New Zealand Energy Quarterly: March 2019 quarter

Continuing gas shortages affected New Zealand’s energy markets in the March quarter 2019. These resulted in higher gas and electricity prices. Increased coal consumption by electricity generators saw high coal imports and increased emissions for the quarter.

**Pohokura maintenance continued to restrict gas supplies in March 2019**

Production at the Pohokura field was reduced during the March quarter due to ongoing maintenance. This meant the gas supply was still constrained throughout the North Island during the March quarter. These constraints were most clearly seen in the electricity generation sector, which showed a 16 per cent reduction compared to March 2018. Methanex also reported reduced output for the quarter, citing gas constraints and scheduled maintenance at their Waitara facility. The Pohokura field is reported to have returned to near full production in late May 2019.

**Less renewable electricity generated in the March 2019 quarter**

Increased demand from the Tiwai aluminium smelter of 6.9 per cent from March 2018 saw national demand increase by 0.6 per cent. The ongoing gas shortages saw some generators turn to coal to meet demand, with coal showing a 138 per cent increase over March 2018. This adjustment to the generation mix saw the proportion of renewable electricity generated during the quarter fall to 80 per cent.
Hydro storage levels were below the historical average until the very end of the quarter, when high rainfall in key catchment areas returned overall national storage to above average levels. The low lake levels, coupled with reduced gas supply from Pohokura, resulted in wholesale gas prices for the quarter being higher than in March 2018.

Wholesale energy prices reached a peak of $276.79/MWh on 13 Feb 2019 and averaged around $150/MWh for the quarter.¹ The industrial sector experienced a 15 per cent increase in average cost per unit in the March 2019 quarter when compared to the March 2018 quarter. This was largely because some industrial users purchased their electricity directly from the wholesale market.

**Marsden Point refinery performing strongly after 2018 upgrade**

The Marsden Point refinery underwent a major upgrade in early-mid 2018. This upgrade was conducted over the period April to June 2018. With the refinery output reduced over this period, there was a requirement to import more refined products, like petrol and diesel, than normal. The increased imports began to be noticeable in the March 2018 quarter when imports of petrol were slightly higher than would normally be expected had there not been maintenance at the refinery.

While the March 2019 quarter showed a reduction in petrol imports compared to the March 2018 quarter, this reduction needs to be considered in the context of unusually high imports during the March 2018 quarter. The petrol imports during the March 2019 quarter can more accurately be considered a return to expected levels, rather than a reduction.

**Fuel prices return to almost 2018 levels**

Petrol prices have almost returned to March 2018 levels after the peak in the September 2018 quarter, however retail diesel is still 11 per cent higher than in March 2018 quarter.

**QSDEP**

Overall retail electricity prices nationally were comparable to prices from March 2018. The major retailers kept their prices unchanged, while some of the smaller retailers increased their prices significantly. This increase was attributed to increasing transmission costs rather than the energy generation and retail costs.

**Next release**

The Energy Quarterly: June 2019 quarter is planned to be released on Thursday 12 September 2019.

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¹ [https://www.emi.ea.govt.nz/Wholesale/Reports/W_P_C?DateFrom=20190101&DateTo=20190331&TimeScale=MONTH&WeightedBy=SIMPLE&_rsdr=Q1&_si=v|3]