



meridian

# NOVEMBER 2018



MERIDIAN ENERGY LIMITED  
MONTHLY OPERATING REPORT



FTSE4Good

MEMBER OF

**Dow Jones  
Sustainability Indices**

In Collaboration with RobecoSAM

# NOVEMBER HIGHLIGHTS

In the month to 10 December 2018, national hydro storage increased from 83% to 95% of historical average

South Island storage sat at 100% of average and North Island storage at 72% of average on 10 December 2018

Meridian's November 2018 monthly total inflows were 123% of historical average

Meridian's Waitaki catchment storage at the end of November 2018 was 114% of historical average

Storage in Meridian's Waiau catchment was slightly below average at the end of November 2018

Meridian made calls on load under the Genesis Swaption in early November 2018

National electricity demand in November 2018 was 2.8% lower than the same month last year

November 2018 saw very wet and cooler conditions in eastern and inland parts of the South Island, with temperatures across the rest of the country above average

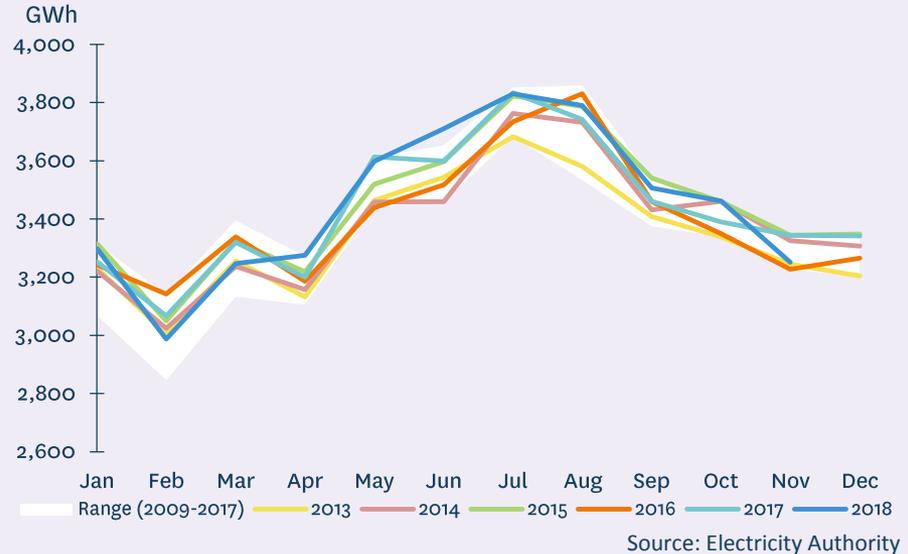
New Zealand Aluminium Smelter's load lifted during November 2018 as new cells were cut in on potline 4

Meridian's retail sales volumes in November 2018 were 10.8% lower than November 2017

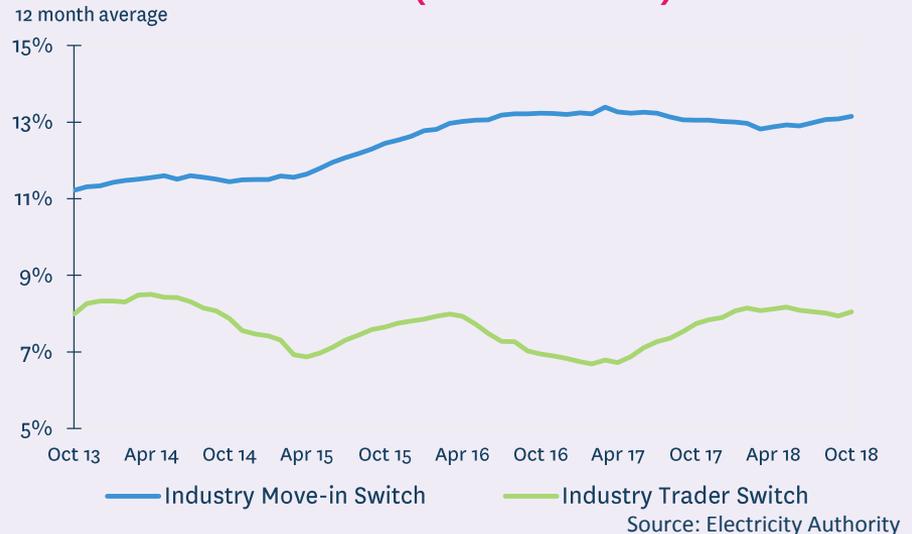
# MARKET DATA

- National electricity demand in November 2018 was 2.8% lower than the same month last year, with low irrigation load this month
- November 2018 saw very wet and cooler conditions in eastern and inland parts of the South Island, with temperatures across the rest of the country above average
- Demand in the last 12 months was 0.5% higher than the preceding 12 months
- New Zealand Aluminium Smelter's load lifted during November 2018 as new cells were cut in on potline 4. By early December load was at 612MW (NZAS contracts with Meridian now total 622MW)
- 12-month average switching rate of customers changing retailers but not moving ("trader" switch) was 8.1% at the end of October 2018
- 12-month average switching rate of customers moving and changing retailers ("move-in" switch) was 13.2% at the end of October 2018

## NATIONAL DEMAND



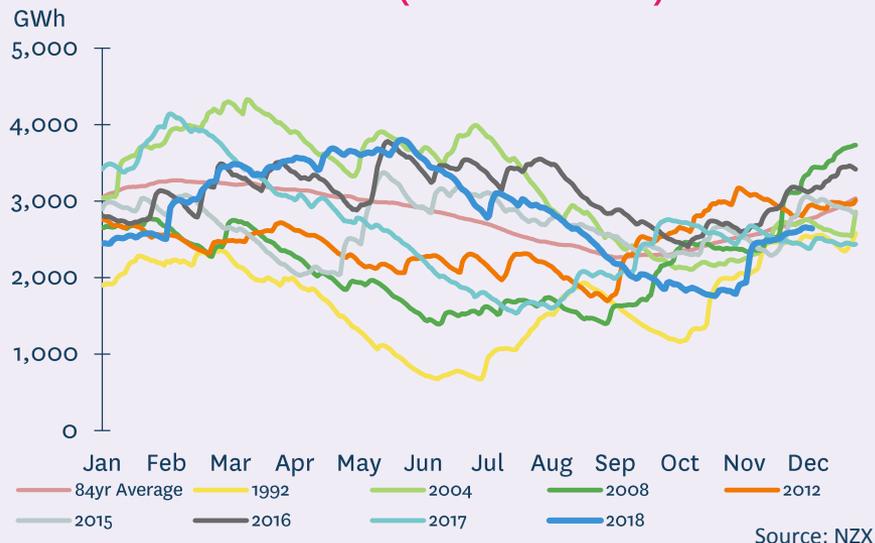
## MARKET ICP SWITCHING (ALL RETAILERS)



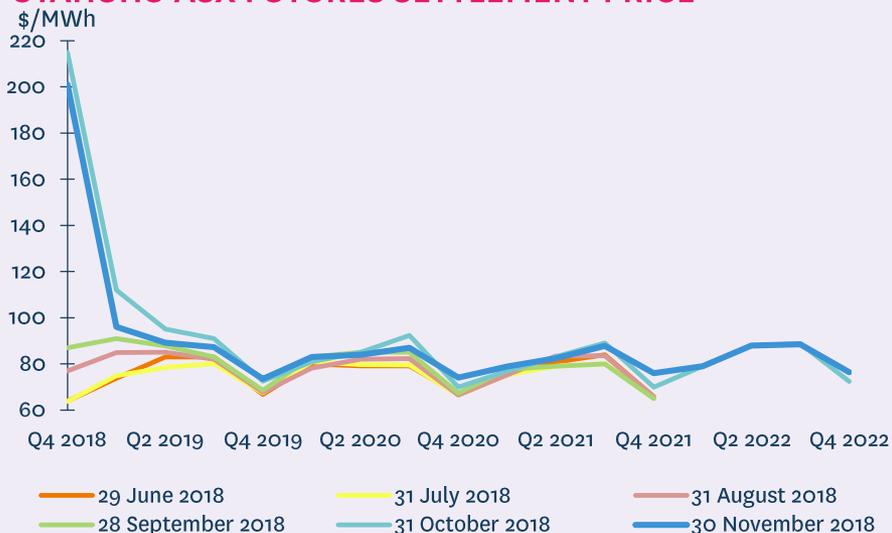
# MARKET DATA

- November 2018 saw decreases in near-term ASX prices
- National storage increased from 83% of the 84 year average on 9 November 2018 to 95% of average on 10 December 2018
- South Island storage increased to 100% of historical average on 10 December 2018. North Island storage decreased to 72% of average

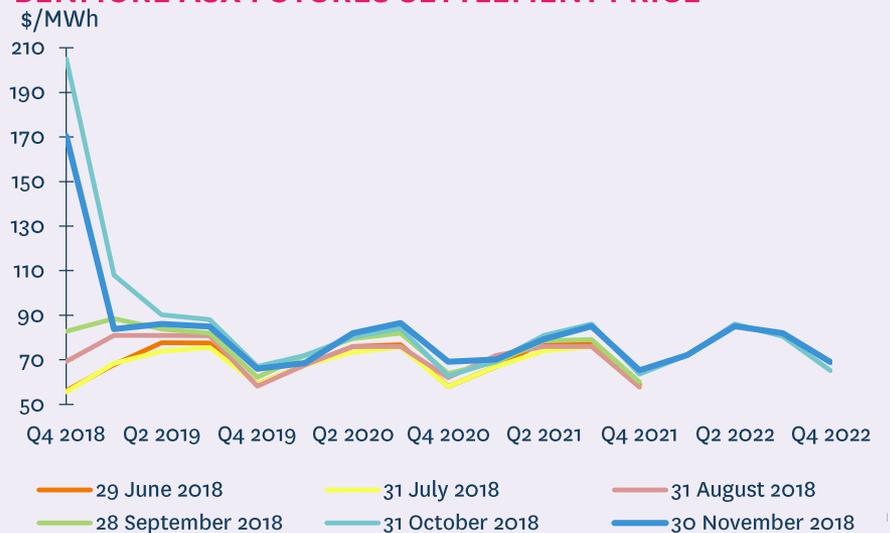
## NATIONAL HYDRO STORAGE (10 December 2018)



## OTAHUHU ASX FUTURES SETTLEMENT PRICE



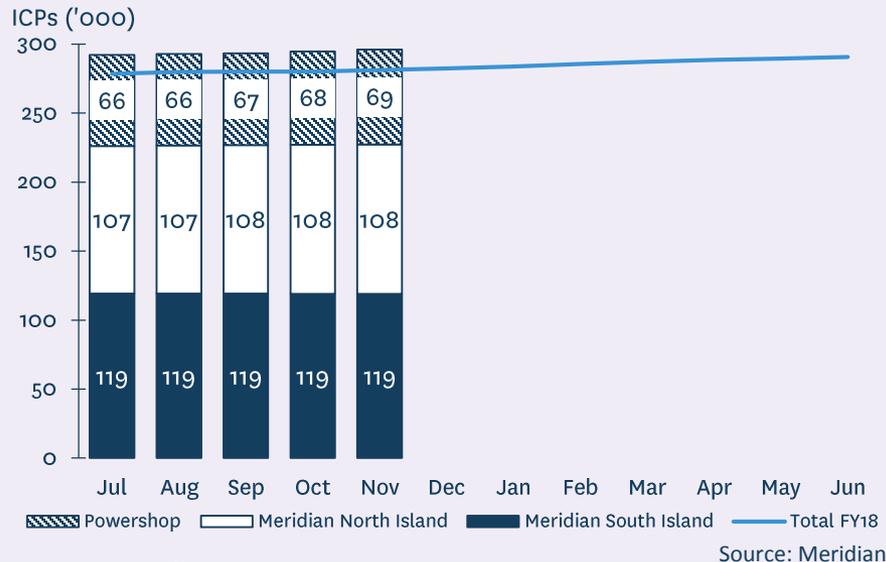
## BENMORE ASX FUTURES SETTLEMENT PRICE



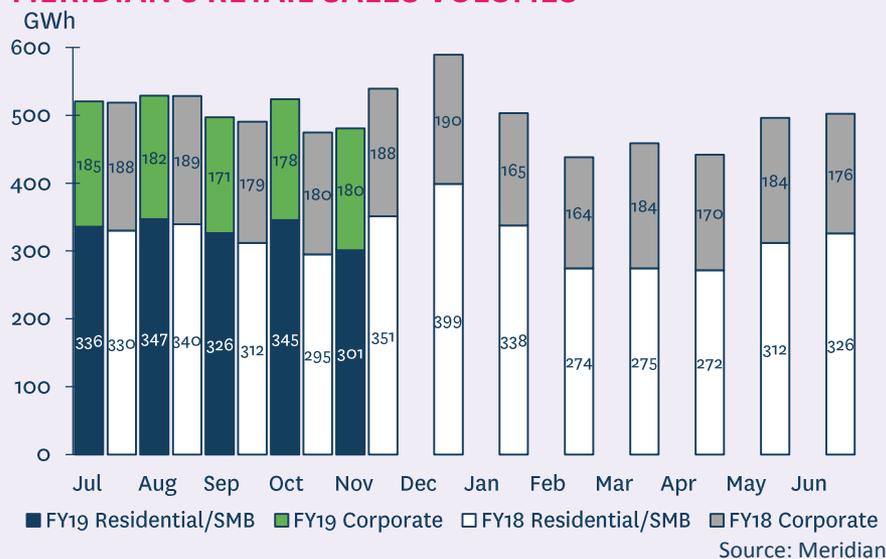
# OPERATING INFORMATION

- Meridian's New Zealand customer connection numbers rose 0.5% during November 2018 and have risen 1.8% since June 2018
- Retail sales volumes in November 2018 were 10.8% lower than November 2017
- Compared to November 2017, residential/SMB sales volumes decreased by 14.2% (higher volumes in all segments, except notably lower irrigation volumes) and corporate sales volumes decreased by 4.5% (large, short-term customer signing last year)
- To date this financial year, retail sales volumes are consistent with the same period last year
- This reflects a 1.7% increase in residential/SMB sales volumes and a 3.1% decrease in corporate sales volumes

## MERIDIAN'S NZ CUSTOMER CONNECTIONS



## MERIDIAN'S RETAIL SALES VOLUMES\*

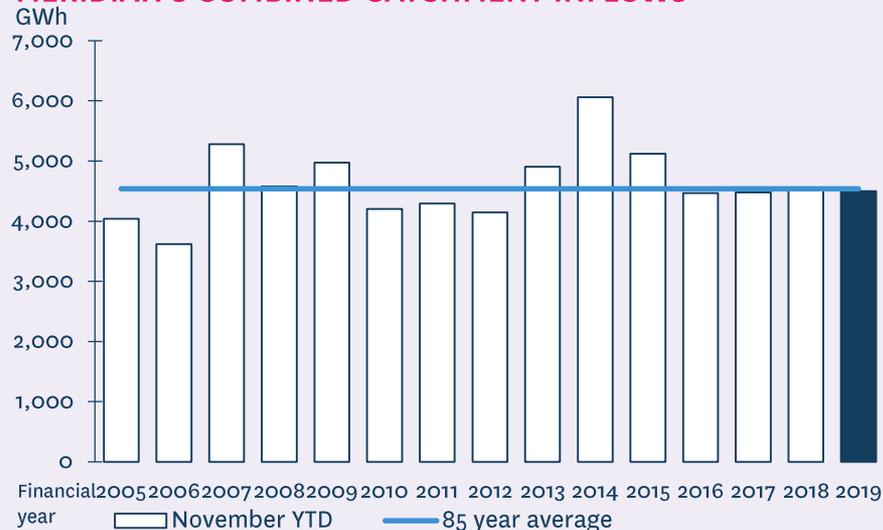


\*excludes volumes sold to New Zealand Aluminium Smelters and CFDs

# OPERATING INFORMATION

- November 2018 monthly inflows were 123% of historical average
- To date this financial year, inflows are 99% of historical average
- Meridian's Waitaki catchment storage moved from 811GWh to 1,440GWh during November 2018
- Waitaki storage at the end of November 2018 was 114% of historical average and 12% higher than the same time last year
- Storage in Meridian's Waiau catchment was slightly below average at the end of November 2018
- Meridian made calls on load under the Genesis Swaption in early November 2018

## MERIDIAN'S COMBINED CATCHMENT INFLOWS



Source: Meridian

## MERIDIAN'S WAITAKI STORAGE



Source: Meridian

# OPERATING INFORMATION

- Meridian's New Zealand generation in November 2018 was 7.2% lower 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 10.9% higher than the same period last year, reflecting higher hydro generation and higher wind generation
- The average price Meridian received for its generation in November 2018 was 56.5% higher than the same month last year
- The average price Meridian paid to supply contracted sales in November 2018 was 60.2% 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 contracted sales is 52.1% higher

\*price received for Meridian's physical generation

## MERIDIAN'S NEW ZEALAND GENERATION



Source: Meridian

## MERIDIAN'S AVERAGE GENERATION PRICE\*

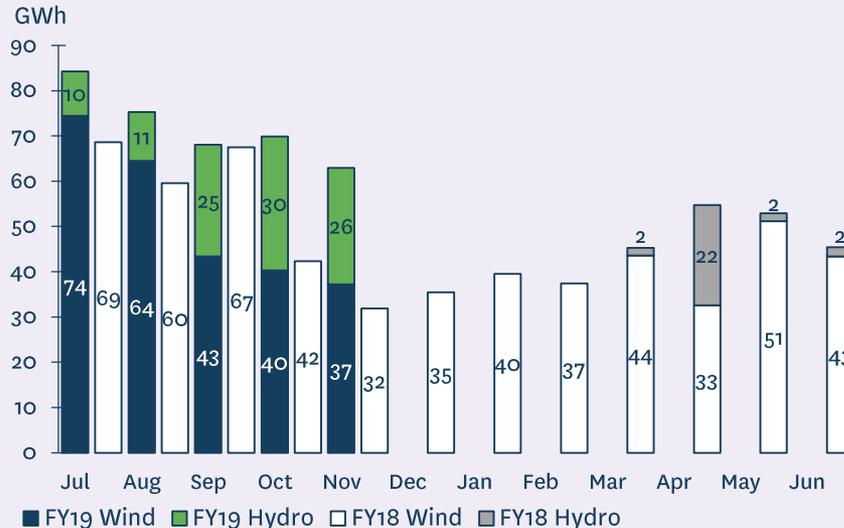


Source: Meridian

# OPERATING INFORMATION

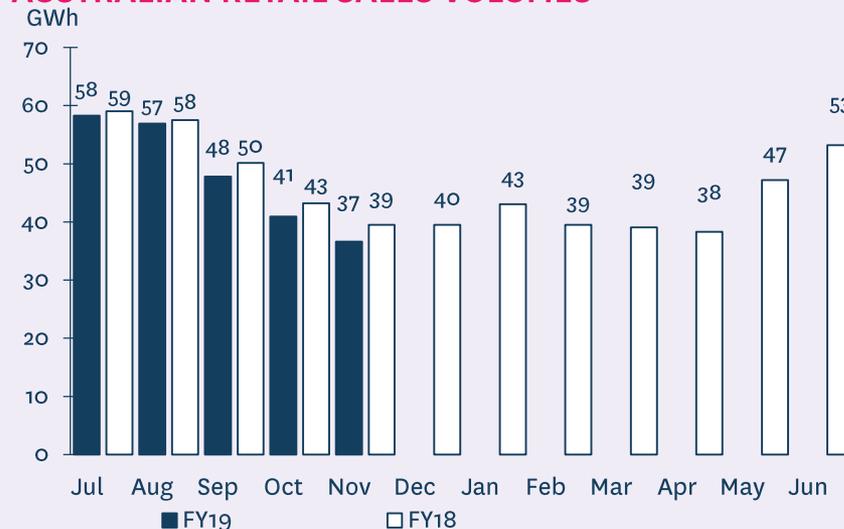
- Meridian's Australian generation in November 2018 was 97.4% higher than the same month last year
- To date this financial year, Australian generation is 33.5% higher than the same period last year
- Australian retail electricity sales volumes in November 2018 were 7.3% lower than the same month last year
- To date this financial year, Australian retail electricity sales volumes are 3.6% lower than the same period last year

## MERIDIAN'S AUSTRALIAN GENERATION



Source: Meridian

## AUSTRALIAN RETAIL SALES VOLUMES



Source: Meridian

# OPERATING INFORMATION

See following page for Australia operating information and all footnotes

	NOVEMBER 2018 MONTH	NOVEMBER 2017 MONTH	OCTOBER 2018 MONTH	SEPTEMBER 2018 MONTH	5 MONTHS TO NOVEMBER 2018	5 MONTHS TO NOVEMBER 2017
<b>New Zealand contracted sales<sup>1</sup></b>						
Retail contracted sales volume (GWh)	481	539	524	497	2,551	2,552
Average retail contracted sales price (\$/MWh)	\$98.5	\$96.0	\$98.3	\$106.7	\$105.6	\$107.0
NZAS sales volume (GWh)	444	412	439	411	2,145	2,100
Sell side derivative volumes <sup>2</sup> (GWh)	146	194	149	140	1,017	643
Wholesale contracted sales average price <sup>3</sup> (\$/MWh)	\$72.7	\$57.6	\$65.9	\$58.0	\$63.8	\$58.0
Total New Zealand customer connections <sup>4</sup>	296,064	281,314	294,695	293,386		
<b>New Zealand generation</b>						
Hydro generation volumes (GWh)	905	1,001	897	959	4,953	4,422
Wind generation volumes (GWh)	99	82	107	115	538	530
<b>Total generation volumes (GWh)</b>	<b>1,004</b>	<b>1,082</b>	<b>1,004</b>	<b>1,074</b>	<b>5,491</b>	<b>4,952</b>
Average generation price <sup>5</sup> (\$/MWh)	\$149.5	\$95.5	\$284.6	\$86.8	\$129.1	\$86.2
Acquired generation volume <sup>6</sup> (GWh)	190	178	200	147	874	988
Cost of acquired generation (\$/MWh)	\$74.7	\$64.9	\$77.7	\$62.5	\$69.4	\$68.5
Acquired generation revenue average price (\$/MWh)	\$180.8	\$99.7	\$290.6	\$87.9	\$150.5	\$93.0
Future contract close outs (\$M)	-\$0.5	\$0.1	-\$0.5	-\$0.6	-\$2.0	-\$2.1
Contracted sales supply volumes (GWh)	1,098	1,174	1,142	1,079	5,854	5,425
Cost to supply contracted sales (\$/MWh)	\$160.4	\$100.1	\$294.4	\$92.5	\$139.5	\$91.7

# OPERATING INFORMATION

	NOVEMBER 2018 MONTH	NOVEMBER 2017 MONTH	OCTOBER 2018 MONTH	SEPTEMBER 2018 MONTH	5 MONTHS TO NOVEMBER 2018	5 MONTHS TO NOVEMBER 2017
<b>Australia</b>						
Wind generation volumes (GWh)	37	32	40	43	260	270
Hydro generation volumes (GWh)	26	-	30	25	100	-
Retail contracted electricity sales volume (GWh)	37	40	41	48	241	249
Retail contracted gas sales volume (TJ)	20	-	41	40	126	-
Powershop electricity customer connections <sup>7</sup>	98,618	97,828	97,514	96,657		
Powershop gas customer connections <sup>8</sup>	11,333	-	9,577	7,558		

Note: Powershop Australia electricity customer connection numbers now exclude vacants

## 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 sell side derivative 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 contracts excluding the buy-side of virtual asset swaps
7. Financially responsible market participants, excluding vacants
8. Meter installation registration numbers

# 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
<b>New Zealand Contracted Sales</b>												
Retail contracted sales volume (GWh)	521	529	497	524	481							
Average retail contracted sales price (\$/MWh)	\$113.1	\$110.7	\$106.7	\$98.3	\$98.5							
NZAS sales volume (GWh)	426	426	411	439	444							
Sell side derivative volumes (GWh)	386	196	140	149	146							
Wholesale contracted sales average price (\$/MWh)	\$63.9	\$58.5	\$58.0	\$65.9	\$72.7							
Total New Zealand customer connections	292,091	292,906	293,386	294,695	296,064							
<b>New Zealand Generation</b>												
Hydro generation volume (GWh)	1,070	1,123	959	897	905							
Wind generation volume (GWh)	126	90	115	107	99							
<b>Total generation volume (GWh)</b>	<b>1,196</b>	<b>1,213</b>	<b>1,074</b>	<b>1,004</b>	<b>1,004</b>							
Average generation price (\$/MWh)	\$72.1	\$77.2	\$86.8	\$284.6	\$149.5							
Acquired generation volume (GWh)	170	167	147	200	190							
Cost of acquired generation (\$/MWh)	\$65.7	\$63.1	\$62.5	\$77.7	\$74.7							
Acquired generation revenue average price (\$/MWh)	\$74.5	\$80.8	\$87.9	\$290.6	\$180.8							
Future contract close outs (\$m)	-0.1	-0.3	-0.6	-0.5	-0.5							
Contracted sales supply volume (GWh)	1,353	1,181	1,079	1,142	1,098							
Cost to supply contracted sales (\$/MWh)	\$77.0	\$84.9	\$92.5	\$294.4	\$160.4							
<b>Australia</b>												
Wind generation volume (GWh)	74	64	43	40	37							
Hydro generation volume (GWh)	10	11	25	30	26							
Retail contracted electricity sales volume (GWh)	58	57	48	41	37							
Retail contracted gas sales volume (TJ)	4	20	40	41	20							
Powershop electricity customer connections	96,743	96,801	96,657	97,514	98,618							
Powershop gas customer connections	1,179	4,776	7,558	9,577	11,333							

Note: Powershop Australia electricity customer connection numbers now exclude vacants

# FY18 OPERATING INFORMATION

	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018
<b>New Zealand Contracted Sales</b>												
Retail contracted sales volume (GWh)	519	529	491	475	539	589	503	438	459	442	496	502
Average retail contracted sales price (\$/MWh)	\$114.6	\$115.9	\$109.4	\$99.0	\$96.0	\$93.3	\$96.8	\$101.6	\$100.2	\$107.0	\$112.5	\$115.9
NZAS sales volume (GWh)	426	426	411	426	412	426	426	384	426	412	426	412
Sell side derivative volumes (GWh)	95	100	111	142	194	125	182	239	294	272	244	280
Wholesale contracted sales average price (\$/MWh)	\$60.9	\$59.0	\$58.1	\$54.9	\$57.6	\$58.5	\$63.0	\$61.3	\$58.7	\$60.1	\$62.5	\$60.5
Total New Zealand customer connections	278,595	279,967	280,209	280,211	281,314	282,396	283,724	285,611	287,167	288,538	289,431	290,756
<b>New Zealand Generation</b>												
Hydro generation volume (GWh)	739	831	867	985	1,000	867	888	878	1,049	994	1,037	1,131
Wind generation volume (GWh)	108	118	116	106	82	118	80	102	105	118	113	96
<b>Total generation volume (GWh)</b>	<b>847</b>	<b>949</b>	<b>983</b>	<b>1,091</b>	<b>1,082</b>	<b>985</b>	<b>968</b>	<b>980</b>	<b>1,154</b>	<b>1,112</b>	<b>1,150</b>	<b>1,227</b>
Average generation price (\$/MWh)	\$156.5	\$83.4	\$55.0	\$53.1	\$95.5	\$128.4	\$127.2	\$64.8	\$55.2	\$54.3	\$56.1	\$91.1
Acquired generation volume (GWh)	282	206	158	164	178	200	234	156	152	163	169	160
Cost of acquired generation (\$/MWh)	\$77.4	\$70.1	\$62.5	\$60.6	\$64.9	\$69.9	\$75.4	\$65.0	\$63.6	\$63.9	\$63.2	\$63.4
Acquired generation revenue average price (\$/MWh)	\$138.8	\$84.1	\$55.6	\$54.4	\$99.7	\$114.2	\$114.2	\$65.5	\$59.8	\$57.7	\$56.5	\$93.2
Future contract close outs (\$m)	-0.7	-0.6	-0.7	-0.3	0.1	-0.4	-0.3	-0.4	0.0	0.0	-0.2	0.0
Contracted sales supply volume (GWh)	1,067	1,077	1,053	1,054	1,174	1,163	1,140	1,086	1,205	1,150	1,191	1,225
Cost to supply contracted sales (\$/MWh)	\$155.0	\$88.2	\$59.2	\$54.4	\$100.1	\$126.8	\$130.2	\$69.1	\$59.8	\$57.5	\$58.4	\$95.3
<b>Australia</b>												
Wind generation volume (GWh)	69	60	67	42	32	35	40	37	44	33	51	43
Hydro generation volume (GWh)									2	22	2	2
Retail contracted electricity sales volume (GWh)	59	58	50	43	39	40	43	39	39	38	47	53
Retail contracted gas sales volume (TJ)												
Powershop electricity customer connections	97,547	97,465	97,456	97,760	97,828	97,361	97,826	97,499	97,522	97,950	97,704	97,241
Powershop gas customer connections											29	281

Note: Powershop Australia electricity customer connection numbers now exclude vacants

# GLOSSARY

Acquired generation 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
Combined catchment inflows	combined water inflows into Meridian’s Waitaki and Waiau hydro storage lakes
Cost of acquired generation	volume weighted average price Meridian pays for derivatives acquired to supplement generation
Cost to supply contracted sales	volume weighted average price Meridian pays to supply contracted customer sales
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, , excluding vacants
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 84 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
MIRN	meter identification reference number
MWh	megawatt hour. Enough electricity for one average New Zealand household for 46 days
National demand	Electricity Authority’s reconciled grid demand <a href="http://www.emi.ea.govt.nz">www.emi.ea.govt.nz</a>
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
Sell side derivatives	sell-side electricity derivatives excluding the sell-side of virtual asset swaps
Virtual Asset Swaps (VAS)	CFDs Meridian has with Genesis Energy and Mercury. They do not result in the physical supply of electricity