

Issue 7, February 2021



CARBON ZERO

Newsletter

From the WLASS energy managers

Hi everyone, what a brilliant summer it's been so far and as I write this some welcome rain is falling. Covid Alert levels are back, we hope only for a short time, and the Climate Change Commission has released its draft advice to the Government. A somewhat daunting document, but what struck us was to finally see the urgency of this work clearly documented. Not all the answers are known, but it's clear we must get on it.

We have had a positive response from Councils to create a forum whereby we can share and discuss our progress towards our climate and energy reduction goals. We will get this underway shortly so look out for an invite. There will be the option to meet in person or remotely and this will be a great way of leveraging knowledge and contacts across the Waikato Councils.

*Kind regards
Martin Lynch and Kevin McGrath*

Energy efficiency is the lowest cost to reduce emissions

It's true! See page 116 of the Climate Change Commission's advice. It's not just energy savings though: we need to think about the cost of carbon in the future. The Commission has advised that marginal abatement costs should be around \$140/tonne by 2030 in order to shift away from fossil fuels. As announced early this year, government departments must offset their corporate carbon emissions from 2025. Clearly they will be including a shadow carbon price in all future analysis to prevent investment in energy hungry and carbon intensive plant. This is

Available green electricity is key...

[Our advice and evidence » Climate Change Commission \(climatecommission.govt.nz\)](#)

The Climate Change Commission has released its draft advice for consultation. The size of the report makes it somewhat difficult to summarise but there are massive implications for how NZ will evolve as a society in the next ten years. It certainly seems that renewable electricity will become our key energy source across most sectors.

Just recently, Contact Energy announced it will proceed with the new Tauhara 152 MegaWatt geothermal power station near Taupo and Genesis Energy will open its 133 MegaWatt wind farm in South Taranaki in March. This is the first of Genesis Energy's "Future-gen" projects whereby it aspires to bring 2,650GWh of new renewable generation to the market by 2030. However, this won't come in time for this winter. Genesis Energy has just announced it would make Rankine unit 3 at Huntly available, effectively bringing all thermal plant capacity at Huntly online. This has been driven by recent drought conditions which have left hydro catchments at historically low levels and looming supply shortages in the gas market.

NZ's "dry year" vulnerability is certainly a problem that must be solved if NZ is to accelerate towards a low carbon future. MBIE are running the NZ Battery Project which will provide advice to Government on solutions for storing energy in the NZ electricity system. One such option is the lake Onslow pumped hydro project which could provide 5,000GWh of annual generation/storage. But it's no short term fix, as construction is estimated to be 7 years from the date of approval.

Will we see new natural gas connections?

The Climate Change Commission wants to avoid new heating systems being scrapped before the end of their useful lives. So its recommended all new space heating and hot water systems installed after 2025 in new buildings are electric or biomass. How does this affect our WLASS Councils? Seven out of nine use natural gas in their operations, by far HCC is the largest user, Waipa is the second largest user and their use

energy hungry and carbon intensive plant. This is also a great model for local government to follow. As you can see below, carbon costs are on the up and up.

NZ Emission Reduction Units Price



New measures undertaken at our Councils include:

- Hamilton to upgrade a further 1800 streetlights to LED
- Waipa remove oversized gas boiler and replace with electric hot water cylinders.
- Taupo upgrading their V-Cat and Parks streetlights to LED
- Taupo DC completed its carbon inventory
- Rotorua Lakes Council underway with upgrading their street light network to LED
- Rotorua Lakes Council planning to replace main chiller for Civic Centre

HCC is the largest user. Waipa is the second largest user and their use will double when the Cambridge Pool opens in the next few months. Presently natural gas emissions make up 18% of our electricity, gas and fuel emissions. But based on what Kevin and I have seen, Council's are phasing out natural gas use where they can.

HCC	<ul style="list-style-type: none"> • Waterworld gas boilers to be replaced with electric hot water heat pumps • Municipal offices new HVAC system will not require hot water boilers • Garden Place Library gas boilers to be replaced with electric hot water heat pumps • Any new proposed gas connections are reviewed to see if there are alternatives at project design.
Rotorua	<ul style="list-style-type: none"> • Has converted Civic Centre to geothermal heating saving 1,000,000kWh in gas.
Waipa	<ul style="list-style-type: none"> • Recently removed old gas boiler at TeAwamutu office and replaced with electric hot water system with substantial savings on fixed connection costs.
WRC	<ul style="list-style-type: none"> • New office building does not use natural gas for heating and will be NABERS 4 star rated.
Waikato	<ul style="list-style-type: none"> • Huntly Aquatic Centre gas boiler to be replaced with low carbon heating system in LTP.

Articles of Interest

Tech Companies Electricity Use the Size of NZs' [CLICK HERE](#)

If We Can't Use Gas for Cooking... [CLICK HERE](#)

General Motors Enlists Will Ferrell to bring Drivers around to EVs [CLICK HERE](#)

2020, one of three warmest years on record: World Meteorological Organisation | Scoop News [CLICK HERE](#)

Overseas climate change litigation, a sign of things to come Simpson Grierson Lawyers [CLICK HERE](#)

How can I found out more?

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