

## EMSOL UPDATE SEPTEMBER 2019

Emsol's September 2019 Update:

1. **20% savings in refrigeration at EastPack**
2. **Emissions reduced by Coal boiler replacement**
3. **Climate Leaders Coalition, and Emsol's target**
4. **Emsol office savings**
5. **Developments at Emsol**

### 1. 20% savings in refrigeration at EastPack

EastPack's site in Collins Lane, Te Puke saved 20% energy in the past 12 months. The site packs and stores kiwifruit.

All of these savings were from its refrigeration system. Savings were due to:

- improved management and cool store utilisation,
- floating compressor suction and discharge pressures on three cool rooms,
- reduced frequency of electric defrost, and
- modulating fan speeds after cool rooms are fully loaded.



EastPack's energy manager advised "when evaporator fan speeds were slowed to save electricity, the cool rooms quickly lowered their temperatures". This was because the fans were putting less heat into the cool rooms and required less refrigeration capacity. Daily energy used by these three cool rooms decreased from 6,000kWh per day to 4,500kWh per day following the reduction in fan speeds.

### 2. Emissions reduced by coal boiler replacement



New Zealand King Salmon's site in Nelson reduced its carbon emissions by 129,000 kg CO<sub>2</sub> equivalent per year by replacing its coal fired boiler with electric water heating. With funding assistance by EECA, it completed an energy audit in 2018, which included boiler replacement as one energy saving option.

New Zealand King Salmon is now using 316,000 kWh less energy per year by using three electric hot water cylinders instead of the coal boiler. The payback period is 5.4 years.

### 3. Climate Leaders Coalition, and Emsol's target



The Climate Leaders Coalition is on a mission to reduce emissions in New Zealand. It was launched in July 2018 to promote business leadership and collective action on the issue of climate change. So far, 118 Chief Executives have signed to take voluntary action on climate change.



A range of organisations, such as Synlait, Auckland Council, and Port Nelson, have become signatories. Actions include measuring and publicly reporting their greenhouse gas emissions, setting a public emissions reduction target, and working with suppliers to reduce their emissions.

Emsol joined the Climate Leaders Coalition in August 2019 and has a 20% reduction target by end of 2021.

### 4. Emsol's office energy cost savings

Emsol relocated to its office on Trafalgar St, Nelson in February 2017. Within six months we reduced our electricity cost by 17%, by changing our Lines Fee charges. Our capacity fee component was set at 45 kVA, which was much too high for our office peak demand. Reducing this to 28 kVA saved us \$490 a year, after spending an hour to make the change.

In addition, we reduced our office energy use and associated carbon emissions by 10.9% in the past 18 months. We removed unnecessary lights, controlled heating diligently, and switched off an unused hot water cylinder.

Our office energy bill has reduced 22.5% in the past 2.5 years.

### 5. Developments at Emsol

We are pleased to announce that Carl Newby will be Acting Managing Director at Emsol until October 2020. Carl has established Emsol's North Island base, and during the last five years has expertly led some of the larger and longer-term energy management programmes at industrial sites across New Zealand.



After 17 years, Erin will be taking a well-earned ten-month sabbatical beginning November 2019. His ambitions are to complete the Te Araroa Trail, and then explore Europe with his wife Sue, including researching some of the advancements in energy and carbon saving opportunities.

### Find Out More

Please contact Erin Roughton ([erin.rougton@emsol.co.nz](mailto:erin.rougton@emsol.co.nz)) or Carl Newby ([carl.newby@emsol.co.nz](mailto:carl.newby@emsol.co.nz)) for more information. [www.emsol.co.nz](http://www.emsol.co.nz).

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