

## Release

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

## Meridian Energy monthly operating report for July 2016

17 August 2016

Attached is Meridian Energy Limited's monthly operating report for the month ended 31 July 2016.

Highlights this month include:

- In the month to 12 August 2016, national hydro storage increased from 119% to 137% of historical average
- South Island storage sat at 139% of average and North Island storage at 130% of average on 12 August 2016
- Meridian's July 2016 monthly inflows were 168% of historical average
- Meridian's Waitaki catchment storage at the end of July 2016 was 155% of historical average
- National electricity demand in July 2016 was 2.3% lower than the same month last year
- July 2016 saw above average temperatures in Auckland and much of the inland South Island
- Meridian's retail sales volumes in July 2016 decreased by 10.9% compared to July 2015, as a result of lower corporate sales volumes and the warmer temperatures

## **ENDS**

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# Powering today, protecting tomorrow



# July highlights



In the month to 12 August 2016, national hydro storage increased from 119% to 137% of historical average

South Island storage sat at 139% of average and North Island storage at 130% of average on 12 August 2016



Meridian's July 2016 monthly inflows were 168% of historical average

Meridian's Waitaki catchment storage at the end of July 2016 was 155% of historical average



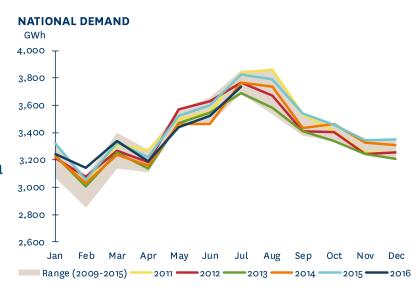
National electricity demand in July 2016 was 2.3% lower than the same month last year

July 2016 saw above average temperatures in Auckland and much of the inland South Island

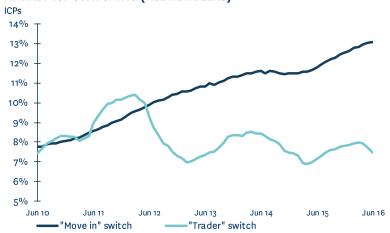
Meridian's retail sales volumes in July 2016 decreased by 10.9% compared to July 2015, as a result of lower corporate sales volumes and the warmer temperatures

## **Market data**

- National electricity demand<sup>1</sup> in July 2016 was
   2.3% lower than the same month last year
- July 2016 saw above average temperatures in Auckland and much of the inland South Island
- Demand in the 2016 calendar year is showing a 1.1% decline compared to the same seven months last year
- Demand in the last 12 months was 0.1% lower than the preceding 12 months
- New Zealand Aluminium Smelter's average load during July 2016 was above the 572MW base quantity of the NZAS agreement
- 12-month average switching rate of customers changing retailers but not moving ("trader" switch) was 7.5% at the end of June 2016
- 12-month average switching rate of customers moving and changing retailers ("move in" switch) was 13.1% at the end of June 2016

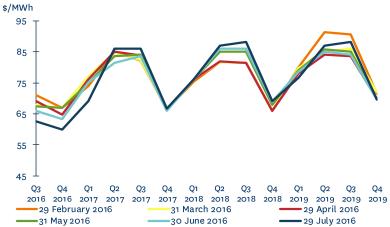


## MARKET ICP SWITCHING (ALL RETAILERS)



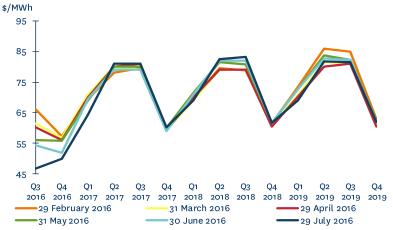
## **Market data**

## **OTAHUHU ASX FUTURES SETTLEMENT PRICE**



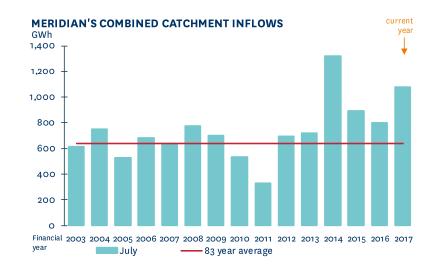
- July 2016 saw small changes in near-term ASX prices
- National storage increased from 119% of the 82 year average on 13 July 2016 to 137% of average on 12 August 2016
- South Island storage increased to 139% of historical average on 12 August 2016. North Island storage increased to 130% of average

### **BENMORE ASX FUTURES SETTLEMENT PRICE**



# GWh NATIONAL HYDRO STORAGE (12 AUGUST 2016) 5,000 4,000 2,000 1,000 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 82yr Average 1992 2004 2016 2013

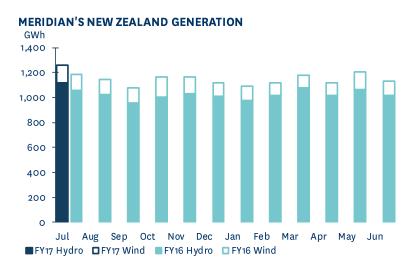
- July 2016 monthly inflows were 168% of historical average
- Meridian's Waitaki catchment storage moved from 2,111GWh to 2,079GWh during July 2016
- Waitaki storage at the end of July 2016 was 155% of historical average, compared with the position a month earlier, where storage was at 133% of historical average
- Waitaki storage at the end of July 2016 was 30% higher than the same time last year
- Total storage in Meridian's Waiau catchment increased during July 2016

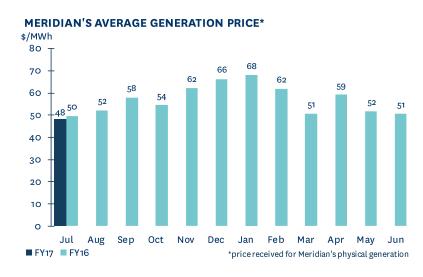


## **MERIDIAN'S WAITAKI STORAGE**

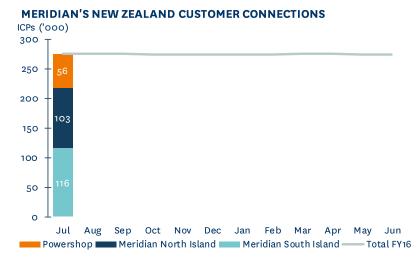


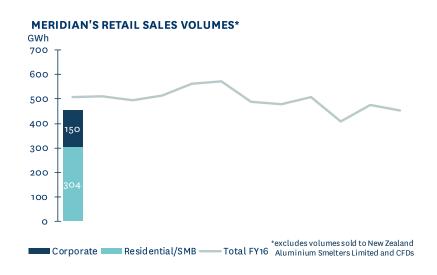
- Meridian's New Zealand generation in July 2016 was 6.7% higher than the same month last year, reflecting higher hydro and wind generation
- The average price Meridian received for its generation in July 2016 was 3.1% lower than the same month last year
- The average price Meridian paid to supply contracted sales in July 2016 was 3.4% lower than the same month last year





- Meridian's New Zealand customer connection numbers increased during July 2016
- Retail sales volumes in July 2016 decreased by 10.9% compared to July 2015
- Compared to July 2015, residential/SMB sales volumes decreased by 5.4% (warmer temperatures) and corporate sales volumes decreased by 20.4% (from churn in time-ofuse customers)





	July 2016 month	July 2015 month	June 2016 month	May 2016 month
New Zealand Contracted Sales¹				
Retail contracted sales volume (GWh)	454	509	443	476
Average retail contracted sales price (\$/MWh)	\$122.9	\$120.9	\$122.6	\$118.0
NZAS sales volume (GWh)	426	426	412	426
Sell side derivative volumes <sup>2</sup> (GWh)	64	140	51	177
Wholesale contracted sales average price (\$/MWh)	\$49.7	\$50.7	\$51.0	\$45.1
Total New Zealand customer connections <sup>3</sup>	275,344	276,366	274,920	274,947
Powershop Australia customer connections <sup>4</sup>	not disclosed	not disclosed	77,970	not disclosed
New Zealand Generation				
Hydro generation volume (GWh)	1,119	1,060	1,014	1,063
Wind generation volume (GWh)	143	123	121	144
Total generation volume (GWh)	1,262	1,183	1,135	1,207
Average generation price <sup>5</sup> (\$/MWh)	\$48.1	\$49.7	\$50.6	\$51.7
Acquired generation volume <sup>6</sup> (GWh)	102	144	80	87
Cost of acquired generation (\$/MWh)	\$46.2	\$82.2	\$78.9	\$75.1
Acquired generation revenue average price (\$/MWh)	\$48.3	\$50.4	\$58.1	\$57.6
Future contract close outs (\$m)	(\$0.2)	(\$0.1)	(\$0.3)	(\$2.0)
Contracted sales supply volume (GWh)	950	1,092	940	1,114
Cost to supply contracted sales (\$/MWh)	\$54.4	\$52.6	\$54.5	\$54.5

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

<sup>3.</sup> Meridian Retail and Powershop New Zealand installation control points (ICPs), excluding vacants

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

<sup>2.</sup> Excludes the sell-side of virtual asset swaps

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

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

	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	<b>\$111.</b> 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	not disclosed r	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	<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	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	not disclosed	35,138 r	ot 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	<b>\$58.5</b>	\$64.2	\$69.2	<b>\$78.</b> 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

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun
	2013	2013	2013	2013	2013	2013	2014	2014	2014	2014	2014	2014
New Zealand Contracted Sales												
Retail contracted sales volume (GWh)	479	470	463	448	509	516	492	498	482	479	462	455
Average retail contracted sales price (\$/MWh)	\$114.7	\$120.8	\$109.1	\$97.8	\$91.7	\$85.6	\$98.4	\$92.2	\$91.9	\$112.1	\$116.0	\$118.4
NZAS sales volume (GWh)	426	426	411	426	412	426	426	384	426	412	426	412
Sell side derivative volumes (GWh)	38	29	36	82	129	122	97	88	80	53	57	88
Wholesale contracted sales average price (\$/MWh)	\$52.6	\$50.4	\$51.4	\$49.3	\$47.7	<b>\$48.</b> 5	\$51.4	\$52.1	\$51.1	\$54.7	\$54.6	\$55.2
Total New Zealand customer connections	272,972	272,638	275,303	275,870	276,403	276,564	277,059	277,226	277,404	277,810	277,412	276,708
Powershop Australia customer connections	not disclosed	not disclosed	529	not disclosed	not disclosed	1,106	not disclosed	not disclosed	5,879	not disclosed	not disclosed	13,426
New Zealand Generation												
Hydro generation volume (GWh)	989	954	892	953	1,059	1,145	1,200	1,056	907	785	915	1,049
Wind generation volume (GWh)	127	98	117	132	86	99	113	86	90	93	103	100
Total generation volume (GWh)	1,116	1,052	1,009	1,085	1,145	1,244	1,313	1,142	997	878	1,018	1,149
Average generation price (\$/MWh)	\$48.6	\$45.2	\$52.3	\$25.4	\$25.5	\$42.5	\$57.1	\$113.5	\$122.9	\$100.9	\$55.1	\$48.0
Acquired generation volume (GWh)	157	158	119	82	77	71	28	21	123	165	146	121
Cost of acquired generation (\$/MWh)	\$87.5	\$86.6	\$83.7	\$76.7	\$68.7	\$83.7	\$83.0	\$86.4	\$87.3	\$90.1	\$89.2	\$90.4
Acquired generation revenue average price (\$/MWh)	\$52.9	\$55.0	\$60.3	\$40.0	\$61.1	\$49.4	\$104.4	\$72.3	\$116.4	\$90.3	\$59.2	\$49.0
Future contract close outs (\$m)	(\$2.4)	(\$1.0)	(\$1.6)	(\$0.3)	(\$0.2)	(\$0.1)	(\$0.3)	(\$0.9)	(\$0.8)	(\$0.1)	(\$0.9)	(\$2.1)
Contracted sales supply volume (GWh)	958	933	921	963	1,078	1,089	1,064	980	1,045	968	967	991
Cost to supply contracted sales (\$/MWh)	\$50.0	\$50.3	\$56.5	\$28.2	\$28.5	\$46.9	\$59.1	\$122.0	\$125.1	\$103.8	\$58.6	\$51.1

# **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