

# **MONTHLY OPERATING REPORT**



**AUGUST 2019** 



## **AUGUST HIGHLIGHTS**

In the month to 6 September 2019, national hydro storage decreased from 106% to 97% of historical average

South Island storage sat at 98% of average and North Island storage at 94% of average on 6 September 2019

Meridian's August 2019 monthly total inflows were 99% of historical average Meridian's Waitaki catchment storage at the end of August 2019 was 123% of historical average

Storage in Meridian's Waiau catchment was above average at the end of August 2019

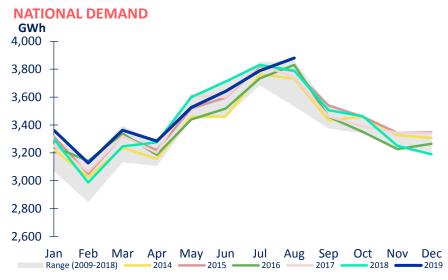
National electricity demand in August 2019 was 2.4% higher than the same month last year August 2019 saw variable temperatures and rainfall patterns across the country with a predominately cooler southwesterly wind flow

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

Meridian's New Zealand retail sales volumes in August 2019 were 19.1% higher than August 2018

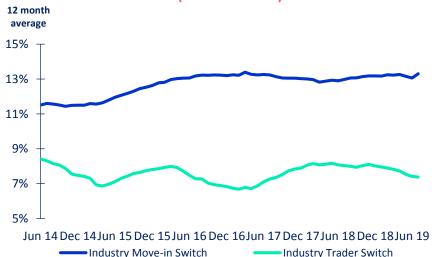
## **MARKET DATA**

- National electricity demand in August 2019 was 2.4% higher than the same month last year
- August 2019 saw variable temperatures and rainfall patterns across the country with a predominately cooler southwesterly wind flow
- Demand in the last 12 months was 0.3% higher than the preceding 12 months
- New Zealand Aluminium Smelter's load during August 2019 was below the contract level of 622MW
- 12-month average switching rate of customers changing retailers but not moving ("trader" switch) was 7.4% at the end of July 2019
- 12-month average switching rate of customers moving and changing retailers ("move-in" switch) was 13.3% at the end of July 2019



Source: Electricity Authority

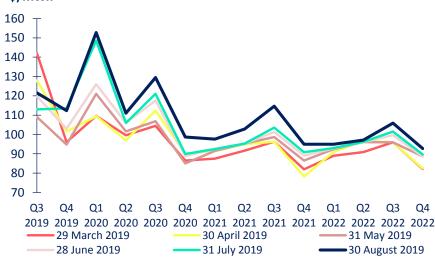
#### MARKET ICP SWITCHING (ALL RETAILERS)



## **MARKET DATA**

- August 2019 saw further near-term ASX prices rise as national storage declined, with gas and transmission outages planned for Q1 2020
- National storage decreased from 106% of average on 12 August 2019 to 97% of average on 6 September 2019
- South Island storage decreased to 98% of historical average on 6 September 2019. North Island storage increased to 94% of average

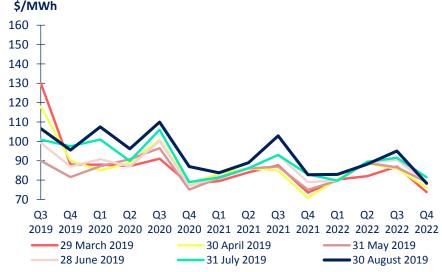
#### **OTAHUHU ASX FUTURES SETTLEMENT PRICE** \$/MWh



#### **NATIONAL HYDRO STORAGE (6 September 2019)**



#### BENMORE ASX FUTURES SETTLEMENT PRICE



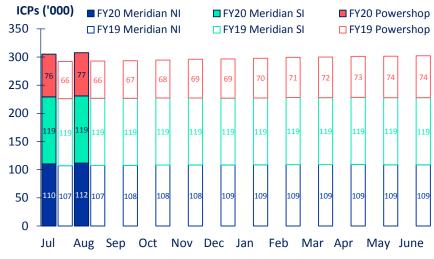
Source: ASX

Source: ASX 17 September 2019

## **NEW ZEALAND RETAIL**

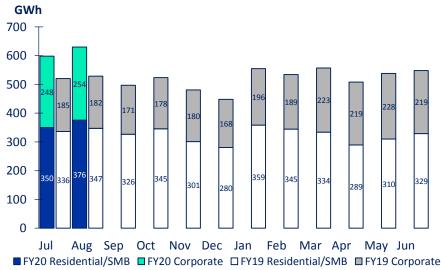
- Meridian's New Zealand customer connection numbers rose 0.9% during August 2019
- Retail sales volumes in August 2019 were 19.1% higher than August 2018
- Compared to August 2018, residential/SMB sales volumes increased by 8.2% (increases in all segments) and corporate sales volumes increased by 40.0%
- To date this financial year, retail sales volumes are 17.1% higher than the same period last year
- This reflects a 6.2% increase in residential/SMB sales volumes and a 37.3% increase in corporate sales volumes

#### MERIDIAN'S NZ CUSTOMER CONNECTIONS



Source: Meridian

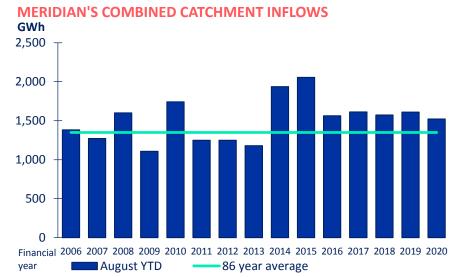
#### **MERIDIAN'S RETAIL SALES VOLUMES\***



<sup>\*</sup>excludes volumes sold to New Zealand Aluminium Smelters and CFDs

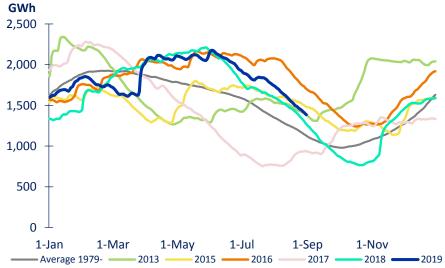
## **NEW ZEALAND STORAGE**

- August 2019 monthly inflows were 99% of historical average
- To date this financial year, inflows are 113% of historical average
- Meridian's Waitaki catchment storage moved from 1,745GWh to 1,385GWh during August 2019
- Waitaki storage at the end of August 2019 was 123% of historical average and 9% higher than the same time last year
- Storage in Meridian's Waiau catchment was above average at the end of August 2019



Source: Meridian

#### **MERIDIAN'S WAITAKI STORAGE**



Source: Meridian

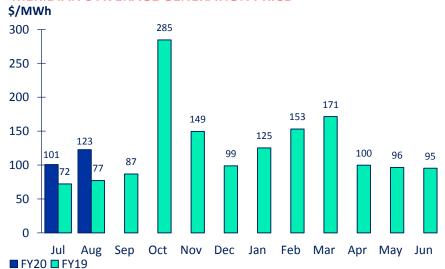
## **NEW ZEALAND GENERATION**

- Meridian's New Zealand generation in August 2019 was 2.4% higher than the same month last year, reflecting lower hydro generation and higher wind generation
- To date this financial year, Meridian's New Zealand generation is 2.5% higher than the same period last year, reflecting higher hydro generation and wind generation
- The average price Meridian received for its generation in August 2019 was 58.9% higher than the same month last year
- The average price Meridian paid to supply customers in August 2019 was 50.6% higher than the same month last year
- To date this financial year, the average price Meridian received for its generation is 49.7% higher than the same period last year and the average price paid to supply customers is 44.4% higher

# MERIDIAN'S NEW ZEALAND GENERATION GWh 1,400 1,000 800 600 400 Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun FY20 Hydro FY20 Wind FY19 Hydro FY19 Wind

Source: Meridian

#### MERIDIAN'S AVERAGE GENERATION PRICE\*

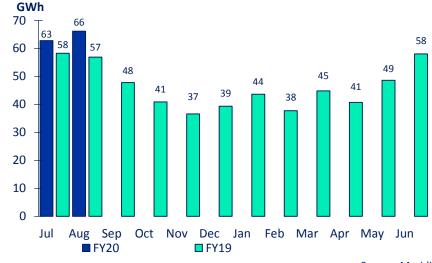


<sup>\*</sup>price received for Meridian's physical generation

## **AUSTRALIAN RETAIL**

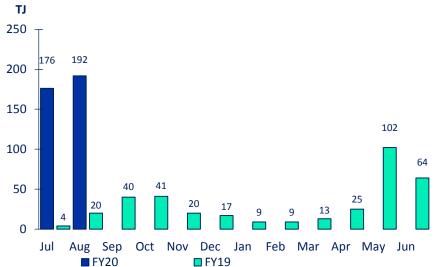
- Australian retail electricity sales volumes in August 2019 were 16.3% higher than the same month last year
- To date this financial year, Australian retail electricity sales volume is 11.9% higher than the same period last year
- Powershop Australia electricity customer connection numbers rose 1.5% during August 2019
- Gas customer connection numbers rose
   4.7% during August 2019, with sales in the month of 192TJ

#### **AUSTRALIAN RETAIL ELECTRICITY SALES VOLUMES**



Source: Meridian

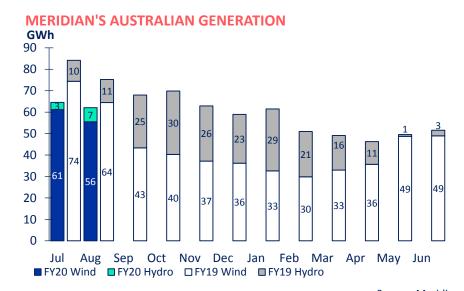
#### **AUSTRALIAN RETAIL GAS SALES VOLUMES**



Source: Meridian

## **AUSTRALIAN GENERATION**

- Meridian's Australian generation in August 2019 was 17.5% lower than the same month last year, reflecting lower wind generation and hydro generation
- To date this financial year, Meridian's Australian generation is 20.6% lower than the same period last year, reflecting lower hydro generation and wind generation



Source: Meridian

326

\$70.4

1,307

\$123.2

\$109.2

\$110.7

2,217

252

2,469

\$111.8

284

\$64.1

\$117.1

-\$0.8

2 MONTHS

582

\$61.6

1,101

\$88.6

\$71.7

\$78.9

2,193

2,409

\$74.7

337

\$64.4

\$77.6

-\$0.5

10

216

2 MONTHS

# **NEW ZEALAND**

Avg. wholesale & financial contracts sales price<sup>3</sup> (\$NZ/MWh)

Financial contract sales volumes<sup>2</sup> (GWh)

Retail customer supply volumes (GWh)

Cost of financial contracts (\$NZ/MWh)

**New Zealand generation** 

**New Zealand hedging** 

Hedging volume<sup>6</sup> (GWh)

Hedging costs (\$NZ/MWh)

Future contract close outs (\$NZ m)

Hydro generation volumes (GWh)

Wind generation volumes (GWh)

**Total generation volumes (GWh)** 

Average generation price<sup>5</sup> (\$NZ/MWh)

Hedging spot revenue average price (\$NZ/MWh)

Meridian Energy Limited Monthly Operating Report for August 2019

Total New Zealand customer connections<sup>4</sup>

Cost to supply retail customers (\$NZ/MWh)

Cost to supply wholesale customers (\$NZ/MWh)

	2019 MONTH	2018 MONTH	2019 MONTH	2019 MONTH	TO AUGUST 2019	TO AUGUST 2018
New Zealand sales						
Retail contracted sales volume (GWh)	630	529	599	548	1,228	1,049
Average retail contracted sales price <sup>1</sup> (\$NZ/MWh)	\$115.4	\$110.7	\$113.5	\$113.9	\$114.4	\$111.9
NZAS sales volume (GWh)	463	426	463	448	926	851

AUGUST

176

662

\$70.9

\$135.6

\$120.5

\$118.2

307,798

1,106

1,241

\$122.7

139

\$63.2

\$130.5

-\$0.6

135

AUGUST

196

560

\$58.5

\$90.0

\$74.4

\$93.1

1,123

1,213

\$77.2

167

\$63.1

\$80.8

-\$0.3

17 September 2019

90

292,906

JULY

150

\$69.9

645

\$110.4

\$97.9

\$101.9

304,993

1,111

1,227

\$100.7

145

\$65.0

\$104.4

-\$0.3

116

JUNE

129

592

\$69.6

\$102.8

\$89.7

\$103.0

302,277

1,132

1,232

\$95.2

138

\$63.9

\$97.5

-\$0.1

100

# **AUSTRALIA**

	AUGUST 2019 MONTH	AUGUST 2018 MONTH	JULY 2019 MONTH	JUNE 2019 MONTH	2 MONTHS TO AUGUST 2019	2 MONTHS TO AUGUST 2018
Australian contracted sales						
Retail contracted electricity sales volume (GWh)	66	57	63	58	129	115
Average electricity contracted sales price <sup>1</sup> (\$A/MWh)	\$147.0	\$168.9	\$149.8	\$159.7	\$148.4	\$159.1
Retail contracted gas sales volume (TJ)	192	20	176	64	367	24
Average gas contracted sales price <sup>1</sup> (\$A/GJ)	\$14.0	\$15.5	\$13.9	\$19.4	\$13.9	\$15.4
Financial contract sales volumes <sup>2</sup> (GWh)	43		54	42	97	
Financial contracted sales average price (\$A/MWh)	\$86.1		\$83.3	\$80.7	\$84.5	
Cost to supply electricity customers (\$A/MWh)	\$126.4	\$105.7	\$105.5	\$133.7	\$116.2	\$104.4
Cost to supply gas customers (\$A/GJ)	\$11.4	\$12.8	\$11.8	\$29.4	\$11.6	\$13.0
Cost of financial contracts (\$A/MWh)	\$101.0		\$86.9	\$100.2	\$93.2	
Powershop electricity customer connections <sup>7</sup>	112,995	96,801	111,373	109,804		
Powershop gas customer connections <sup>8</sup>	25,240	4,776	24,096	22,612		

# **AUSTRALIA**

					1	I
	AUGUST	AUGUST	JULY	JUNE	2 MONTHS	2 MONTHS
	2019	2018	2019	2019	TO AUGUST	TO AUGUST
	MONTH	MONTH	MONTH	MONTH	2019	2018
Australian generation						
Wind generation volumes (GWh)	56	64	61	49	117	139
Average wind generation price <sup>5</sup> (\$A/MWh)	\$124.7	\$148.0	\$122.3	\$126.1	\$123.4	\$150.6
Hydro generation volumes (GWh)	7	11	3	3	10	21
Average hydro generation price <sup>5</sup> (\$A/MWh)	\$104.0	\$46.0	\$81.0	\$77.4	\$96.3	\$41.9
PPA generation received (GWh)	34	10	35	31	69	22
Average PPA generation price [net of costs] (\$A/MWh)	\$30.3	-\$63.9	\$22.9	\$34.2	\$26.5	-\$65.0
Australian hedging						
Hedging volume <sup>6</sup> (GWh)	39		36	51	74	
Hedging costs (\$A/MWh)	\$93.1		\$89.6	\$95.9	\$91.5	
Hedging spot revenue average price (\$A/MWh)	\$105.4		\$99.6	\$99.0	\$102.7	
Future contract close outs (\$A M)	\$0.0	-\$0.1	-\$0.3	\$0.1	-\$0.3	-\$0.2

## **MERIDIAN GROUP**

	AUGUST 2019 MONTH	AUGUST 2018 MONTH	JULY 2019 MONTH	JUNE 2019 MONTH	2 MONTHS TO AUGUST 2019	2 MONTHS TO AUGUST 2018
Meridian Group						
Employee and Operating Costs (\$m)	24	23	24	29	48	45
Stay in Business Capital Expenditure (\$m)	3	3	4	9	7	8
Investment Capital Expenditure (\$m)	2	1	1	1	3	2
Total Capital Expenditure (\$m)	5	4	5	10	10	10

#### **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
- 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

# **FY20 OPERATING INFORMATION**

	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020	Jun 2020
New Zealand contracted sales	2013	2013	2013	2013	2013	2013	2020	2020	2020	2020	2020	2020
Retail contracted sales volume (GWh)	599	630										
Average retail contracted sales price (\$NZ/MWh)	\$113.5	\$115.4										
NZAS sales volume (GWh)	463	463										
Financial contract sales volumes (GWh)	150	176										
Average wholesale & financial contracts sales price (\$NZ/MWh)	\$69.9	\$70.9										
Retail customer supply volumes (GWh)	645	662										
Cost to supply retail customers (\$NZ/MWh)	\$110.4	\$135.6										
Cost to supply wholesale customers (\$NZ/MWh)	\$97.9	\$120.5										
Cost of financial contracts (\$NZ/MWh)	\$101.9	\$118.2										
Total New Zealand customer connections	304,993	307,798										
New Zealand generation												
Hydro generation volume (GWh)	1,111	1,106										
Wind generation volume (GWh)	116	135										
Total generation volume (GWh)	1,227	1,241										
Average generation price (\$NZ/MWh)	\$100.7	\$122.7										
New Zealand hedging												
Hedging volume (GWh)	145	139										
Hedging costs (\$NZ/MWh)	\$65.0	\$63.2										
Hedging spot revenue average price (\$NZ/MWh)	\$104.4	\$130.5										
Future contract close outs (\$NZm)	-0.3	-0.6										
Australia contracted sales												
Retail contracted electricity sales volume (GWh)	63	66										
Average electricity contracted sales price <sup>1</sup> (\$A/MWh)	\$149.8	\$147.0										
Retail contracted gas sales volume (TJ)	176	192										
Average gas contracted sales price <sup>1</sup> (\$A/GJ)	\$13.9	\$14.0										
Financial contract sales volumes <sup>2</sup> (GWh)	54	43										
Financial contracted sales average price (\$A/MWh)	\$83.3	\$86.1										
Cost to supply electricity customers (\$A/MWh)	\$105.5	\$126.4										
Cost to supply gas customers (\$A/GJ)	\$11.8	\$11.4										
Cost of financial contracts (\$A/MWh)	\$86.9	\$101.0										
Powershop electricity customer connections <sup>7</sup>	111,373	112,995										
Powershop gas customer connections <sup>8</sup>	24,096	25,240										
Australia generation	2 1,030	23,210										
Wind generation volume (GWh)	61	56										
Average wind generation price (\$A/MWh)	\$122.3	\$124.7										
Hydro generation volume (GWh)	3	7										
Average hydro generation price (\$A/MWh)	\$81.0	\$104.0										
PPA generation received (GWh)	35	34										
Average PPA generation price [net of costs] (\$A/MWh)	\$22.9	\$30.3										
Australia hedging												
Hedging volume (GWh)	36	39										
Hedging costs (\$A/MWh)	\$89.6	\$93.1										
Hedging spot revenue average price (\$A/MWh)	\$99.6	\$105.4										
Future contract close outs (\$A M)	-\$0.3	\$0.0										
Meridian Group												
Employee and Operating Costs (\$NZ m)	24	24										
Stay in Business Capital Expenditure (\$NZ m)	4	3										
Investment Capital Expenditure (\$NZ m)	1	2										
Total Capital Expenditure (\$NZ m)	5	5										

## **FY19 OPERATING INFORMATION**

	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019
New Zealand contracted sales	2010	2010	2010	2010	2010	2010	2013	2013	2013	2013	2013	2013
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	232,031	232,300	255,500	25 1,055	230,00.	250,552	257,021	255,551	255,505	301,230	301,300	302,277
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	7/2.1	7//.2	200.0	J204.0	Ş1 <del>4</del> 3.3	Ç30.0	Ģ123.3	Ģ133.1	Ş1/1.5	٥.٥٥	Ç30.3	755.2
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
i deale contract close odes (\$11211)	0.1	0.0	0.0	0.5	0.5	0.5	0	017	2.0		0	0.12
Australia contracted sales												
Retail contracted electricity sales volume (GWh)	58	57	48	41	37	39	44	38	45	41	49	58
Average electricity contracted sales price (\$A/MWh)	\$149.6	\$168.9									\$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					_	_			\$15.4	\$19.4
Financial contract sales volumes <sup>2</sup> (GWh)	Ψ10.1	γ15.5									51	42
Financial contracts dies volumes (GWM)  Financial contracted sales average price (\$A/MWh)											\$64.1	\$80.7
	\$103.1	\$105.7									\$112.4	\$133.7
Cost to supply electricity customers (\$A/MWh)	\$103.1	\$103.7									\$112.4	\$133.7
Cost to supply gas customers (\$A/GJ)	\$14.6	\$12.0									\$70.1	\$100.2
Cost of financial contracts (\$A/MWh)	06.740	05.004	00.055	07.544	00.540	00.000	404.000	400 700	404.450	400 040		
Powershop electricity customer connections'	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									\$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									\$79.3	\$77.4
PPA generation received (GWh)	11	10									33	31
Average PPA generation price [net of costs] (\$A/MWh)	-\$66.0	-\$63.9									\$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									\$0.0	\$0.1
Maridian Group												
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
Total Capital Expenditure (\$NZ m)	6	4	5	6	5	4	4	5	4	5	7	10
Total Capital Experiulture (\$142 III)		4		В		4	4	5	4			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 <u>www.emi.ea.govt.nz</u>

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

TJ 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