>
Renewable generation	6,802	7,489	10.1%	3,084	2,835	-8.1%	7,704	6,900	-10.4%	12,528	13,570	8.3%	30,118	30,794	2.2%
Thermal generation	1,812	1,422	-21.5%	4,049	3,996	-1.3%	-	-		-	-		5,861	5,418	-7.6%
% renewable	79.0%	84.0%		43.2%	41.5%		100.0%	100.0%		100.0%	100.0%		83.7%	85.0%	

Source: Company reports, Forsyth Barr analysis

2H19 was not as dramatic as 1H19. Whilst there were ongoing outages at the Pohokura gas field, these were planned outages as opposed to the significant unplanned outage in 1H19. 2H19 EBITDAF, whilst up on 2H18 only increased +4.3% to \$1,047m. CEN's FY19 earnings growth was all in 1H19 (specifically in the October/November period) with its assets sales being a drag on 2H19 earnings. MCY's record FY18 result was weighted to 2H18 and it sold its Metrix business in 2H19. MEL's 2H19 growth is the main reason the sector grew 2H19 earnings.

**Figure 10. 2H19 generator/retailer results**

	CEN			GNE			MCY			MEL			Reported Gentailers		
	2H18	2H19	% Diff	2H18	2H19	% Diff	2H18	2H19	% Diff	2H18	2H19	% Diff	2H18	2H19	% Diff
	\$m	\$m		\$m	\$m		\$m	\$m		\$m	\$m		\$m	\$m	
NZ Energy EBITDAF	243	227	-6.6%	103	112	8.6%	248	198	-20.2%	309	397	28.5%	903	934	3.4%
Other EBITDAF	-	-		59	56	-5.1%	14	5	-64.3%	28	52	85.7%	101	113	11.9%
<b>TOTAL EBITDAF</b>	<b>243</b>	<b>227</b>	<b>-6.6%</b>	<b>162</b>	<b>168</b>	<b>3.6%</b>	<b>262</b>	<b>203</b>	<b>-22.5%</b>	<b>337</b>	<b>449</b>	<b>33.2%</b>	<b>1,004</b>	<b>1,047</b>	<b>4.3%</b>
<b>Normalised NPAT</b>	<b>69</b>	<b>69</b>	<b>0.0%</b>	<b>16</b>	<b>24</b>	<b>46.3%</b>	<b>84</b>	<b>47</b>	<b>-44.0%</b>	<b>76</b>	<b>188</b>	<b>147.4%</b>	<b>371</b>	<b>328</b>	<b>-11.7%</b>
Renewable generation	3,441	3,792	10.2%	1,397	1,133	-18.9%	3,597	2,999	-16.6%	6,591	7,023	6.6%	15,026	14,947	-0.5%
Thermal generation	845	586	-30.7%	1,876	2,306	22.9%	-	-		-	-		2,721	2,892	6.3%
% Renewable	80.3%	86.6%		42.7%	32.9%		100.0%	100.0%		100.0%	100.0%		84.7%	83.8%	

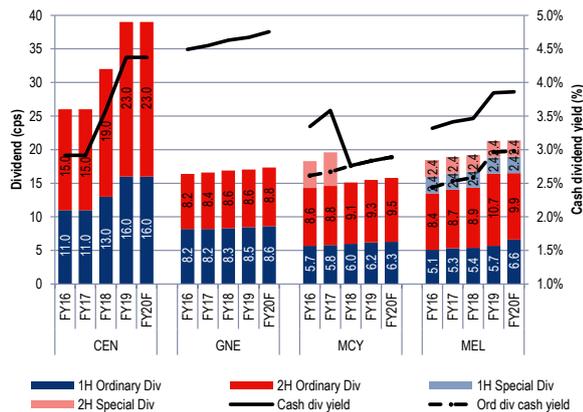
Source: Company reports, Forsyth Barr analysis

### Dividend growth strong, but concentrated on CEN and MEL

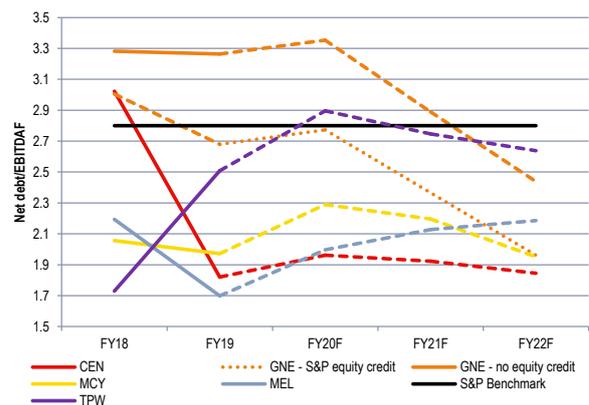
Total sector FY19 dividends increased +10.3% to \$1,211m. CEN (up +12.9%) and MEL (up +10.9%) were the companies lifting their dividend the most. CEN's dividend increase followed a period of deleveraging the balance sheet whereas MEL's dividend growth all came from a lift in its ordinary dividend following its record year.

MEL was the only generator/retailer to provide a special dividend as it continued with its capital management programme, which still has 2.5 years to run. We were a little surprised that MEL chose to lift its ordinary dividend, as that will create a challenge in future years given expectations earnings will drop from FY19's record.

Looking ahead we expect sector dividend growth to be muted, with MCY the only business likely to increase its dividend materially — but that will not be before FY21 following the completion of its Turitea wind farm. MCY was the only generator/retailer to pay a fully imputed dividend in FY19 (and is likely to pay the only fully imputed dividend in FY20).

**Figure 11. Generator/retailer dividend profile**


Source: Company reports, Forsyth Barr analysis

**Figure 12. Generator/retailer net debt/EBITDA**


Source: Company reports, Forsyth Barr analysis

We have no particular concerns with sector gearing and, with the exception of GNE and TPW, the net debt/EBITDAF ratios are all relatively benign. Whilst it appears debt levels are increasing in the short-term (FY20), that is a function of:

- A decrease in expected EBITDAF in FY20 (CEN, MEL & TPW)
- Wind farm development (MCY)
- Adoption of IFRS 16 lifting notional debt (GNE)
- Paying special dividends (MEL & TPW)

After FY20, continued earnings growth should result in improving debt metrics (particularly GNE and MCY).

### FY20 and beyond outlook commentary

None of the generator/retailers is expecting a repeat of the FY19 conditions. Whilst there are ongoing thermal plant challenges, assuming there is no unexpected outage, wholesale electricity prices are expected to be lower in FY20. In addition, CEN's and MCY's asset sales will also impact on earnings. GNE is the only generator/retailer we expect will grow earnings in FY20 (although we expect MCY to lift its NZ Energy business earnings).

Whilst we are forecasting a decline in FY20 EBITDAF, it represents a +2.0% (+\$41m) increase on FY18 before adjusting for the CEN and MCY asset sales. After adjusting for the asset sales, the FY20 vs. FY19 EBITDAF increase is expected to be ~+5.8% (~+\$115m).

**Figure 13. FY20 EBITDAF uplift vs FY19**

	Reported EBITDAF				NZ Energy EBITDAF				Drivers of EBITDAF change
	FY19	FY20F	\$m chg	% chg	FY19	FY20F	\$m chg	% chg	
CEN	518	488	(30)	-5.7%	518	488	(30)	-5.7%	Normalised hydrology and sales of Rockgas and Ahuroa assets
GNE	363	367	3	1.0%	255	268	14	5.3%	Kupe outage and high coal inventory cost to place drag on FY20
MCY	505	488	(17)	-3.3%	485	488	3	0.7%	Sale of Metrix is the main cause of a drop in FY20 EBITDAF
MEL	838	769	(69)	-8.2%	745	669	(76)	-10.1%	Normalisation of hydro generation and fall in wholesale electricity prices
<b>Combined</b>	<b>2,224</b>	<b>2,113</b>	<b>(112)</b>	<b>-5.0%</b>	<b>2,003</b>	<b>1,914</b>	<b>(88)</b>	<b>-4.4%</b>	

Source: Forsyth Barr analysis

Our forecast changes were all positive for FY20, although adoption of IFRS 16 in FY20 helps some. The lift in the ASX futures prices is positive for sector earnings, with the price increases being passed through to commercial and industrial sectors in the first instance. Retail prices have been sticky so far, although if ASX prices remain elevated, we expect the higher energy costs will have to be passed through sooner rather than later.

**Figure 14. Summary forecast changes post-result**

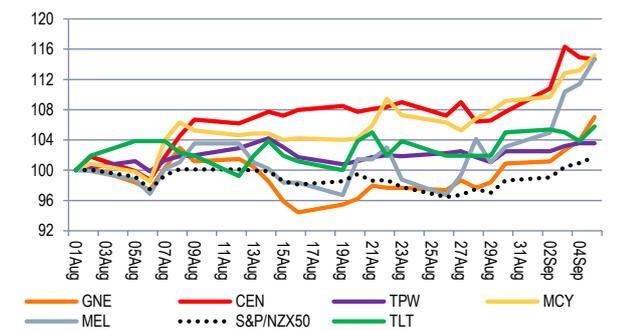
	FY20 Old	FY20 New	\$m chg	% chg	FY21 Old	FY21 New	\$m chg	% chg	FY22 Old	FY22 New	\$m chg	% chg
CEN	487	488	2	0.4%	491	491	(1)	-0.1%	496	501	5	1.0%
GNE	363	367	4	1.1%	407	406	(1)	-0.2%	454	446	(8)	-1.7%
MCY	486	488	2	0.4%	510	522	12	2.3%	547	549	1	0.2%
MEL	765	769	4	0.6%	757	766	9	1.2%	770	779	9	1.2%
<b>Combined</b>	<b>2,101</b>	<b>2,113</b>	<b>12</b>	<b>0.6%</b>	<b>2,166</b>	<b>2,185</b>	<b>19</b>	<b>0.9%</b>	<b>2,268</b>	<b>2,275</b>	<b>7</b>	<b>0.3%</b>

Source: Forsyth Barr analysis

# Share market performance: August 2019

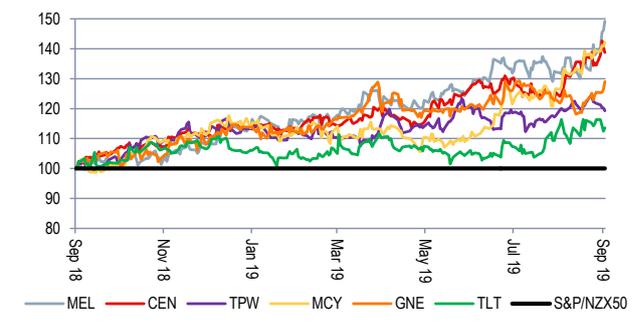
All the generator/retailers outperformed the S&P/NZX50C in August 2019 led by MCY (+15.2%), CEN (+14.7%) and MEL (+14.7%). CEN's performance was especially impressive considering it went ex-dividend during the month. Over the past year all the generator/retailers have outperformed the market although MEL, MCY and CEN have been the clear standouts.

Figure 15. Stock performance vs. S&P/NZX50C



Source: Thomson Reuters, Forsyth Barr analysis

Figure 16. 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. Whilst we like the medium-term outlook for the electricity sector, views on interest rates are currently driving the share prices. We have an OUTPERFORM rating on TPW and a NEUTRAL rating on CEN, GNE, and TLT. Currently we view MCY and MEL as expensive and have an UNDERPERFORM rating on them.

Figure 17. 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	\$8.92	\$8.22	-3.4%	NEUTRAL	6,382	15.0	14.9	17.7	17.6
Genesis Energy (excl Kupe)	GNE	\$3.65	\$3.28	-5.3%	NEUTRAL	3,339	16.5	14.2	20.3	16.9
Mercury	MCY	\$5.47	\$4.45	-15.7%	UNDERPERFORM	7,444	17.5	16.4	20.7	19.1
Meridian Energy	MEL	\$5.54	\$4.20	-20.3%	UNDERPERFORM	14,199	20.3	20.4	22.0	22.1
Trustpower	TPW	\$7.83	\$8.00	6.5%	OUTPERFORM	2,451	14.4	14.0	16.3	15.9
<b>Compco Average</b>							<b>16.6</b>	<b>15.8</b>	<b>19.3</b>	<b>18.2</b>
Tilt Renewables	TLT	\$2.75	\$2.50	-9.1%	NEUTRAL	1,291	11.4	8.5	12.2	8.9
Genesis Energy (incl Kupe)	GNE	\$3.65	\$3.28	-5.3%	NEUTRAL	3,732	13.4	12.1	15.8	14.0

Note: To calculate the GNE excl Kupe multiples, we assume the value of Kupe is \$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.

Source: Thomson Reuters, Forsyth Barr analysis

Figure 18. PE multiples and dividend yields

Company	PE (x)		Adjusted PE (x)		Cash Div Yield		Gross Div Yield		Free Cash Flow Yield	
	FY19	FY20	FY19	FY20	FY19	FY20	FY19	FY20	FY19	FY20
Contact Energy	36.8	36.7	24.1	24.1	4.4%	4.4%	5.6%	5.6%	4.5%	5.0%
Genesis Energy (excl Kupe)	130.7	57.4	34.9	24.2	3.2%	3.7%	4.4%	5.1%	2.9%	4.2%
Mercury	55.1	42.4	32.6	27.4	2.9%	3.0%	4.0%	4.1%	1.3%	2.8%
Meridian Energy	54.0	54.3	32.1	32.6	3.9%	3.9%	4.8%	4.9%	3.8%	3.8%
Trustpower	26.7	26.0	23.3	22.8	4.3%	4.5%	5.9%	6.1%	4.5%	5.3%
<b>Compco Average</b>										
	<b>52.1</b>	<b>41.7</b>	<b>29.0</b>	<b>26.0</b>	<b>3.7%</b>	<b>3.9%</b>	<b>4.9%</b>	<b>5.2%</b>	<b>3.4%</b>	<b>4.2%</b>
Tilt Renewables	48.2	37.8	15.3	12.3	0.0%	0.0%	0.0%	0.0%	8.8%	10.5%
Genesis Energy (incl Kupe)	79.7	44.0	23.5	18.8	4.8%	4.8%	6.6%	6.6%	5.2%	6.2%

Note: Adjusted PE replaces actual depreciation with maintenance capital expenditure. This removes the distortion caused by asset revaluations.

Source: Thomson Reuters, Forsyth Barr analysis

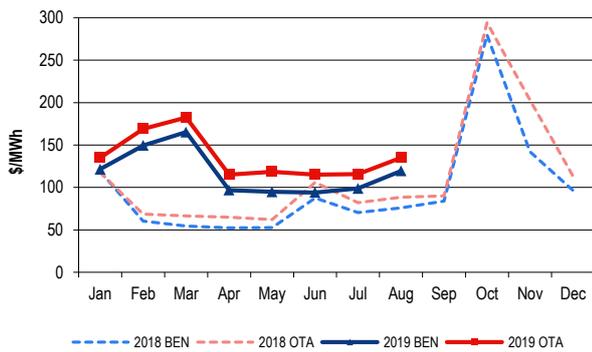
# Electricity market: August 2019

## Spot wholesale electricity prices and ASX futures

### Average wholesale electricity prices rise

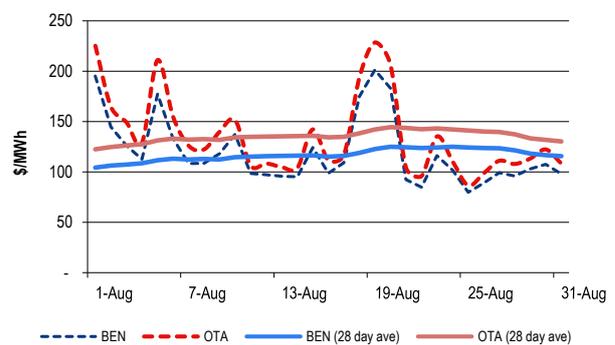
- In August 2019 average wholesale electricity prices increased strongly on July at both the Otahuhu (OTA) and Benmore (BEN) nodes. Prices at OTA averaged \$135/MWh in August, up +17% on the prior month while the wholesale price at BEN averaged \$120/MWh, up +21%. Prices in August increased off the back of a small rise in national electricity demand and a slight decline in hydro storage levels.
- Wholesale prices were relatively volatile through mid-August before flattening out in the latter part of the month. Price spikes during the second half of August were correlated with fluctuations in demand.

Figure 19. Average monthly wholesale electricity prices



Source: NZX Energy, Forsyth Barr analysis

Figure 20. Average daily wholesale electricity prices

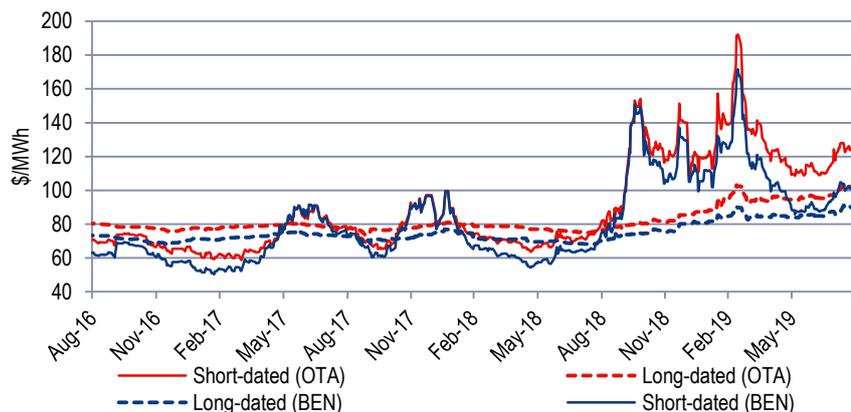


Source: NZX Energy, Forsyth Barr analysis

### ASX futures rise

- Long-dated ASX futures prices at BEN increased +2% to \$89.1/MWh at month end while the long-dated price at OTA increased +5% to \$102.1/MWh. These prices are +\$18.9/MWh and +\$25.5/MWh respectively higher than one year ago.
- Short-dated ASX futures prices continued to increase in August 2019. Prices at OTA increased +2% to end the month at \$122.4/MWh while prices at BEN increased +3% to \$100.6/MWh. Short dated futures did dip slightly at month end.

Figure 21. ASX futures price curves (past three years)



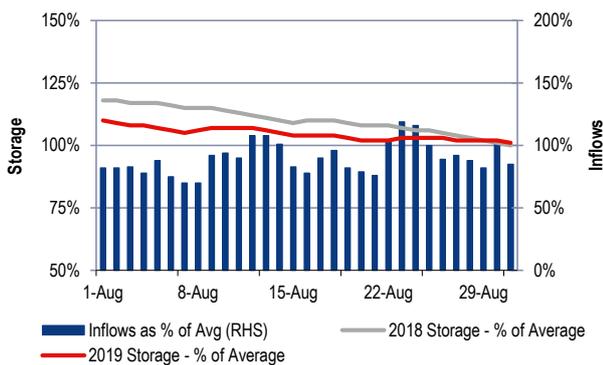
Source: Electricity Authority, Forsyth Barr analysis

## Hydro storage volumes

### National storage levels fall in August

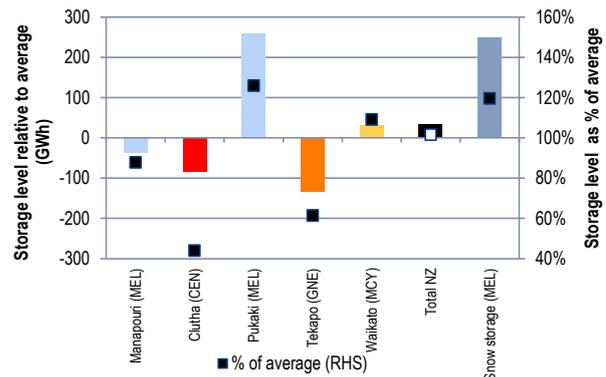
- National lake storage levels decreased -10% in August 2019 to 101% of average at the start of September. Lake levels gradually declined throughout August with only eight days of above-average inflows. Total inflows in August were 90% of average.
- As at 5 August 2019, only MEL's Pukaki and MCY's Waikato catchments have above average storage at 126% and 109% of average respectively. GNE's Tekapo and CEN's Clutha catchments experienced big declines during August down -32% and -47% to 62% and 44% of average respectively. MEL's seasonal snow pack as at 24 August was 120% of average with an estimated 1,522GWh of storage.

Figure 22. Average lake storage levels and average inflows



Source: NZX Energy, Forsyth Barr analysis

Figure 23. Key storage lakes relative to average (as at 5 Sep 2019)



Source: Energylink, MEL, Forsyth Barr analysis

## Demand and generation analysis

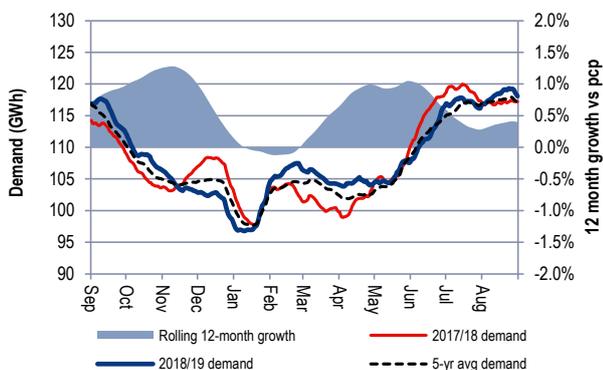
### National demand rises slightly

- National electricity demand averaged 118.4GWh/day (including Tiwai) in August 2019, increasing +0.8% on the pcp. National demand excluding Tiwai was up +0.4%. Colder temperatures in August were partially responsible for the slight increase in demand with August -2% colder than the pcp.

### Record geothermal generation

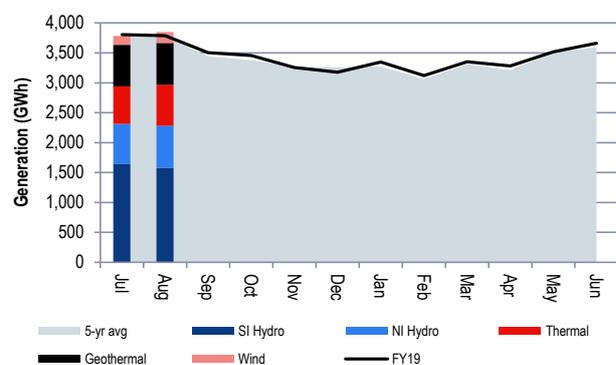
- New Zealand generation totalled 3,847GWh in August 2019, +1.5% above the pcp and rising with national demand. Driving the result was geothermal generation which totalled 698GWh, a new all-time record high. Wind generation also set a new record with 180GWh generated, the highest ever in August and the highest monthly generation since November 2016. NI hydro generation continues to be soft totalling 699GWh, -10.9% below the five-year average while SI hydro generation was again robust totalling 1,581GWh, +2.3% above average. Thermal generation totalled 689GWh, +8.9% above the five-year average and +27.5% above the pcp.

Figure 24. Rolling 28-day average demand & rolling 12-mth growth



Source: NZX Energy, Forsyth Barr analysis

Figure 25. NZ generation (by technology) – fiscal year to June



Source: EnergyLink, Forsyth Barr analysis

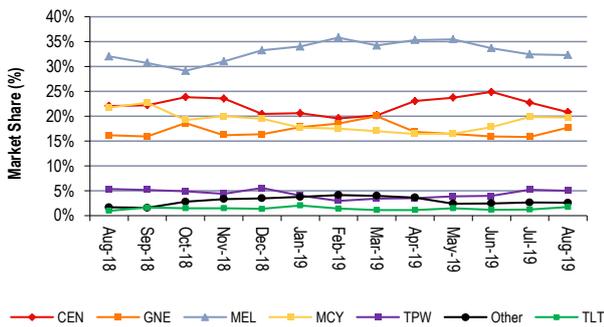
**Generation market share — GNE gains market share**

- GNE was the biggest market share gainer in August, increasing its market share by +1.9% to 17.7%. CEN experienced the largest market share fall again, down -1.9% to 20.8%.

**CEN — Soft SI hydro generation**

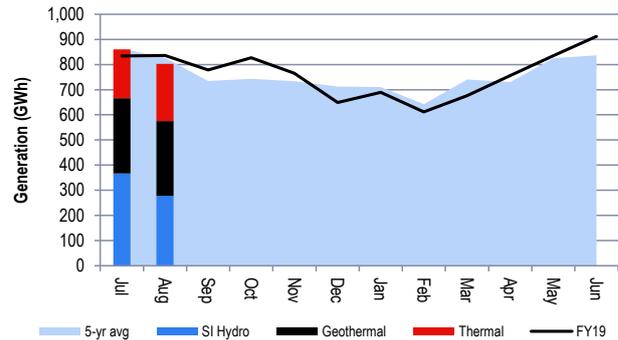
- CEN's generation in August 2019 totalled 802GWh, -3% below the five-year average driven by weak SI hydro generation. SI hydro generation totalled 278GWh, -9% below the five-year average. Geothermal generation was also soft at 297GWh, -2% below the five year average. Thermal generation was robust totalling 227GWh, +4% above the five-year average. The outage at one of Stratford's 100MW peakers ended in early-September. CEN's hydro storage at 5 September was 65GWh, -83GWh (-56%) below average.

**Figure 26. Monthly generation market share**



Source: EnergyLink, Forsyth Barr analysis

**Figure 27. CEN monthly generation mix (current, pcp and 5-yr avg)**



Source: EnergyLink, Forsyth Barr analysis

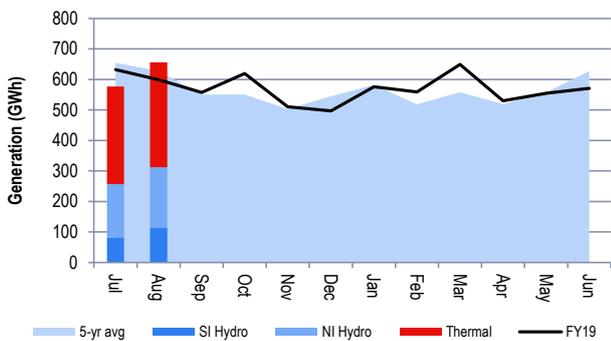
**GNE — Strong August generation**

- Strong SI hydro and thermal generation has resulted in GNE's generation totalling 656GWh in August 2019, +4% above the five-year average. SI hydro generation was robust totalling 113GWh, +15% above the five-year average while thermal generation was also strong at 343GWh. Slightly offsetting this was soft NI hydro generation which totalled 199GWh, -13% below the five-year average and the lowest August generation since 2014. GNE's SI hydro storage at 5 September was 212GWh, -133GWh (-38%) below average.

**MCY — NI hydro generation remains soft**

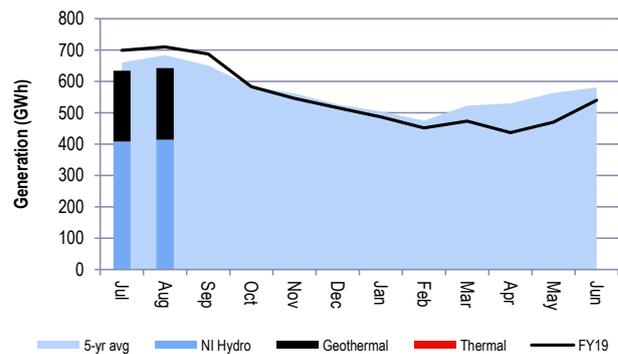
- August 2019 was another soft month for MCY due to weak NI hydro conditions at the start of the month. MCY's total generation in August was 643GWh, -6% below the five-year average and the tenth consecutive month of below average generation. NI hydro generation totalled 414GWh, -10% below the five-year average. Slightly offsetting this was robust geothermal generation which totalled 229GWh, +6% above the five-year average and a record high for August. MCY's hydro storage at 5 September was 380GWh, +32GWh (+9%) below average.

**Figure 28. GNE monthly generation mix (current, pcp and 5-yr avg)**



Source: EnergyLink, Forsyth Barr analysis

**Figure 29. MCY monthly generation mix (current, pcp and 5-yr avg)**



Source: EnergyLink, Forsyth Barr analysis

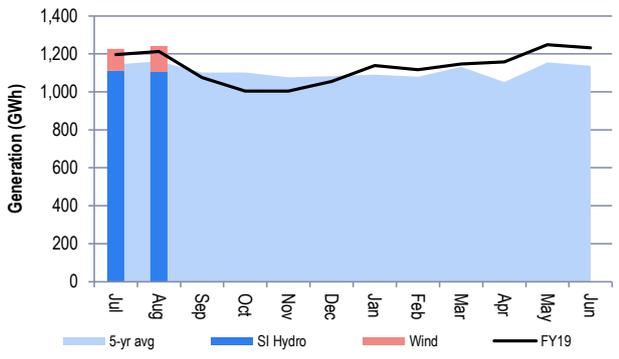
**MEL — Strong start to FY20 continues**

- August 2019 continued MEL’s strong start to FY20 with generation totalling 1,242GWh, +7% above the five-year average and the eighth consecutive month of above average generation. SI Hydro generation was strong totalling 1,106GWh, +6% above average. Wind generation was also strong totalling 136GWh, a new August record and the highest monthly wind generation since January 2017. As at 5 September, MEL’s hydro storage was 1,511GWh, +217GWh (+17%) above average.

**TPW — SI hydro remains soft**

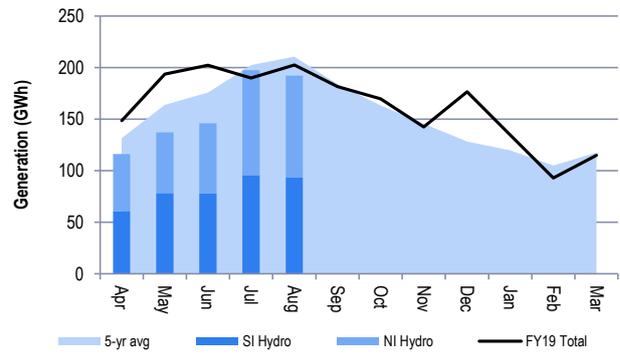
- TPW’s estimated generation in August 2019 totalled 192GWh, -9% below the five-year average. Estimated NI hydro generation was -5% below the five-year average totalling 99GWh while estimated SI hydro generation totalled 93GWh, -12% below the five-year average.

**Figure 30. MEL monthly generation mix (current, pcp and 5-yr avg)**



Source: EnergyLink, Forsyth Barr analysis

**Figure 31. TPW monthly generation mix (current, pcp and 5-yr avg)**



Source: EnergyLink, Forsyth Barr analysis

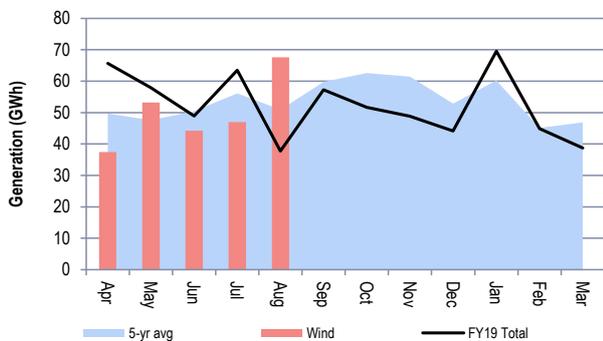
**TLT — Strong wind generation**

- We estimate that TLT’s NZ wind generation totalled 67GWh in August 2019, +33% above the five-year average, and a new record for August.

**Generation prices — Sector GWAP rises**

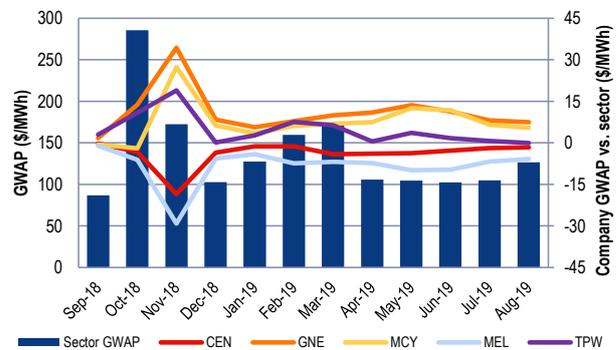
- The sector GWAP in August 2019 was \$127/MWh, increasing +21% on the prior month. NI generators GNE and MCY continue to have the highest GWAPs at \$134/MWh and \$132/MWh. SI generators CEN and MEL had the lowest GWAPs at \$125/MWh and \$121/MWh respectively but had the largest GWAP increases.

**Figure 32. TLT monthly generation mix (current, pcp and 5-yr avg)**



Source: EnergyLink, Forsyth Barr analysis

**Figure 33. Average generation weighted average price (GWAP)**



Source: EnergyLink, Forsyth Barr analysis

## Solar PV installations

### New solar installations decline

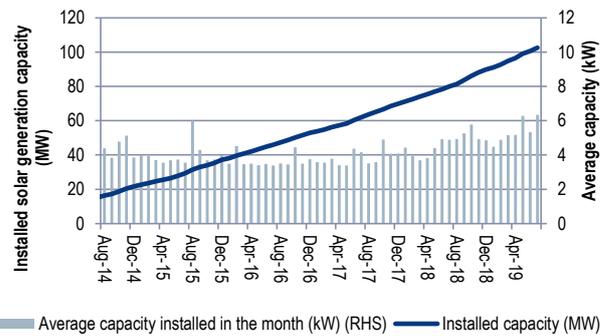
- New solar installations totalled +307 in July 2019, down -24 (-7%) installations on the prior year. The number of solar installations on a 12-month rolling basis continues to trend flat at ~4,350 ICPs. There are now 24,414 solar ICP's in New Zealand with a total capacity of 102.5MW compared to 20,280 solar ICPs with 80.0MW of total capacity one year ago.

Figure 34. Solar PV installations



Source: Electricity Authority, Forsyth Barr analysis

Figure 35. Solar capacity installed

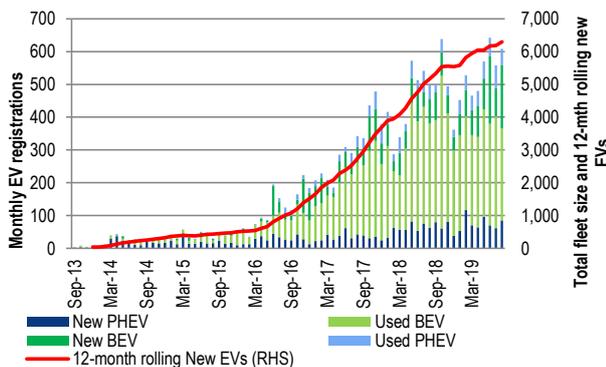


Source: Electricity Authority, Forsyth Barr analysis

## EV registrations

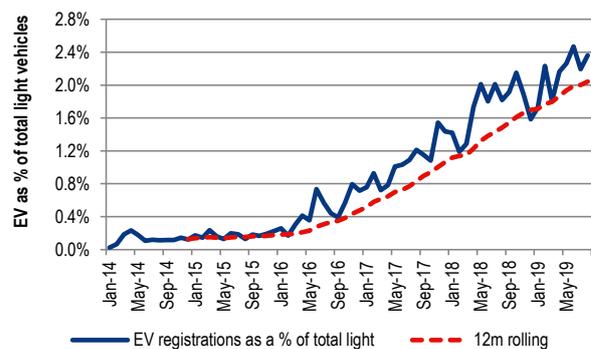
- EV registrations in August 2019 totalled 608, +110 registrations above August 2018. There are now 15,463 EVs registered in NZ (excluding the NZ Post delivery EVs).
- In August 2019 2.4% of total light vehicle registrations were EVs. EVs represented 2.3% of total new light vehicle registrations, a new record high and 2.5% of total used light vehicle registrations.

Figure 36. EV registrations



Source: Ministry of Transport, Forsyth Barr analysis

Figure 37. EV registrations as % of total light vehicle registrations



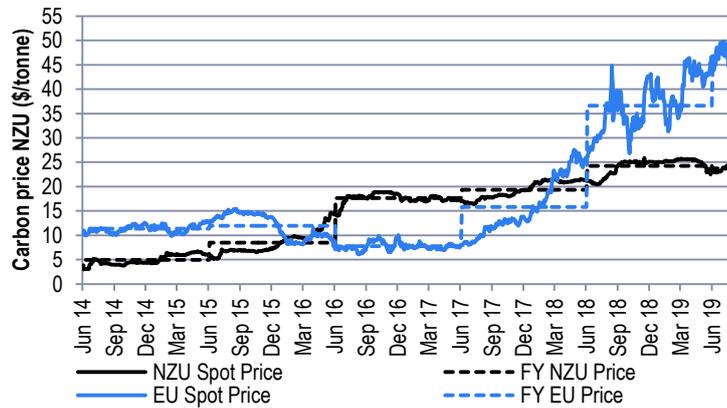
Source: Ministry of Transport, Forsyth Barr analysis

## Carbon prices

### NZ carbon price rebounds

- The monthly average unit price of carbon in August 2019 was NZ\$24.3/tonne, up +4.7% on the prior month and rebounding from the decline over the prior two months. The EU carbon price decreased -0.8% to average NZ\$46.6/tonne in August.

Figure 38. Price of carbon (NZ\$/tonne)



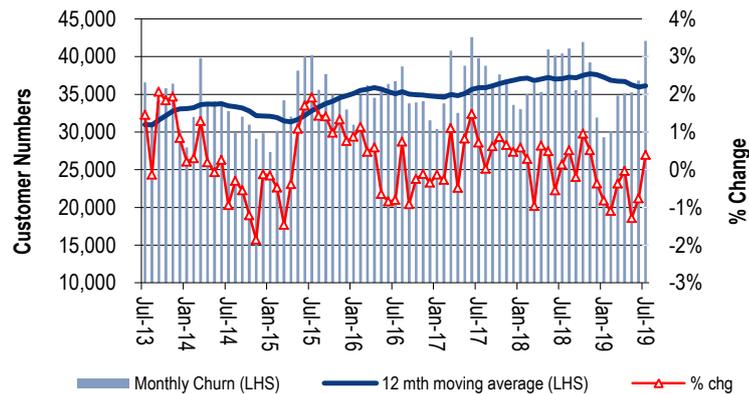
Source: Bloomberg, Forsyth Barr analysis

## Retail electricity customers

### Connection churn — Churn levels rise

- July 2019 was a busy month for connection changes coinciding with the release of the Electricity Authority’s (EA) “What’s My Number” campaign. Customer churn rebounded with ~42,100 switches, +4.1% above the pcp. This is the first time since November 2018 that customer churn has increased on the pcp following elevated wholesale prices reducing the amount of switches. 12-month rolling churn rose slightly to 20.3%.

Figure 39. Electricity connection churn

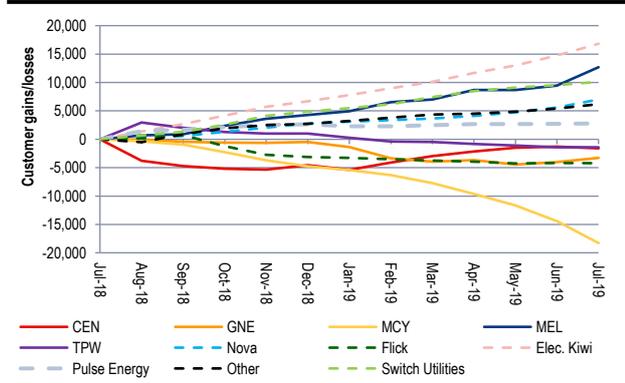


Source: Electricity Authority, Forsyth Barr analysis

**Customer number changes — MCY continues to shed customers**

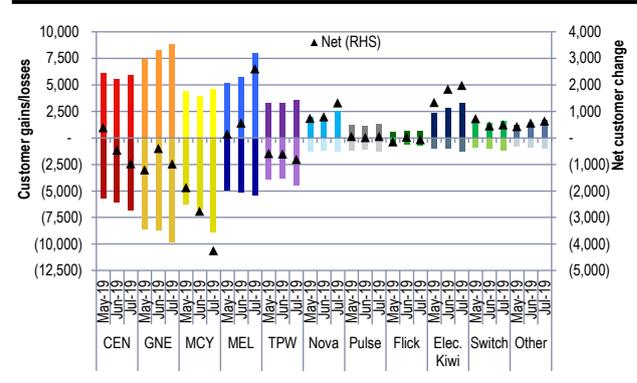
- Meridian Energy (MEL) had a strong month in the retail market in July 2019 adding +3,217 connections, the most of any retailer. Genesis Energy (GNE) also had a strong month adding +744 connections. At the other end of the spectrum Mercury (MCY) lost -3,861 ICPs in July, the largest loss of any retailer and the third consecutive month of losing over -2,000 ICPs. A significant proportion of MEL and GNE's connection gains came from MCY no longer being the Farm Source electricity supplier of choice. These switches are expected to continue for several more months. Over the past 12-months MCY has lost over -18,000 connections, with close to half of that loss occurring within the last four months.
- Electric Kiwi had the largest gain of the Tier 2 retailers, adding +2,055 ICPs in July 2019 while Nova Energy also has a strong month adding +1,406 ICPs. Meanwhile Z Energy owned Flick Electric lost -33 ICPs in July. EnergyClubNZ had a solid month adding +1,127 ICPs although ~+800 ICPs came from the transfer of customers from small retailer NextGen closing.

**Figure 40. Cumulative 12-mth electricity customer gains/losses**



Source: Electricity Authority, Forsyth Barr analysis

**Figure 41. Customer switches (excludes market growth)**

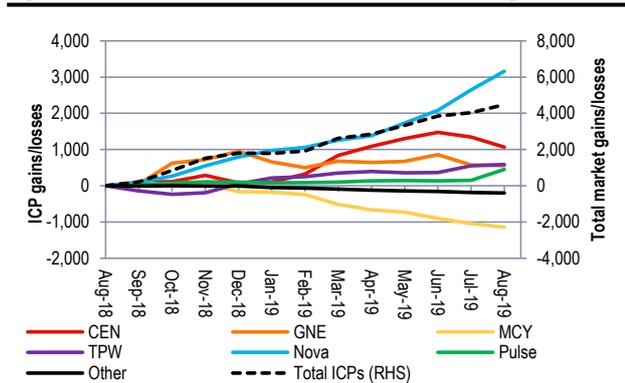


Source: Electricity Authority, Forsyth Barr analysis

**Retail gas customers**

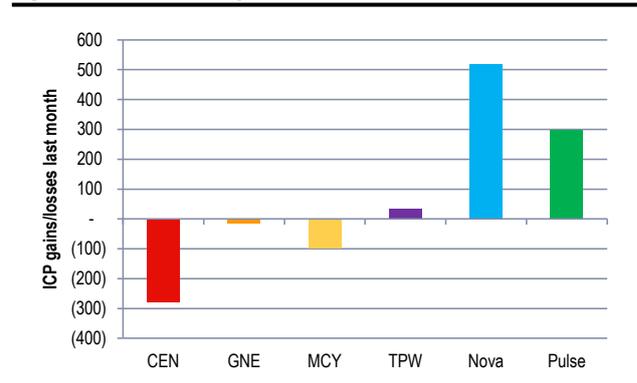
- Nova led customer retail gains in the gas market again and continued its strong performance over the past year by adding a further +519 connections in August 2019. Pulse also had a solid month adding +298 connections. CEN experienced the largest losses in August 2019, losing -280 connections. The total gas market added +441 connections during the month.

**Figure 42. Gas customer numbers — 12-mth cumulative gains/losses**



Source: Gas Industry Co, Forsyth Barr analysis

**Figure 43. Gains/losses by retailer**



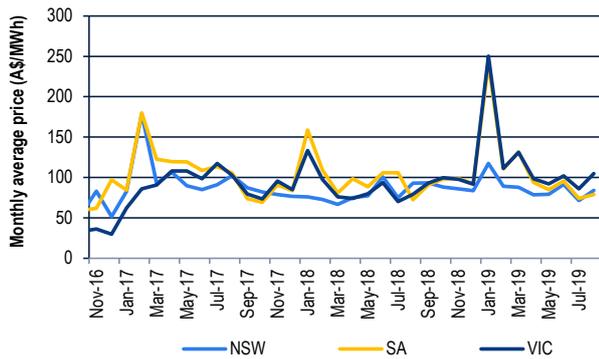
Source: Gas Industry Co, Forsyth Barr analysis

## Australian electricity market

### Wholesale prices rise across all states

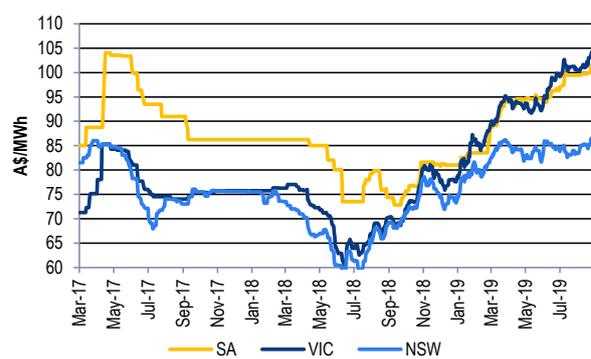
- Wholesale electricity prices rose across SA, VIC and NSW in August 2019. The average price increased +7% in SA to A\$78.8/MWh, +22% in VIC to A\$105.0/MWh and +17% in NSW to A\$84.0/MWh.
- 2019 futures prices also increased across SA, VIC and NSW in August 2019 but to a much lesser extent than the rise in wholesale electricity prices. As at 30 August 2019, SA futures contracts were A\$101.2/MWh (+2% on the prior month), A\$104.1/MWh in VIC (+3%) and A\$85.5/MWh in NSW (+1%).

Figure 44. Australian wholesale electricity price (A\$/MWh)



Source: AEMO, Forsyth Barr analysis

Figure 45. Australian 2019 futures price (A\$/MWh)



Source: Thomson Reuters, Forsyth Barr analysis

### Renewable energy certificate (LGC) prices increase

- LGC prices increased in August 2019. As at 30 August 2019, 2019 LGCs had increased +A\$4.2/MWh (+10%) vs the prior month to A\$46.5/MWh, 2020 LGCs increased +A\$2.9/MWh (+12%) to A\$26.3/MWh and 2021 LGCs increased +A\$2.8/MWh (+12%) to A\$26.6/MWh.

Figure 46. Renewable energy certificate prices (LGCs)



Source: Bloomberg, Forsyth Barr analysis

## Key statistics

### New Zealand electricity market statistics

Figure 47. Key statistics – New Zealand

	Aug-18	Jun-19	Aug-19	% Chg pcp	% Chg mom
<b>Average Monthly Prices</b>					
OTA avg (\$/MWh)	\$ 88.6	\$ 115.7	\$ 135.1	52.5%	16.7%
HAY avg (\$/MWh)	\$ 79.7	\$ 104.3	\$ 123.0	54.4%	18.0%
BEN avg (\$/MWh)	\$ 75.9	\$ 98.7	\$ 119.6	57.6%	21.1%
<b>Avg Daily Generation (GWh)</b>					
<b>CEN</b>	27.0	27.8	25.9	-4.1%	-6.8%
% of NZ Generation	22.1%	22.8%	20.9%	-5.5%	-8.3%
<b>GNE</b>	19.8	19.3	22.0	11.3%	14.0%
% of NZ Generation	16.2%	15.8%	17.7%	9.7%	12.0%
<b>MCY</b>	26.6	24.2	24.5	-7.6%	1.2%
% of NZ Generation	21.7%	19.9%	19.8%	-9.0%	-0.5%
<b>MEL</b>	39.1	39.6	40.1	2.3%	1.3%
% of NZ Generation	32.0%	32.4%	32.3%	0.8%	-0.5%
<b>TPW</b>	7.8	7.9	8.4	8.1%	6.3%
% of NZ Generation	6.3%	6.5%	6.8%	6.5%	4.5%
<b>Daily Demand (GWh)</b>					
Demand (excl NZAS)	103.7	102.3	104.1	0.4%	1.8%
NZAS demand	13.7	14.3	14.3	4.2%	-0.2%
Total NZ Demand	117.5	116.6	118.4	0.8%	1.6%
<b>Hydrology (% of average)</b>					
Average hydro inflows	89%	116%	90%	0.8%	-22.7%
Average hydro storage	110%	111%	105%	-5.0%	-5.6%
Month end hydro storage	100%	111%	101%	1.0%	-9.0%
<b>ASX futures as at:</b>					
	<b>31-Aug-18</b>	<b>31-Jul-19</b>	<b>29-Aug-19</b>		
Short-dated OTA	\$ 82.3	\$ 120.3	\$ 122.4	48.7%	1.7%
Long-dated OTA	\$ 76.7	\$ 97.4	\$ 102.1	33.2%	4.9%
Short-dated BEN	\$ 75.9	\$ 97.3	\$ 100.6	32.5%	3.3%
Long-dated BEN	\$ 70.2	\$ 87.1	\$ 89.1	26.9%	2.3%

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

### Australian electricity market statistics

Figure 48. Key statistics - Australia

	Aug-18	Jun-19	Aug-19	% Chg pcp	% Chg mom
<b>Average Monthly Prices</b>					
NSW avg (A\$/MWh)	\$ 93.0	\$ 71.6	\$ 84.0	-9.7%	17.4%
SA avg (A\$/MWh)	\$ 72.3	\$ 73.9	\$ 78.8	8.9%	6.6%
VIC avg (A\$/MWh)	\$ 79.2	\$ 85.9	\$ 105.0	32.6%	22.1%
<b>Electricity Futures for calendar year 2019:</b>					
	<b>31-Aug-18</b>	<b>31-Jul-19</b>	<b>30-Aug-19</b>		
NSW avg (A\$/MWh)	\$ 68.5	\$ 83.5	\$ 85.5	24.7%	2.4%
SA avg (A\$/MWh)	\$ 74.4	\$ 99.4	\$ 101.2	36.0%	1.7%
VIC avg (A\$/MWh)	\$ 70.1	\$ 101.0	\$ 104.1	48.4%	3.1%
<b>Spot and Future LGC Prices</b>					
	<b>30-Aug-18</b>	<b>31-Jul-19</b>	<b>30-Aug-19</b>		
Spot (A\$/MWh)	\$ 70.5	\$ 41.5	\$ 44.8	-36.5%	7.8%
2019 (A\$/MWh)	\$ 69.0	\$ 42.4	\$ 46.5	-32.6%	9.8%
2020 (A\$/MWh)	\$ 25.5	\$ 23.4	\$ 26.3	2.9%	12.2%
2021 (A\$/MWh)	\$ 18.3	\$ 23.8	\$ 26.6	45.9%	11.9%

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

## Industry news — August 2019

### Listed sector company news

#### Contact Energy (CEN)

- CEN reported a strong FY19 result consistent with our forecast. CEN's FY19 EBITDA of \$518m was +\$38m above the pcp and CEN's first EBITDA growth since FY14. CEN's outlook guidance reaffirmed modest FY20 expectations. We increased our target price +90cps (+13%) to \$8.10, largely driven by a change to our risk free rate assumption, but made no changes to our recommendation (NEUTRAL). For more information *Growth Spurt — FY19 Result* (13/08/19) should be viewed.
- CEN is getting closer to making a decision on its Taranaki Combined Cycle plant (TCC), with it increasingly likely TCC will be replaced. CEN noted that its Tauhara development will produce electricity at the equivalent of \$4–\$5/GJ compared to ~\$6.5/GJ currently being offered into the market.

#### Genesis Energy (GNE)

- GNE reported an FY19 result in line with expectations; however, the outlook provided was a little softer than anticipated. Short-term challenges at Kupe, higher capex and a slightly lower dividend outlook resulted in a slightly underwhelming outlook. We increased our FY20 EBITDAF +\$4m to \$367m but left out target price unchanged at \$3.18. NEUTRAL remains the rating. *Slightly Underwhelming — FY19 Result Review* (29/08/19) for more information.
- GNE has invested \$2m for a 40% stake in Yoogo Share, an EV ride sharing company. Yoogo Share helps business and individuals to reduce their carbon emissions and has already saved 200 tonnes of CO2.

#### Mercury (MCY)

- MCY reported a strong FY19 result with EBITDAF of \$505m. Despite a material drop in hydro generation, MCY was able to produce an EBITDAF result ~+\$10m higher than normalised hydrology earnings. The result and FY20 guidance were in line with expectations; hence, we have made minimal forecast changes. We have increased our target price +27cps (+6.7%) to \$4.30 due to changes to our WACC. For more information *Trading Gains — FY19 Result* (21/08/19) should be viewed.
- Pre-construction work at MCY's 119MW Turitea wind farm is underway with mobilisation starting in late-August. Work is focussed on safety improvements in the roading around the existing entrance to the site. Commissioning of the wind farm is expected to begin late-2020.
- MCY will start a new drilling campaign at its Kawerau geothermal field within the next few months. The drilling will develop one reinjection and one production well with the drilling expected to run until April 2020.

#### Meridian Energy (MEL)

- MEL reported an outstanding FY19 result with EBITDAF of \$838m, +\$172m (+26%) higher than FY18. The record result was driven by strong hydro generation coupled with record wholesale electricity prices. We have increased our FY20 EBITDAF forecast +\$4m to \$769m. However, the biggest change is a +\$36m increase in depreciation following MEL's material \$1.14b upwards asset revaluation (due to lower interest rates lowering MEL's WACC). As a result our headline NPAT forecast falls -8.0% to \$259m. We have increased our target price +20cps (+5.3%) to \$4.00 with the main driver being a +16% increase in our DCF valuation due to WACC changes. *Peak Earnings — FY19 Result* (27/08/19) should be viewed for more information.
- MEL is seeking registrations of interest for civil works contractors at its consented 47-turbine wind farm site in the Hawkes Bay suggesting MEL may start construction on the site in early-2020. The proposed wind farm would be located on the Titokura Saddle, 35km northwest of Napier.
- MEL has announced the appointment of three new directors being Michelle Henderson, Julia Hoare and Nagaja Sanatkumar. Ms Henderson is currently COO at lines company PowerNet where she has resigned in order to start her MEL Board duties in October. Ms Hoare is a CA who also serves on the Boards of Auckland

International Airport, NZ Post and a2 Milk. Ms Sanatkumar is currently GM global digital at Icebreaker and is also a director of NZ Post. Ms Sanatkumar's appointment is conditional on her concluding her role at Icebreaker. These appointments fill the vacancies created by the upcoming retirement of Chris Moller and Mary Devine who finish at the ASM in October 2019 and the resignation of Steve Reindler last year.

- Ed McManus is stepping down as CEO of MEL's Australian operations after joining the firm in 2014 and leading the Australian division since 2016.
- Chris Ewers has been appointed as General Manager Wholesale effective immediately. Mr Ewers has worked at MEL since its inception and his previous roles have included leading the generation control and trading functions. Mr Ewers replaces Mike Roan who is now MEL's CFO.

#### Tilt Renewables (TLT)

- TLT faces court action from Australia's energy regulator (AER) for the role of its Snowtown Wind Farm Stage 2 in South Australia's September 2016 blackout. Court proceedings have also been placed against other SA wind generators. We do not expect anything material to come from the court action.
- TLT's board has approved investment in the 133MW Waipipi Wind Farm near Waverley in South Taranaki. Financial close on the ~\$276m projected is expected to be reached in the coming months.

#### New Zealand Windfarms (NWF)

- High wholesale electricity prices more than offset lower wind generation to drive NWF's EBITDA up +15% to \$4.5m. NWF is forecasting a large uplift in FY20 with EBITDA guidance of \$6.5m–\$7.5m provided.

#### Vector (VCT)

- VCT reported a mixed FY19 result with EBITDA up +3% to \$486m. However, two-thirds of the growth was from accounting changes while there was also a -\$47m write-off of the recently acquired E-Co Products business. VCT provided no formal FY20 guidance due to regulatory uncertainty and we believe VCT's dividend is under pressure due to the low interest rate environment. We made no changes to our target price and rating of \$3.20 and UNDERPERFORM respectively. *Imputing a Lower Gross Dividend — FY19 Result Review (26/08/19)* should be viewed for more information.

### Political / regulatory news

- In its submission on the Climate Change (Zero Carbon) Amendment Bill, Todd Energy believes the Climate Change Minister should use the UK's Committee on Climate Change selection criteria as model for the NZ version. That would mean adding a requirement for the minister to consider expertise across "business competitiveness and financial investment, economic analysis and forecasting and energy production and supply".
  - In its submission on the Zero Carbon Bill, Trustpower states that it supports the Government's goal of carbon neutrality by 2050 but that it wants more certainty around the approach that will be adopted during the transition.
  - In the UK Committee on Climate Change's (UK-CCC) submission the independent advisor proposes bringing forward the timing of the Bills release. The UK-CCC suggests releasing the emissions reduction plan within six to 12-months before the setting of a five-year carbon budget, better provides for the time it takes for policies to impact emission levels.
- The Government released its "A Vision for Hydrogen in New Zealand" green paper which broadly examines hydrogen's potential in New Zealand. Despite the report highlighting how far out of the money hydrogen is given the ~\$50/GJ equivalent gas price required, the Government appears to believe hydrogen is a viable pathway to achieving its renewable electricity goals, with the biggest takeaway from the report the statement "the paper is part of a renewable energy strategy work programme which is also looking to address barriers to investment in new renewable energy as we work to reach 100% renewable electricity by 2035". The 100% renewable target is also stated throughout the report implying the Government has not moved away from its policy goal, despite the Interim Climate Change Commission highlighting the folly of such a target. The full report can be found [here](#).

- The latest round of the Government's Low Emission Vehicles Contestable Fund has opened. This is the seventh round for the fund and is the largest making \$3.1m in Government funding available.
- Minister for the Environment David Parker has declined Westpower's application for concessions to build a 20MW hydro scheme on conservation land. The Department of Conservation had previously indicated in 2016 its intention to grant a 49 year lease, license and concession to allow the scheme to be built on the Waitaha River on the West Coast. Westpower chair Mike Newcombe called into question the Government's commitment to regional economic growth, renewable energy and climate change following the decision.
- In a positive for the electricity sector the Government's new proposed National Policy Statement for freshwater management includes exceptions to prevent adverse effects on the nation's largest hydro schemes. Exceptions apply to the Waikato River, Tongariro, Waikaremoana, Waitaki, Manapouri, and Clutha hydro schemes. The policy statement requires councils to not adversely impact the generation capacity, storage and operational flexibility of those schemes when developing action plans. However, it is unclear how this will potentially impact small scale hydro schemes of the type TPW owns.

### Emerging technology news (EV, solar & storage)

- Arataki Honey has spent \$169k on a new 75kW solar system at its Havelock North processing facility. Arataki is aiming to halve its \$50k annual electricity bill and the solar project has a payback period of ~7 years. By prioritising when honey is heated to daylight hours, Arataki believes the solar system should meet 60%–70% of the site's annual electricity demand.
- Refining NZ believes its solar farm project has the potential to reduce the refinery's cost of electricity consumption by ~\$3m–\$4m per year. A final board decision on the 26MW solar farm is expected in later 2019 or early 2020.
- Four initial hydrogen refuelling sites are expected to be operational before the end of 2020 according to Hiringa Energy with a final investment decision to be made at the end of this year. The four sites will be located on key freight routes in the North Island.

### Other industry news

- The Major Electricity Users' Group (MEUG) is working with five of its members (Refining NZ, New Zealand Steel, Fonterra, Oji Fibre Solutions and Pan Pac Forest Products) to investigate a commercial platform to launch renewable electricity schemes. The group will explore setting up power purchase contracts for a portion of their combined load to bring forward consented renewable generation and encourage new entrants into the generation market. The project remains in early stages.
- The Electricity Authority's (EA) national consumer survey showed 73% of respondents were somewhat or very satisfied with their electricity retailer, up +3% on the 2016 result. Banks and mobile providers were the highest rated in terms of satisfaction, on 84 per cent and 81 per cent respectively.
- The Gas Industry Company (GIC) believes that the high gas prices experienced over the past year are unlikely to become the new normal. A draft report by Concept Consulting models supply and demand scenarios out to 2050. Concept believes that elevated gas prices would result in reduced demand from power generation and petrochemicals (which account for ~70% of gas demand) which would materially reduce gas producers revenue.
- It has been reported that more independent electricity retailers could be forced to leave the market due to struggling to secure hedge cover amid the elevated wholesale prices. This follows NextGen Energy closing last month.
  - EmhTrade is winding down its retail book with ~80% of its 305 customers moving to Ecotricity. The move comes as EmhTrade pursues other means of achieving its goal of encouraging the uptake of renewable energy technology.

Sources: Energy News, Energy and Environment, EV Talk

# Mercury

## UNDERPERFORM

## Mercury Running Hot MSCI Fever

Mercury (MCY) has been on a tear over the past three months, its share price appreciating +42%, ~+30% more than the market. Whilst much of the increase can be explained by falling interest rates, the expectation that MCY will enter the MSCI Index has seen it outperform its peers materially. In our view MCY is now expensive, with increased downside risk, particularly following MSCI rebalancing in November. We are downgrading our rating to UNDERPERFORM from NEUTRAL.

### What's changed?

- **Earnings:** Unchanged
- **Target Price:** Increased +15cps to \$4.45
- **Rating:** Downgraded to UNDERPERFORM from NEUTRAL

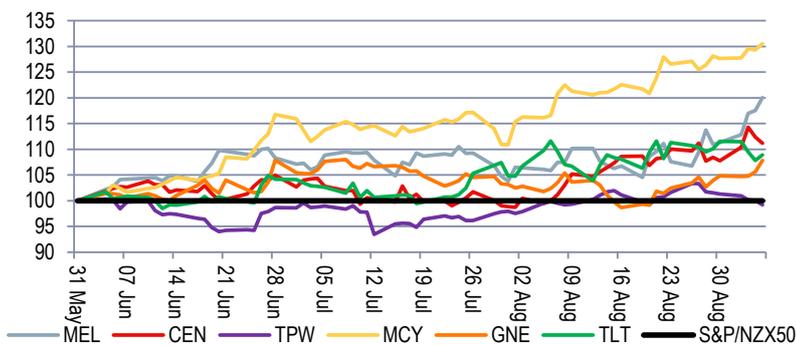
### MCY tipped to enter MSCI in November

Our analysis indicates that MCY is likely to enter the MSCI Index in November 2019 (announcement is due Friday 8 November). We believe that this has been a key reason for MCY outperforming the other electricity stocks over the past three months. We note that MCY is now trading on an enterprise value +16.6% (\$1.2b) more than Contact Energy (CEN) and yet both stocks have similar earnings. Whilst MCY has greater near-term earnings growth due to its Turitea wind farm under development, CEN has strong geothermal development opportunities as well.

### Share price appreciation +30% more than the market

MCY's share price appreciation has been phenomenal over the past three months, adding +42% to its share price, ~+30% more than the market. Whilst some of that outperformance is justified given the fall in interest rates supporting high quality, high yield investments, in our view MCY has now gone too far and has moved into expensive territory. The modest increase in our target price (+15cps to \$4.45) follows a recalibration of electricity market multiple and dividend yield valuation metrics.

Figure 49. Electricity share price performances vs. S&P/NZX50



Source: Eikon, Forsyth Barr analysis

### Investment View

Our rating is UNDERPERFORM. MCY is a quality company and has some near-term earnings growth from its wind farm development and more favourable wholesale electricity market conditions. However, in our view MCY is now expensive and the expected returns do not justify the risk.

NZX Code	MCY
Share price	NZ\$5.47
Target price	NZ\$4.45
Risk rating	Low
Issued shares	1360.9m
Market cap	NZ\$7,444m
Average daily turnover	669.1k (NZ\$2,565k)

### Share Price Performance



Financials: June	19A	20E	21E	22E
NPAT* (NZ\$m)	239.0	228.2	271.3	285.9
EPS* (NZc)	17.6	16.8	19.9	21.0
EPS growth* (%)	-6.4	-4.5	18.9	5.4
DPS (NZc)	15.5	15.8	16.2	22.1
Imputation (%)	100	100	100	85

Valuation (x)	19A	20E	21E	22E
EV/EBITDA	16.5	17.0	16.0	15.2
EV/EBIT	27.7	28.8	26.3	24.5
PE	31.1	32.6	27.4	26.0
Price / NTA	2.1	2.2	2.2	n/a
Cash dividend yield (%)	2.8	2.9	3.0	4.0
Gross dividend yield (%)	3.9	4.0	4.1	5.4

\*Historic and forecast numbers based on underlying profits

### Andrew Harvey-Green

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**Mercury NZ Limited (MCY)**

Priced as at 05 Sep 2019: NZ\$5.47

June year end

Forsyth Barr valuation						Valuation Ratios					
Valuation methodology						2018A	2019A	2020E	2021E	2022E	
Mix of market multiple and DCF						EV/EBITDA (x)	14.9	16.5	17.0	16.0	15.2
						EV/EBIT (x)	23.0	27.7	28.8	26.3	24.5
<b>12-month target price (NZ\$)*</b>						PE (x)	29.1	31.1	32.6	27.4	26.0
<b>4.45</b>						Price/NTA (x)	2.3	2.1	2.2	2.2	2.2
Expected share price return						Free cash flow yield (%)	3.3	2.7	1.2	2.5	4.0
-18.6%						Net dividend yield (%)	2.8	2.8	2.9	3.0	4.0
Net dividend yield						Gross dividend yield (%)	3.8	3.9	4.0	4.1	5.4
2.9%						Imputation (%)	100	100	100	100	85
Estimated 12-month return						Pay-out ratio (%)	80	88	94	81	105
-15.7%											
Key WACC assumptions						DCF valuation summary (NZ\$m)					
Risk free rate						Total firm value	6,506				
2.00%						(Net debt)/cash	(1,096)				
Equity beta						Value of equity	5,410				
0.88						Shares (m)	1,361				
WACC						6.7%					
Terminal growth						1.5%					
Profit and Loss Account (NZ\$m)						Capital Structure					
2018A	2019A	2020E	2021E	2022E		2018A	2019A	2020E	2021E	2022E	
Sales revenue	1,798	2,000	1,818	1,784	1,766	Interest cover EBIT (x)	4.7	6.7	4.4	4.6	4.7
<b>Normalised EBITDA</b>	<b>566</b>	<b>505</b>	<b>488</b>	<b>522</b>	<b>549</b>	Interest cover EBITDA (x)	6.2	6.7	7.4	7.5	7.6
Depreciation and amortisation	(201)	(204)	(205)	(208)	(212)	Net debt/ND+E (%)	27.8	23.7	25.9	26.6	25.6
<b>Normalised EBIT</b>	<b>365</b>	<b>301</b>	<b>284</b>	<b>314</b>	<b>337</b>	Net debt/EBITDA (x)	2.2	2.2	2.5	2.4	2.1
Net interest	(91)	(75)	(66)	(70)	(72)	Key Ratios					
Associate income	2	1	3	3	3	Return on assets (%)	7.1	7.8	4.4	4.9	5.4
Tax	(91)	(73)	(64)	(71)	(77)	Return on equity (%)	6.0	4.6	4.5	5.1	5.6
Depreciation capex adj	58	78	71	95	95	Return on funds employed (%)	5.8	4.7	4.3	4.8	5.3
<b>Adjusted normalised NPAT</b>	<b>256</b>	<b>239</b>	<b>228</b>	<b>271</b>	<b>286</b>	EBITDA margin (%)	31.5	25.3	26.9	29.3	31.1
Abnormals/other	(7)	118	(71)	(95)	(95)	EBIT margin (%)	20.4	15.1	15.8	17.8	19.3
<b>Reported NPAT</b>	<b>249</b>	<b>357</b>	<b>157</b>	<b>176</b>	<b>191</b>	Capex to sales (%)	7.1	6.1	16.6	6.2	4.5
Normalised EPS (cps)	18.8	17.6	16.8	19.9	21.0	Capex to depreciation (%)	69	67	158	57	40
DPS (cps)	15.1	15.5	15.8	16.2	22.1	Operating Statistics					
Growth Rates						2018A	2019A	2020E	2021E	2022E	
Revenue (%)	12.6	11.2	-9.1	-1.9	-1.0	Hydro	4,947	4,006	3,980	4,016	4,016
EBITDA (%)	8.2	-10.8	-3.3	6.9	5.0	Geothermal	2,757	2,894	2,810	2,829	2,829
EBIT (%)	7.9	-17.7	-4.9	10.5	7.2	Wind	-	-	-	181	469
Normalised NPAT (%)	1.8	-6.5	-4.5	18.9	5.4	<b>Total MCY Generation (GWh)</b>	<b>7,704</b>	<b>6,900</b>	<b>6,790</b>	<b>7,026</b>	<b>7,314</b>
Normalised EPS (%)	2.9	-6.4	-4.5	18.9	5.4	GWAP (\$/MWh)	86.3	138.7	114.6	105.2	98.4
Ordinary DPS (%)	3.4	2.6	1.9	2.5	36.4	Electricity customers (000)	388	373	364	360	357
Cash Flow (NZ\$m)						2018A	2019A	2020E	2021E	2022E	
EBITDA	566	505	488	522	549	MM volumes	3,278	3,182	3,009	2,969	2,945
Working capital change	4	2	52	(63)	(2)	TOU volumes	1,200	1,319	1,385	1,421	1,428
Interest & tax paid	(192)	(148)	(151)	(160)	(167)	<b>Total Fixed Price volumes (GWh)</b>	<b>4,478</b>	<b>4,501</b>	<b>4,393</b>	<b>4,390</b>	<b>4,373</b>
Other	(4)	(33)	-	-	-	Spot Sales	891	780	731	734	738
<b>Operating cash flow</b>	<b>374</b>	<b>326</b>	<b>390</b>	<b>299</b>	<b>381</b>	Net CFD's	2,110	1,624	1,563	1,563	1,563
Capital expenditure	(127)	(122)	(301)	(111)	(80)	<b>Total Sales (GWh)</b>	<b>7,479</b>	<b>6,905</b>	<b>6,687</b>	<b>6,687</b>	<b>6,674</b>
(Acquisitions)/divestments	(139)	215	-	-	-	Average usage per cust (MWh/yr)	11.4	11.8	12.0	12.1	12.2
Other	6	5	1	1	1	LWAP (\$/MWh)	91.6	144.2	120.5	111.0	104.1
<b>Funding available/(required)</b>	<b>114</b>	<b>424</b>	<b>90</b>	<b>189</b>	<b>301</b>	LWAP/GWAP	1.06	1.04	1.05	1.06	1.06
Dividends paid	(273)	(208)	(212)	(218)	(225)	Average FPV price (\$/MWh)	112.5	113.4	115.1	117.7	119.8
Equity raised/(returned)	(55)	7	-	-	-	Line losses (%)	5.6	5.1	5.4	5.3	5.3
<b>Increase/(decrease) in net debt</b>	<b>214</b>	<b>(223)</b>	<b>122</b>	<b>29</b>	<b>(76)</b>	Retail gas customers (000)	48	47	46	46	47
Balance Sheet (NZ\$m)						2018A	2019A	2020E	2021E	2022E	
Working capital	63	63	11	73	75	Retail gas volumes (PJ)	1.1	1.1	1.0	1.0	1.0
Fixed assets	5,370	5,528	5,629	5,539	5,410	Gas volume/cust (GJ/yr)	22.5	22.5	22.5	22.5	22.5
Intangibles	85	62	59	57	55	Energy margin (\$m)	730	667	672	704	737
Other assets	385	521	523	526	529	Operating costs (\$m)	(205)	(199)	(203)	(202)	(208)
<b>Total funds employed</b>	<b>5,903</b>	<b>6,174</b>	<b>6,223</b>	<b>6,195</b>	<b>6,069</b>	Other revenue (\$m)	41	37	19	20	20
Net debt/(cash)	1,264	1,096	1,218	1,247	1,171	<b>MCY EBITDAF (\$m)</b>	<b>566</b>	<b>505</b>	<b>488</b>	<b>522</b>	<b>549</b>
Other non current liabilities	1,306	1,498	1,480	1,464	1,448						
Shareholder's funds	3,333	3,580	3,525	3,484	3,450						
Minority interests	-	-	-	-	-						
<b>Total funding sources</b>	<b>5,903</b>	<b>6,174</b>	<b>6,223</b>	<b>6,195</b>	<b>6,069</b>						

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

# Investment summary

**Our rating is UNDERPERFORM. MCY is a quality company with some near-term earnings growth from its wind farm development and more favourable wholesale electricity market conditions. However, in our view MCY is now expensive and the expected returns do not justify the risk.**

## Business quality

- **Low risk, modest growth industry:** Electricity demand is relatively inelastic and is expected to grow slowly in the future. The industry is well positioned to benefit from New Zealand decarbonising transport and industrial processes.
- **Strong generation position:** Most of the value within the electricity sector lies within the generation assets. MCY is the largest North Island generator and its hydro generation is particularly suited to meeting electricity demand peaks.
- **Track record:** MCY has a strong development track record, having built a geothermal generation portfolio in the past 15 years and is now expanding into wind development.

## Earnings and cash flow outlook

- **Earnings growth after FY20:** MCY's move into a development phase will drive earnings growth after FY20. The new wind farm development at Turitea is likely to add ~\$30m (~+6%) per annum to underlying EBITDAF.
- **Operating cash flow strong but development restarting:** MCY has a strong track record of returning surplus cash to shareholders; however, with new generation under development, capital returns over and above the ordinary dividend are less likely.

## Company description

MCY is one of New Zealand's large electricity generator/retailers. It is a 100% renewable generator producing ~6,800GWh of electricity from its North Island based Waikato River hydro power station and geothermal power stations. MCY is developing its first wind farm which is expected to produce ~470GWh per annum and be commissioned in FY21. Its retail brands, Mercury, Bosco Connect, GLOBUG and Tiny Mighty Power retail electricity and gas to around 430,000 customers. GLOBUG is an innovative prepay product. MCY also owns 20% of Tilt Renewables (TLT) and a small solar installation business.

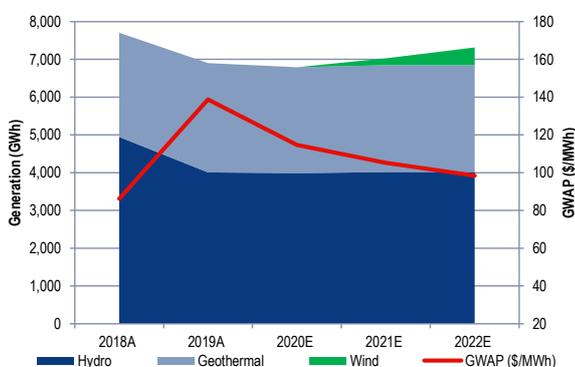
## Financial structure

- **Balance sheet:** MCY's balance sheet has reasonable headroom (particularly after including treasury shares acquired in past buy-backs). Its recent investment in Tilt Renewables (TLT) and the decision to build new generation means there is no surplus capital for the next few years.

## Key risks

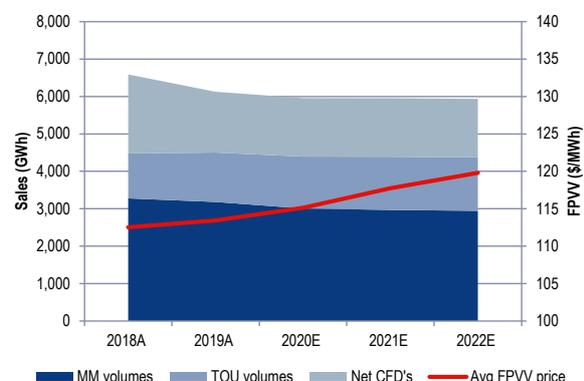
- **Regulatory risk:** Whilst the Electricity Price Review creates some uncertainty, we believe there is as much upside as downside risk, and in any case is unlikely to have a material impact on MCY.
- **Rising bond yields:** In recent years MCY has traded in line with bond yields. A lift in interest rates is likely to see MCY trade lower, although in our view interest rates are likely to remain low for the foreseeable future.

**Figure 50. Generation volumes and average price received**



Source: MCY, Forsyth Barr analysis

**Figure 51. Sales volumes and average price received**



Source: MCY, Forsyth Barr analysis

# Trustpower

**OUTPERFORM**

## Increasing Interest

Falling interest rates have increased the attractiveness of all electricity stocks given their attractive dividend yields, however, whilst the rest of the sector has rerated, Trustpower (TPW) has lagged. Over the past three months it has performed in line with the market, whereas its peers have outperformed between +8% and +30%. We believe TPW will rerate at some stage and that it is undervalued in the market relative to its high yield peers. We reiterate our **OUTPERFORM** rating and add TPW to the Conviction List.

### What's changed?

- **Earnings:** Unchanged
- **Target Price:** Increased +50cps (+6.7%) to \$8.00
- **Rating:** OUTPERFORM rating retained

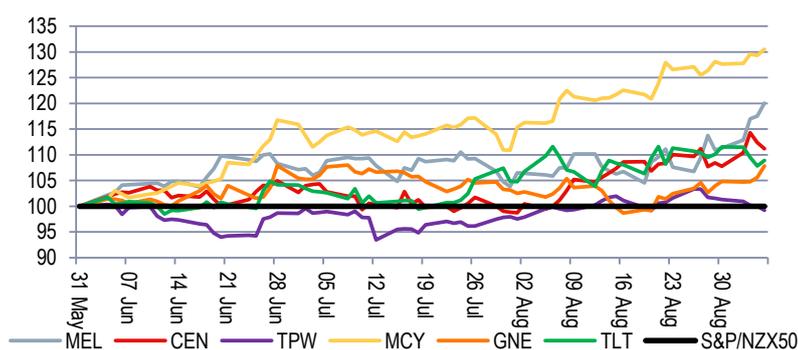
### Falling interest rates boost TPW valuation

We have increased our TPW target price +50cps (+6.7%) to \$8.00. Driving the increase in the target price is a +12.3% increase in our DCF valuation following changes to our risk free rate assumption (down to 2.0% from 2.75%).

### TPW lags other electricity stocks

The electricity sector has been a stand-out performer over the past year. However, over the past three months, TPW's share price has drifted sideways relative to the market, whereas its peers have increased between +8% and +30%. TPW's share price often lags the price movements of its peers due to its comparative lack of liquidity, however, it usually closes the gap eventually. Relative to other quality yield stocks, we believe TPW is offering good value.

**Figure 52. Electricity share price performances vs. S&P/NZX50**



Source: Eikon, Forsyth Barr analysis

NZX Code	TPW
Share price	NZ\$7.83
Target price	NZ\$8.00
Risk rating	Low
Issued shares	313.0m
Market cap	NZ\$2,451m
Average daily turnover	68.5k (NZ\$461k)

### Share Price Performance



Financials: March	19A	20E	21E	22E
NPAT* (NZ\$m)	116.6	105.1	107.5	109.9
EPS* (NZc)	37.1	33.5	34.2	35.0
EPS growth* (%)	-17.3	-9.8	2.3	2.2
DPS (NZc)	74.0	34.0	35.0	36.0
Imputation (%)	55	90	95	95

Valuation (x)	19A	20E	21E	22E
EV/EBITDA	13.4	14.6	14.4	14.1
EV/EBIT	17.0	18.4	18.0	17.6
PE	21.1	23.4	22.9	22.4
Price / NTA	2.1	2.2	2.2	n/a
Cash dividend yield (%)	9.5	4.3	4.5	4.6
Gross dividend yield (%)	11.5	5.9	6.1	6.3

\*Historic and forecast numbers based on underlying profits

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### Investment View

Our rating is **OUTPERFORM**. TPW is a quality business that will generate strong cash flows into the future, enabling an attractive dividend. Whilst TPW does not have the same generation development options as its peers, this will likely ensure shareholders continue to see strong dividends.



# Investment summary

**Our rating is OUTPERFORM. Trustpower (TPW) is a quality business that will generate strong cash flows into the future, enabling an attractive dividend. Whilst TPW does not have the same generation development options as its peers, this will likely ensure shareholders continue to see strong dividends.**

## Business quality

- **Low risk, modest growth industry:** Electricity demand is relatively inelastic and is expected to grow slowly in the future. The industry is well positioned to benefit from New Zealand decarbonising transport and industrial processes.
- **Diversified generation position:** Most of the value within the electricity sector lies within the generation assets. TPW has several small scale hydro generators positioned around New Zealand, creating hydro diversification.
- **Track record:** TPW has focussed on developing a bundled retail strategy, offering telco products alongside its energy products. Whilst retail earnings growth is modest, TPW is reducing churn and the telco product is driving most of its retail earnings growth.

## Earnings and cash flow outlook

- **Earnings growth modest and linked to margin growth:** TPW's future earnings growth is modest as it has no large-scale development projects planned in the near-term.
- **Operating cash flow strong but growth likely to be slow:** TPW has a strong track record of returning surplus cash to shareholders. Whilst there is unlikely to be strong ordinary dividend growth, we expect TPW to continue to pay fully imputed dividends.

## Company description

TPW is the smallest of the major electricity generator / retailers. It retails electricity to ~270,000 customers, gas to ~38,000 customers and telecommunication services to ~91,000 customers. TPW's bundled retail offering is unique amongst the large electricity retailers. TPW owns 36 small to medium sized hydro generation schemes, spread across both the North and South Island. TPW also owns 80% of generator King Country Energy (KCE).

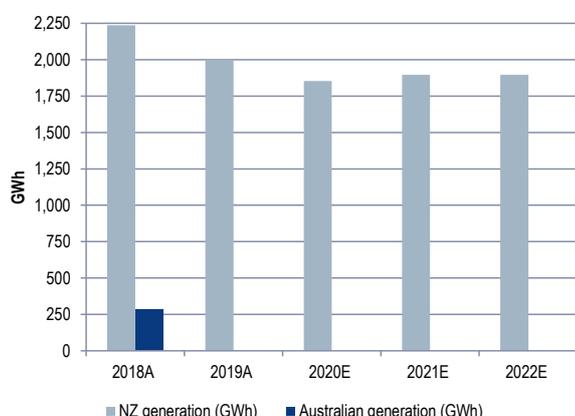
## Financial structure

- **Balance sheet:** Following two substantial special dividends paid in FY19, balance sheet headroom is limited, although in our view the balance sheet is not stretched. TPW has no near-term material investments planned.

## Key risks

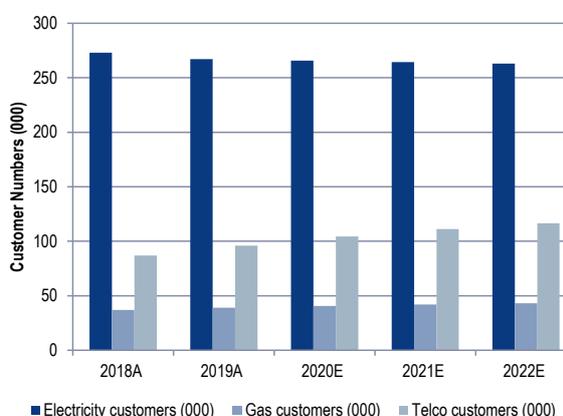
- **Regulatory risk:** Whilst the Electricity Price Review creates some uncertainty, we believe there is as much upside as downside risk, and in any case is unlikely to have a material impact on TPW.
- **Rising bond yields:** In recent years TPW has traded in line with bond yields. A lift in interest rates is likely to see TPW trade lower, although in our view interest rates are likely to remain low for the foreseeable future.

**Figure 53. Generation volumes**



Source: TPW, Forsyth Barr analysis

**Figure 54. Customer numbers**



Source: TPW, Forsyth Barr analysis



Forsyth Barr valuation						Valuation Ratios					
Valuation methodology						2018A	2019A	2020E	2021E	2022E	
Mix of market multiple and DCF						EV/EBITDA (x)	13.7	13.5	13.5	12.2	11.1
12-month target price (NZ\$)*						EV/EBIT (x)	31.8	29.5	31.6	25.7	23.1
Expected share price return	3.28	Spot valuations (NZ\$)				PE (x)	28.6	23.5	23.8	19.2	15.6
Net dividend yield	-10.1%	1. DCF	2.90			Price/NTA (x)	2.3	2.1	2.2	2.3	2.4
Estimated 12-month return	4.8%	2. Market multiple	3.24			Free cash flow yield (%)	4.3	4.3	4.9	5.8	6.8
	-5.4%	3. Dividend yield	3.66			Net dividend yield (%)	4.6	4.7	4.8	4.8	4.9
						Gross dividend yield (%)	6.1	6.5	6.6	6.6	6.7
Key WACC assumptions						DCF valuation summary (NZ\$m)					
Risk free rate	2.00%	Total firm value				4,220	Imputation (%)				
Equity beta	0.88	(Net debt)/cash				(1,256)	Pay-out ratio (%)				
WACC	6.7%	Value of equity				2,964					
Terminal growth	1.5%	Shares (m)				1,022					
Profit and Loss Account (NZ\$m)						Capital Structure					
Sales revenue	2018A	2019A	2020E	2021E	2022E	2018A	2019A	2020E	2021E	2022E	
Normalised EBITDA	361	363	367	406	446	Interest cover EBIT (x)	1.4	2.1	2.2	2.9	3.5
Depreciation and amortisation	(206)	(197)	(210)	(214)	(231)	Interest cover EBITDA (x)	4.9	5.0	5.1	6.2	7.3
Normalised EBIT	155	167	156	193	215	Net debt/ND+E (%)	37.7	35.5	37.2	36.7	35.6
Net interest	(74)	(73)	(72)	(65)	(61)	Net debt/EBITDA (x)	3.3	3.3	3.4	2.9	2.4
Associate income	-	-	-	-	-	Key Ratios					
Tax	(22)	(27)	(24)	(36)	(43)	Return on assets (%)	2.4	3.4	3.4	4.4	5.1
Depreciation capex adjustment	71	92	98	107	134	Return on equity (%)	3.0	3.1	2.9	4.5	5.6
Adjusted normalised NPAT	129	159	159	199	245	Return on funds employed (%)	3.6	3.6	3.4	4.3	5.1
Abnormals/other	(109)	(100)	(98)	(107)	(134)	EBITDA margin (%)	15.6	13.5	14.6	16.9	18.6
Reported NPAT	20	59	60	92	111	EBIT margin (%)	6.7	6.2	6.2	8.0	9.0
Normalised EPS (cps)	5.8	6.5	5.9	8.8	10.6	Capex to sales (%)	4.7	2.5	2.9	2.7	2.4
DPS (cps)	16.9	17.1	17.4	17.7	18.0	Capex to depreciation (%)	52	35	35	30	25
Growth Rates						Operating Performance					
Revenue (%)	2018A	2019A	2020E	2021E	2022E	2018A	2019A	2020E	2021E	2022E	
EBITDA (%)	18.1	17.2	-6.9	-4.2	-0.4	Renewable generation	3,084	2,835	2,683	2,717	2,717
EBIT (%)	8.4	0.8	1.0	10.7	9.9	Gas generation	3,392	2,586	2,791	2,783	2,783
Normalised NPAT (%)	-2.0	7.8	-6.3	23.2	11.5	Coal generation	657	1,410	900	876	876
Normalised EPS (%)	-18.9	23.5	-0.1	25.4	23.2	Total GNE generation (GWh)	7,133	6,831	6,375	6,377	6,377
DPS (%)	-19.6	21.8	-1.2	24.1	22.6	GWAP (\$/MWh)	92	143	115	107	101
	1.8	0.9	1.8	1.7	1.7	Coal used (tonnes)	348	720	466	453	453
Cash Flow (NZ\$m)						Total fixed price volumes (GWh)					
EBITDA	2018A	2019A	2020E	2021E	2022E	5,980	6,068	6,080	6,080	6,079	
Working capital change	361	363	367	406	446	Average MM usage/cust (kWh/yr)	8,240	8,126	8,186	8,227	8,257
Interest & tax paid	33	(27)	(2)	(10)	(8)	Average FPV price (\$/MWh)	206	207	211	213	215
Other	(120)	(123)	(109)	(117)	(128)	LWAP (\$/MWh)	92	139	116	108	101
Operating cash flow	(7)	17	-	-	-	LWAP/GWAP	1.01	0.97	1.01	1.01	1.01
Capital expenditure	266	231	256	279	311	Line losses (%)	5.3	5.4	5.5	5.5	5.5
(Acquisitions)/divestments	(108)	(69)	(74)	(64)	(57)	Retail gas customers (000)	106.2	107.1	107.7	108.2	108.7
Other	0	(0)	-	-	-	Retail gas volumes (PJ)	7.5	8.2	8.3	8.4	8.4
Funding available/(required)	159	162	182	215	254	Gas volume/cust (GJ/yr)	70.5	76.7	77.1	77.5	77.9
Dividends paid	(148)	(132)	(139)	(142)	(166)	LPG retail sales (tonnes)	35,005	38,507	41,954	45,536	48,014
Equity raised/(returned)	(1)	(1)	-	-	-	Kupe production					
Increase/(decrease) in net debt	(10)	(29)	(43)	(72)	(87)	Gas production (PJ)	11.8	11.8	10.5	10.0	11.5
Balance Sheet (NZ\$m)						Oil production (k barrels)	533	473	381	355	564
Working capital	2018A	2019A	2020E	2021E	2022E	LPG production (k tonnes)	45.9	50.6	45.2	42.4	47.8
Fixed assets	90	111	113	123	131	Kupe EBITDAF (\$m)	115	109	99	95	121
Intangibles	3,430	3,717	3,664	3,536	3,371	Energy EBITDAF (\$m)	245	255	268	311	325
Other assets	364	364	368	362	355	GNE EBITDAF (\$m)	361	363	367	406	446
Total funds employed	84	121	121	121	121						
Net debt/(cash)	3,968	4,313	4,266	4,142	3,978						
Other non current liabilities	1,206	1,228	1,272	1,216	1,130						
Shareholder's funds	806	934	921	905	881						
Minority interests	1,956	2,151	2,073	2,022	1,967						
Total funding sources	3,968	4,313	4,266	4,142	3,978						

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

Forsyth Barr valuation						Valuation Ratios						
Valuation methodology						2018A 2019A 2020E 2021E 2022E						
Mix of market multiple and DCF						EV/EBITDA (x)	23.3	18.7	20.4	20.5	20.2	
12-month target price (NZ\$)*						EV/EBIT (x)	39.0	27.8	34.1	33.9	32.6	
4.20	Spot valuations (NZ\$)					PE (x)	39.3	29.5	32.1	32.6	32.2	
Expected share price return	-24.2%	1. DCF				Price/NTA (x)	3.0	2.6	2.8	3.0	3.1	
Net dividend yield	3.9%	2. Market multiple				Free cash flow yield (%)	1.3	4.0	3.2	3.2	3.4	
Estimated 12-month return	-20.3%	3. Dividend yield				Net dividend yield (%)	3.5	3.8	3.9	3.9	3.7	
Key WACC assumptions						DCF valuation summary (NZ\$m)						
Risk free rate	2.00%	Total firm value				11,221	Imputation (%)	68	66	65	65	70
Equity beta	0.84	(Net debt)/cash				(1,424)	Pay-out ratio (%)	136	113	124	127	119
WACC	6.7%	Value of equity				9,797	Capital Structure					
Terminal growth	1.5%	Shares (m)				2,563	Interest cover EBIT (x)	4.7	6.6	5.4	5.2	5.2
Profit and Loss Account (NZ\$m)						2018A 2019A 2020E 2021E 2022E						
Sales revenue	3,297	4,104	3,531	3,443	3,458	Interest cover EBITDA (x)	8.2	10.1	9.3	9.0	8.8	
Normalised EBITDA	666	838	769	766	779	Net debt/ND+E (%)	23.2	20.7	23.0	25.1	27.1	
Depreciation and amortisation	(268)	(276)	(309)	(302)	(296)	Net debt/EBITDA (x)	2.2	1.7	2.0	2.1	2.2	
Normalised EBIT	398	562	460	464	483	Key Ratios						
Net interest	(81)	(83)	(82)	(86)	(88)	Return on assets (%)	4.4	5.7	4.7	4.9	5.2	
Associate income & other	(19)	(14)	(17)	(19)	(19)	Return on equity (%)	4.3	6.1	5.0	5.3	5.9	
Tax	(95)	(133)	(101)	(101)	(105)	Return on funds employed (%)	4.6	5.9	5.0	5.2	5.5	
Minority interests	-	-	-	-	-	EBITDA margin (%)	20.2	20.4	21.8	22.3	22.5	
Reported NPAT	203	332	259	259	270	EBIT margin (%)	12.1	13.7	13.0	13.5	14.0	
Abnormals/other	158	149	183	177	171	Capex to sales (%)	7.5	1.7	2.1	2.2	1.7	
Adjusted normalised NPAT	361	481	442	436	442	Capex to depreciation (%)	100	28	27	27	21	
Adjusted normalised EPS (cps)	14.1	18.8	17.3	17.0	17.2	Operating Statistics						
DPS (cps)	19.2	21.3	21.4	21.6	20.6	Hydro generation	11,266	12,326	12,035	11,701	11,701	
Growth Rates						Wind generation	1,263	1,244	1,460	1,474	1,474	
Revenue (%)	16.7	24.5	-14.0	-2.5	0.4	Total NZ generation (GWh)	12,528	13,570	13,494	13,175	13,175	
EBITDA (%)	1.4	25.8	-8.2	-0.4	1.7	GWAP (\$/MWh)	83.0	123.3	102.5	94.9	90.6	
EBIT (%)	1.3	41.2	-18.2	1.0	4.0	Overseas generation (GWh)	581	730	778	800	800	
Normalised NPAT (%)	-3.1	33.4	-8.1	-1.5	1.3	Overseas GWAP (\$/MWh) (NZD)	151	100	136	106	96	
Normalised EPS (%)	-3.1	33.4	-8.1	-1.5	1.3	Overseas customer numbers (000)	97	110	127	143	153	
DPS (%)	1.5	10.9	0.4	0.9	-4.6	Powershop customers (000)	66	74	74	76	77	
Cash Flow (NZ\$m)						Meridian branded customers (000)	225	228	228	233	237	
EBITDA	666	838	769	766	779	NZ electricity customers (000)	291	302	302	308	315	
Working capital change	(34)	(36)	6	12	16	Average usage per cust (MWh/yr)	13.5	13.2	13.1	13.1	13.1	
Interest & tax paid	(186)	(200)	(224)	(227)	(235)	Mass market volumes	3,824	3,901	3,952	3,995	4,079	
Other	(19)	33	(17)	(19)	(19)	Time of use volumes	2,157	2,338	2,508	2,528	2,548	
Operating cash flow	427	635	533	532	541	Total fixed price volumes (GWh)	5,981	6,239	6,460	6,523	6,627	
Capital expenditure	(247)	(69)	(75)	(76)	(58)	NZAS sales	5,011	5,310	5,464	5,449	5,449	
(Acquisitions)/divestments	23	-	-	-	-	Sell CFDs	2,278	2,239	2,195	2,195	2,195	
Other	-	-	-	-	-	Buy CFDs	-2,222	-1,965	-1,938	-1,740	-1,740	
Funding available/(required)	203	566	458	456	483	Total Sales (GWh)	11,047	11,823	12,181	12,426	12,531	
Dividends paid	(486)	(500)	(569)	(550)	(556)	Average FPV price (\$/MWh)	105.2	104.8	106.2	108.3	110.5	
Equity raised/(returned)	(2)	(2)	-	-	-	LWAP (\$/MWh)	88	132	111	101	98	
Increase/(decrease) in net debt	285	(64)	111	95	73	LWAP/GWAP	1.06	1.07	1.09	1.07	1.08	
Balance Sheet (NZ\$m)						Lines losses (%)	5.3	5.9	5.2	5.2	5.2	
Working capital	(17)	(24)	(13)	(6)	(3)	New Zealand Energy Margin (\$m)	944	1,108	1,022	1,013	1,013	
Fixed assets	7,941	8,825	8,599	8,377	8,139	Overseas Energy Margin (\$m)	86	118	124	115	114	
Intangibles	60	59	51	47	47	Meridian Energy Margin (\$m)	1,030	1,226	1,146	1,128	1,127	
Other assets	291	383	366	347	328							
Total funds employed	8,275	9,243	9,003	8,766	8,511							
Net debt/(cash)	1,461	1,424	1,535	1,630	1,703							
Other non current liabilities	1,991	2,362	2,321	2,280	2,238							
Shareholder's funds	4,823	5,457	5,147	4,856	4,571							
Minority interests	-	-	-	-	-							
Total funding sources	8,275	9,243	9,003	8,766	8,511							

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



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