

meridian



### **October highlights**







In the month to 10 November 2016, national hydro storage decreased from 106% to 105% of historical average

South Island storage sat at 98% of average and North Island storage at 128% of average on 10 November 2016 Meridian's October 2016 monthly inflows were 85% of historical average

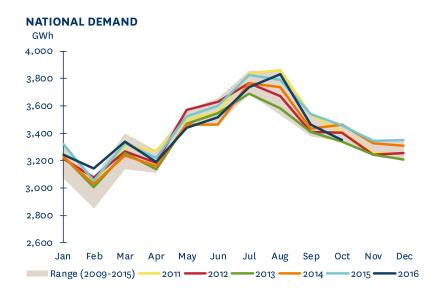
Meridian's Waitaki catchment storage at the end of October 2016 was 119% of historical average National electricity demand in October 2016 was 3.1% lower than the same month last year

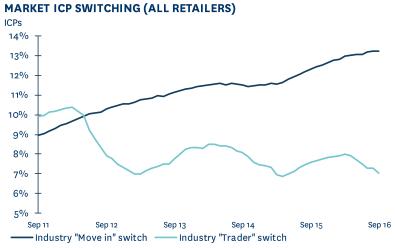
Temperatures were above average throughout most of New Zealand in October 2016

Meridian's retail sales volumes in October 2016 decreased by 10.7% compared to October 2015

## Market data

- National electricity demand<sup>1</sup> in October 2016 was 3.1% lower than the same month last year
- Temperatures were above average throughout most of New Zealand in October 2016
- Compared with October 2015, soil moisture levels are higher across much of New Zealand, resulting in lower irrigation usage
- Demand in the last 12 months was 0.8% lower than the preceding 12 months
- New Zealand Aluminium Smelter's average load M during October 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 7.0% at the end of September 2016
- 12-month average switching rate of customers moving and changing retailers ("move in" switch) was 13.2% at the end of September 2016



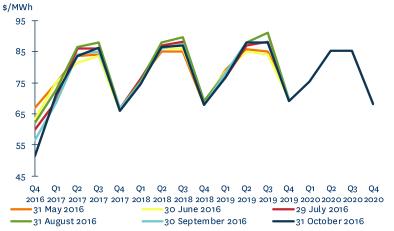


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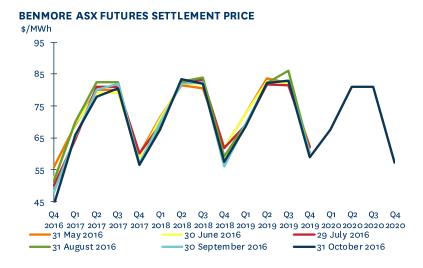
<sup>1</sup>Electricity Authority's reconciled grid demand <u>www.emi.ea.govt.nz</u>

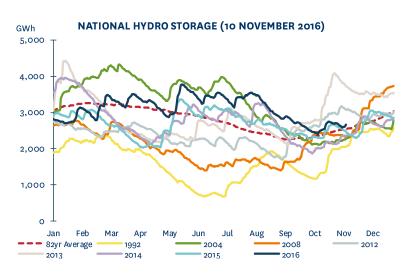
### **Market data**

**OTAHUHU ASX FUTURES SETTLEMENT PRICE** 

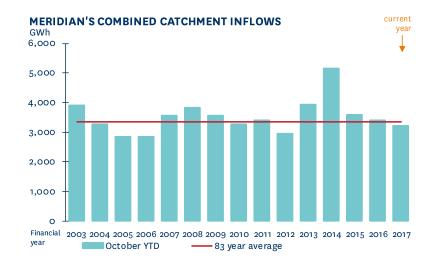


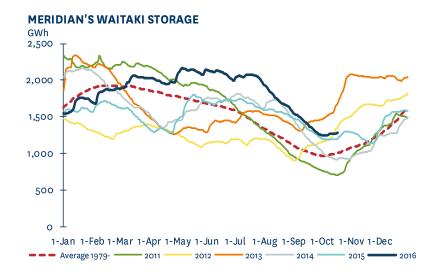
- October 2016 saw little changes in ASX prices.
  2020 futures commenced trading in October
  2016, trading at a small discount to 2019
- National storage decreased from 106% of the 82 year average on 17 October 2016 to 105% of average on 10 November 2016
- South Island storage decreased to 98% of historical average on 10 November 2016. North Island storage decreased to 128% of average



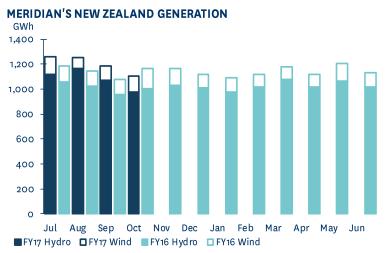


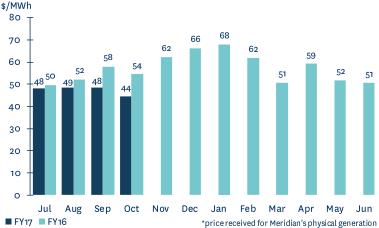
- October 2016 monthly inflows were 85% of historical average
- To date this financial year inflows are 96% of historical average
- Meridian's Waitaki catchment storage moved from 1,381GWh to 1,277GWh during October 2016
- Waitaki storage at the end of October 2016 was 119% of historical average, compared with the position a month earlier, where storage was at 142% of historical average
- Waitaki storage at the end of October 2016 was 1% lower than the same time last year
- Total storage in Meridian's Waiau catchment increased during October 2016





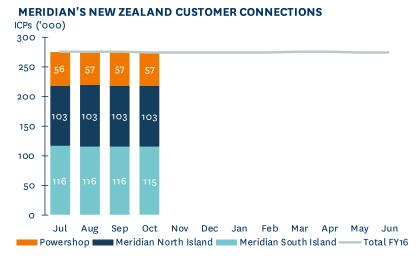
- Meridian's New Zealand generation in October 2016 was 5.0% lower than the same month last year, reflecting lower hydro and wind generation
- To date this financial year Meridian's New Zealand generation is 5.2% higher than the same period last year, reflecting higher hydro generation and lower wind generation
- The average price Meridian received for its generation in October 2016 was 18.6% lower than the same month last year
- The average price Meridian paid to supply contracted sales in October 2016 was 18.8% lower than the same month last year
- To date this financial year, the average price Meridian has received for its generation is 11.4% lower than the same period last year

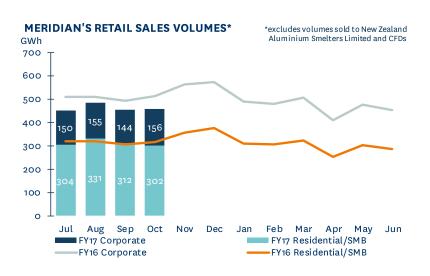




### **MERIDIAN'S AVERAGE GENERATION PRICE\***

- Meridian's New Zealand customer connection numbers decreased slightly during October 2016
- Retail sales volumes in October 2016 decreased by 10.7% compared to October 2015
- Compared to October 2015, residential/SMB sales volumes decreased by 4.9% and corporate sales volumes decreased by 20.2% (from churn in time-of-use customers)
- To date this financial year Meridian's retail sales volumes are 8.6% lower than the same period last year
- This reflects a 1.4% decrease in residential/SMB sales volumes and a 20.5% decrease in corporate sales volumes





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0.1 26 02 0.2 39	\$96.1 426 114 \$50.2 275,048	\$112.2 411 128 \$50.3	\$119.7 426 87 \$50.8	\$113.8 1,688 380	\$111.9 1,688 525
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02 0.2 39	114 \$50.2 275,048	128 \$50.3	87 \$50.8	380	525
9.2 39	\$50.2 275,048	\$50.3	\$50.8		
39	275,048			\$50.3	\$51 <b>.</b> 0
		275,840	275 861		
;ed	not disclosed		2/3,001		
	not disclosed	83,908	not disclosed		
30	1,006	1,069	1,166	4,334	4,041
25	157	114	91	473	528
25	1,163	1,183	1,257	4,807	4,569
.4	\$54.5	\$48.3	\$48.5	\$47.4	\$53.5
49	133	72	112	334	469
.0	\$62.0	\$52.1	\$58.2	\$55.0	\$77.3
).1	\$56.6	\$51.5	\$57.8	\$52.3	\$53.9
.0	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.3)	(\$1.3)
32	1,090	1,003	1,021	4,006	4,352
.0	\$57.9	\$51.1	\$52.7	\$51.2	\$56.6
4 2 9 0.	05    4.4    49    0.0    9.1    0.0    032    7.0	4.4    \$54.5      49    133      0.0    \$62.0      9.1    \$56.6      0.0    (\$0.1)      032    1,090      7.0    \$57.9	4.4\$54.5\$48.349133720.0\$62.0\$52.19.1\$56.6\$51.50.0(\$0.1)(\$0.1)0321,0901,0037.0\$57.9\$51.1	4.4\$54.5\$48.3\$48.549133721120.0\$62.0\$52.1\$58.29.1\$56.6\$51.5\$57.80.0(\$0.1)(\$0.1)(\$0.1)0321,0901,0031,0217.0\$57.9\$51.1\$52.7	4.4\$54.5\$48.3\$48.5\$47.449133721123340.0\$62.0\$52.1\$58.2\$55.09.1\$56.6\$51.5\$57.8\$52.30.0(\$0.1)(\$0.1)(\$0.1)(\$0.3)0321,0901,0031,0214,0067.0\$57.9\$51.1\$52.7\$51.2

received from contracted customers less distribution costs

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

generation

2. Excludes the sell-side of virtual asset swaps

4. Financially responsible market participants, excluding vacants 6. Exclude MERIDIAN ENERGY LIMITED Monthly operating report for October 2016

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6. Excludes the buy-side of virtual asset swaps

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	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								
Average retail contracted sales price (\$/MWh)	\$122.9	\$119.7	\$112.2	\$100.1								
NZAS sales volume (GWh)	426	426	411	426								
Sell side derivative volumes (GWh)	64	87	128	102								
Wholesale contracted sales average price (\$/MWh)	\$49.7	\$50.8	\$50.3	\$50.2								
Total New Zealand customer connections	275,344	275,861	275,840	275,339								
Powershop Australia customer connections	not disclosed r	not disclosed	83,908 r	ot disclosed								
New Zealand Generation												
Hydro generation volume (GWh)	1,119	1,166	1,069	980								
Wind generation volume (GWh)	143	91	114	125								
Total generation volume (GWh)	1,262	1,257	1,183	1,105								
Average generation price (\$/MWh)	\$48.1	\$48.5	\$48.3	\$44.4								
Acquired generation volume (GWh)	102	112	72	49								
Cost of acquired generation (\$/MWh)	\$46.2	\$58.2	\$52.1	\$70.0								
Acquired generation revenue average price (\$/MWh)	\$48.3	\$57.8	\$51.5	\$49.1								
Future contract close outs (\$m)	(\$0.2)	(\$0.1)	(\$0.1)	\$0.0								
Contracted sales supply volume (GWh)	950	1,021	1,003	1,032								
Cost to supply contracted sales (\$/MWh)	\$54.4	\$52.7	\$51.1	\$47.0								

	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.O	\$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	not disclosed n	ot disclosed	63,763 r	ot disclosed	not disclosed	<b>71,111</b> n	ot disclosed i	not 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	\$74.5	\$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)	\$117.3	\$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	75	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	not disclosed	not disclosed	28,353	not disclosed i	not disclosed	35,138	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.O	\$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



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 <a href="https://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 Mightly River Power. They do not result in the physical supply of electricity

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