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INTELLIGENT ENERGY MANAGEMENT

Milawa Cheese takes control of its energy ecosystem with carbonTRACK

Summary

A popular Australian-owned cheese manufacturer sought to combat rising energy costs and take control of its energy ecosystem. Empowered by carbonTRACK, the company is rolling out several energy-saving initiatives that have had an immediate positive impact. The same technology also supports a bigger vision which includes energy storage and participation in a virtual energy network, or Virtual Power Plant (VPP) as it is commonly referred to.

Objectives

Take charge of energy spend and reduce the burden on the bottom line

Milawa Cheese Company is a second-generation Australian favourite. Creating popular European-inspired farmhouse cheese in country Victoria for distribution across Australia. Like in many businesses, rising energy costs were a key challenge for Milawa Cheese and the business decided to take control.

"*Electricity costs were having a major impact on our business. We recognised that we needed to actively improve the situation*," says Stephen Russell, Milawa Cheese's Operations Manager.

The business engaged with energy consultancy ReThink Sustainability to review its energy profile and recommend energy saving interventions. ReThink recommended a carbonTRACK energy management system to help the business understand its energy consumption profile and provide the tools to control the energy it uses and produces.

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Solution

A powerful energy management system provides insights & control of the energy ecosystem

With ReThink's guidance, the business recognised that to get greater control of its energy spend, it needed to first see what was being consumed and at what time consumption peaked.

"*In choosing our energy management system, we were guided by ReThink's knowledge and experience. We did consider other systems but settled on carbonTRACK because of its control and alert capability,*" says Stephen Russell.

The carbonTRACK platform provides the Milawa Cheese operations team with detailed visibility and advanced control of their entire energy ecosystem – including grid energy consumption, and solar power generation, consumption and export. carbonTRACK even analyses the harmonics from various equipment / appliances to assess the health of these assets.

These insights and control capability are available through carbonTRACK's online dashboard or mobile app.

Outcomes

Energy visibility and control support current and future benefits

carbonTRACK has quickly become a key component of Milawa Cheese's energy management efforts. The current and future benefits include:

Increased energy awareness supports a change in behaviour
The energy management dashboard lets the Milawa Cheese team visualise how, where and when they consume energy. This information can be easily shared with the rest of the business, so they can better understand the impact of simple changes.

"For example, we put two skylights in to reduce our daily reliance on lights and the team could see the reduction in our kilowatt hours. Now all staff regularly ask: do we really need to run this appliance?" says Stephen Russell.

'Every dollar that we save in electricity delivers a profit that's similar to selling around forty dollars' worth of product. You can see why I share the carbonTRACK dashboard with a lot of people in the business!'

Energy insights identify energy draining equipment
carbonTRACK provides insights to energy loads - both circuit level and those consumed by individual equipment. This helps the Milawa Cheese team to spot energy draining and/or malfunctioning equipment, and to actively monitor and investigate any unusual energy spikes.

"*We have seen a big impact in our tenanted kitchen when they replaced old refrigerators with new ones. There was a noticeable drop in energy use, around 10-15%,*" says Stephen Russell.

"*These insights are very powerful; we can see when they put their blast freezer on for example; and can apply these learnings to our own operations. From now on we will always invest in the most energy efficient equipment we can afford.*"

'Behind the meter' data helps to challenge incorrect energy bills
After the installation of their PV solar system, Milawa Cheese's electricity bill was higher than the pre-solar amount. carbonTRACK's data identified an error in the electricity bill, which showed an incorrect consumption figure. Milawa Cheese was able to challenge their utility and successfully contest the energy bill.

"*The carbonTRACK dashboard told us that we were consuming the majority of the solar we were producing. In fact, we had reduced our reliance on the grid to the tune of around 30%, yet the electricity bill was around 40% higher. As soon as I referred our data to our utility, they started investigating matters and very quickly resolved the issue,*" says Stephen Russell.

Control capability enables scheduling usage for when energy is cheapest
Milawa Cheese is constructing a detailed energy consumption profile of key energy loads across its manufacturing plant. The next phase of the business's energy transformation will involve a review of the energy use schedule. carbonTRACK will also assist in spreading and shaving peak consumption to avoid peak demand charges.

"*The knowledge we are building now will enable us to shift some of our usage to off-peak times, delivering further savings,*" says Stephen Russell.

> *"It's a small investment to gain important energy insights."*

Words of advice from Stephen Russell to others

"*When you're embarking on energy savings projects speak to other people using carbonTRACK. The system gives you the information you need to make informed decisions. The bottom line is: how many kilowatt hours are you using at any point in time? You might think that you know this, but this is seldom the case. It's a small investment to make to gain important energy insights.*"

Where to from here

"*We are in the process of finalising the main energy saving project as recommended by ReThink. This includes using our insights to create a load schedule where we can maximise the value of our solar and schedule remaining loads for times of off-peak tariffs. From here we will start looking at battery storage and then at selling energy on virtual networks. With carbonTRACK, we have the tools to help us evolve the way we manage our energy ecosystem well into the future,*" says Stephen Russell.

Find out more about how carbonTRACK is helping energy consumers and energy providers to monitor, control, automate and share energy.

www.carbontrack.com.au
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