

Canadian plastics leader shoots for the stars

Orion Plastics gains competitive advantage through better energy management



Becoming more informed with data collection and measurement

With new developments in digital technology, the manufacturing landscape is quickly evolving. To remain competitive in the industry, companies need to provide more value to their customers than their competitors do. That means increasing organizational efficiencies and decreasing operational costs like natural gas and electricity. Here is how one Alberta manufacturer, Orion Plastics, is getting smart about energy efficiency.

You can find the end result of their products in hockey rinks, vehicle dashboards and interior panels, marine and recreational vehicle parts, garden/agricultural equipment, and more. Located in St. Albert, Alberta, Orion Plastics is Canada's largest sheet extrusion company with

shipping across North America and overseas. Orion serves a number of industries including the thermoforming companies, distributors and fabricators that make these everyday items.

Orion prides itself on ensuring the highest quality products at competitive prices. Seeking the guidance of regular professional advice from a coach and wanting to increase the level of training and awareness throughout their operations team, Orion joined the Strategic Energy Management program in May 2019. Right away Orion got to work forming an energy team, establishing and announcing a new energy policy and setting 28 energy targets for their fabrication plant.



The completed LED lighting conversion across Orion's manufacturing plant provides brighter light while reducing electricity use.

Quality training and quality data

Two key changes they identified right away were creating a new Metric Board System to track their actual outputs on each production line and completing LED lighting conversions across

their 63,000 square foot plant. Another important change was the installation of a new measurement system to determine overall equipment efficiency by tracking the uptime, downtime and set up time for each order. Orion also set a major focus on employee education, designing and implementing a comprehensive in-house training module customized to their operations.

“The SEM program has really helped us improve our efficiency in terms of production. We have some of the tightest turn-around times in North America. Less waste means better time management and that helps us deliver our products more quickly and efficiently.” – Ronald Kumar, Plant Manager

In the span of one year, Orion has saved over 382,000 kilowatts of electricity (a seven per cent decrease) and nearly 1,300 gigajoules of gas (a 17.7 per cent decrease). These savings not only help the bottom line and improve business competitiveness, they help Orion track and evaluate their progress, enabling data-informed continuous improvements to be made over time.



President and Owner Stephen Moore checks the solar panel installation on the roof with Plant Manager Ronald Kumar. Orion's system can generate 962,000 kilowatt hours per year, enough to power about 160 average Albertan homes per year.

What's next?

Orion is currently exploring automating of a number of manual processes and will be focusing on further increasing the level of training and awareness within their operations team. They are also in the process of introducing a daily management system (DMS) to ensure continuous quality improvement and advance employee engagement. Through a DMS, improvement becomes the work of everyone, every day, as the system can empower staff to regularly address and identify problems that may impact quality or workflow.