

Electricity Sector

Tiwa Transmission Cure to Take Time

Andrew Harvey-Green

andrew.harvey-green@forsythbarr.co.nz

+64 4 495 8185

We are upgrading one notch the rating of all of the four large generator/retailers. Contact Energy (CEN) and Genesis Energy (GNE) are upgraded to OUTPERFORM, Mercury (MCY) and Meridian Energy (MEL) are upgraded to NEUTRAL. The driver of the rating changes has been the significant market reaction to Rio Tinto's (RIO) announcement that it is undertaking a strategic review and our view that the risk of closure is small (less than 10%).

Modest target price changes, with MEL and CEN to take a hit regardless of the outcome of negotiations

We have lowered our target prices between -0.4% and -3.3% for the risk associated with NZAS closing. The changes reflect:

- A likely cut in earnings to MEL (-\$13.0m) and CEN (-\$4.5m) as we expect them to offer a lower price to NZAS, which will be accepted. We do not expect the other generator/retailers to offer a price reduction.
- Lower ASX future electricity prices. ASX futures have fallen modestly reflecting a combination of closure risk and expected lower wholesale prices if closure occurs.
- Modest value adjustment for residual factors, risk weighted to 20%.

The share price reaction following the RIO announcement has been -12%, -14% and -15% for MCY, CEN and MEL respectively. Whilst MSCI speculation is also a factor, in our view the share price movements are overdone, either creating a buying opportunity or reducing the premium the stocks had been trading at.

Figure 1. Target price and rating changes

	Target Price			Rating		
	Old	New	% Chg	Old	New	Chg
CEN	\$8.22	\$8.03	-2.3%	NEUTRAL	OUTPERFORM	▲
GNE	\$3.28	\$3.23	-1.5%	NEUTRAL	OUTPERFORM	▲
MCY	\$4.55	\$4.53	-0.4%	UNDERPERFORM	NEUTRAL	▲
MEL	\$4.25	\$4.11	-3.3%	UNDERPERFORM	NEUTRAL	▲

Source: Forsyth Barr analysis

Closer look at transmission issues

A key issue for MEL and CEN is how quickly can transmission constraints be relieved. If NZAS closes, we estimate 1/3 of hydro generation that was otherwise going to the smelter will be spilt. Transpower's Lower South Island grid upgrade will take ~3 years to complete and during that time CEN and MEL will be the worst affected. Eliminating constraints further north is likely to take longer as Transpower has yet to get regulatory approval for those upgrades.

Further detail on the transmission issues and constraints are noted in the body of the report.

Investment View

The share price reaction to the potential closure of NZAS has created buying opportunities in the electricity sector. We believe the risk of closure is low (less than 10%) and that CEN, GNE and Trustpower (TPW) all offer good value at present (OUTPERFORM). We are NEUTRAL on MCY and MEL.

Incorporating NZAS Smelter Closure Risk into Target Prices

Forecast changes

We have built in forecast changes for the smelter closing, accounting for:

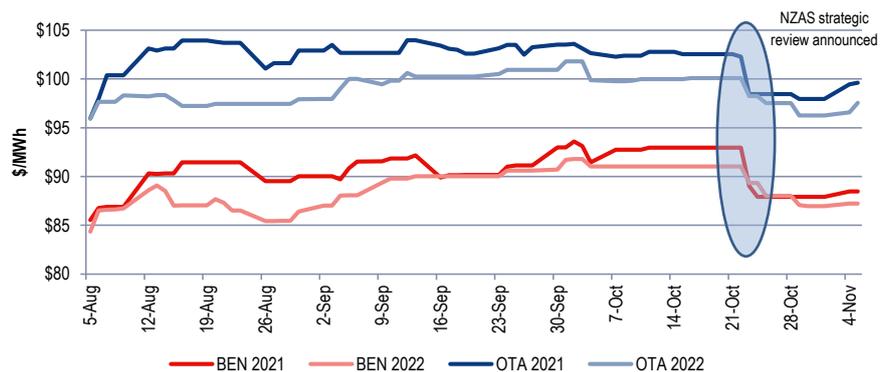
- The likely downward effects on wholesale electricity prices
- A probable discounted offer MEL and CEN will make to NZAS

Use of ASX Futures curve

The primary impact for the whole electricity market will be seen in a reduction in wholesale electricity prices, which will flow through to retail and commercial prices. We believe the effects will be temporary, with the closure of thermal plant in the North Island and transmission work relieving constraints. However, the reduction in electricity prices will likely lower electricity prices for at least three years.

The ASX electricity futures prices are the best market indication of the potential impact on wholesale electricity prices, and also incorporate the chance of NZAS closing. Based on the strategic review timeline and one year notice period, the earliest NZAS could reasonably be expected to close is 1 April 2021. Our analysis of the ASX futures price curve show that following an initial downwards movement after the 23 October announcement ASX price curves have not moved materially, and in the past few days have actually increased again. That said, we note only limited volumes have transacted.

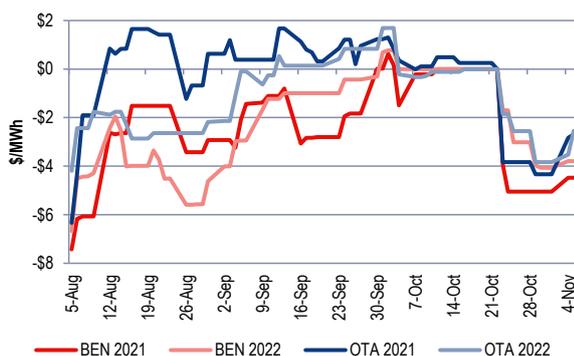
Figure 2. ASX electricity future prices (annual)



Source: IRESS, Forsyth Barr analysis

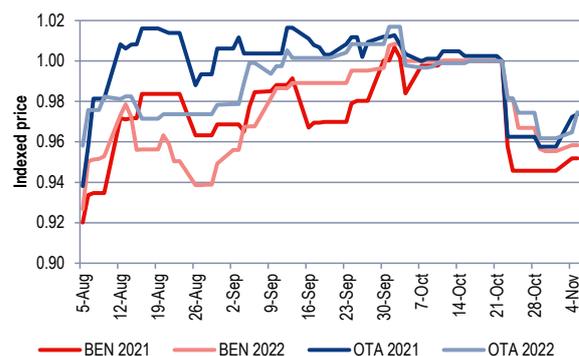
The price movement is greatest at Benmore (BEN), as would be expected given South Island prices will be affected the most by NZAS closing. However, the BEN 2021 price is only -5% (-\$4/MWh) lower. The Otahuhu (OTA) price is currently only -3% (-\$3/MWh) down on the pre-NZAS announcement price. In addition, both BEN and OTA prices are higher than they were three months ago.

Figure 3. Price movement vs. 22 October



Source: IRESS, Forsyth Barr analysis

Figure 4. Price movements indexed to 22 October



Source: IRESS, Forsyth Barr analysis

We use the new lower future electricity prices as a basis for our electricity forecasts.

MEL and CEN likely to offer something to NZAS

MEL and CEN are the companies likely to be most impacted by NZAS closure, particularly in the short-term. We, therefore, expect both companies to offer a modest price cut to NZAS. We do not expect the other large three players, GNE, MCY or TPW to offer anything to NZAS. Whilst they offered modest support three years ago and again last year when NZAS increased its contracted electricity +50MW, given these three companies are the least affected by NZAS closing, we expect them to leave CEN and MEL to do the heavy lifting.

We have made a base assumption that CEN and MEL offer to reduce their energy prices -\$5/MWh and -\$3/MWh respectively, which equates to a reduction in CEN EBITDAF of ~-\$4.5m, and MEL ~-\$13.0m, a total gain of +\$17.5m per annum for NZAS. We assume CEN offers a slightly larger price reduction because the downside impact for CEN is still material, with the absolute EBITDAF impact closer to the relative value impact. Whilst ~\$17.5m is well short of what we expect NZAS is seeking, we would be surprised if NZAS does not accept whatever is offered (i.e. we expect MEL and CEN will have lower earnings after the NZAS strategic review process, regardless of the outcome).

Politics will be crucial in final offer to NZAS

High transmission prices appear to be at the heart of NZAS's complaint about delivered electricity prices. However, it is hard to see the regulator or the Government cutting across the current regulatory process. That means a political solution will be required to bridge any gap between what NZAS will accept as a minimum (which based on our analysis of the current economics of the smelter shouldn't be much) and what MEL and CEN will offer.

Whilst Minister Megan Woods has indicated there will be no offers to NZAS, NZ First leader Winston Peters appears to be more conciliatory. The regional growth fund is the obvious source of funds to help bridge any gap. The internal coalition politics is, therefore, likely to play a key role in the outcome of smelter negotiations.

Additional value adjustments

In addition to the direct adjustments to our forecasts for lower wholesale electricity prices and possible offers that MEL and CEN will make to NZAS, we have made an additional discount based on the expected value at risk from NZAS closure. We use a risk weighting of 20% for the probability NZAS will actually close (note that this is conservative as we believe the chance of closure is less than 10%). The value discount is based on the high level analysis presented in our report *RIO Cries "Wolf"* published on 25 October.

Target price movements factor in the low closure risk

Our target price movements are a function of incorporating the ASX futures curve into our forecasts, specific lower NZAS revenue for CEN and MEL as well as a modest risk-weighted (20%) discount for closure.

Figure 5. Value and target price changes

	Estimated indirect value impact (risk weighted)		Direct NZAS support			Target price change	
	\$m	\$/share	Annual \$m	Value \$m	\$/share	\$/share	% change
CEN	(83)	-\$0.12	(4.5)	(54)	-\$0.08	-\$0.19	-2.3%
GNE	(56)	-\$0.05	0.0	0	\$0.00	-\$0.05	-1.6%
MCY	(46)	-\$0.03	0.0	0	\$0.00	-\$0.02	-0.4%
MEL	(211)	-\$0.08	(13.0)	(156)	-\$0.06	-\$0.14	-3.4%

Source: Forsyth Barr analysis

Note: The MCY target price reduction has been partially offset by the recent increase in out TLT valuation (target price up +\$0.20 to \$3.00)

Share price movements overdone

Generator/retailer share price movements have been dramatic post the NZAS announcement. However, it is a complex situation, with MSCI index changes and continued low interest rates also influencing the generator/retailer share prices. Whilst MEL has seen the largest declines in its share price, from our perspective it was starting from an elevated valuation starting point, hence, most of the fall in its share price closes the gap to our underlying valuation.

Figure 6. Share price movements post-NZAS strategic review announcement

	Share price as at		Price movement	
	22-Oct	6-Nov	\$	%
CEN	\$8.52	\$7.33	-\$1.19	-14.0%
GNE	\$3.26	\$3.16	-\$0.11	-3.2%
MCY	\$5.45	\$4.79	-\$0.66	-12.1%
MEL	\$5.42	\$4.60	-\$0.82	-15.1%
TPW	\$8.60	\$8.26	-\$0.34	-4.0%

Source: IRESS, Forsyth Barr analysis

With share price movements overdone, we are upgrading CEN and GNE to OUTPERFORM from NEUTRAL and upgrading MCY and MEL to NEUTRAL from UNDERPERFORM.

Transmission constraint removal will take time

Critical to the rebalancing of the wholesale electricity market is transmission investment to relieve transmission constraints that will appear following NZAS closure. The transmission grid has been developed with major generation and load centres in mind. Whilst it is designed to generally move electricity north, the closure of NZAS would create constraints between Clutha and the Waitaki Valley. Just like debottlenecking roads moves the choke point elsewhere, the same occurs with transmission. Debottlenecking the lower South Island would in turn create constraints on the interisland HVDC link and then further north in the Central North Island.

There are three core transmission upgrades required to completely “unblock” all transmission constraints to enable electricity to flow from the far south to the far north.

- Lower South Island upgrade
- Increased HVDC link capacity
- Central North Island grid upgrade

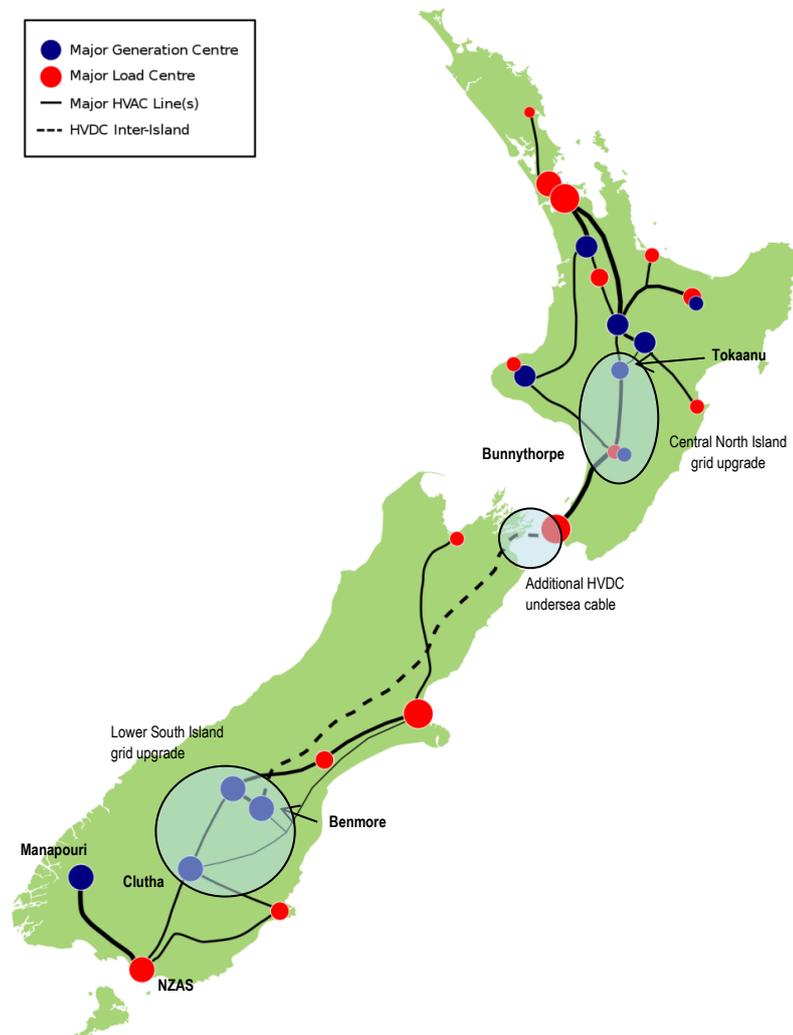
Figure 7. Summary of grid upgrades required

Project	Description	Time to complete	Estimated cost	Regulatory approval
Lower South Island	Upgrade of 220kV lines between Clutha and Waitaki to enable Manapouri (MEL) and Clutha River (CEN) generation to reach Benmore, the southern HVDC interisland link terminal.	3 years	\$100m	Yes
HVDC link	Increase HVDC capacity by installing a fourth undersea cable. Current operating capacity is ~900MW due to reserves requirements (although the physical capacity is 1,200MW). A fourth cable in theory would allow HVDC physical and operating capacity to increase to 1,400MW.	5 - 8 years	\$150m	No
Central North Island	Upgrade 220kV lines between Bunnythorpe (Palmerston North) and Tokannu (southern end of Lake Taupo) to enable South Island generation to reach the upper North Island.	5 - 8 years	\$350m	No
		5 to 8 years	\$600m	

Source: Transpower, Forsyth Barr analysis

It is important to note that the EA has already approved the Lower South Island upgrade, reducing the lead time for Transpower to complete that work. However, an extra cable on the HVDC link and the Central North Island upgrade have not been approved and Transpower has not yet completed the work to assess what the best solution is. Whilst Transpower is undertaking the required analysis to replace the undersea cables in the middle of the 2020's (and it would be logical to lay an extra cable at that time), it has yet to submit a proposal to the EA for approval.

Figure 8. NZ transmission grid (simplified) and grid upgrade locations



Source: LC Mortensen, Forsyth Barr analysis

Estimated transmission constraint effects

MEL’s Manapouri and CEN’s Clutha hydro schemes will be the most impacted from NZAS closing, until transmission constraints are relieved. The effects are twofold — first, more water will be spilled. Second, wholesale electricity prices will fall. Initially there will be price variances between the lower South Island, the rest of the South Island and the North Island. Once the initial lower South Island work has been completed, the price separation will be North Island/South Island across the HVDC link.

Figure 9 over the page estimates the amount of hydro generation that will be spilt until transmission constraints are relieved. Note, the analysis is based on an average hydrological year — during wet periods more water will be spilled and during dry periods there may be no water spilt.

The estimated generation curtailment is initially between -1,500GWh and -2,000GWh. The current line capacity out of the lower South Island is ~600MW, which equates to ~5,250GWh per annum. The lower South Island grid upgrade project will roughly double line capacity, ensuring in all but very wet conditions, all of the Manapouri and Clutha generation should be able to be exported.

Figure 9. Estimated impact of transmission constraints

	NZAS open GWh	NZAS closed, transmission constraints bind GWh	Lower SI transmission constraints resolved GWh
Average annual Manapouri generation	4,850	4,850	4,850
Average annual Clutha generation	3,900	3,900	3,900
Average annual White Hills wind farm generation	180	180	180
Average annual other lower SI generation (estimated)	450	450	450
Total large scale generation in lower SI	9,380	9,380	9,380
NZAS demand	(5,250)	0	0
Other Southland/Otago demand	(2,350)	(2,350)	(2,350)
Electricity exported north from Lower SI	(1,780)	(5,250)	(7,030)
Electricity hydro generation "spilt"	0	1,780	0

Source: Forsyth Barr analysis

Note: this analysis is based on average hydrological conditions. Contract NZAS demand is 622MW, however, it is currently only using ~600MW

The alternative to building new transmission is building new generation closer to the load. Whilst the lower South Island work will clearly go ahead, the economics for upgrading the HVDC are less certain.

The HVDC upgrade is more about increasing peak capacity than it is transmitting further energy north. We estimate that the cost of building the extra notional 500MW of capacity across the HVDC link (and then further north) is ~\$1.0m/MW, which compares favourably with new gas-peaking generation (particularly when there is no fuel cost). We would, therefore, expect all of the transmission upgrades to go ahead.

Transpower has published details of the transmission upgrades required (based on existing information) here:

<https://www.transpower.co.nz/clutha-upper-waitaki-lines-project-and-tiwai-future-faqs>

Contact Energy

OUTPERFORM

NZAS Creates Opportunity

Following the announcement that Rio Tinto (RIO) is undertaking a strategic review of NZAS, Contact Energy's (CEN) share price has declined -14%, which in our view is overdone such we are upgrading our rating to **OUTPERFORM**. Whilst NZAS closure would be a negative, we view that outcome as unlikely (less than 10%) and the share price reaction an overreaction.

What's changed?

- **Earnings:** FY20/FY21 EBITDAF -\$1m/- \$8m lower to \$466m/\$483m
- **Target Price:** Reduced -19cps (-2.3%) to \$8.03
- **Rating:** Upgraded to **OUTPERFORM**

Upgrade following significant share price fall

CEN's share price has dropped -14% following the announcement on 23 October than NZAS is undergoing a strategic review. Whilst we recognise there is downside risk to CEN, we view the risk of closure as unlikely. In addition, if NZAS were to close, over time we expect the electricity market to adjust, such that the negative effects of closure would be temporary. Nevertheless, until transmission constraints are resolved, CEN will face reduced generation volume and lower wholesale electricity prices, particularly in the lower South Island. Recognising the value impact of these risks, we have lowered our target price -19cps (-2.3%, 20% risk weighting for NZAS closing) to \$8.03. However, that is materially less than the share price reaction, hence, we believe CEN is currently offering the best value amongst the generator/retailers and we are upgrading our rating to **OUTPERFORM** from **NEUTRAL**.

CEN expected to offer some support to NZAS

With CEN one of the most affected if NZAS were to close, we expect it will offer a lower electricity price and that NZAS will accept the offer. This is the best case scenario. Our assumption is that it will offer to reduce its price -\$5/MWh, which equates to ~\$4.5m.

Tauhara geothermal development option to go on the back-burner

An indirect effect of NZAS threatening to close is the delay of new developments. However, with drilling at Tauhara currently delayed due to issues with the drilling rig and a decision on whether to go ahead with the project scheduled for after the NZAS strategic review, we do not see this as a significant issue for CEN.

Share price fall likely exacerbated by MSCI Index

Prior to the NZAS announcement, CEN had a better than even chance of entering the MSCI Index. However, we now seen that as unlikely (less than 20% chance) and hence we suspect part of the share price fall is investors who had bet on CEN's inclusion in the Index selling.

Investment View

Our rating is **OUTPERFORM**. We view CEN as offering the best value amongst the generator/retailers. We believe the NZAS closure risk is more than priced into the share price. CEN is offering an attractive dividend yield and has one of the best potential development projects (Tauhara) in the country.

NZX Code	CEN
Share price	NZ\$7.33
Target price	NZ\$8.03
Risk rating	Low
Issued shares	715.5m
Market cap	NZ\$5,245m
Average daily turnover	1,207k (NZ\$8,492k)

Share Price Performance



Financials: June	19A	20E	21E	22E
NPAT* (NZ\$m)	280.4	248.0	259.0	263.2
EPS* (NZc)	39.2	34.7	36.2	36.8
EPS growth* (%)	23.4	-11.5	4.4	1.6
DPS (NZc)	39.0	39.0	39.5	40.0
Imputation (%)	64	60	70	75

Valuation (x)	19A	20E	21E	22E
EV/EBITDA	12.4	13.3	12.8	12.7
EV/EBIT	20.6	23.5	22.0	21.3
PE	18.7	21.2	20.3	19.9
Price / NTA	2.2	2.4	2.5	n/a
Cash dividend yield (%)	5.3	5.3	5.4	5.5
Gross dividend yield (%)	6.6	6.6	6.9	7.0

*Historic and forecast numbers based on underlying profits

Andrew Harvey-Green

andrew.harvey-green@forsythbarr.co.nz

+64 4 495 8185

Contact Energy Limited (CEN)

Priced as at 06 Nov 2019: NZ\$7.33

June year end

Forsyth Barr valuation		Valuation Ratios					2018A	2019A	2020E	2021E	2022E
Valuation methodology	Blend of spot valuations, weighted to multiples	EV/EBITDA (x)	14.1	12.4	13.3	12.8	12.7				
		EV/EBIT (x)	26.0	20.6	23.5	22.0	21.3				
12-month target price (NZ\$)*	8.03	Spot valuations (NZ\$)	PE (x)	23.1	18.7	21.2	20.3	19.9			
Expected share price return	9.5%	1. DCF	7.19	Price/NTA (x)	2.3	2.2	2.4	2.5	2.6		
Net dividend yield	5.3%	2. Market multiples	7.99	Free cash flow yield (%)	5.7	6.4	4.7	5.5	5.6		
Estimated 12-month return	14.9%	3. Dividend yield	8.89	Net dividend yield (%)	4.4	5.3	5.3	5.4	5.5		
				Gross dividend yield (%)	5.2	6.6	6.6	6.9	7.0		
Key WACC assumptions		DCF valuation summary (NZ\$m)		Imputation (%)	48	64	60	70	75		
Risk free rate	2.00%	Total firm value	6,336	Pay-out ratio (%)	101	100	113	109	109		
Equity beta	0.88	(Net debt)/cash	(1,108)								
WACC	6.6%	Value of equity	5,228	Capital Structure	2018A	2019A	2020E	2021E	2022E		
Terminal growth	1.5%	Shares (m)	716	Interest cover EBIT (x)	3.3	4.8	5.0	5.3	5.4		
				Interest cover EBITDA (x)	5.7	7.4	8.0	8.2	8.4		
Profit and Loss Account (NZ\$m)	2018A	2019A	2020E	2021E	2022E	Net debt/ND+E (%)	34.7	25.3	26.8	27.6	28.3
Sales revenue	2,275	2,519	2,363	2,273	2,231	Net debt/EBITDA (x)	3.0	1.8	2.1	2.0	2.0
Normalised EBITDA	479	518	466	483	490						
Depreciation and amortisation	(220)	(205)	(202)	(201)	(199)	Key Ratios	2018A	2019A	2020E	2021E	2022E
Normalised EBIT	259	313	264	282	291	Return on assets (%)	4.9	9.8	5.4	6.0	6.4
Net interest	(84)	(70)	(58)	(59)	(58)	Return on equity (%)	4.7	6.3	5.6	6.3	6.9
Depreciation capex adjustment	99	104	100	98	96	Return on funds employed (%)	4.5	9.4	5.2	5.8	6.2
Tax	(48)	(72)	(58)	(63)	(65)	EBITDA margin (%)	21.1	20.6	19.7	21.3	22.0
Minority interests	-	-	-	-	-	EBIT margin (%)	11.4	12.4	11.2	12.4	13.0
Adjusted normalised NPAT	227	280	248	259	263	Capex to sales (%)	3.6	2.5	3.9	2.9	3.0
Abnormals/other	(97)	65	(100)	(98)	(96)	Capex to depreciation (%)	37	31	46	32	33
Reported NPAT	130	345	148	161	167						
Normalised EPS (cps)	31.7	39.2	34.7	36.2	36.8	Operating Performance	2018A	2019A	2020E	2021E	2022E
DPS (cps)	32.0	39.0	39.0	39.5	40.0	Divisional Revenue (\$m)					
						Wholesale electricity	1,157	1,463	1,336	1,215	1,146
Growth Rates	2018A	2019A	2020E	2021E	2022E	Retail electricity	883	863	873	890	905
Revenue (%)	9.4	10.7	-6.2	-3.8	-1.8	Retail gas sales	71	73	81	83	86
EBITDA (%)	-4.4	8.1	-10.1	3.8	1.4	LPG sales	121	58	-	-	-
EBIT (%)	-11.6	20.8	-15.8	7.2	3.1	Other	31	32	33	33	33
Normalised NPAT (%)	9.1	23.4	-11.5	4.4	1.6	Total Revenue	2,263	2,489	2,323	2,221	2,170
Normalised EPS (%)	9.1	23.4	-11.5	4.4	1.6						
DPS (%)	23.1	21.9	0.0	1.3	1.3	Operating Statistics					
						Hydro generation (GWh)	3,479	4,232	3,722	3,887	3,887
Cash Flow (NZ\$m)	2018A	2019A	2020E	2021E	2022E	Geothermal generation (GWh)	3,323	3,257	3,346	3,346	3,346
EBITDA	479	518	466	483	490	Thermal generation (GWh)	1,812	1,422	1,694	1,704	1,784
Working capital change	38	(19)	(6)	(6)	(1)	Total Generation (GWh)	8,614	8,911	8,763	8,937	9,018
Interest & tax paid	(111)	(112)	(117)	(126)	(131)	GWAP (\$/MWh)	85	129	121	98	88
Other	(27)	14	-	-	-	Gas consumed (PJ)	17.5	13.9	16.1	16.1	16.9
Operating cash flow	379	401	342	351	358	Gas price (\$/GJ)	6.1	7.1	7.2	7.3	7.4
Capital expenditure	(82)	(63)	(93)	(65)	(66)	Retail electricity volumes (GWh)	6,997	6,554	6,108	6,234	6,229
(Acquisitions)/divestments	6	382	-	-	-	Electricity customers (000)	413	411	411	408	406
Other	(7)	-	-	-	-	Average usage/customer (MWh)	8.7	8.6	8.6	8.6	8.7
Funding available/(required)	296	720	249	286	292	Average retail price (\$/MWh)	242	244	247	252	257
Dividends paid	(201)	(251)	(279)	(279)	(283)						
Equity raised/(returned)	1	-	-	-	-	Balance Sheet (NZ\$m)	2018A	2019A	2020E	2021E	2022E
Increase/(decrease) in net debt	(96)	(469)	30	(7)	(9)	Working capital	(22)	(3)	3	9	11
						Fixed assets	4,253	4,126	4,017	3,881	3,748
						Intangibles	441	425	425	425	425
						Other assets	404	132	132	132	132
						Total funds employed	5,076	4,680	4,577	4,447	4,316
						Net debt/(cash)	1,448	943	973	966	957
						Other non current liabilities	901	955	950	941	931
						Shareholder's funds	2,727	2,782	2,654	2,540	2,428
						Minority interests	-	-	-	-	-
						Total funding sources	5,076	4,680	4,577	4,447	4,316

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

Summary forecast changes

Figure 10. Summary forecast changes

	FY20			FY21			FY22		
	Old	New	% chg	Old	New	% chg	Old	New	% chg
Revenue	2,371	2,363	-0.4%	2,292	2,273	-0.8%	2,272	2,231	-1.8%
EBITDAF	467	466	-0.3%	491	483	-1.6%	502	490	-2.4%
EBIT	265	264	-0.5%	290	282	-2.7%	303	291	-4.0%
Reported NPAT	149	148	-0.6%	167	161	-3.6%	177	167	-5.3%
Normalised NPAT	149	148	-0.6%	167	161	-3.6%	177	167	-5.3%
Adjusted NPAT	249	248	-0.4%	265	259	-2.2%	272	263	-3.4%
EPS	34.8	34.7	-0.4%	37.0	36.2	-2.3%	38.1	36.8	-3.4%
DPS	39.0	39.0	0.0%	39.5	39.5	0.0%	40.0	40.0	0.0%
Generation (GWh)	8,763	8,763	0.0%	8,937	8,937	0.0%	9,018	9,018	0.0%
Electricity Wholesale Price (\$/MWh)	\$122.2	\$121.2	-0.8%	\$100.2	\$98.0	-2.2%	\$93.0	\$88.4	-4.9%
Retail Demand (GWh)	6,108	6,108	0.0%	6,234	6,234	0.0%	6,229	6,229	0.0%

Source: Forsyth Barr analysis

Investment summary

Our rating is **OUTPERFORM**. We view **Contact Energy (CEN)** as offering the best value amongst the generator/retailers. We believe the **NZAS** closure risk is more than priced into the share price. **CEN** is offering an attractive dividend yield and has one of the best potential development projects (**Tauhara**) in the country.

Key drivers

- **Wholesale electricity prices and the electricity demand/supply balance:** The wholesale electricity price is the key driver of retail and commercial prices and therefore the key value driver. The electricity demand/supply balance and the cost of new generation underpin the wholesale price. Currently the NZ market is balanced.
- **Retail margins:** In recent years intense retail competition and new entrant retailers have eroded retail margins. Strong margins support profitability.
- **Hydrology:** Short-term earnings are impacted by hydrology. CEN prefers wet conditions as it lowers its average cost of generation. However, CEN's thermal fleet provides it with some downside protection from dry conditions.

Other key company and industry issues

- **Increased carbon costs:** Following changes to the Emissions Trading Scheme, CEN has to relinquish more carbon credits and carbon prices have increased materially. This is a modest headwind for FY20.

Upcoming catalysts/events

- **Geothermal development:** CEN has one of the best generation development opportunities in its Tauhara geothermal field. With modest electricity demand growth expected and CEN likely to close its base-load gas plant within three years, there is a strong chance it develops this field.
- **Success of cost-out:** CEN has successfully removed operating and capital costs over the past four years. It believes additional cost-out opportunities exist; delivering on these will be important for earnings.

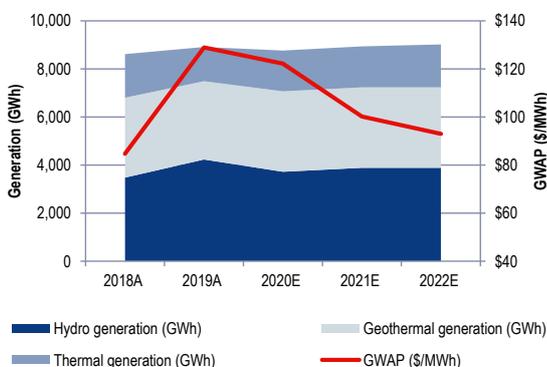
Key risks

- **Political/regulatory:** The 2014 election and recent Electricity Price Review (EPR) highlighted the political/regulatory risks inherent in the sector. Whilst the EPR gave the sector a thumbs up in most areas, the political risk is unlikely to ever disappear.
- **NZAS risk:** NZAS has indicated it is undertaking a strategic review, raising the possibility it may close. In our view, the smelter is unlikely to close (less than 10% chance) and the downside risks are fully factored into the share price.

Company description

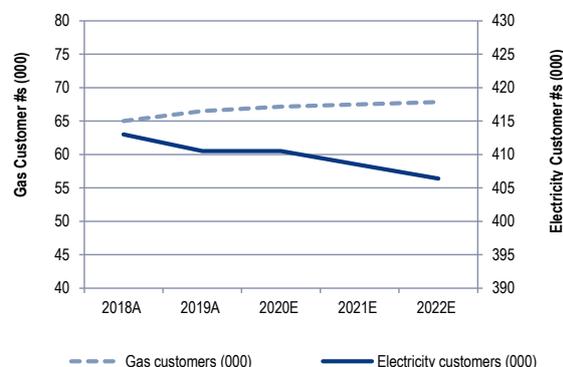
CEN generates around 25% of New Zealand's electricity and supplies electricity, gas and LPG to ~560,000 customers nationwide. Its generation portfolio consists of gas (a combined-cycle gas turbine and a gas-peaking plant), hydro (on the Clutha River in the South Island) and geothermal (in the central North Island). CEN typically produces ~8,800 GWh of electricity per annum and sells ~7,800 GWh of electricity, around half of which is sold to mass market customers. CEN produces strong cash flows which it intends to return to shareholders.

Figure 11. Generation volumes and average generation price



Source: CEN, Forsyth Barr analysis

Figure 12. Customer numbers



Source: CEN, Forsyth Barr analysis

Genesis Energy

OUTPERFORM

Retail Tracking Well, Generation Less So

We are upgrading our Genesis Energy (GNE) rating to **OUTPERFORM** as we believe recent share price falls are overdone. GNE will be one of the least affected generator/retailers in the unlikely event that NZAS closes.

What's changed?

- **Earnings:** FY20/FY21 EBITDAF -\$2m/+\$4m to \$365m/\$410m
- **Target Price:** Lowered -5cps (-1.3%) to \$3.23
- **Rating:** Upgraded to OUTPERFORM

NZAS risk relatively low for GNE

Compared to 2013, GNE's NZAS closure risks are materially lower. By the time lower South Island transmission constraints are removed (~2024), GNE will have very little contracted take or pay gas. In addition, it has no generation behind the initial lower South Island transmission constraint, so does not face spill risk. That said, we expect NZAS closure would result in GNE closing its Rankine units and running Unit 5 more as a peaking plant earlier than originally planned — there will be some modest costs associated with this. With GNE having a relatively low risk to NZAS closure, we do not expect it will be providing any price support to lower the risk of NZAS closing.

The modest value risks associated with NZAS closing have lowered our target price -5cps (-1.3%, risk weighting of NZAS closing of 20%) to \$3.23.

Mixed 1Q20 operating statistics

On the positive side, retail margins are growing faster at GNE than any other generator/retailer, across all products. However, low cost hydro generation was soft in 1Q20 and thermal generation volumes and costs higher than expected. We estimate that due to the high priced imported coal in the stockpile, the Rankine coal units cost more than \$130/MWh to run in 1Q20, higher than the average generation price received.

Our FY20 EBITDAF forecast is -\$2m lower to \$365m, however, the higher than expected retail margins result in modest earnings growth in FY21 and beyond.

NZX Code	GNE
Share price	NZ\$3.16
Target price	NZ\$3.23
Risk rating	Low
Issued shares	1029.4m
Market cap	NZ\$3,248m
Average daily turnover	494.6k (NZ\$1,541k)

Share Price Performance



Financials: June	19A	20E	21E	22E
NPAT* (NZ\$m)	158.9	157.3	201.4	249.7
EPS* (NZc)	15.5	15.2	19.3	23.7
EPS growth* (%)	21.7	-2.1	26.7	23.3
DPS (NZc)	17.1	17.4	17.7	18.0
Imputation (%)	80	90	95	95

Valuation (x)	19A	20E	21E	22E
EV/EBITDA	12.2	12.2	10.9	9.9
EV/EBIT	26.6	28.8	22.8	20.2
PE	20.3	20.8	16.4	13.3
Price / NTA	1.8	1.9	2.0	n/a
Cash dividend yield (%)	5.4	5.5	5.6	5.7
Gross dividend yield (%)	7.1	7.4	7.7	7.8

*Historic and forecast numbers based on underlying profits

Andrew Harvey-Green

andrew.harvey-green@forsythbarr.co.nz

+64 4 495 8185

Investment View

Our rating is **OUTPERFORM**. GNE is trading on the sector leading dividend yield and market multiples. It also has the strongest near-term growth profile, aided by high cost gas contracts rolling off from FY21 onwards. Its downside risks to NZAS closing are also amongst the lowest in the sector.

Genesis Energy Limited (GNE)

Priced as at 06 Nov 2019: NZ\$3.16

June year end

Forsyth Barr valuation					Valuation Ratios					2018A	2019A	2020E	2021E	2022E	
Valuation methodology					Mix of market multiple and DCF					EV/EBITDA (x)	12.3	12.2	12.2	10.9	9.9
12-month target price (NZ\$)*					Spot valuations (NZ\$)					EV/EBIT (x)	28.8	26.6	28.9	22.8	20.3
Expected share price return					1. DCF					PE (x)	24.8	20.4	20.8	16.4	13.3
Net dividend yield					2. Market multiple					Price/NTA (x)	2.0	1.8	1.9	2.0	2.1
Estimated 12-month return					3. Dividend yield					Free cash flow yield (%)	4.9	5.0	5.6	6.6	7.9
Key WACC assumptions					DCF valuation summary (NZ\$m)					Net dividend yield (%)	5.3	5.4	5.5	5.6	5.7
Risk free rate					Total firm value					Gross dividend yield (%)	7.0	7.1	7.4	7.6	7.8
Equity beta					(Net debt)/cash					Imputation (%)	80	80	90	95	95
WACC					Value of equity					Pay-out ratio (%)	132	110	114	92	76
Terminal growth					Shares (m)					Capital Structure					
										Interest cover EBIT (x)	1.4	2.1	2.1	3.0	3.6
										Interest cover EBITDA (x)	4.9	5.0	5.0	6.3	7.4
										Net debt/ND+E (%)	37.7	35.5	37.3	36.7	35.5
										Net debt/EBITDA (x)	3.3	3.3	3.4	2.9	2.4
Profit and Loss Account (NZ\$m)					2018A	2019A	2020E	2021E	2022E	Key Ratios					
Sales revenue					2,305	2,701	2,656	2,433	2,395	Return on assets (%)	2.4	3.4	3.4	4.5	5.2
Normalised EBITDA					361	363	365	410	453	Return on equity (%)	3.0	3.1	2.9	4.7	5.9
Depreciation and amortisation					(206)	(197)	(210)	(214)	(231)	Return on funds employed (%)	3.6	3.6	3.4	4.4	5.2
Normalised EBIT					155	167	155	196	221	EBITDA margin (%)	15.6	13.5	13.7	16.8	18.9
Net interest					(74)	(73)	(73)	(66)	(61)	EBIT margin (%)	6.7	6.2	5.8	8.1	9.2
Associate income					-	-	-	-	-	Capex to sales (%)	4.7	2.5	2.8	2.6	2.4
Tax					(22)	(27)	(23)	(37)	(45)	Capex to depreciation (%)	52	35	35	30	25
Depreciation capex adjustment					71	92	98	107	134	Operating Performance					
Adjusted normalised NPAT					129	159	157	201	250	Renewable generation	3,084	2,835	2,611	2,717	2,717
Abnormals/other					(109)	(100)	(98)	(107)	(134)	Gas generation	3,392	2,586	2,836	2,783	2,783
Reported NPAT					20	59	59	94	115	Coal generation	657	1,410	1,121	876	876
Normalised EPS (cps)					5.8	6.5	5.7	9.0	11.0	Total GNE generation (GWh)	7,133	6,831	6,568	6,377	6,377
DPS (cps)					16.9	17.1	17.4	17.7	18.0	GWAP (\$/MWh)	92	143	132	108	97
Growth Rates					2018A	2019A	2020E	2021E	2022E	Coal used (tonnes)	348	720	580	453	453
Revenue (%)					18.1	17.2	-1.6	-8.4	-1.6	Coal price (\$/tonne)	120	139	142	125	126
EBITDA (%)					8.4	0.8	0.4	12.3	10.5	Gas used (PJ)	26.7	20.2	21.0	20.5	20.5
EBIT (%)					-2.0	7.8	-7.4	27.0	12.7	Gas price (\$/GJ)	7.9	8.6	8.7	8.5	8.5
Normalised NPAT (%)					-18.9	23.5	-1.0	28.0	23.9	Electricity customers (000)	503.7	499.5	499.5	494.5	492.0
Normalised EPS (%)					-19.6	21.7	-2.1	26.7	23.3	MM/SME volumes	4,169	4,077	4,067	4,057	4,036
DPS (%)					1.8	0.9	1.8	1.7	1.7	TOU volumes	1,811	1,992	2,061	2,082	2,102
Cash Flow (NZ\$m)					2018A	2019A	2020E	2021E	2022E	Total fixed price volumes (GWh)	5,980	6,068	6,128	6,139	6,138
EBITDA					361	363	365	410	453	Average MM usage/cust (kWh/yr)	8,240	8,126	8,122	8,162	8,191
Working capital change					33	(27)	(1)	(12)	(8)	Average FPV price (\$/MWh)	206	207	212	214	217
Interest & tax paid					(120)	(123)	(109)	(118)	(129)	LWAP (\$/MWh)	92	139	133	109	97
Other					(7)	17	-	-	-	LWAP/GWAP	1.01	0.97	1.01	1.01	1.01
Operating cash flow					266	231	256	280	315	Line losses (%)	5.3	5.4	5.6	5.6	5.6
Capital expenditure					(108)	(69)	(74)	(64)	(57)	Retail gas customers (000)	106.2	107.1	107.2	107.7	108.2
(Acquisitions)/divestments					0	(0)	-	-	-	Retail gas volumes (PJ)	7.5	8.2	8.4	8.5	8.6
Other					-	-	-	-	-	Gas volume/cust (GJ/yr)	70.5	76.7	78.6	79.0	79.4
Funding available/(required)					159	162	182	215	258	LPG retail sales (tonnes)	35,005	38,507	42,925	46,590	49,141
Dividends paid					(148)	(132)	(139)	(143)	(167)	Kupe production					
Equity raised/(returned)					(1)	(1)	-	-	-	Gas production (PJ)	11.8	11.8	10.5	10.0	11.5
Increase/(decrease) in net debt					(10)	(29)	(43)	(72)	(91)	Oil production (k barrels)	533	473	381	355	564
Balance Sheet (NZ\$m)					2018A	2019A	2020E	2021E	2022E	LPG production (k tonnes)	45.9	50.6	45.2	42.4	47.8
Working capital					90	111	112	124	132	Kupe EBITDAF (\$m)	115	109	98	94	121
Fixed assets					3,430	3,717	3,664	3,536	3,371	Energy EBITDAF (\$m)	245	255	267	315	331
Intangibles					364	364	368	362	355	GNE EBITDAF (\$m)	361	363	365	410	453
Other assets					84	121	121	121	121						
Total funds employed					3,968	4,313	4,264	4,143	3,979						
Net debt/(cash)					1,206	1,228	1,272	1,216	1,126						
Other non current liabilities					806	934	921	905	881						
Shareholder's funds					1,956	2,151	2,071	2,023	1,972						
Minority interests					-	-	-	-	-						
Total funding sources					3,968	4,313	4,264	4,143	3,979						

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

Summary 1Q20 operating statistics

Figure 13. Summary 1Q20 operating statistics

	Sep-18 1Q19	Sep-19 1Q20	% Chg
Retail electricity sales (GWh)			
Mass market (MM)	960	940	-2.1%
Small, medium enterprises (SME)	274	290	5.7%
Commercial and industrial (C&I)	490	488	-0.4%
Total fixed price variable volume (FPVV)	1,725	1,718	-0.4%
Electricity customer numbers (000)	502.2	502.0	0.0%
Electricity customer number additions (000)	(1.5)	2.5	
MM sales/customer (MWh/customer)	2.45	2.46	0.1%
MM sales price (\$/MWh)	\$247.7	\$253.5	2.3%
SME sales price (\$/MWh)	\$215.1	\$214.9	-0.1%
C&I average selling price (\$/MWh)	\$132.6	\$150.4	13.4%
Weighted average FPVV selling price (\$/MWh)	\$209.8	\$217.7	3.7%
Electricity netback (\$/MWh)	\$107.4	\$114.0	6.1%
LWAP (\$/MWh)	\$88.1	\$125.7	43%
Retail gas sales (PJ)			
Mass market (incl SME)	1.7	1.7	0.5%
C&I gas sales	1.0	1.1	10.0%
Total gas sales	2.7	2.8	4.2%
Gas customer numbers (000)	106.3	106.4	0.2%
Gas consumption/customer (GJ)	15.6	15.6	0.0%
Retail gas price (\$/GJ)	\$22.0	\$22.2	0.7%
Gas netback (\$/GJ)	\$8.7	\$9.3	6.9%
Retail LPG sales (tonnes)			
Bottled sales	4,817	5,562	15.5%
Other bulk & SME sales	5,705	7,560	32.5%
Total retail LPG sales	10,522	13,122	24.7%
LPG connections (000)	64.1	70.4	9.8%
LPG connection additions	1.7	1.9	11.2%
LPG consumption/connections (kg)	76.2	80.1	5.2%
LPG netback (\$/tonne)	\$863	\$1,031	19.5%
Generation (GWh)			
Hydro	991	759	-23%
Coal - Rankine units	96	361	276%
Gas - Rankine units	39	19	-51%
Gas - Units 5 & 6	649	706	9%
Wind	6	6	0%
Total generation	1,781	1,851	4%
GWAP (\$/MWh)	\$85.7	\$124.6	45%
LWAP/GWAP	102.9%	100.9%	-2%
Portfolio fuel cost (\$/MWh)	\$30.1	\$47.8	59%
Kupe sales and production			
Oil production (barrels)	129,976	110,999	-15%
Oil sales (barrels)	69,924	65,938	-6%
Gas sales (PJ)	3.0	3.0	0%
LPG sales (000 tonnes)	13,380	13,875	4%
Barrels of oil equivalent	665,688	666,008	0%

Source: GNE, Forsyth Barr analysis

Summary forecast changes

Figure 14. Summary forecast changes

	FY20	FY20	Diff	FY21	FY21	Diff	FY21	FY21	Diff
	Old	New	% Chg	Old	New	% Chg	Old	New	% Chg
Sales revenue	2,513	2,656	5.7%	2,408	2,433	1.1%	2,399	2,395	-0.1%
EBITDAF	367	365	-0.5%	406	410	0.9%	446	453	1.4%
EBIT	156	155	-1.2%	193	196	1.8%	215	221	2.9%
Pre-tax profit	84	82	-2.3%	127	131	2.6%	154	160	4.0%
NPAT	60	59	-2.3%	92	94	2.6%	111	115	4.0%
Earnings (cps)	5.9	5.7	-2.4%	8.8	9.0	2.5%	10.6	11.0	3.9%
Dividend (cps)	17.4	17.4	0.0%	17.7	17.7	0.0%	18.0	18.0	0.0%
Generation (GWh)	6,375	6,568	3.0%	6,377	6,377	0.0%	6,377	6,377	0.0%
FPVV sales (GWh)	6,080	6,128	0.8%	6,080	6,139	1.0%	6,079	6,138	1.0%
Customer numbers (000)	494	499	1.0%	490	494	1.0%	487	492	1.0%
GWAP (\$/MWh)	\$115.0	\$131.5	14.3%	\$107.2	\$108.1	0.8%	\$100.7	\$96.6	-4.0%
LWAP/GWAP	1.008	1.011	0.2%	1.008	1.007	0.0%	1.006	1.006	0.0%

Source: Forsyth Barr analysis

Investment summary

Our rating is OUTPERFORM. GNE is trading on the sector leading dividend yield and market multiples. It also has the strongest near-term growth profile, aided by high cost gas contracts rolling off from FY21 onwards. Its downside risks to NZAS closing are also amongst the lowest in the sector.

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 NZ decarbonising transport and industrial heat.
- **Unique generation position:** Most of the value within the electricity sector lies within the generation assets. GNE has the only coal plant which is critical cover for low hydro years. Historically, monetising GNE's thermal position has been difficult, although we expect that to improve.

Earnings and cash flow outlook

- **Strategy refresh:** GNE has announced a strategy refresh which will see it embracing new technology and focussing more on the customer. GNE is targeting FY21 EBITDAF of \$400m+.
- **Gas relief coming:** GNE currently has too much gas due to legacy high priced take or pay contracts. These contracts start to roll-off after 2020, providing an earnings tailwind.

Financial structure

- **Balance sheet:** Whilst we are comfortable with debt levels, GNE's balance sheet has limited spare capacity following the acquisitions of Nova's LPG business and increasing its Kupe stake. GNE is lowering gearing through the use of a dividend reinvestment plan (DRP).

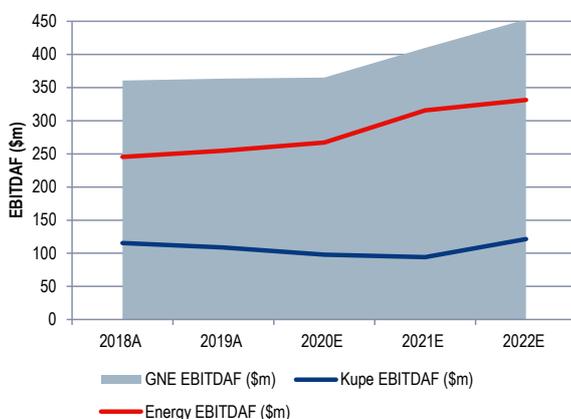
Key risks

- **Increasing carbon costs:** GNE is required to relinquish an increasing value of carbon credits. Higher carbon prices combine to create financial headwinds for the next few years.
- **NZAS risk:** NZAS has indicated it is undertaking a strategic review, raising the possibility it may close. In our view, the smelter is unlikely to close (less than 10% chance) and the downside risks are fully factored into GNE's share price.
- **Rising bond yields:** In recent years GNE has traded in line with bond yields. A lift in interest rates is likely to see GNE trade lower, although in our view interest rates will probably remain low for the foreseeable future.

Company description

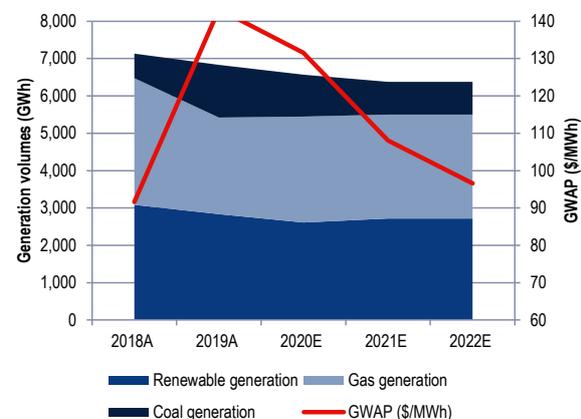
Genesis Energy is a large NZ electricity generator/retailer producing ~7,000GWh of electricity from its hydro and thermal power stations. It owns the only coal fired power station in NZ (which is a core asset to reduce dry year risk), a large gas-fired power station and several hydro power stations in the North and South islands. It is NZ's largest energy retailer, retailing electricity, gas & LPG to ~665,000 customers under its Genesis Energy and Energy Online brands and has a relationship with SPK to resell broadband services. It also owns 46% of the producing Kupe oil and gas field, taking 100% of Kupe gas to sell and/or use in its power stations.

Figure 15. EBITDAF split



Source: GNE, Forsyth Barr analysis

Figure 16. Generation volumes and average price received



Source: GNE, Forsyth Barr analysis

Mercury

NEUTRAL

NZAS Collateral Damage

We are upgrading our Mercury (MCY) rating to **NEUTRAL** due to, in our view, the overreaction of the market following the announcement that **NZAS is undergoing a strategic review**. MCY will be one of the least affected generator/retailers as all of its generation and most of its electricity customers are North Island based.

What's changed?

- **Earnings:** FY20/FY21 EBITDAF +\$2m/-3m to \$516m and \$525m
- **Target Price:** Reduced -2cps (-0.4%) to \$4.53
- **Rating:** Upgraded to NEUTRAL

NZAS closure risk minimal for MCY

MCY's exposure to NZAS is limited. Whilst it will be impacted by a temporarily lower wholesale electricity price, it will not have to close any thermal generation plant and the retail price impact will be low as most of its customers are North Island based. For these reasons we do not expect MCY to offer lower electricity prices to NZAS.

MCY's share price reaction (down -12%) relative to the downside risk it faces from NZAS closing is, therefore, out of proportion. We have lowered our target price just -2cps (risk weighting of 20% for NZAS closure) for the increased risk of NZAS closing. That said, whilst MCY now looks more attractive, we are only upgrading our rating to NEUTRAL as MCY's lift in share price over recent months was driven by MSCI inclusion more than any underlying fundamentals. Our forecast changes are minimal.

Figure 17. Summary forecast changes

	FY20		%	FY21		%	FY22		%
	Old	New	Chg	Old	New	Chg	Old	New	Chg
Sales revenue	1,921	1,941	1.0%	1,808	1,785	-1.3%	1,770	1,732	-2.1%
EBITDAF	514	516	0.5%	528	525	-0.6%	549	546	-0.5%
EBIT	313	315	0.8%	323	320	-1.0%	349	346	-0.8%
Pre-tax profit	247	249	1.1%	254	251	-1.2%	278	275	-1.1%
NPAT	176	177	1.1%	181	179	-1.2%	200	198	-1.1%
Dividend (cps)	15.8	15.8	0.0%	16.2	16.2	0.0%	22.1	21.9	-0.9%
Generation (GWh)	6,898	6,898	0.0%	7,026	7,026	0.0%	7,314	7,314	0.0%
GWAP (\$/MWh)	\$128.5	\$131.6	2.4%	\$108.2	\$104.8	-3.2%	\$99.0	\$93.0	-6.0%
LWAP/GWAP	1.048	1.046	-0.1%	1.050	1.050	0.0%	1.054	1.054	0.0%

Source: Forsyth Barr analysis

MCY expected to enter MSCI Index

We expect MCY will be entering the MSCI Index. The announcement will be made on Friday 8 November.

Investment View

Our rating is NEUTRAL. MCY is a strong operator in the sector with well-positioned generation assets. Whilst its near-term dividend yield is the lowest in the sector, we expect that to improve following the completion of its Turitea windfarm in 2021. Overall we view MCY as fairly valued.

NZX Code	MCY
Share price	NZ\$4.79
Target price	NZ\$4.53
Risk rating	Low
Issued shares	1360.9m
Market cap	NZ\$6,519m
Average daily turnover	717.4k (NZ\$3,106k)

Share Price Performance



Financials: June	19A	20E	21E	22E
NPAT* (NZ\$m)	239.0	248.4	273.8	285.0
EPS* (NZc)	17.6	18.3	20.1	20.9
EPS growth* (%)	-6.4	3.9	10.2	4.1
DPS (NZc)	15.5	15.8	16.2	21.9
Imputation (%)	100	100	100	85

Valuation (x)	19A	20E	21E	22E
EV/EBITDA	14.7	14.2	14.1	13.6
EV/EBIT	24.6	23.3	23.2	21.9
PE	27.3	26.2	23.8	22.9
Price / NTA	1.9	1.9	1.9	n/a
Cash dividend yield (%)	3.2	3.3	3.4	4.6
Gross dividend yield (%)	4.5	4.6	4.7	6.1

*Historic and forecast numbers based on underlying profits

Andrew Harvey-Green

andrew.harvey-green@forsythbarr.co.nz

+64 4 495 8185

Mercury NZ Limited (MCY)

Priced as at 06 Nov 2019: NZ\$4.79

June year end

Forsyth Barr valuation						Valuation Ratios					
Valuation methodology						2018A	2019A	2020E	2021E	2022E	
Mix of market multiple and DCF						EV/EBITDA (x)	13.3	14.7	14.2	14.1	13.6
						EV/EBIT (x)	20.5	24.6	23.3	23.2	21.9
12-month target price (NZ\$)*						PE (x)	25.5	27.3	26.2	23.8	22.9
4.53						Price/NTA (x)	2.0	1.9	1.9	1.9	1.9
Expected share price return						Free cash flow yield (%)	3.8	3.1	1.7	2.9	4.6
-5.4%						Net dividend yield (%)	3.2	3.2	3.3	3.4	4.6
Net dividend yield						Gross dividend yield (%)	4.4	4.5	4.6	4.7	6.1
3.3%						Imputation (%)	100	100	100	100	85
Estimated 12-month return						Pay-out ratio (%)	80	88	87	81	105
-2.1%											
Key WACC assumptions						DCF valuation summary (NZ\$m)					
Risk free rate						Total firm value	6,930				
2.00%						(Net debt)/cash	(1,223)				
Equity beta						Value of equity	5,708				
0.88						Shares (m)	1,361				
WACC											
6.6%											
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	1,963	1,807	1,755	Interest cover EBIT (x)	4.7	6.7	4.8	4.7	4.8
Normalised EBITDA	566	505	516	525	546	Interest cover EBITDA (x)	6.2	6.7	7.8	7.7	7.7
Depreciation and amortisation	(201)	(204)	(205)	(208)	(212)	Net debt/ND+E (%)	27.8	23.7	25.5	26.1	25.1
Normalised EBIT	365	301	312	316	334	Net debt/EBITDA (x)	2.2	2.2	2.3	2.3	2.1
Net interest	(91)	(75)	(66)	(69)	(71)						
Associate income	2	1	3	3	3	Key Ratios					
Tax	(91)	(73)	(72)	(72)	(77)	2018A	2019A	2020E	2021E	2022E	
Depreciation capex adj	58	78	71	95	95	Return on assets (%)	7.1	7.8	4.8	4.9	5.3
Adjusted normalised NPAT	256	239	248	274	285	Return on equity (%)	6.0	4.6	5.1	5.2	5.5
Abnormals/other	(7)	118	(71)	(95)	(95)	Return on funds employed (%)	5.8	4.7	4.8	4.9	5.3
Reported NPAT	249	357	177	179	190	EBITDA margin (%)	31.5	25.3	26.3	29.0	31.1
Normalised EPS (cps)	18.8	17.6	18.3	20.1	20.9	EBIT margin (%)	20.4	15.1	16.1	17.7	19.3
DPS (cps)	15.1	15.5	15.8	16.2	21.9	Capex to sales (%)	7.1	6.1	15.3	6.2	4.6
						Capex to depreciation (%)	69	67	158	57	40
Growth Rates						Operating Statistics					
2018A	2019A	2020E	2021E	2022E		2018A	2019A	2020E	2021E	2022E	
Revenue (%)	12.6	11.2	-1.9	-7.9	-2.9	Hydro	4,947	4,006	4,088	4,016	4,016
EBITDA (%)	8.2	-10.8	2.2	1.6	4.1	Geothermal	2,757	2,894	2,810	2,829	2,829
EBIT (%)	7.9	-17.7	4.4	1.4	5.7	Wind	-	-	-	181	469
Normalised NPAT (%)	1.8	-6.5	3.9	10.2	4.1	Total MCY Generation (GWh)	7,704	6,900	6,898	7,026	7,314
Normalised EPS (%)	2.9	-6.4	3.9	10.2	4.1	GWAP (\$/MWh)	86.3	138.7	131.6	104.8	93.0
Ordinary DPS (%)	3.4	2.6	1.9	2.5	35.2	Electricity customers (000)	388	373	354	351	347
						MM volumes	3,278	3,182	2,972	2,908	2,885
						TOU volumes	1,200	1,319	1,526	1,616	1,624
						Total Fixed Price volumes (GWh)	4,478	4,501	4,498	4,524	4,509
						Spot Sales	891	780	731	734	738
						Net CFD's	2,110	1,624	1,563	1,563	1,563
						Total Sales (GWh)	7,479	6,905	6,791	6,821	6,810
						Average usage per cust (MWh/yr)	11.4	11.8	12.5	12.8	12.9
						LWAP (\$/MWh)	91.6	144.2	137.7	110.0	98.0
						LWAP/GWAP	1.06	1.04	1.05	1.05	1.05
						Average FPV price (\$/MWh)	112.5	113.4	114.3	116.4	118.4
						Line losses (%)	5.6	5.1	5.4	5.3	5.3
						Retail gas customers (000)	48	47	46	46	47
						Retail gas volumes (PJ)	1.1	1.1	1.0	1.0	1.0
						Gas volume/cust (GJ/yr)	22.5	22.5	22.5	22.5	22.5
						Energy margin (\$m)	730	667	700	706	735
						Operating costs (\$m)	(205)	(199)	(203)	(202)	(208)
						Other revenue (\$m)	41	37	19	20	20
						MCY EBITDAF (\$m)	566	505	516	525	546
Balance Sheet (NZ\$m)											
2018A	2019A	2020E	2021E	2022E							
Working capital	63	63	11	72							
Fixed assets	5,370	5,528	5,629	5,539							
Intangibles	85	62	59	57							
Other assets	385	521	523	526							
Total funds employed	5,903	6,174	6,223	6,194	6,069						
Net debt/(cash)	1,264	1,096	1,198	1,223	1,149						
Other non current liabilities	1,306	1,498	1,480	1,464	1,448						
Shareholder's funds	3,333	3,580	3,545	3,506	3,472						
Minority interests	-	-	-	-	-						
Total funding sources	5,903	6,174	6,223	6,194	6,069						

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

Investment summary

Our rating is NEUTRAL. MCY is a strong operator in the sector with well-positioned generation assets. Whilst its near-term dividend yield is the lowest in the sector, we expect that to improve following the completion of its Turitea windfarm in 2021. Overall we see MCY as fairly valued.

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.

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 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.

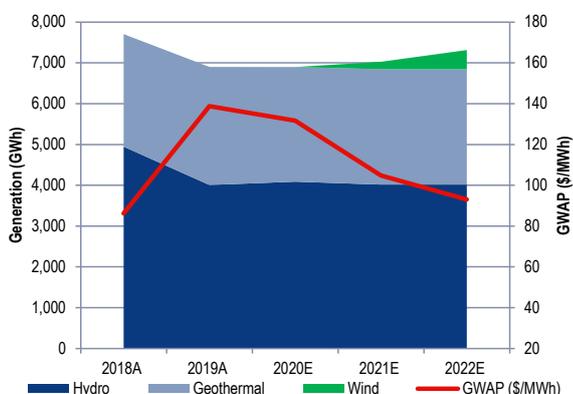
Financial structure

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

Key risks

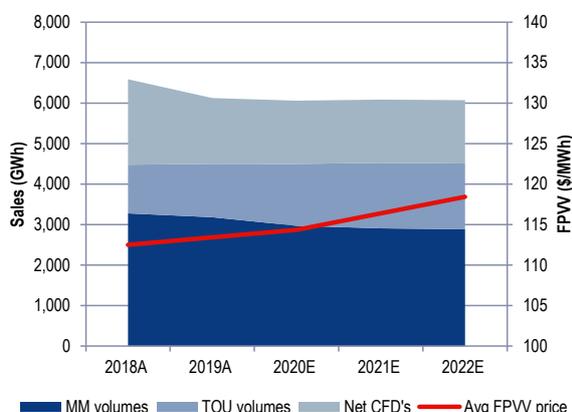
- **Political/regulatory:** The 2014 election and recent Electricity Price Review (EPR) highlighted the political/regulatory risks inherent in the sector. Whilst the EPR gave the sector a thumbs up in most areas, the political risk is unlikely to ever disappear.
- **NZAS risk:** NZAS has indicated it is undertaking a strategic review, raising the possibility it may close. In our view, the smelter is unlikely to close (less than 10% chance) and the downside risks are fully factored into the share price.
- **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 18. Generation volumes and average price received



Source: MCY, Forsyth Barr analysis

Figure 19. Sales volumes and average price received



Source: MCY, Forsyth Barr analysis

Meridian Energy

NEUTRAL

Aluminium Smelts Share Price

The negative reaction to the NZAS strategic review has been greatest for Meridian Energy (MEL), we believe unjustifiably so and are upgrading our rating to NEUTRAL. MEL's share price has fallen -15% in the two weeks following the NZAS announcement, the most of any electricity stock. Whilst we believe the share price reaction is an overreaction, in our view MEL was previously the most expensive electricity stock, hence, it has only moved back into fair value territory.

What's changed?

- **Earnings:** FY20/FY21 EBITDAF -\$4m/- \$17m to \$816m/\$752m
- **Target Price:** Reduced -14cps (-3.3%) to \$4.11
- **Rating:** Upgraded to NEUTRAL

MEL's best case scenario is dropping NZAS's electricity price

Whilst MEL has no intention of "taking one for the team", we suspect the team is unwilling to play ball (with the probable exception of Contact Energy). With MEL likely to be the most impacted generator/retailer (in the short-term at least) we expect it will offer NZAS a reduced electricity price — albeit well short of what NZAS probably wants. We have built in a -\$3/MWh lower electricity price from FY21 onwards, which equates to ~\$13m per annum.

If NZAS were to close, the short-term impacts on MEL would predominantly be reduced generation volumes at lower prices until transmission constraints are removed in the lower South Island. However, the transmission work is unlikely to be completed until 2024 (assuming NZAS closure in 2021). Long-term MEL is better placed as its low cost generation means it will not have to close any generation plant and it should receive a higher electricity price for its generation than what it has been receiving from NZAS. We have lowered our target price -14cps (-3.3%, NZAS closure risk weighting of 20%) to account for the risks associated with NZAS closing.

Development and dividend implications

Whilst NZAS closure risk overhangs MEL it is hard to see the Board signing off on a new wind farm development. That said, with MEL unable to build during winter and financial close not expected to 2020 at the earliest, we do not expect a material delay if NZAS decides to stay.

The other implication for MEL is: what will it do after the special dividend ends following the 1H22 result? We had been expecting MEL to update the market on its thinking at the 1H20 result. The wind farm development was MEL's ticket to possibly maintaining the current total dividend of ~21.5cps. However, with the NZAS strategic review not expected to be completed until March 2020, MEL will probably defer its capital management update.

Investment View

Our rating is NEUTRAL. MEL has been the strongest electricity performer in recent years and its low cost generation assets provides it with a strong defensive position. Its dividend yield is attractive, although we expect that will fall in FY22 when the current capital management programme ends.

NZX Code	MEL
Share price	NZ\$4.60
Target price	NZ\$4.11
Risk rating	Low
Issued shares	2563.0m
Market cap	NZ\$11,790m
Average daily turnover	1,449k (NZ\$6,174k)

Share Price Performance



Financials: June	19A	20E	21E	22E
NPAT* (NZ\$m)	481.3	477.2	426.9	434.0
EPS* (NZc)	18.8	18.6	16.7	16.9
EPS growth* (%)	33.4	-0.8	-10.5	1.6
DPS (NZc)	21.3	21.5	21.6	20.4
Imputation (%)	66	65	65	70

Valuation (x)	19A	20E	21E	22E
EV/EBITDA	15.8	16.2	17.7	17.3
EV/EBIT	23.5	26.1	29.5	28.2
PE	24.5	24.7	27.6	27.2
Price / NTA	2.2	2.3	2.4	n/a
Cash dividend yield (%)	4.6	4.7	4.7	4.4
Gross dividend yield (%)	5.8	5.8	5.9	5.6

*Historic and forecast numbers based on underlying profits

Andrew Harvey-Green

andrew.harvey-green@forsythbarr.co.nz

+64 4 495 8185

Meridian Energy Limited (MEL)

Priced as at 06 Nov 2019: NZ\$4.60

June year end

Forsyth Barr valuation		Valuation Ratios				2018A	2019A	2020E	2021E	2022E	
Valuation methodology	Mix of market multiple and DCF	EV/EBITDA (x)	19.7	15.8	16.2	17.7	17.3				
		EV/EBIT (x)	32.9	23.5	26.1	29.5	28.2				
		PE (x)	32.7	24.5	24.7	27.6	27.2				
		Price/NTA (x)	2.5	2.2	2.3	2.4	2.6				
		Free cash flow yield (%)	1.5	4.8	4.2	3.8	4.0				
		Net dividend yield (%)	4.2	4.6	4.7	4.7	4.4				
		Gross dividend yield (%)	5.3	5.8	5.8	5.9	5.6				
		Imputation (%)	68	66	65	65	70				
		Pay-out ratio (%)	136	113	115	130	121				
		Capital Structure					2018A	2019A	2020E	2021E	2022E
		Interest cover EBIT (x)	4.7	6.6	6.0	5.2	5.2				
		Interest cover EBITDA (x)	8.2	10.1	10.0	9.0	8.8				
		Net debt/ND+E (%)	23.2	20.7	22.1	24.5	26.6				
		Net debt/EBITDA (x)	2.2	1.7	1.8	2.1	2.2				
		Key Ratios					2018A	2019A	2020E	2021E	2022E
		Return on assets (%)	4.4	5.7	5.2	4.7	5.1				
		Return on equity (%)	4.3	6.1	5.7	5.1	5.7				
		Return on funds employed (%)	4.6	5.9	5.5	5.0	5.4				
		EBITDA margin (%)	20.2	20.4	21.9	21.5	22.5				
		EBIT margin (%)	12.1	13.7	13.6	12.9	13.8				
		Capex to sales (%)	7.5	1.7	2.0	2.2	1.7				
		Capex to depreciation (%)	100	28	27	27	21				
		Operating Statistics					2018A	2019A	2020E	2021E	2022E
		Hydro generation	11,266	12,326	11,967	11,701	11,701				
		Wind generation	1,263	1,244	1,470	1,474	1,474				
		Total NZ generation (GWh)	12,528	13,570	13,436	13,175	13,175				
		GWAP (\$/MWh)	83.0	123.3	114.0	96.4	85.8				
		Overseas generation (GWh)	581	730	725	800	800				
		Overseas GWAP (\$/MWh) (NZD)	151	100	137	105	96				
		Overseas customer numbers (000)	97	110	127	143	153				
		Powershop customers (000)	66	74	80	82	83				
		Meridian branded customers (000)	225	228	235	240	245				
		NZ electricity customers (000)	291	302	315	321	328				
		Average usage per cust (MWh/yr)	13.5	13.2	12.9	12.9	12.9				
		Mass market volumes	3,824	3,901	3,989	4,094	4,180				
		Time of use volumes	2,157	2,338	2,721	2,742	2,764				
		Total fixed price volumes (GWh)	5,981	6,239	6,710	6,836	6,944				
		NZAS sales	5,011	5,310	5,464	5,449	5,449				
		Sell CFDs	2,278	2,239	1,967	1,967	1,967				
		Buy CFDs	-2,222	-1,965	-1,938	-1,740	-1,740				
		Total Sales (GWh)	11,047	11,823	12,202	12,511	12,619				
		Average FPV price (\$/MWh)	105.2	104.8	106.8	108.3	109.5				
		LWAP (\$/MWh)	88	132	123	104	93				
		LWAP/GWAP	1.06	1.07	1.08	1.07	1.08				
		Lines losses (%)	5.3	5.9	5.5	5.5	5.5				
		New Zealand Energy Margin (\$m)	944	1,108	1,077	1,001	1,004				
		Overseas Energy Margin (\$m)	86	118	118	114	114				
		Meridian Energy Margin (\$m)	1,030	1,226	1,195	1,116	1,118				
Profit and Loss Account (NZ\$m)		2018A	2019A	2020E	2021E	2022E					
Sales revenue		3,297	4,104	3,725	3,490	3,411					
Normalised EBITDA		666	838	816	752	767					
Depreciation and amortisation		(268)	(276)	(309)	(302)	(296)					
Normalised EBIT		398	562	507	450	470					
Net interest		(81)	(83)	(81)	(83)	(87)					
Associate income & other		(19)	(14)	(17)	(19)	(19)					
Tax		(95)	(133)	(114)	(97)	(102)					
Minority interests		-	-	-	-	-					
Reported NPAT		203	332	294	250	263					
Abnormals/other		158	149	183	177	171					
Adjusted normalised NPAT		361	481	477	427	434					
Adjusted normalised EPS (cps)		14.1	18.8	18.6	16.7	16.9					
DPS (cps)		19.2	21.3	21.5	21.6	20.4					
Growth Rates		2018A	2019A	2020E	2021E	2022E					
Revenue (%)		16.7	24.5	-9.2	-6.3	-2.3					
EBITDA (%)		1.4	25.8	-2.6	-7.9	2.0					
EBIT (%)		1.3	41.2	-9.8	-11.3	4.6					
Normalised NPAT (%)		-3.1	33.4	-0.8	-10.5	1.6					
Normalised EPS (%)		-3.1	33.4	-0.8	-10.5	1.6					
DPS (%)		1.5	10.9	0.9	0.8	-5.7					
Cash Flow (NZ\$m)		2018A	2019A	2020E	2021E	2022E					
EBITDA		666	838	816	752	767					
Working capital change		(34)	(36)	7	13	16					
Interest & tax paid		(186)	(200)	(237)	(222)	(231)					
Other		(19)	33	(17)	(19)	(19)					
Operating cash flow		427	635	569	523	533					
Capital expenditure		(247)	(69)	(75)	(76)	(58)					
(Acquisitions)/divestments		23	-	-	-	-					
Other		-	-	-	-	-					
Funding available/(required)		203	566	494	447	475					
Dividends paid		(486)	(500)	(550)	(555)	(557)					
Equity raised/(returned)		(2)	(2)	-	-	-					
Increase/(decrease) in net debt		285	(64)	56	108	82					
Balance Sheet (NZ\$m)		2018A	2019A	2020E	2021E	2022E					
Working capital		(17)	(24)	(14)	(7)	(4)					
Fixed assets		7,941	8,825	8,599	8,377	8,139					
Intangibles		60	59	51	47	47					
Other assets		291	383	366	347	328					
Total funds employed		8,275	9,243	9,002	8,764	8,510					
Net debt/(cash)		1,461	1,424	1,480	1,588	1,670					
Other non current liabilities		1,991	2,362	2,321	2,280	2,238					
Shareholder's funds		4,823	5,457	5,201	4,897	4,602					
Minority interests		-	-	-	-	-					
Total funding sources		8,275	9,243	9,002	8,764	8,510					

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

Summary forecast changes

Figure 20. Summary forecast changes

	FY20	FY20		FY21	FY21		FY22	FY22	
	Old	New	% Chg	Old	New	% Chg	Old	New	% Chg
NZ Energy Margin	1,080	1,077	-0.3%	1,019	1,001	-1.7%	1,023	1,004	-1.9%
Australia Energy Margin	118	118	0.0%	114	114	0.0%	114	114	0.0%
EBITDAF	820	816	-0.4%	769	752	-2.3%	786	767	-2.5%
EBIT	510	507	-0.6%	467	450	-3.7%	490	470	-4.0%
Pre-tax profit	412	409	-0.8%	365	347	-4.9%	385	365	-5.3%
NPAT	297	294	-0.8%	263	250	-4.9%	277	263	-5.3%
Dividend (cps)	21.6	21.5	-0.3%	21.8	21.6	-0.6%	20.9	20.4	-2.5%
NZ Generation (GWh)	13,436	13,436	0.0%	13,175	13,175	0.0%	13,175	13,175	0.0%
FPVV sales (GWh)	6,710	6,710	0.0%	6,836	6,836	0.0%	6,944	6,944	0.0%
Customer numbers (000)	315	315	0.0%	321	321	0.0%	328	328	0.0%
GWAP (\$/MWh)	\$115.4	\$114.0	-1.2%	\$99.2	\$96.4	-2.8%	\$90.7	\$85.8	-5.4%

Source: Forsyth Barr analysis

Investment summary

Our rating is NEUTRAL. MEL has been the strongest electricity performer in recent years and its low cost generation assets provides it with a strong defensive position. Its dividend yield is attractive, although we expect that will fall in FY22 when the current capital management programme ends.

Business quality

- **Low risk, modest growth industry:** Electricity demand is inelastic and the industry is well positioned to benefit from NZ electrifying transport and industrial processes.
- **Strong generation position:** Most of the value within the electricity sector lies within the generation assets. MEL is the largest generator in New Zealand, producing ~32% of New Zealand's electricity requirements and controls ~50% of New Zealand's hydro storage. It is also the lowest cost generator.
- **Track record:** Since listing in 2014, MEL has demonstrated an ability to unlock value and has lifted operating earnings +25%.

Earnings and cash flow outlook

- **More modest growth after FY19:** We expect earnings growth to slow after the stellar FY19 year (although early indications are positive for FY20). We expect transmission benefits to be offset by a gradually declining wholesale electricity price.
- **Cash flow strong in near-term:** Limited electricity demand growth means capital expenditure is limited, resulting in strong free cash flows.

Financial structure

- **Balance sheet:** Management recognises that surplus cash is better with shareholders. MEL currently has spare capacity on its balance sheet and hence it has in place a capital management plan that is gradually lifting gearing.
- **Dividends:** MEL's strong free cash flow enables it to pay high dividends, which are currently elevated due to the capital management plan.

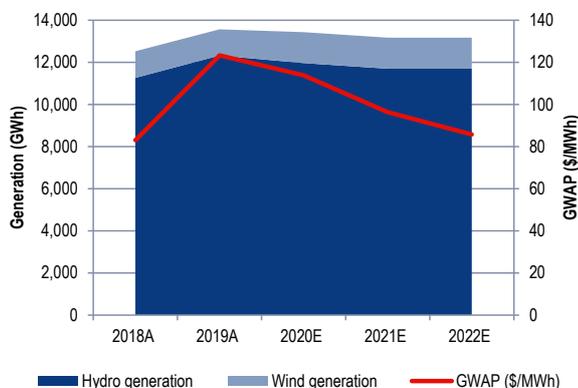
Key risks

- **Political/regulatory:** The 2014 election and recent Electricity Price Review (EPR) highlighted the political/regulatory risks inherent in the sector. Whilst the EPR gave the sector a thumbs up in most areas, the political risk is unlikely to ever disappear.
- **NZAS risk:** NZAS has indicated it is undertaking a strategic review, raising the possibility it may close. In our view, the smelter is unlikely to close (less than 10% chance) and the downside risks are fully factored into the share price.
- **Rising bond yields:** In recent years MEL has traded in line with bond yields. A lift in interest rates is likely to see MEL trade lower.

Company description

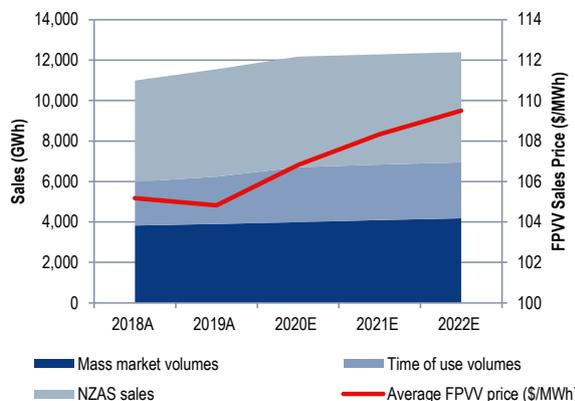
Meridian is New Zealand's largest electricity generator/retailer. It produces ~11,500GWh of electricity from its South Island hydro power stations and ~1,500GWh from its predominantly North Island wind farms. MEL's retail brands, Meridian and Powershop retail electricity to around 290,000 customers. MEL also has an international presence in Australia owning two wind farms and has launched its Powershop retail brand in Victoria and NSW. MEL's largest customer is New Zealand's largest power user, the Tiwai Point aluminium smelter which consumes ~13% of New Zealand's power and ~40% of MEL's output.

Figure 21. Generation volumes and average price received



Source: MEL, Forsyth Barr analysis

Figure 22. Sales volumes and average selling price



Source: MEL, Forsyth Barr analysis

Not personalised financial advice: The recommendations and opinions in this publication do not take into account your personal financial situation or investment goals. The financial products referred to in this publication may not be suitable for you. If you wish to receive personalised financial advice, please contact your Forsyth Barr Investment Adviser. The value of financial products may go up and down and investors may not get back the full (or any) amount invested. Past performance is not necessarily indicative of future performance. Disclosure statements for Forsyth Barr Investment Advisers are available on request and free of charge. **Disclosure:** Forsyth Barr Limited and its related companies (and their respective directors, officers, agents and employees) (“**Forsyth Barr**”) may have long or short positions or otherwise have interests in the financial products referred to in this publication, and may be directors or officers of, and/or provide (or be intending to provide) investment banking or other services to, the issuer of those financial products (and may receive fees for so acting). Forsyth Barr is not a registered bank within the meaning of the Reserve Bank of New Zealand Act 1989. Forsyth Barr may buy or sell financial products as principal or agent, and in doing so may undertake transactions that are not consistent with any recommendations contained in this publication. Forsyth Barr confirms no inducement has been accepted from the researched entity, whether pecuniary or otherwise, in connection with making any recommendation contained in this publication. **Analyst Disclosure Statement:** In preparing this publication the analyst(s) may or may not have a threshold interest in the financial products referred to in this publication. For these purposes a threshold interest is defined as being a holder of more than \$50,000 in value or 1% of the financial products on issue, whichever is the lesser. In preparing this publication, non-financial assistance (for example, access to staff or information) may have been provided by the entity being researched. **Disclaimer:** This publication has been prepared in good faith based on information obtained from sources believed to be reliable and accurate. However, that information has not been independently verified or investigated by Forsyth Barr. Forsyth Barr does not make any representation or warranty (express or implied) that the information in this publication is accurate or complete, and, to the maximum extent permitted by law, excludes and disclaims any liability (including in negligence) for any loss which may be incurred by any person acting or relying upon any information, analysis, opinion or recommendation in this publication. Forsyth Barr does not undertake to keep current this publication; any opinions or recommendations may change without notice. Any analyses or valuations will typically be based on numerous assumptions; different assumptions may yield materially different results. Nothing in this publication should be construed as a solicitation to buy or sell any financial product, or to engage in or refrain from doing so, or to engage in any other transaction. Other Forsyth Barr business units may hold views different from those in this publication; any such views will generally not be brought to your attention. This publication is not intended to be distributed or made available to any person in any jurisdiction where doing so would constitute a breach of any applicable laws or regulations or would subject Forsyth Barr to any registration or licensing requirement within such jurisdiction. **Terms of use:** Copyright Forsyth Barr Limited. You may not redistribute, copy, revise, amend, create a derivative work from, extract data from, or otherwise commercially exploit this publication in any way. By accessing this publication via an electronic platform, you agree that the platform provider may provide Forsyth Barr with information on your readership of the publications available through that platform.