

# Air beneficient of the power to make a difference.

# MONTHLY OPERATING REPORT SEPTEMBER 2019

Dow Jones Sustainability Indices



# SEPTEMBER HIGHLIGHTS

In the month to 9 October 2019, national hydro storage decreased from 97% to 81% of historical average

South Island storage sat at 75% of average and North Island storage at 99% of average on 9 October 2019

Meridian's September 2019 monthly total inflows were 67% of historical average Meridian's Waitaki catchment storage at the end of September 2019 was 97% of historical average

Storage in Meridian's Waiau catchment was below average at the end of September 2019

National electricity demand in September 2019 was 1.3% higher than the same month last year

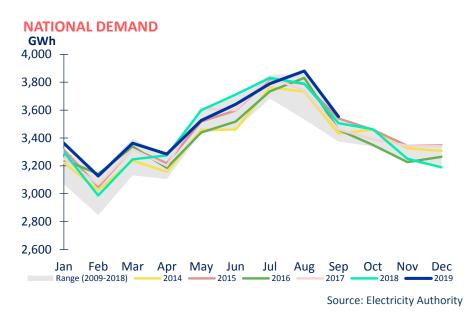
Meridian made calls under the Genesis Swaption in September and early October 2019 September 2019 saw average temperatures and variable rainfall, including below average rainfall in the south and west of the South Island

New Zealand Aluminium Smelter's load during September 2019 was below the contract level of 622MW

Meridian's New Zealand retail sales volumes in September 2019 were 17.3% higher than September 2018

### **MARKET DATA**

- National electricity demand in September 2019 was 1.3% higher than the same month last year
- September 2019 saw average temperatures and variable rainfall, including below average rainfall in the south and west of the South Island
- Demand in the last 12 months was 0.3% higher than the preceding 12 months
- New Zealand Aluminium Smelter's load during September 2019 was below the contract level of 622MW
- 12-month average switching rate of customers changing retailers but not moving ("trader" switch) was 7.5% at the end of August 2019
- 12-month average switching rate of customers moving and changing retailers ("move-in" switch) was 13.2% at the end of August 2019



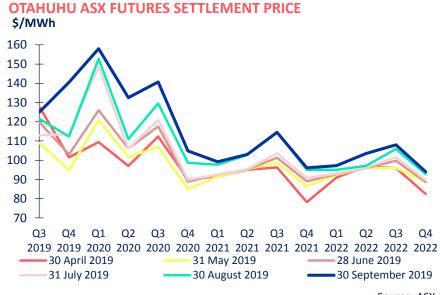
MARKET ICP SWITCHING (ALL RETAILERS)

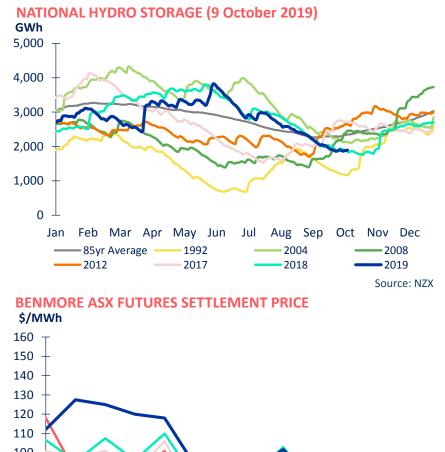


Source: Electricity Authority

#### **MARKET DATA**

- September 2019 saw further near-term ASX prices rise as national storage declined, with gas outages planned for November 2019 and March 2020 and transmission outages planned for Q1 2020
- National storage decreased from 97% of average on 6 September 2019 to 81% of average on 9 October 2019
- South Island storage decreased to 75% of historical average on 9 October 2019. North Island storage increased to 99% of average







Source: ASX 15 October 2019

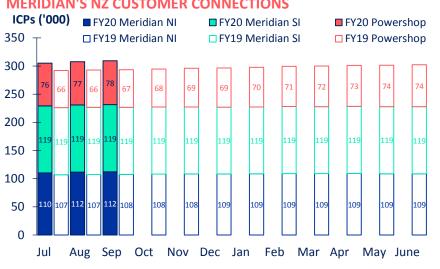
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Meridian operating information

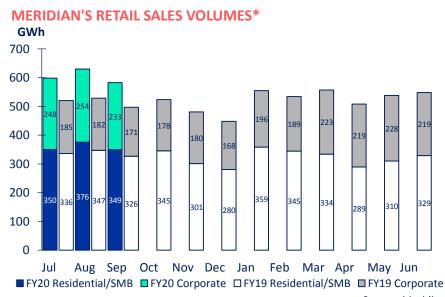
# **NEW ZEALAND RETAIL**

- Meridian's New Zealand customer connection numbers rose 0.5% during August 2019 and have risen 2.3% since June 2019
- Retail sales volumes in September 2019 were 17.3% higher than September 2018
- Compared to September 2018, residential/SMB sales volumes increased by 7.1% (increases in all segments) and corporate sales volumes increased by 36.9%
- To date this financial year, retail sales volumes are 17.1% higher than the same period last year
- This reflects a 6.5% increase in residential/SMB sales volumes and a 37.1% increase in corporate sales volumes



MERIDIAN'S NZ CUSTOMER CONNECTIONS

Source: Meridian

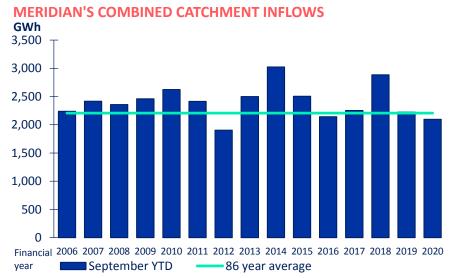


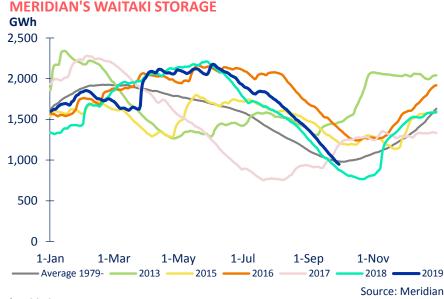
\*excludes volumes sold to New Zealand Aluminium Smelters and CFDs

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## **NEW ZEALAND STORAGE**

- September 2019 monthly inflows were 67% of historical average
- To date this financial year, inflows are 95% of historical average
- Meridian's Waitaki catchment storage moved from 1,385GWh to 948GWh during September 2019
- Waitaki storage at the end of September 2019 was 97% of historical average and 8% higher than the same time last year
- Storage in Meridian's Waiau catchment was below average at the end of September 2019

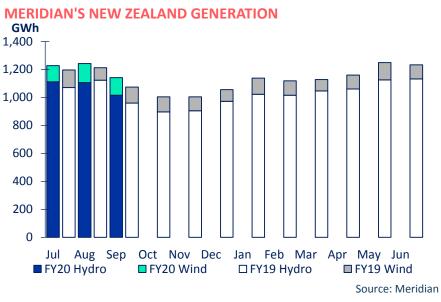




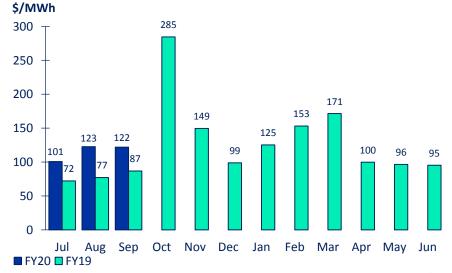
## **NEW ZEALAND GENERATION**

Meridian operating information

- Meridian's New Zealand generation in September 2019 was 6.2% higher than the same month last year, reflecting higher hydro generation and wind generation
- To date this financial year, Meridian's New Zealand generation is 3.6% higher than the same period last year, reflecting higher hydro generation and wind generation
- The average price Meridian received for its generation in September 2019 was 40.5% higher than the same month last year
- The average price Meridian paid to supply customers in September 2019 was 37.2% higher than the same month last year
- To date this financial year, the average price Meridian received for its generation is 46.7% higher than the same period last year and the average price paid to supply customers is 42.3% higher



MERIDIAN'S AVERAGE GENERATION PRICE\*

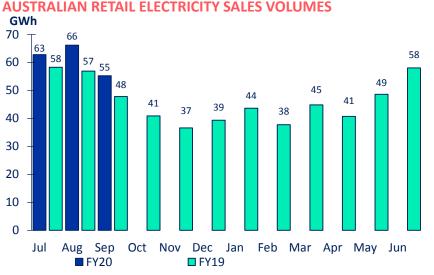


\*price received for Meridian's physical generation

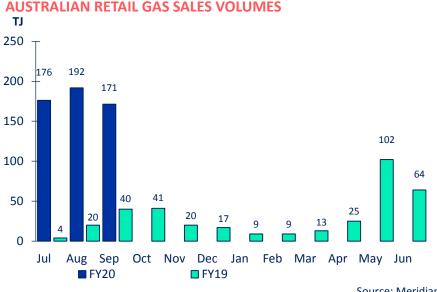
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#### **AUSTRALIAN RETAIL**

- Australian retail electricity sales volumes in September 2019 were 15.5% higher than the same month last year
- To date this financial year, Australian retail electricity sales volume is 13.0% higher than the same period last year
- Powershop Australia electricity customer connection numbers rose 1.9% during September 2019 and have risen 4.8% since June 2019
- Gas customer connection numbers rose 5.1% during September 2019, with total sales in the month of 171TJ

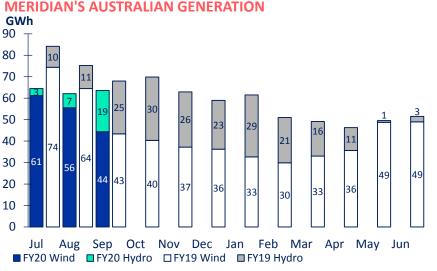


Source: Meridian



# **AUSTRALIAN GENERATION**

- Meridian's Australian generation in September 2019 was 6.5% lower than the same month last year, reflecting higher wind generation and lower hydro generation
- To date this financial year, Meridian's Australian generation is 16.4% lower than the same period last year, reflecting lower hydro generation and wind generation



#### **NEW ZEALAND**

	SEPTEMBER 2019 MONTH	SEPTEMBER 2018 MONTH	AUGUST 2019 MONTH	JULY 2019 MONTH	3 MONTHS TO SEPTEMBER 2019	3 MONTHS TO SEPTEMBER 2018
New Zealand sales						
Retail contracted sales volume (GWh)	583	497	630	599	1,811	1,546
Average retail contracted sales price <sup>1</sup> (\$NZ/MWh)	\$109.5	\$106.7	\$115.4	\$113.5	\$112.8	\$110.2
NZAS sales volume (GWh)	447	411	463	463	1,373	1,262
Financial contract sales volumes <sup>2</sup> (GWh)	148	140	176	150	473	722
Avg. wholesale & financial contracts sales price <sup>3</sup> (\$NZ/MWh)	\$68.4	\$58.0	\$70.9	\$69.9	\$69.8	\$60.6
Retail customer supply volumes (GWh)	581	528	662	645	1,888	1,629
Cost to supply retail customers (\$NZ/MWh)	\$129.3	\$95.0	\$135.6	\$110.4	\$125.1	\$90.7
Cost to supply wholesale customers (\$NZ/MWh)	\$126.1	\$88.7	\$120.5	\$97.9	\$114.7	\$77.2
Cost of financial contracts (\$NZ/MWh)	\$120.5	\$94.3	\$118.2	\$101.9	\$113.7	\$81.9
Total New Zealand customer connections <sup>4</sup>	309,372	293,386	307,798	304,993		
New Zealand generation						
Hydro generation volumes (GWh)	1,015	959	1,106	1,111	3,232	3,152
Wind generation volumes (GWh)	126	115	135	116	378	331
Total generation volumes (GWh)	1,141	1,074	1,241	1,227	3,610	3,483
Average generation price <sup>5</sup> (\$NZ/MWh)	\$121.9	\$86.8	\$122.7	\$100.7	\$115.0	\$78.4
New Zealand hedging						
Hedging volume <sup>6</sup> (GWh)	132	147	139	145	416	484
Hedging costs (\$NZ/MWh)	\$62.2	\$62.5	\$63.2	\$65.0	\$63.5	\$63.8
Hedging spot revenue average price (\$NZ/MWh)	\$124.0	\$87.9	\$130.5	\$104.4	\$119.3	\$80.7
Future contract close outs (\$NZ m)	-\$1.4	-\$0.6	-\$0.6	-\$0.3	-\$2.2	-\$1.0
Meridian Energy Limited Monthly Operating Report for September	2019 1	5 October 2019				10

Meridian Energy Limited Monthly Operating Report for September 2019

#### **AUSTRALIA**

	SEPTEMBER 2019 MONTH	SEPTEMBER 2018 MONTH	AUGUST 2019 MONTH	JULY 2019 MONTH	3 MONTHS TO SEPTEMBER 2019	3 MONTHS TO SEPTEMBER 2018
Australian contracted sales						
Retail contracted electricity sales volume (GWh)	55	48	66	63	184	163
Average electricity contracted sales price <sup>1</sup> (\$A/MWh)	\$131.2	\$159.4	\$147.0	\$149.8	\$143.2	\$159.2
Retail contracted gas sales volume (TJ)	171	40	192	176	539	65
Average gas contracted sales price <sup>1</sup> (\$A/GJ)	\$13.4	\$14.2	\$14.0	\$13.9	\$13.8	\$14.7
Financial contract sales volumes <sup>2</sup> (GWh)	60		43	54	157	
Financial contracted sales average price (\$A/MWh)	\$90.1		\$86.1	\$83.3	\$86.6	
Cost to supply electricity customers (\$A/MWh)	\$118.0	\$114.1	\$126.4	\$105.5	\$116.7	\$107.3
Cost to supply gas customers (\$A/GJ)	\$9.8	\$15.0	\$11.4	\$11.8	\$11.0	\$14.2
Cost of financial contracts (\$A/MWh)	\$103.6		\$101.0	\$86.9	\$97.1	
Powershop electricity customer connections <sup>7</sup>	115,099	96,657	112,995	111,373		
Powershop gas customer connections <sup>8</sup>	26,529	7,558	25,240	24,096		

#### **AUSTRALIA**

	SEPTEMBER 2019 MONTH	SEPTEMBER 2018 MONTH	AUGUST 2019 MONTH	JULY 2019 MONTH	3 MONTHS TO SEPTEMBER 2019	3 MONTHS TO SEPTEMBER 2018
Australian generation						
Wind generation volumes (GWh)	44	43	56	61	161	182
Average wind generation price <sup>5</sup> (\$A/MWh)	\$125.9	\$154.1	\$124.7	\$122.3	\$124.1	\$151.4
Hydro generation volumes (GWh)	19	25	7	3	29	45
Average hydro generation price <sup>5</sup> (\$A/MWh)	\$99.2	\$128.6	\$104.0	\$81.0	\$98.2	\$89.1
PPA generation received (GWh)	30	7	34	35	99	29
Average PPA generation price [net of costs] (\$A/MWh)	\$38.4	-\$71.3	\$30.3	\$22.9	\$30.1	-\$66.6
Australian hedging						
Hedging volume <sup>6</sup> (GWh)	36		39	36	110	
Hedging costs (\$A/MWh)	\$94.3		\$93.1	\$89.6	\$92.4	
Hedging spot revenue average price (\$A/MWh)	\$111.4		\$105.4	\$99.6	\$105.5	
Future contract close outs (\$A M)	-\$0.4	-\$0.8	\$0.0	-\$0.3	-\$0.7	-\$1.0

#### **MERIDIAN GROUP**

	SEPTEMBER 2019 MONTH	SEPTEMBER 2018 MONTH	AUGUST 2019 MONTH	JULY 2019 MONTH	3 MONTHS TO SEPTEMBER 2019	3 MONTHS TO SEPTEMBER 2018
Meridian Group						
Employee and Operating Costs (\$m)	25	24	24	24	73	68
Stay in Business Capital Expenditure (\$m)	4	4	3	4	12	11
Investment Capital Expenditure (\$m)	2	1	2	1	4	4
Total Capital Expenditure (\$m)	6	5	5	5	16	15

#### **Footnotes**

- 1. Contracted sales volumes and volume weighted average price received from contracted customers less distribution costs
- 2. Derivatives sold excluding the sell-side of virtual asset swaps
- 3. Average price of both NZAS sales volume and derivative sales volumes
- 4. Meridian Retail and Powershop New Zealand installation control points (ICPs), excluding vacants
- 5. Volume weighted average price received for Meridian's physical generation
- 6. Over the counter and ASX contract volumes excluding the buy-side of virtual asset swaps
- 7. Financially responsible market participants, excluding vacants
- 8. Meter installation registration numbers

Meridian Energy Limited Monthly Operating Report for September 2019

15 October 2019

#### Meridian operating information

#### FY20 OPERATING INFORMATION

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	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr	May	Jun
New Zealand contracted sales	2019	2019	2019	2019	2019	2019	2020	2020	2020	2020	2020	2020
Retail contracted sales volume (GWh)	599	630	583									
Average retail contracted sales volume (GWI)	\$113.5	\$115.4	\$109.5									
-												
NZAS sales volume (GWh)	463 150	463 176	447 148									
Financial contract sales volumes (GWh)												
Average wholesale & financial contracts sales price (\$NZ/MWh)	\$69.9	\$70.9	\$68.4									
Retail customer supply volumes (GWh)	645	662	581									
Cost to supply retail customers (\$NZ/MWh)	\$110.4	\$135.6	\$129.3									
Cost to supply wholesale customers (\$NZ/MWh)	\$97.9	\$120.5	\$126.1									
Cost of financial contracts (\$NZ/MWh)	\$101.9	\$118.2	\$120.5									
Total New Zealand customer connections	304,993	307,798	309,372									
New Zealand generation												
Hydro generation volume (GWh)	1,111	1,106	1,015									
Wind generation volume (GWh)	116	135	126									
Total generation volume (GWh)	1,227	1,241	1,141									
Average generation price (\$NZ/MWh)	\$100.7	\$122.7	\$121.9									
New Zealand hedging												
Hedging volume (GWh)	145	139	132									
Hedging costs (\$NZ/MWh)	\$65.0	\$63.2	\$62.2									
Hedging spot revenue average price (\$NZ/MWh)	\$104.4	\$130.5	\$124.0									
Future contract close outs (\$NZm)	-0.3	-0.6	-1.4									
Australia contracted sales												
Retail contracted electricity sales volume (GWh)	63	66	55									
Average electricity contracted sales price <sup>1</sup> (\$A/MWh)	\$149.8	\$147.0	\$131.2									
Retail contracted gas sales volume (TJ)	176	192	171									
Average gas contracted sales price <sup>1</sup> (\$A/GJ)	\$13.9	\$14.0	\$13.4									
Financial contract sales volumes <sup>2</sup> (GWh)	54	43	60									
Financial contracted sales average price (\$A/MWh)	\$83.3	\$86.1	\$90.1									
Cost to supply electricity customers (\$A/MWh)	\$105.5	\$126.4	\$118.0									
Cost to supply gas customers (\$A/GJ)	\$11.8	\$11.4	\$9.8									
Cost of financial contracts (\$A/MWh)	\$86.9	\$101.0	\$103.6									
Powershop electricity customer connections <sup>7</sup>	111,373	112,995	115,099									
Powershop gas customer connections <sup>8</sup>	24,096	25,240	26,529									
Australia generation	,	,	,									
Wind generation volume (GWh)	61	56	44									
Average wind generation price (\$A/MWh)	\$122.3	\$124.7	\$125.9									
Hydro generation volume (GWh)	3	7	. 19									
Average hydro generation price (\$A/MWh)	\$81.0	\$104.0	\$99.2									
PPA generation received (GWh)	35	34	30									
Average PPA generation price [net of costs] (\$A/MWh)	\$22.9	\$30.3	\$38.4									
Australia hedging												
Hedging volume (GWh)	36	39	36									
Hedging costs (\$A/MWh)	\$89.6	\$93.1	\$94.3									
Hedging spot revenue average price (\$A/MWh)	\$99.6	\$105.4	\$111.4									
Future contract close outs (\$A M)	-\$0.3	\$0.0	-\$0.4									
							_					_
Meridian Group												
Employee and Operating Costs (\$NZ m)	24	24	25									
Stay in Business Capital Expenditure (\$NZ m)	4	3	4									
Investment Capital Expenditure (\$NZ m)	1	2	2									
Total Capital Expenditure (\$NZ m)	5	5	6									

Meridian Energy Limited Monthly Operating Report for September 2019

#### FY19 OPERATING INFORMATION

	lut	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
New Zealand contracted sales	2018	2018	2018	2018	2018	2018	2019	2019	2019	2019	2019	2019
Retail contracted sales volume (GWh)	521	529	497	524	481	448	555	534	557	508	538	548
Average retail contracted sales price (\$NZ/MWh)	\$113.1	\$110.7	\$106.7	\$98.3	\$98.5	\$95.5	\$98.2	\$102.0	\$101.3	\$105.4	\$112.7	\$113.9
NZAS sales volume (GWh)	426	426	411	439	444	463	463	418	463	448	463	448
Financial contract sales volumes (GWh)	386	196	140	149	146	217	157	196	187	168	168	129
Average wholesale & financial contracts sales price (\$NZ/MWh)	\$63.9	\$58.5	\$58.0	\$65.9	\$72.7	\$68.9	\$69.4	\$80.6	\$80.3	\$73.0	\$72.3	\$69.6
Retail customer supply volumes (GWh)	541	560	528	554	509	468	581	572	587	538	578	592
Cost to supply retail customers (\$NZ/MWh)	\$87.1	\$90.0	\$95.0	\$309.8	\$183.0	\$115.5	\$141.3	\$171.6	\$186.0	\$113.4	\$113.3	\$102.8
Cost to supply wholesale customers (\$NZ/MWh)	\$68.9	\$74.4	\$88.7	\$284.1	\$137.1	\$98.1	\$125.8	\$153.6	\$168.2	\$97.5	\$93.1	\$89.7
Cost of financial contracts (\$NZ/MWh)	\$71.8	, \$93.1	\$94.3	\$267.7	\$152.7	\$116.5	\$126.1	\$156.8	\$163.0	\$104.4	\$96.3	\$103.0
Total New Zealand customer connections	292,091	292,906	293,386	294,695	296,064	296,532	297,621	299,351	299,905	301,230	301,508	302,277
New Zealand generation	,	,	,	,	,	,	,	,	,	,	,	,
Hydro generation volume (GWh)	1,070	1,123	959	897	905	972	1,022	1,015	1,046	1,060	1,125	1,132
Wind generation volume (GWh)	126	90	115	107	99	83	116	104	81	99	123	100
Total generation volume (GWh)	1,196	1,213	1,074	1,004	1,004	1,055	1,138	1,119	1,128	1,159	1,248	1,232
Average generation price (\$NZ/MWh)	\$72.1	\$77.2	\$86.8	\$284.6	\$149.5	\$98.8	\$125.3	\$153.1	\$171.5	\$99.8	\$96.5	\$95.2
New Zealand hedging												
Hedging volume (GWh)	170	167	147	200	190	177	155	142	186	144	149	138
Hedging costs (\$NZ/MWh)	\$65.7	\$63.1	\$62.5	\$77.7	\$74.7	\$61.7	\$69.3	\$66.6	\$71.2	\$65.0	\$66.3	\$63.9
Hedging spot revenue average price (\$NZ/MWh)	\$74.5	\$80.8	\$87.9	\$290.6	\$180.8	\$104.6	\$127.7	\$157.7	\$168.4	\$103.1	\$101.9	\$97.5
Future contract close outs (\$NZm)	-0.1	-0.3	-0.6	-0.5	-0.5	-0.5	-0.4	-0.7	-2.8	-1.1	-0.4	-0.1
Australia contracted sales	50		40		27	20		20	45		40	
Retail contracted electricity sales volume (GWh)	58	57	48	41	37	39	44	38	45	41	49	58
Average electricity contracted sales price <sup>1</sup> (\$A/MWh)	\$149.6	\$168.9	\$159.4								\$162.2	\$159.7
Retail contracted gas sales volume (TJ)	4	20	40	41	20	17	9	9	13	25	102	64
Average gas contracted sales price <sup>1</sup> (\$A/GJ)	\$16.1	\$15.5	\$14.2								\$15.4	\$19.4
Financial contract sales volumes <sup>2</sup> (GWh)											51	42
Financial contracted sales average price (\$A/MWh)											\$64.1	\$80.7
Cost to supply electricity customers (\$A/MWh)	\$103.1	\$105.7	\$114.1								\$112.4	\$133.7
Cost to supply gas customers (\$A/GJ)	\$14.8	\$12.8	\$15.0								\$11.7	\$29.4
Cost of financial contracts (\$A/MWh)											\$70.1	\$100.2
Powershop electricity customer connections <sup>7</sup>	96,743	96,801	96,657	97,514	98,618	99,368	101,020	102,730	104,450	106,240	108,332	109,804
Powershop gas customer connections <sup>8</sup>	1,137	4,776	7,558	9,577	11,333	12,508	14,309	16,751	18,225	19,990	21,426	22,612
Australia generation												
Wind generation volume (GWh)	74	64	43	40	37	36	33	30	33	36	49	49
Average wind generation price (\$A/MWh)	\$153.0	\$148.0	\$154.1								\$143.9	\$126.1
Hydro generation volume (GWh)	10	11	25	30	26	23	29	21	16	11	1	3
Average hydro generation price (\$A/MWh)	\$37.3	\$46.0	\$128.6								\$79.3	\$77.4
PPA generation received (GWh)	11	10	7								33	31
Average PPA generation price [net of costs] (\$A/MWh)	-\$66.0	-\$63.9	-\$71.3								\$40.4	\$34.2
Australia hedging												
Hedging volume (GWh)											80	51
Hedging costs (\$A/MWh)											\$65.6	\$95.9
Hedging spot revenue average price (\$A/MWh)											\$58.2	\$99.0
Future contract close outs (\$A M)	-\$0.1	-\$0.1	-\$0.8								\$0.0	\$0.1
Meridian Group												
Employee and Operating Costs (\$NZ m)	22	23	24	22	22	22	22	22	23	22	26	29
Stay in Business Capital Expenditure (\$NZ m)	5	3	4	5	4	3	3	3	3	4	5	9
Investment Capital Expenditure (\$NZ m)	1	1	1	1	1	1	1	2	1	1	2	1
	6	4	5	6	5	4		5	4	5	7	10

# GLOSSARY

Hedging volumes	buy-side electricity derivatives excluding the buy-side of virtual asset swaps
Average generation price	the volume weighted average price received for Meridian's physical generation
Average retail contracted sales price	volume weighted average electricity price received from retail customers, less distribution costs
Average wholesale contracted sales price	volume weighted average electricity price received from wholesale customers (including NZAS) and financial contracts
Combined catchment inflows	combined water inflows into Meridian's Waitaki and Waiau hydro storage lakes
Cost of hedges	volume weighted average price Meridian pays for derivatives acquired
Cost to supply contracted sales	volume weighted average price Meridian pays to supply contracted customer sales and financial contracts
Contracts for Difference (CFDs)	an agreement between parties to pay the difference between the wholesale electricity price and an agreed fixed price for a specified volume of electricity. CFDs do not result in the physical supply of electricity
Customer connections (NZ)	number of installation control points, excluding vacants
FRMP	financially responsible market participant
GWh	gigawatt hour. Enough electricity for 125 average New Zealand households for one year
Historic average inflows	the historic average combined water inflows into Meridian's Waitaki and Waiau hydro storage lakes over the last 85 years
Historic average storage	the historic average level of storage in Meridian's Waitaki catchment since 1979
HVDC	high voltage direct current link between the North and South Islands of New Zealand
ICP	New Zealand installation control points, excluding vacants
ICP switching	the number of installation control points changing retailer supplier in New Zealand, recorded in the month the switch was initiated
MWh	megawatt hour. Enough electricity for one average New Zealand household for 46 days
National demand	Electricity Authority's reconciled grid demand www.emi.ea.govt.nz
NZAS	New Zealand Aluminium Smelters Limited
Retail sales volumes	contract sales volumes to retail customers, including both non half hourly and half hourly metered customers
Financial contract sales	sell-side electricity derivatives excluding the sell-side of virtual asset swaps
LΤ	Terajoules
Virtual Asset Swaps (VAS)	CFDs Meridian has with Genesis Energy and Mercury New Zealand. They do not result in the physical supply of electricity