

EMSOL UPDATE OCT 2017

Please feel free to forward this newsletter to your financial controller or others who have an interest in energy savings.



Emsol's October 2017 Update includes six important topics:

1. Energy Tariff Analysis
2. Energy Monitoring and Targeting
3. Seasonal Refrigeration Opportunities
4. Additional Benefits of Energy Efficiency
5. Thermal Imaging
6. Carbon Surrender Ratio



1. Tariff Analysis

Analysing Network Tariffs is as important for understanding how to reduce your electricity costs as tendering a new retail contract. With the addition of the *Emissions Trading Scheme*, or changes to network tariff charges, you may well be finding price increases embedded in your energy tariffs.

We have recently identified considerable savings opportunities in this area. By investigating pricing structure and modelling energy usage, Emsol has helped two businesses identify how to reduce their electricity fees by 15% and 30% respectively. As they frequently involve behavioural or tariff changes, these opportunities can often be capitalized on immediately with minimal capital expenditure.

Additionally, if electricity purchase contracts are coming up for renewal, it would be worth reviewing now what prices are currently available, as they tend to be low around this time of year.

2. Monitoring and Targeting

Reporting energy savings is essential to maintaining a robust energy management programme, but how do you measure savings reliably?

Monitoring and reporting energy use (or costs) alone will not show realistic energy savings. Normalising energy use with production can help; but to achieve more accurate data, it is important to measure energy use against your business' energy-use baseline; and use an appropriate adjustment method in order to measure accurate savings. Seasonal production rates and / or ambient temperature are often key drivers of energy use and need adjusting for.

3. Seasonal Refrigeration Opportunities

Warmer ambient temperatures during summer months can result in high refrigeration energy usage. Listed below are recommended energy saving practices:

- Decrease compressor discharge pressure at night
- Condenser fans should operate at full speed on high humidity days. Consider 'over-speeding' if fans are on VSDs
- Clean condensers or cooling towers
- Increase the size of condensers or cooling towers
- Check state of seals around doors and entranceways

4. Additional Benefits of Energy Efficiency

Normally, improving energy efficiency will achieve benefits beyond energy cost savings alone. These may include:

- Improved product quality
- Better health and safety
- Less maintenance
- Labour savings

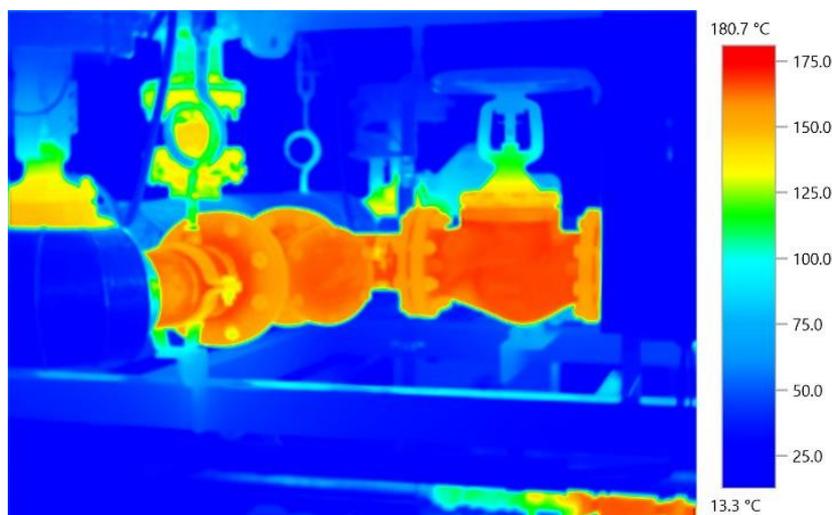


These other benefits sometimes exceed the financial benefits of energy cost savings and should be included in project business case applications.

For example, minimising heat losses reduces the load on boilers or heat plant, making the working environment cooler, safer, and more comfortable. Some of Emsol's clients have experienced increases in production from energy efficiency projects. These have increased the capacity of their existing boiler and refrigeration plant.

5. Thermal Imaging

We offer thermal imaging investigations, which help identify insulation gaps and significant energy losses in refrigeration systems and heat losses / steam leaks in process heat systems.



6. Carbon Surrender Ratio

Reminder that the *Carbon Surrender* ratio will be changing in January 2018, and we can assist in both forecasting any changes to fuel costs as well as verifying the accuracy of any new charges.

Find Out More

For more information please contact Erin Roughton (erin.rougton@emsol.co.nz) or Carl Newby (carl.newby@emsol.co.nz). For general enquiries please phone Abigail Zeng at 03 546 6690, or visit our website - www.emsol.co.nz.