

Quarterly Operating Report | Q4-23 | March 2023



Quarterly Insights

Spot prices recover from soft Q2 and Q3

Spot pricing over the quarter (January – March 2023) was strong, and significantly elevated compared to the preceding two quarters. Benmore daily pricing averaged \$127/MWh and Otahuhu averaged \$137/MWh. This compares to \$36/MWh and \$47/MWh respectively for the preceding quarter.

ASX forward prices fall across the quarter, but remain strong

Forward wholesale prices on the ASX fell slightly from the end of last quarter, particularly for short-dated periods, however, remain at strong absolute levels.

Inflows and storage both up

National storage (compared to the 10-year average) rose across the quarter (from 116% to 128%). Manawa Energy storage declined across the period but was sitting at 124% of the 10-year average. This was primarily due to strong pricing (stored water was used more) and subdued South Island inflows (all main Manawa Energy storage is located in the South Island).

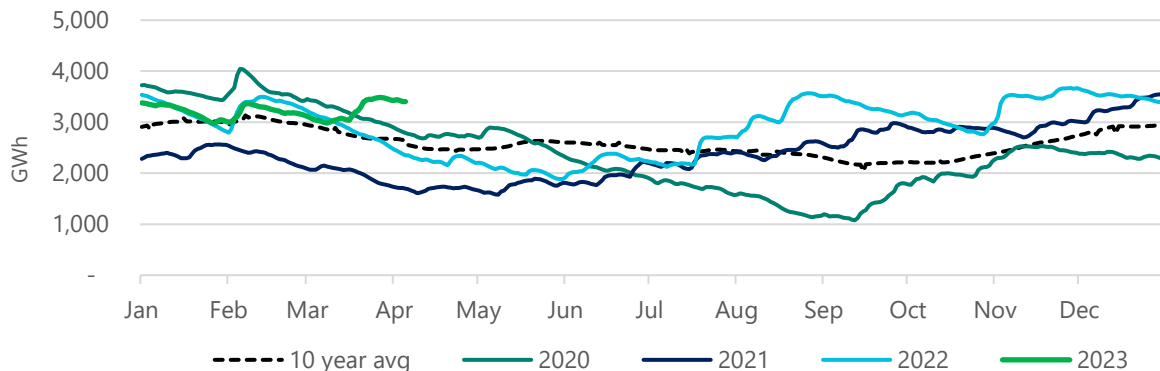
Manawa Energy saw strong inflows into our schemes (mainly in the North Island) – with an additional 83 GWh compared to average,

Generation volumes strong across the quarter

Total Q4-23 generation volumes were 461 GWh. This is 55% higher than the pcp due to North Island volumes being 88% higher than the pcp (strong inflows), and South Island volumes 24% higher. FY-23 generation volumes are 9% ahead of the pcp (1,917 GWh vs 1,760 GWh for FY-22)

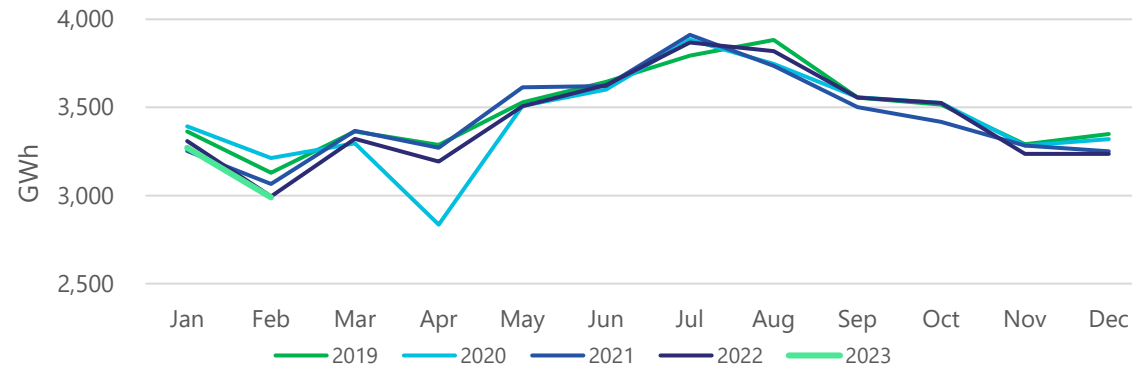
Wholesale Electricity Market

National Controlled Storage



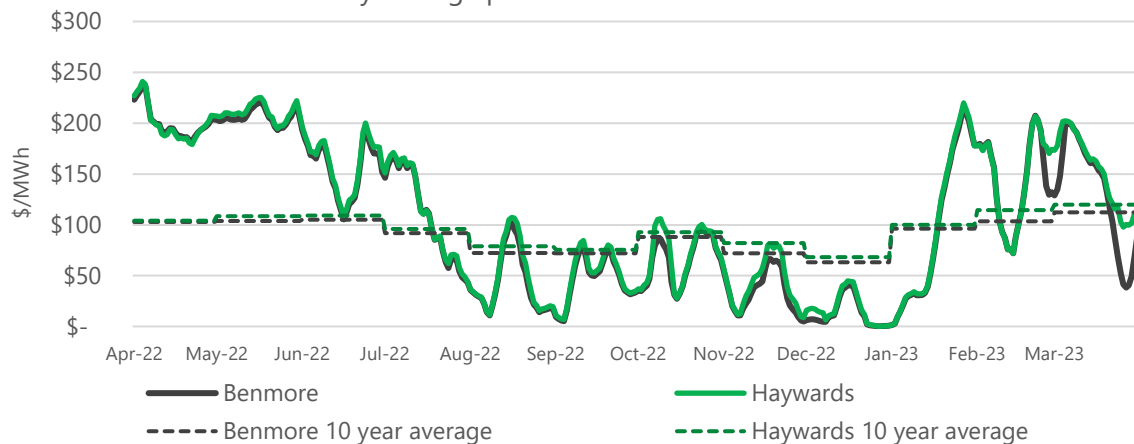
SOURCE: NZX Hydro

National Demand

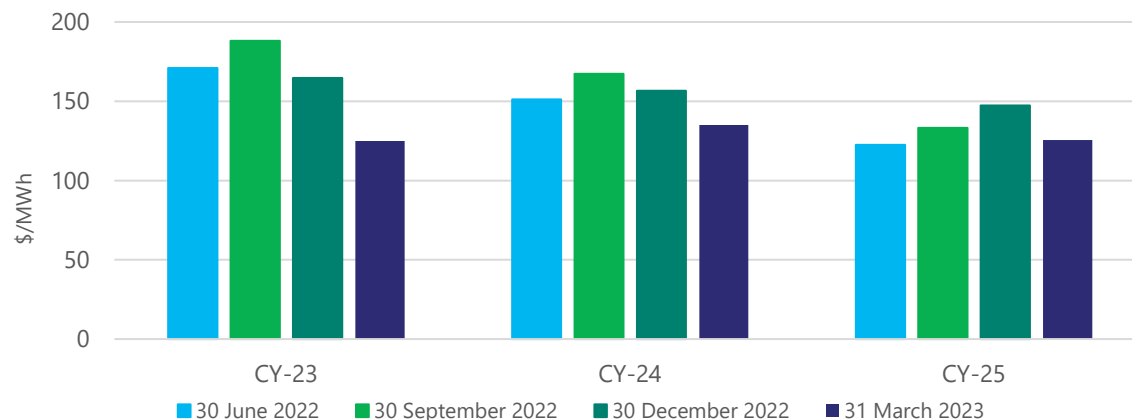


NOTE: March 2023 demand not available at time of release

Weekly average prices - 12 months to end of Mar 2023

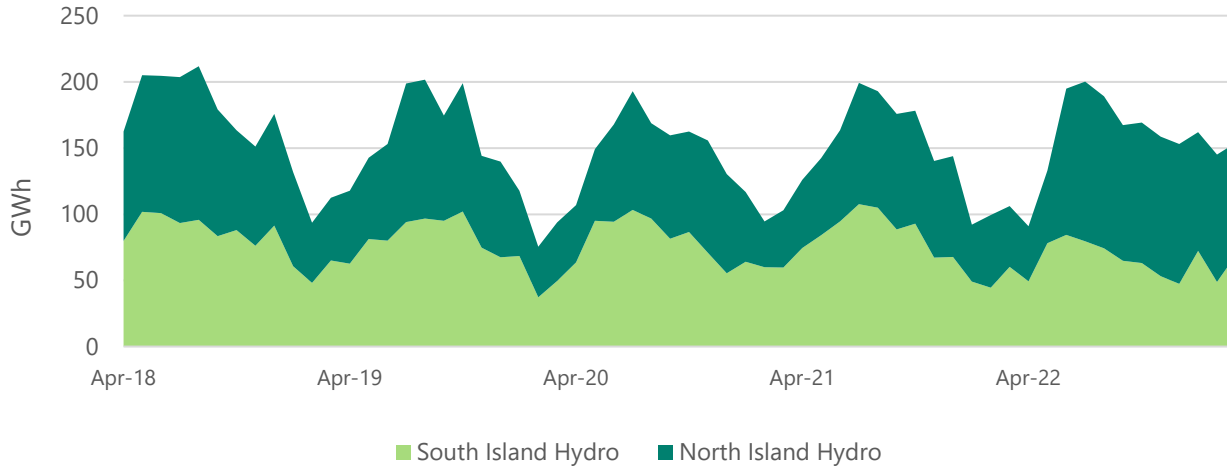


Benmore ASX Futures Settlement Prices

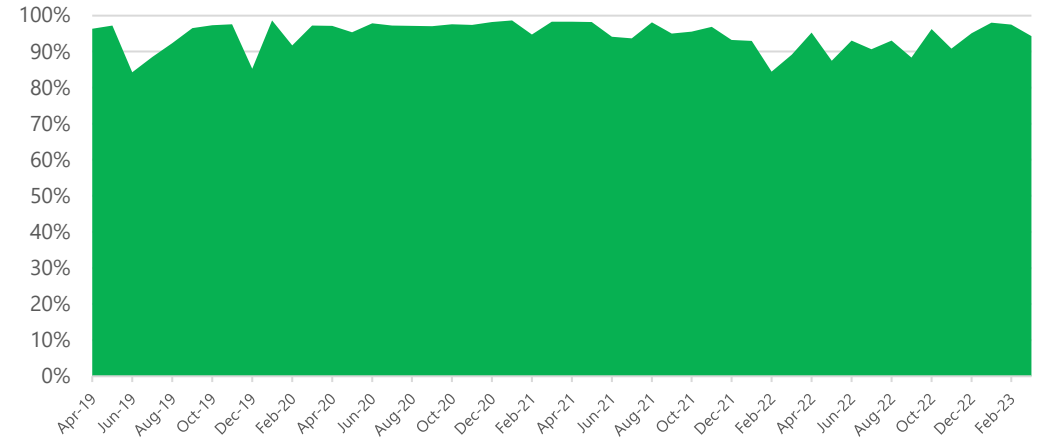


Generation

Monthly Generation Volumes



Percentage of Potential Revenue Achieved



**Q4-23
NI Generation**
↑88%
vs pcp

**Q4-23
SI Generation**
↑24%
vs pcp

Q4-23 GWAP/TWAP
NI **1.02**
SI **1.16**

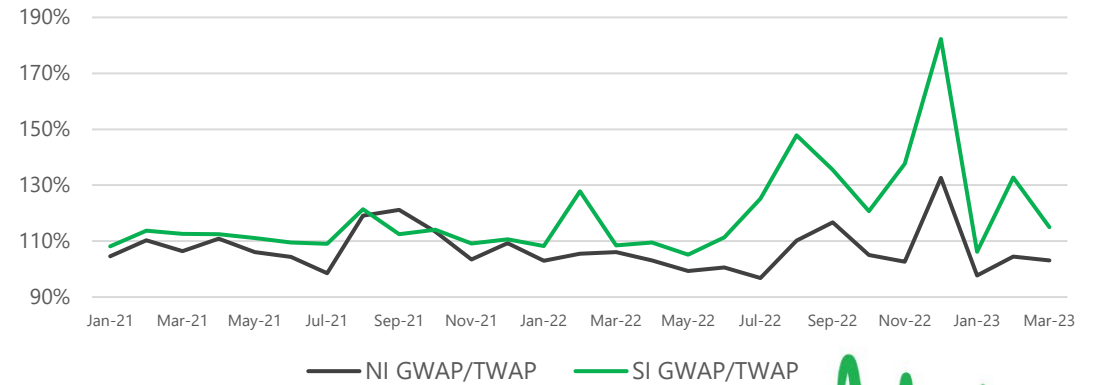
\$141/MWh
\$140/MWh

New Zealand Load Weighted Average Price (LWAP)

New Zealand Generation Weighted Average Price (GWAP)

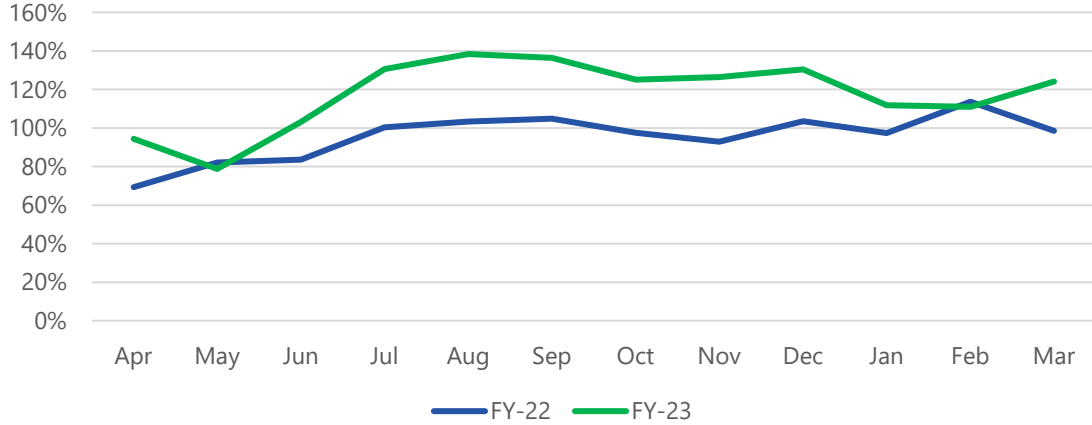
NOTE: Q4 Prices

GWAP / TWAP

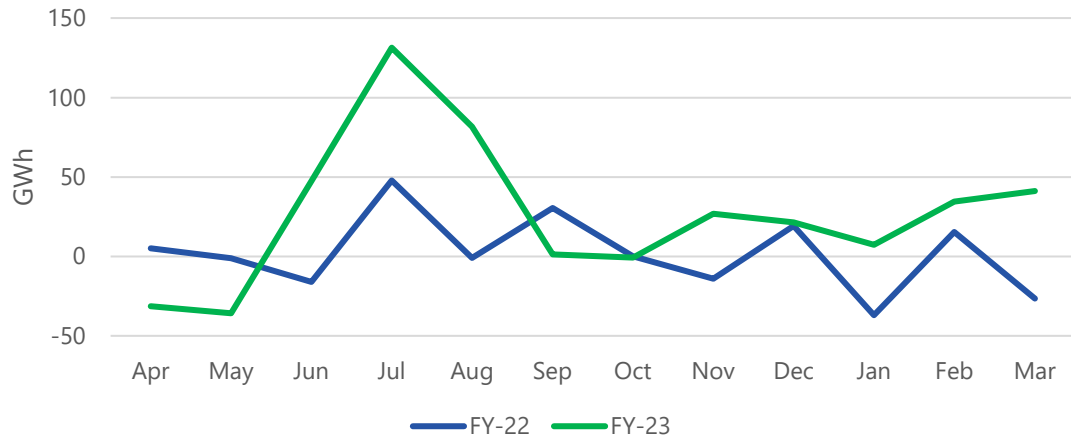


Generation

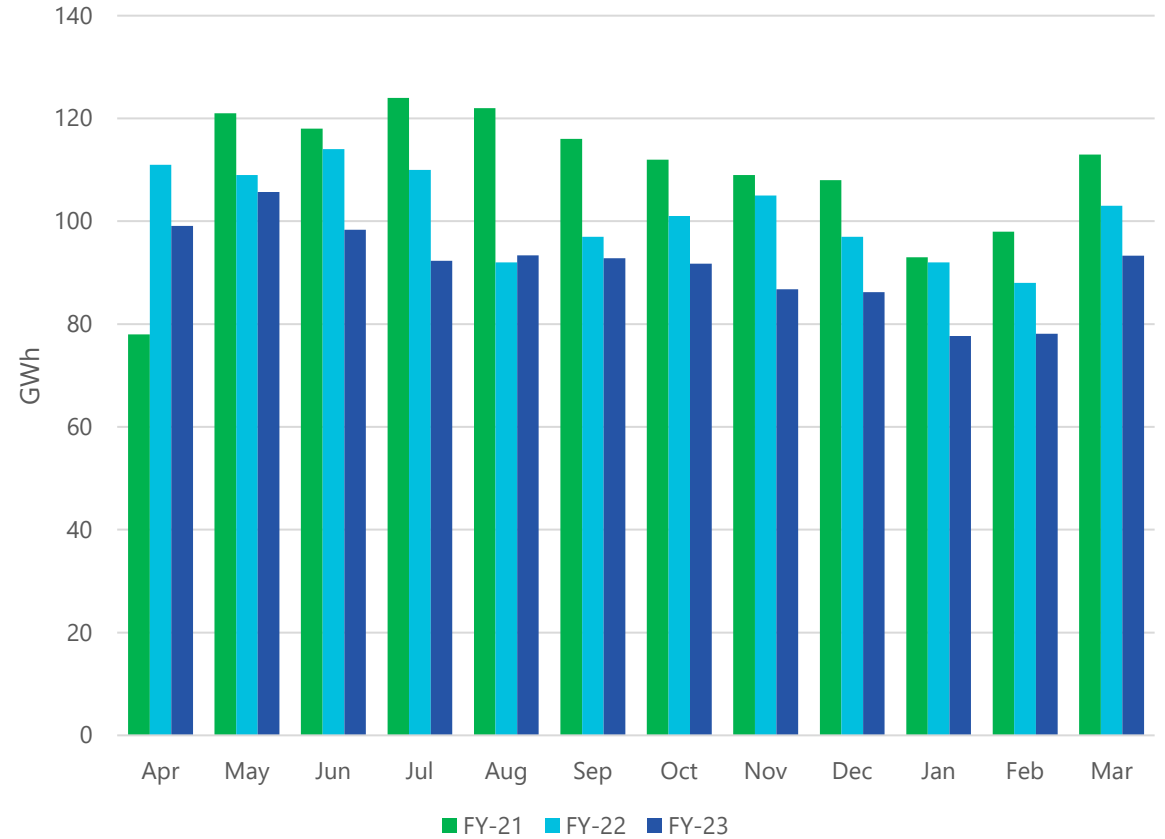
Manawa Lake Levels - % of long term average



Inflow variance to long term average



C&I Customer Volumes



Operating stats

	Q1 FY-21	Q1 FY-22	Q1 FY-23	Q2 FY-21	Q2 FY-22	Q2 FY-23	Q3 FY-21	Q3 FY-22	Q3 FY-23	Q4 FY-21	Q4 FY-22	Q4 FY-23
Sales												
MM Retail sales (GWh)*	480	474	129	571	603	-	402	387	-	371	355	-
C&I sales - Fixed Price (GWh)	113	104	106	137	102	105	125	104	112	108	97	103
C&I sales - Spot (GWh)	204	231	197	224	196	174	203	200	153	195	186	147
MCY sales (GWh)	-	-	360	-	-	610	-	-	448	-	-	406
Total Sales (GWh)	797	809	792	932	901	888	730	691	712	674	638	655
LWAP (\$/MWh)	128	288	200	140	156	73	116	75	48	219	176	141
Generation Production and Procurement												
North Island generation production (GWh)	171	179	207	240	267	338	236	235	317	130	144	271
South Island generation production (GWh)	253	253	212	282	301	219	213	228	164	184	154	190
Wind PPA offtake (GWh)	147	150	142	177	169	163	163	152	159	118	128	131
Net other external procurement (GWh)	97	94	121	66	52	53	60	67	3	131	119	132
Total Production and Procurement (GWh)	668	676	682	764	790	772	672	681	642	563	545	724
GWAP (\$/MWh)	130	287	189	139	148	75	112	72	49	218	171	140
Other Information												
Resource consent non-compliance events^	1	1	3	2	2	2	6	2	2	1	-	2
Recordable Injuries**	1	4	2	4	2	1	7	6	1	2	6	2
Staff numbers (full time equivalents)	806	790	233	813	766	236	816	789	234	801	777	238

* MM Retail business sold on 1st May 2022.

^ Events are recorded only when they have been confirmed as non-compliance events by the relevant regulatory authority. The number of historically reported non-compliant events are subject to change given timings in confirmation of non-compliance.

** Recordable injuries now includes contractor injuries; historic numbers have been re-stated.

Operating stats

	YTD FY-21	YTD FY-22	YTD FY-23	Full Year FY-21	Full Year FY-22	Full Year FY-23
Sales						
MM Retail sales (GWh)*	1,824	1,819	129	1,824	1,819	129
C&I sales - Fixed Price (GWh)	483	407	424	483	407	424
C&I sales - Spot (GWh)	826	813	671	826	813	671
MCY sales (GWh)	-	-	1,824	-	-	1,824
Total Sales (GWh)	3,133	3,039	3,048	3,133	3,039	3,048
LWAP (\$/MWh)	147	176	127	147	176	127
Generation Production and Procurement						
North Island generation production (GWh)	777	824	1,132	777	824	1,132
South Island generation production (GWh)	931	936	785	931	936	785
Wind PPA offtake (GWh)	605	600	596	605	600	596
Net other external procurement (GWh)	354	332	308	354	332	308
Total Production and Procurement (GWh)	2,667	2,692	2,821	2,667	2,692	2,821
GWAP (\$/MWh)	144	166	109	144	166	109
Other Information						
Resource consent non-compliance events^	10	5	9	10	5	9
Recordable Injuries**	14	18	6	14	18	6
Staff numbers (full time equivalents)	801	777	238	801	777	238

* MM Retail business sold on 1st May 2022.

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** Recordable injuries now includes contractor injuries; historic numbers have been re-stated.

Glossary

Term	Definition
Asset Availability	Total hours asset(s) available or operating/Total hours in month. Excluding planned outages.
C&I	Commercial and Industrial customers
EOM	End Of Month
FTE	Full Time Equivalent
Gross Margin	Gross Revenue – Direct Cost of Sales
GWAP	Generation Weighted Average Price – Average revenue per unit reference to Benmore for South Island and Whakamaru for North Island. Refers to own generation only.
GWh	Gigawatt hour(s) – unit of energy
KCE	King Country Energy
LY	Last year
LWAP	Load Weighted Average Price – Average cost of energy per unit for the retail business only.
Main lakes	Waipori, Cobb and Coleridge schemes.
MWh	Megawatt hour(s) – unit of energy

Term	Definition
NI	North Island
OPEX	Operating expenditure
pcp	Prior corresponding period
Percentage of Potential Revenue Achieved	Total monthly Manawa Energy (excluding KCE) generation spot revenue less the value of lost market revenue due to outages, expressed as a percentage.
Recordable Injury	Lost Time and Medical Treatment Injuries
ROR	Run-of-River. A scheme classification that denotes no (or very little) ability to store water).
SI	South Island
TRIFR	Total Reportable Injury Frequency Rate. Measured per 200,000 hours.
TWAP	Time-Weighted Average Price
Var	Variance
YoY	Year-On-Year
YTD	Year-To-Date

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