

EnergyTrendz WEEKLY

Week ending 28 October 2018

Issue 1120

A weekly review of New Zealand electricity markets compiled by Energy Link Ltd

Prices:

Key (Week Difference)

| South Island | BEN | | | ISL | | |
|----------------------|-----------|-----------|--------|-----------|-----------|--------|
| | 28-Oct-18 | 21-Oct-18 | Change | 28-Oct-18 | 21-Oct-18 | Change |
| Average Prices | 339.76 | 340.19 | ➡ 0% | 365.68 | 362.73 | ➡ 1% |
| Ratio Day/Night | 1.13 | 0.98 | ⬆ 15% | 1.14 | 0.98 | ⬆ 16% |
| Ratio Week/Other Day | 1.22 | 1.30 | ⬇ -6% | 1.25 | 1.31 | ⬇ -4% |

| | | |
|---|----|------|
| ⬆ | >= | 10% |
| ➡ | >= | 5% |
| ➡ | >= | 0% |
| ⬇ | <= | -5% |
| ⬇ | <= | -10% |

| North Island | HAY | | | OTA | | |
|----------------------|-----------|-----------|--------|-----------|-----------|--------|
| | 28-Oct-18 | 21-Oct-18 | Change | 28-Oct-18 | 21-Oct-18 | Change |
| Average Prices | 343.34 | 343.45 | ➡ 0% | 351.23 | 351.36 | ➡ 0% |
| Ratio Day/Night | 1.16 | 1.00 | ⬆ 16% | 1.20 | 1.03 | ⬆ 16% |
| Ratio Week/Other Day | 1.21 | 1.33 | ⬇ -9% | 1.17 | 1.33 | ⬇ -11% |

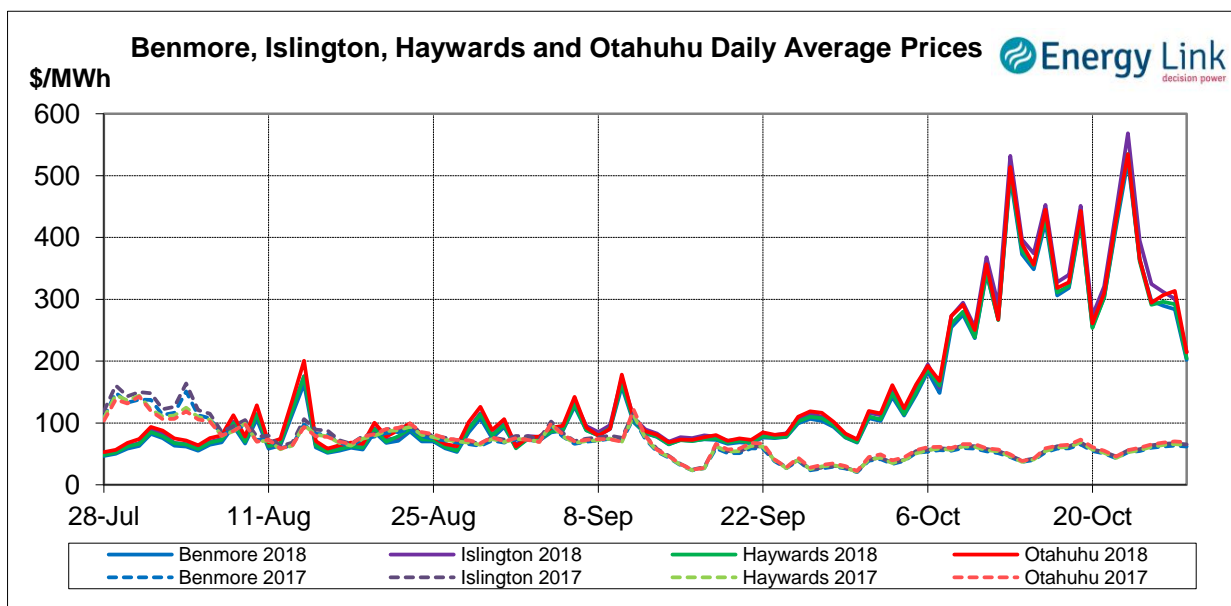
| Price Differences | OTA-BEN | | | HAY-BEN | | |
|---------------------|-----------|-----------|--------|-----------|-----------|--------|
| | 28-Oct-18 | 21-Oct-18 | Change | 28-Oct-18 | 21-Oct-18 | Change |
| Average differences | 11.47 | 11.16 | ➡ 3% | 3.58 | 3.26 | ➡ 10% |

Provisional Prices still apply to: Fri, 26 Oct 18; Sat, 27 Oct 18

Price Highlights:

| | Price \$/MWh | Day | Location | Period |
|------------------------------|--------------|----------------------------|----------|--------|
| Maximum nodal price | \$50,000.00 | Saturday, October 27, 2018 | Haywards | 15 |
| Minimum nodal price | \$78.07 | Saturday, October 27, 2018 | Tuai | 04 |
| Maximum Ben_Hay differential | \$296.26 | Tuesday, October 23, 2018 | | 40 |
| Maximum NI reserve price | \$23.01 | Tuesday, October 23, 2018 | | 38 |

Please note: Any Provisional Prices are not included in Price Highlights



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Average Wholesale Spot Prices

| Date | Benmore (\$/MWh) | | Islington (\$/MWh) | | Haywards (\$/MWh) | | Otahuhu (\$/MWh) | |
|----------|------------------|--------|--------------------|--------|-------------------|--------|------------------|--------|
| | Day | Night | Day | Night | Day | Night | Day | Night |
| 28-10-18 | 209.12 | 187.31 | 223.35 | 197.99 | 212.90 | 187.27 | 226.75 | 189.50 |
| 27-10-18 | 320.46 | 210.90 | 339.53 | 223.09 | 331.78 | 212.18 | 359.33 | 222.34 |
| 26-10-18 | 277.81 | 313.14 | 300.01 | 335.73 | 287.90 | 312.22 | 305.53 | 308.27 |
| 25-10-18 | 315.27 | 261.19 | 346.52 | 280.91 | 308.35 | 256.27 | 313.51 | 256.66 |
| 24-10-18 | 345.95 | 401.39 | 377.61 | 430.56 | 345.31 | 394.07 | 355.41 | 384.11 |
| 23-10-18 | 554.53 | 462.24 | 605.65 | 493.78 | 572.00 | 460.12 | 573.93 | 456.35 |
| 22-10-18 | 449.49 | 353.55 | 478.01 | 375.95 | 458.73 | 354.14 | 467.92 | 354.88 |

Note: Night: 00:00 – 08:00 and Day 08:00 – 24:00

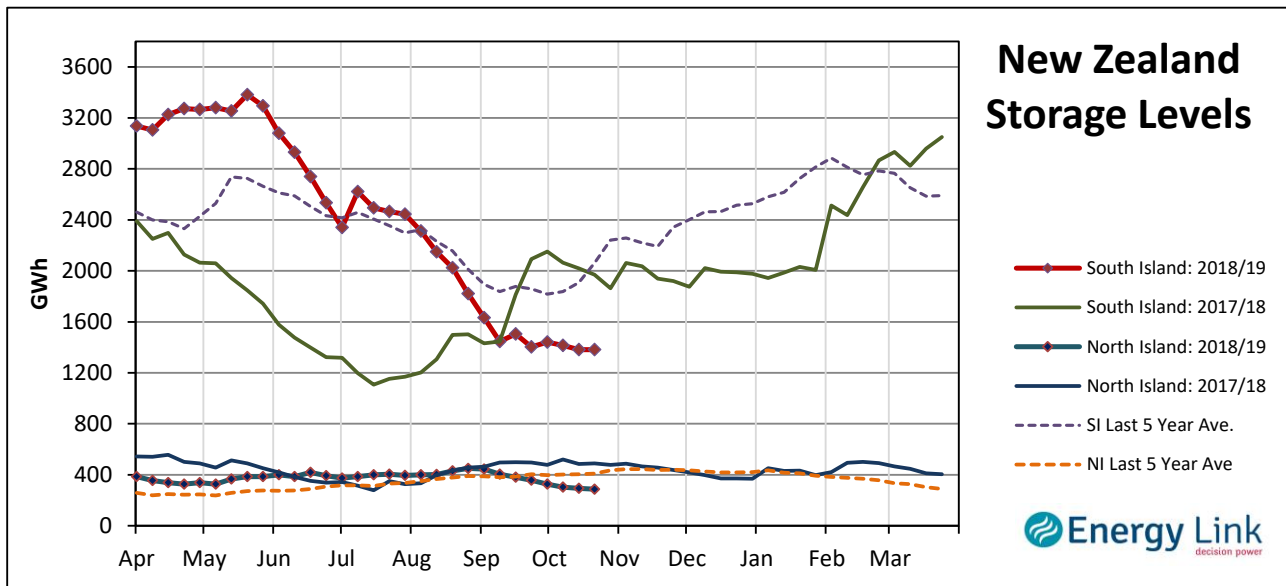
| Indicator (\$/MWh) | Benmore | Movement | Islington | Movement | Haywards | Movement | Otahuhu | Movement |
|--------------------------------|---------|----------|-----------|----------|----------|----------|---------|----------|
| Average September 18 Price | 83.93 | - | 89.99 | - | 85.35 | - | 90.11 | - |
| Average October 18 Price | 283.91 | - | 304.43 | - | 287.64 | - | 296.50 | - |
| 4 Week Moving Average Price | 283.91 | 28.3% | 304.43 | 28.5% | 287.64 | 28.0% | 296.50 | 27.1% |
| Weekly Average Price | 339.76 | -0.1% | 365.68 | 0.8% | 343.34 | 0.0% | 351.23 | 0.0% |
| Weekday Day Average Price | 373.39 | 5.2% | 451.95 | 21.6% | 378.39 | 4.4% | 387.09 | 3.2% |
| Weekday Night Average Price | 359.49 | -6.3% | 395.30 | 1.1% | 355.67 | -7.3% | 351.10 | -8.3% |
| Weekend Day Average Price | 326.36 | 10.5% | 328.43 | -4.0% | 334.47 | 12.9% | 351.33 | 15.2% |
| Weekend Night Average Price | 250.59 | 1.3% | 276.53 | -31.3% | 251.20 | 3.8% | 255.57 | 4.1% |
| Day - Night Differential | 1.13 | 15.2% | 1.14 | 16.2% | 1.16 | 15.5% | 1.20 | 16.0% |
| Weekday - Weekend Differential | 1.22 | -6.1% | 1.25 | -4.5% | 1.21 | -9.0% | 1.17 | -11.4% |

Note: Movement represents difference from last week.

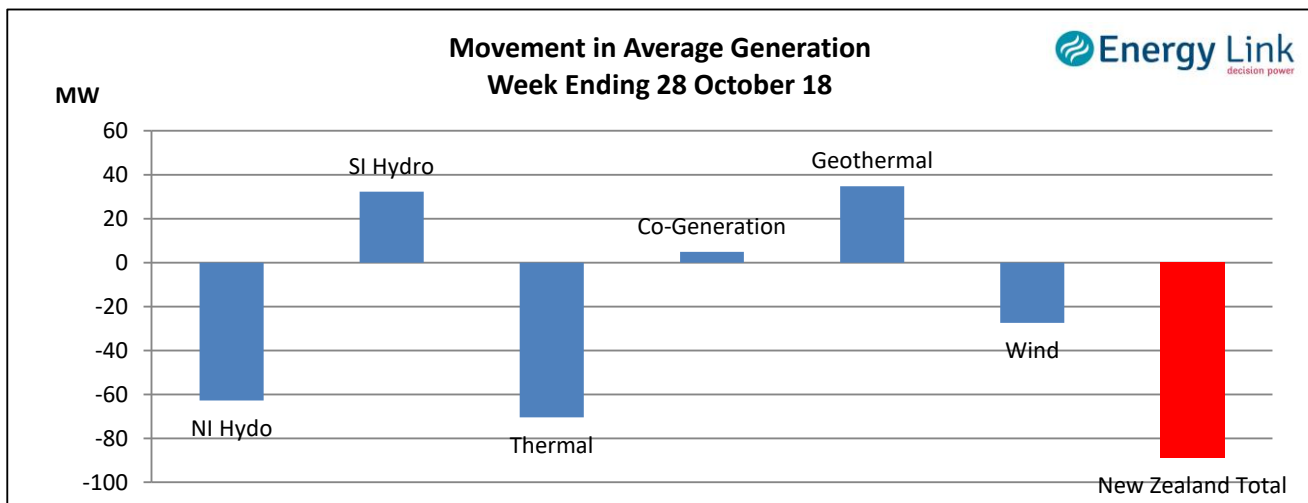
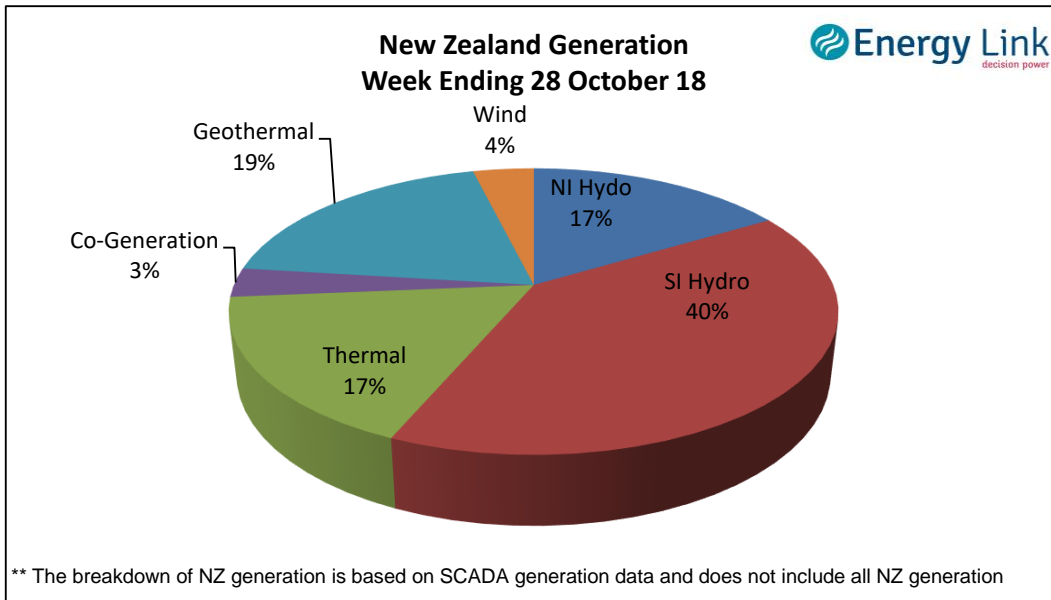
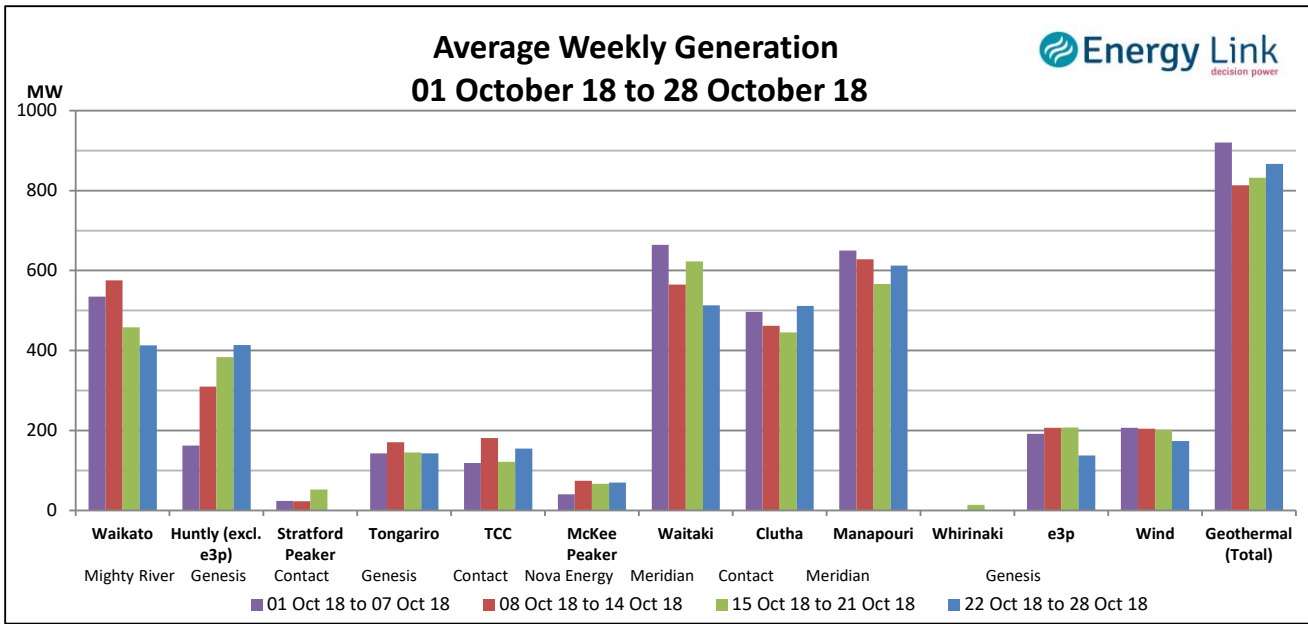
Storage: (as at last Thursday)

Total Storage decreased to 1669 GWh.

NI storage decreased by 2 % to 287 GWh while SI storage decreased by 0% to 1381 GWh.



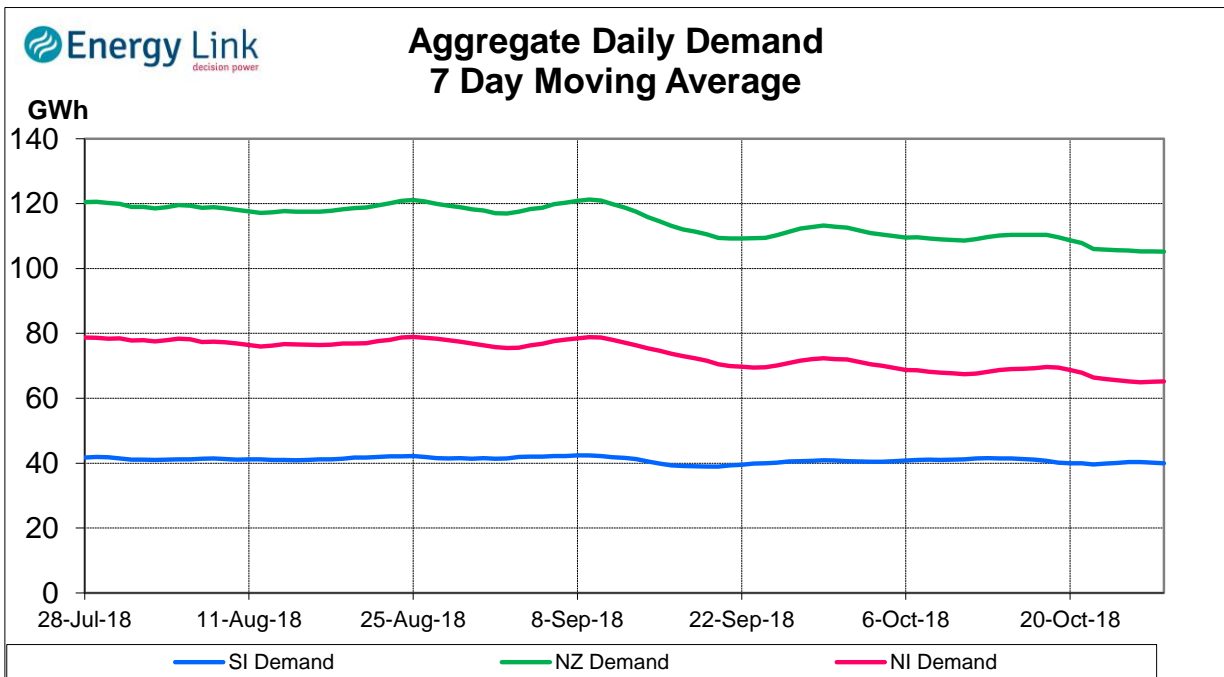
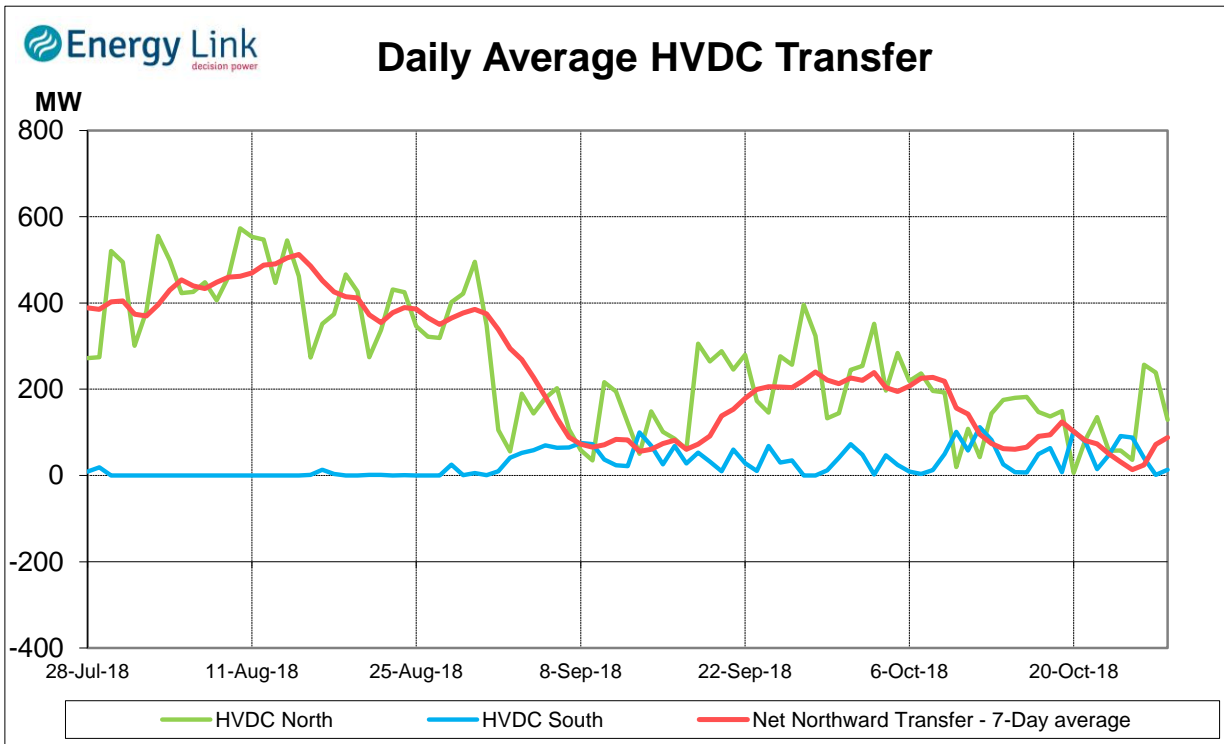
Generation:



Average Generation Market Share ¹

| Contact | Mercury | Genesis | Meridian | Trustpower | Other |
|-----------|-----------|-----------|-----------|------------|---------|
| 25% (24%) | 18% (18%) | 20% (20%) | 28% (29%) | 3% (3%) | 6% (6%) |

¹ Generation market share figures are based on SCADA data. The number in brackets represents the generation market share % from the previous week.

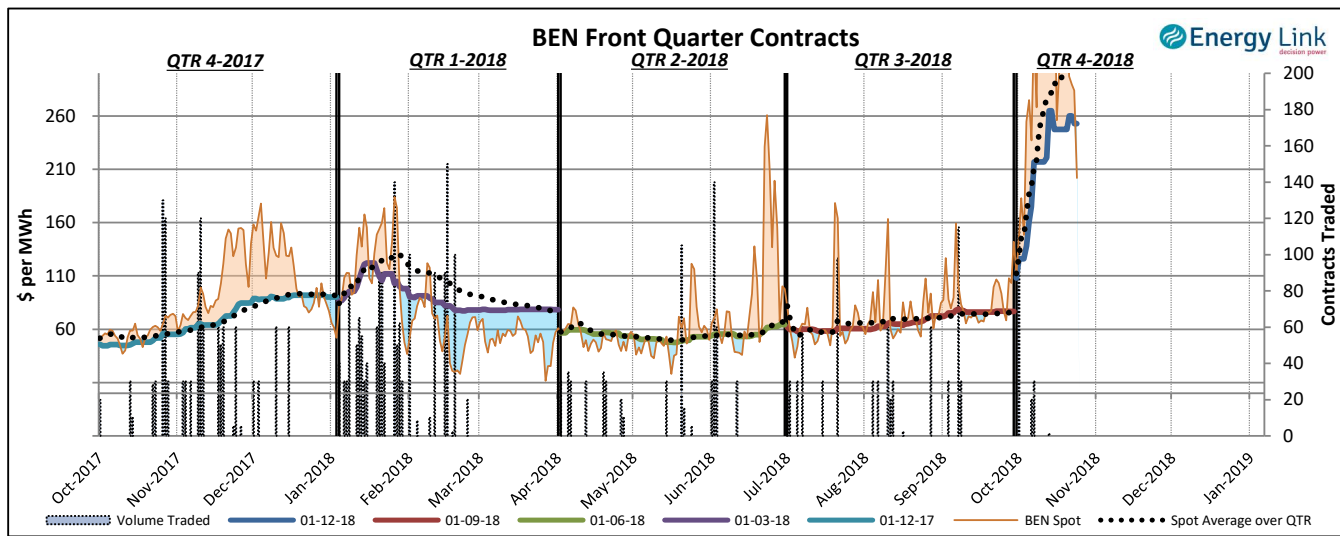
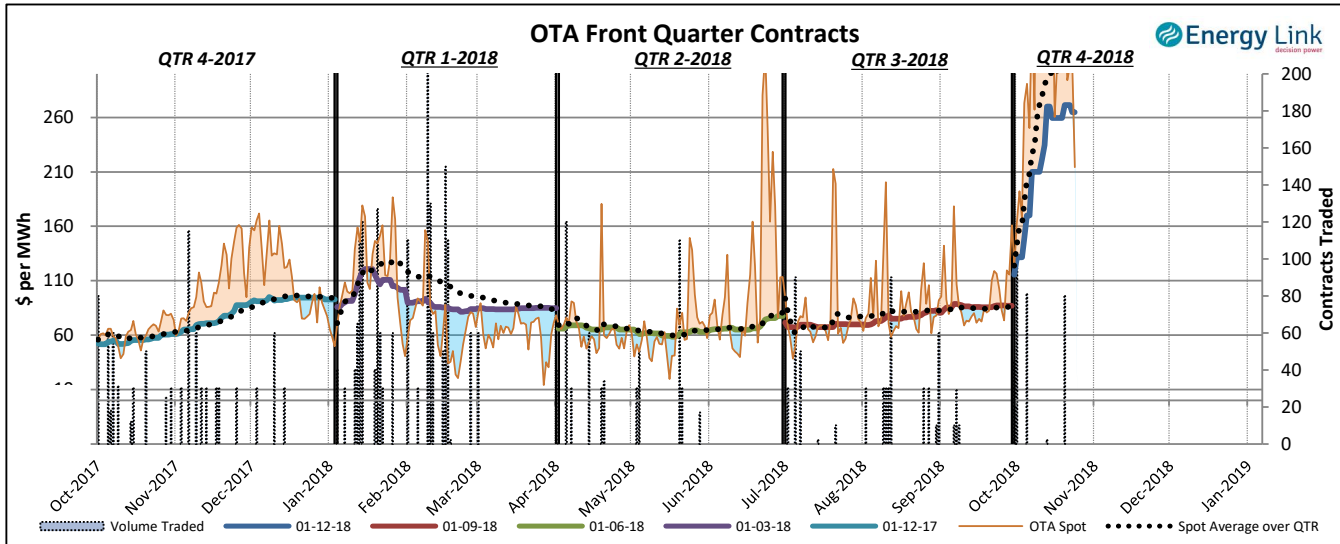


Demand data based on un-reconciled SCADA data.

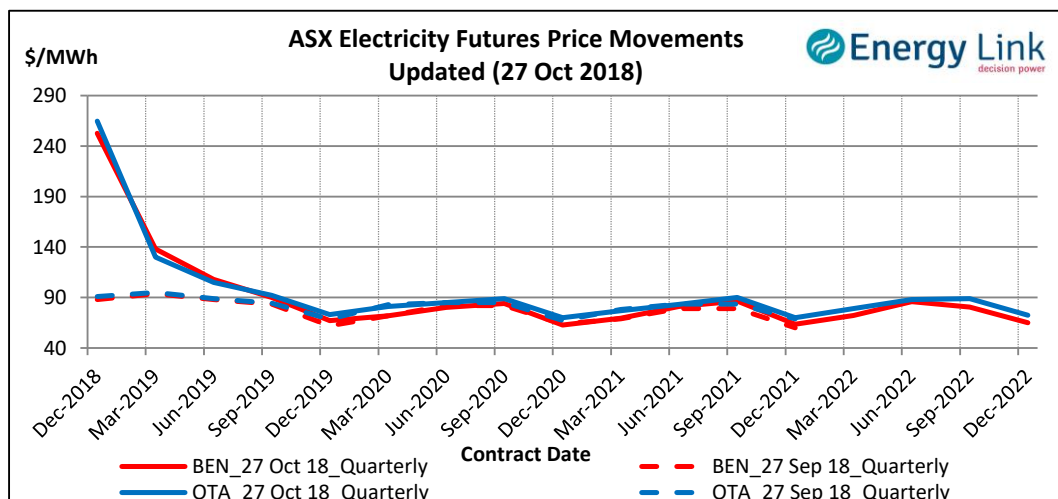
ASX Electricity Futures

The **Australian Securities Exchange (ASX)** listed Base Load Electricity Futures, Strip Futures and Calendar year Strip Options for two grid reference points (Otauhu and Benmore) in the New Zealand electricity market in July 2009. The ASX New Zealand Electricity Futures contracts are cash settled using the arithmetic average of half-hourly prices at the designated node over the period of a calendar quarter.

The two charts below display the price movements of the front quarter futures contract during the current quarter and for the four quarters prior to the current quarter. Also shown is the volume of contracts traded, the relevant spot price and the spot average price over the quarter during the time when each contract was the front quarter contract.



The chart to the right shows the most recent transactions for all currently traded futures contracts at both the BEN & OTA nodes. For comparison these prices are mapped against the prices for the same contracts four weeks prior to the current Market Review.



Carbon Dioxide Emissions

The chart below shows the estimated Carbon Dioxide (CO₂) emissions for New Zealand's major thermal power stations. The estimates are based on weekly generation output and assumptions on each plant's thermal efficiency.

Note: Since 22 Feb 2016, Geothermal plant is now also included in the total carbon emissions.

