

#### Release

Stock exchange listings: NZX (MEL) ASX (MEZ)

#### Meridian Energy monthly operating report for December 2016

19 January 2017

Attached is Meridian Energy Limited's monthly operating report for the month ended 31 December 2016. Highlights this month include:

- In the month to 17 January 2017, national hydro storage decreased from 113% to 109% of historical average
- South Island storage sat at 104% of average and North Island storage at 132% of average on 17
  January 2017
- Meridian's December 2016 monthly inflows were 90% of historical average
- National electricity demand in December 2016 was 2.4% lower than the same month last year
- December 2016 demand reflected ongoing low irrigation use
- Meridian's retail sales volumes in December 2016 decreased by 14.8% compared to December 2015

#### **ENDS**

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Meridian Energy Limited (ARBN 151 800 396) A company incorporated in New Zealand 33 Customhouse Quay, PO Box 10840, Wellington 6143



# Powering today, protecting tomorrow



MERIDIAN ENERGY LIMITED Monthly operating report for December 2016

### **December highlights**



In the month to 17 January 2017, national hydro storage decreased from 113% to 109% of historical average

South Island storage sat at 104% of average and North Island storage at 132% of average on 17 January 2017



Meridian's December 2016 monthly inflows were 90% of historical average

Meridian's Waitaki catchment storage at the end of December 2016 was 118% of historical average



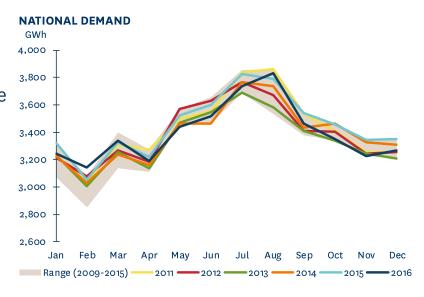
National electricity demand in December 2016 was 2.4% lower than the same month last year

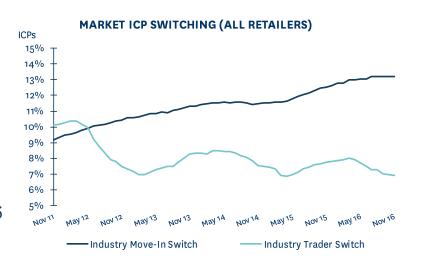
December 2016 demand reflected ongoing low irrigation use

Meridian's retail sales volumes in December 2016 decreased by 14.8% compared to December 2015

#### **Market data**

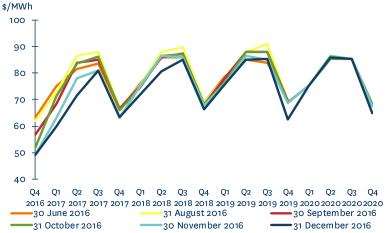
- National electricity demand<sup>1</sup> in December 2016 was 2.4% lower than the same month last year
- While December rainfall was lower than average across much of New Zealand, soil moisture levels in South Island irrigation regions remain higher than last two years
- Demand in the last 12 months was 1.4% lower than the preceding 12 months
- New Zealand Aluminium Smelter's average load during December 2016 was at the 572MW base quantity of the NZAS agreement
- 12-month average switching rate of customers changing retailers but not moving ("trader" switch) was 6.9% at the end of November 2016
- 12-month average switching rate of customers moving and changing retailers ("move in" switch) was 13.2% at the end of November 2016





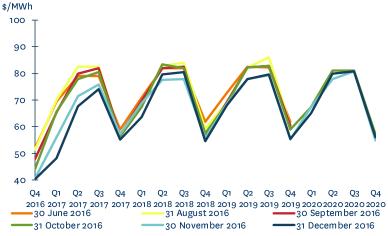
#### **Market data**

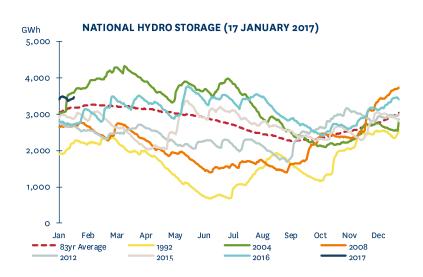
#### **OTAHUHU ASX FUTURES SETTLEMENT PRICE**



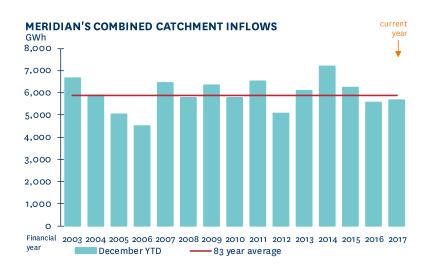
- December 2016 saw a reduction in ASX prices
- National storage decreased from 113% of the 83 year average on 13 December 2016 to 109% of average on 17 January 2017
- South Island storage decreased to 104% of historical average on 17 January 2017. North Island storage decreased to 132% of average

#### BENMORE ASX FUTURES SETTLEMENT PRICE

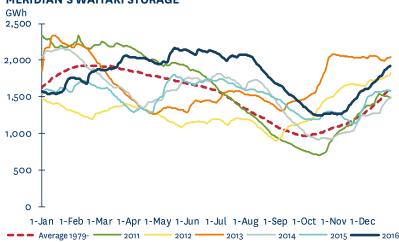




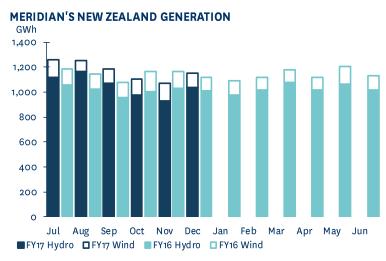
- December 2016 monthly inflows were 90% of historical average
- To date this financial year, inflows are 96% of historical average
- Meridian's Waitaki catchment storage moved from 1,578GWh to 1,919GWh during December 2016
- Waitaki storage at the end of December 2016 was 118% of historical average, compared with the position a month earlier, where storage was 126% of historical average
- Waitaki storage at the end of December 2016 was 22% higher than the same time last year
- Total storage in Meridian's Waiau catchment decreased during December 2016

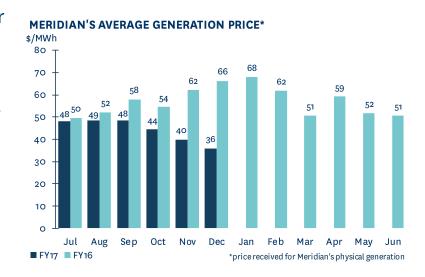


#### MERIDIAN'S WAITAKI STORAGE

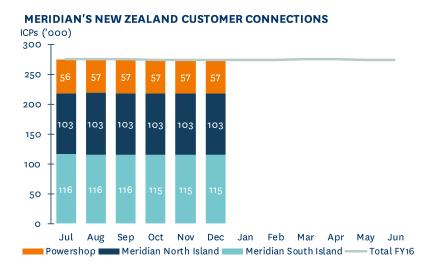


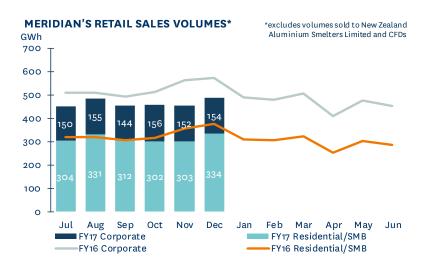
- Meridian's New Zealand generation in December 2016 was 2.8% higher than the same month last year, reflecting higher hydro generation and higher wind generation
- To date this financial year, Meridian's New Zealand generation is 2.5% higher than the same period last year, reflecting higher hydro generation and lower wind generation
- The average price Meridian received for its generation in December 2016 was 45.8% lower than the same month last year
- The average price Meridian paid to supply contracted sales in December 2016 was 45.5% lower than the same month last year
- To date this financial year, the average price Meridian has received for its generation is 22.2% lower than the same period last year





- Meridian's New Zealand customer connection numbers were largely flat during December 2016
- Retail sales volumes in December 2016 decreased by 14.8% compared to December 2015
- Compared to December 2015, residential/SMB sales volumes decreased by 11.6% (lower irrigation use) and corporate sales volumes decreased by 21.0% (from churn in time-of-use customers)
- Despite a 0.6% increase in customer connection numbers since December 2015, Meridian's retail sales volumes in the current financial year are 11.6% lower than the same period last year
- This reflects a 5.7% irrigation driven decrease in residential/SMB sales volumes and a 21.7% decrease in corporate sales volumes





	December 2016 month	December 2015 month	November 2016 month	October 2016 month	6 months to December 2016	6 months to December 2015
New Zealand Contracted Sales¹						
Retail contracted sales volume (GWh)	489	574	455	458	2,797	3,164
Average retail contracted sales price (\$/MWh)	\$99.6	\$88.2	\$98.7	\$100.1	\$108.9	\$104.6
NZAS sales volume (GWh)	426	426	412	426	2,525	2,525
Sell side derivative volumes² (GWh)	87	49	110	102	576	676
Wholesale contracted sales average price (\$/MWh)	\$50.0	\$50.4	\$50.4	\$50.2	\$50.2	\$51.0
Total New Zealand customer connections <sup>3</sup>	275,714	274,101	275,785	275,339		
Powershop Australia customer connections <sup>4</sup>	90,638	63,763	not disclosed	not disclosed		
New Zealand Generation						
Hydro generation volume (GWh)	1,036	1,013	926	980	6,296	6,087
Wind generation volume (GWh)	116	108	144	125	733	771
Total generation volume (GWh)	1,152	1,121	1,070	1,105	7,029	6,858
Average generation price <sup>5</sup> (\$/MWh)	\$35.9	\$66.3	\$40.0	\$44.4	\$44.4	\$57.1
Acquired generation volume <sup>6</sup> (GWh)	56	105	64	49	453	668
Cost of acquired generation (\$/MWh)	\$65.6	\$70.8	\$66.8	\$70.0	\$57.9	\$75.3
Acquired generation revenue average price (\$/MWh)	\$43.9	\$72.3	\$47.2	\$49.1	\$50.5	\$58.6
Future contract close outs (\$m)	\$0.1	(\$0.2)	\$0.0	\$0.0	(\$0.2)	(\$1.8)
Contracted sales supply volume (GWh)	1,022	1,086	1,007	1,032	6,034	6,534
Cost to supply contracted sales (\$/MWh)	\$38.6	\$70.7	\$42.3	\$47.0	\$47.6	\$61.0

Contracted sales volumes and volume weighted average price received from contracted customers less distribution costs

2. Excludes the sell-side of virtual asset swaps

Meridian Retail and Powershop New Zealand installation control points (ICPs), excluding vacants

<sup>4.</sup> Financially responsible market participants, excluding vacants

<sup>5.</sup> Volume weighted average price received for Meridian's physical generation

<sup>6.</sup> Excludes the buy-side of virtual asset swaps

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
	2016	2016	2016	2016	2016	2016	2017	2017	2017	2017	2017	2017
New Zealand Contracted Sales												
Retail contracted sales volume (GWh)	454	487	456	458	455	489						
Average retail contracted sales price (\$/MWh)	\$122.9	\$119.7	\$112.2	\$100.1	\$98.7	\$99.6						
NZAS sales volume (GWh)	426	426	411	426	412	426						
Sell side derivative volumes (GWh)	64	87	128	102	110	87						
Wholesale contracted sales average price (\$/MWh)	\$49.7	\$50.8	\$50.3	\$50.2	\$50.4	\$50.0						
Total New Zealand customer connections	275,344	275,861	275,840	275,339	275,785	275,714						
Powershop Australia customer connections	not disclosed r	ot disclosed	83,908 1	not disclosed r	ot disclosed	90,638						
New Zealand Generation												
Hydro generation volume (GWh)	1,119	1,166	1,069	980	926	1,036						
Wind generation volume (GWh)	143	91	114	125	144	116						
Total generation volume (GWh)	1,262	1,257	1,183	1,105	1,070	1,152						
Average generation price (\$/MWh)	\$48.1	\$48.5	<b>\$48.</b> 3	\$44.4	\$40.0	\$35.9						
Acquired generation volume (GWh)	102	112	72	49	64	56						
Cost of acquired generation (\$/MWh)	\$46.2	\$58.2	\$52.1	\$70.0	\$66.8	\$65.6						
Acquired generation revenue average price (\$/MWh)	\$48.3	\$57.8	\$51.5	\$49.1	\$47.2	\$43.9						
Future contract close outs (\$m)	(\$0.2)	(\$0.1)	(\$0.1)	\$0.0	\$0.0	\$0.1						
Contracted sales supply volume (GWh)	950	1,021	1,003	1,032	1,007	1,022						
Cost to supply contracted sales (\$/MWh)	\$54.4	\$52.7	\$51.1	\$47.0	\$42.3	\$38.6						

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
	2015	2015	2015	2015	2015	2015	2016	2016	2016	2016	2016	2016
New Zealand Contracted Sales												
Retail contracted sales volume (GWh)	509	510	495	513	563	574	489	480	509	410	476	443
Average retail contracted sales price (\$/MWh)	\$120.9	\$119.3	\$111.5	\$96.1	\$94.9	\$88.2	\$96.1	\$100.0	\$99.9	\$107.7	\$118.0	\$122.6
NZAS sales volume (GWh)	426	426	411	426	412	426	426	398	426	412	426	412
Sell side derivative volumes (GWh)	140	158	113	114	102	49	94	90	81	112	177	51
Wholesale contracted sales average price (\$/MWh)	\$50.7	\$51.4	\$51.6	\$50.2	\$51.7	\$50.4	\$53.5	\$52.6	\$50.6	\$48.8	\$45.1	\$51.0
Total New Zealand customer connections	276,366	275,479	275,875	275,048	274,146	274,101	274,433	275,006	275,869	275,771	274,947	274,920
Powershop Australia customer connections	not disclosed r	not disclosed	55,993 r	not disclosed r	ot disclosed	63,763 r	ot disclosed	not disclosed	<b>71,111</b> n	ot disclosed r	ot disclosed	77,970
New Zealand Generation												
Hydro generation volume (GWh)	1,060	1,021	954	1,006	1,033	1,013	980	1,015	1,076	1,016	1,063	1,014
Wind generation volume (GWh)	123	124	124	157	135	108	114	103	101	102	144	121
Total generation volume (GWh)	1,183	1,145	1,078	1,163	1,168	1,121	1,094	1,118	1,177	1,118	1,207	1,135
Average generation price (\$/MWh)	\$49.7	\$52.2	\$58.0	\$54.5	\$62.1	\$66.3	\$67.9	\$61.8	\$50.7	\$59.2	\$51.7	\$50.6
Acquired generation volume (GWh)	144	97	95	133	94	105	71	44	69	111	87	80
Cost of acquired generation (\$/MWh)	\$82.2	\$84.7	\$83.6	\$62.0	\$70.5	\$70.8	<b>\$74.</b> 5	\$75.2	\$75.1	\$78.7	\$75.1	\$78.9
Acquired generation revenue average price (\$/MWh)	\$50.4	\$52.4	\$56.6	\$56.6	\$66.6	\$72.3	\$72.2	\$74.6	\$62.9	\$66.3	\$57.6	\$58.1
Future contract close outs (\$m)	(\$0.1)	(\$0.9)	(\$0.1)	(\$0.1)	(\$0.2)	(\$0.2)	(\$0.1)	(\$0.8)	(\$1.0)	(\$1.1)	(\$2.0)	(\$0.3)
Contracted sales supply volume (GWh)	1,093	1,120	1,050	1,090	1,096	1,086	1,009	991	1,036	930	1,114	940
Cost to supply contracted sales (\$/MWh)	\$52.6	\$55.5	\$60.4	\$57.9	\$69.0	\$70.7	\$72.3	\$66.6	\$54.4	\$64.3	\$54.5	\$54.5

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
	2014	2014	2014	2014	2014	2014	2015	2015	2015	2015	2015	2015
New Zealand Contracted Sales												
Retail contracted sales volume (GWh)	481	475	474	505	538	521	568	519	514	434	460	479
Average retail contracted sales price (\$/MWh)	<b>\$117.</b> 3	\$113.0	\$107.3	\$95.6	\$93.4	\$87.6	\$91.5	\$92.7	\$94.6	\$110.4	\$117.0	\$122.9
NZAS sales volume (GWh)	426	426	411	426	412	426	426	384	426	412	426	412
Sell side derivative volumes (GWh)	95	170	125	87	69	61	<b>7</b> 5	50	49	11	209	100
Wholesale contracted sales average price (\$/MWh)	\$50.2	\$50.7	\$50.7	\$50.4	\$51.0	\$50.4	\$53.6	\$53.6	\$52.1	\$49.8	\$49.0	\$51.0
Total New Zealand customer connections	276,413	275,410	274,821	274,319	273,970	273,572	274,052	274,673	275,488	274,881	275,360	276,446
Powershop Australia customer connections	not disclosed	not disclosed	21,776 r	not disclosed	not disclosed	28,353	not disclosed ı	not disclosed	35,138 r	not disclosed	not disclosed	48,208
New Zealand Generation												
Hydro generation volume (GWh)	1,095	1,141	1,046	1,010	894	979	1,020	907	977	745	1,057	1,043
Wind generation volume (GWh)	106	108	124	134	153	113	95	103	95	120	132	136
Total generation volume (GWh)	1,201	1,248	1,170	1,144	1,047	1,092	1,115	1,009	1,072	865	1,189	1,179
Average generation price (\$/MWh)	\$54.0	\$62.4	\$58.5	\$64.2	\$69.2	\$78.9	\$96.4	\$87.4	\$81.0	\$87.1	\$45.6	\$45.7
Acquired generation volume (GWh)	142	120	114	48	56	51	39	59	40	114	194	77
Cost of acquired generation (\$/MWh)	\$87.6	\$84.8	\$86.3	\$77.5	\$76.5	\$79.4	\$79.1	\$85.2	\$80.1	\$86.6	\$60.6	\$91.7
Acquired generation revenue average price (\$/MWh)	\$54.4	\$65.0	\$54.4	\$67.3	\$74.4	\$87.1	\$99.9	\$92.2	\$79.9	\$81.3	\$47.9	\$48.3
Future contract close outs (\$m)	(\$2.4)	(\$2.1)	(\$0.9)	(\$0.7)	(\$0.2)	(\$0.3)	(\$2.1)	(\$0.7)	(\$1.5)	(\$1.6)	(\$1.8)	(\$0.5)
Contracted sales supply volume (GWh)	1,022	1,083	1,053	1,060	1,046	1,037	1,110	984	1,001	866	1,132	1,024
Cost to supply contracted sales (\$/MWh)	\$57.9	\$70.7	\$60.4	\$68.2	\$73.2	\$84.0	\$100.8	\$91.0	\$83.2	\$91.2	\$48.7	\$48.7

### **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

**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 81 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

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 Mightly River Power. They do not result in the physical supply of electricity