



Apollo shoots for the top in energy conservation

Sinclar Group Forest Products in British Columbia is taking a serious cut at reducing its energy use. The company and its committed employees—such as those at the Apollo Forest Products sawmill in Fort St. James—were recently recognized with an award from BC Hydro for their efforts.

By Jim Stirling

The hissing's gone. The tell-tale sound of escaping air around compressed air driven systems in the Sinclar Group Forest Products' sawmills are rapidly being silenced.

It's one example of a systemic and employee-driven approach toward energy conservation that's becoming part of the Sinclar Group culture.

The air leak example is significant. In the quest for energy conservation, little things cumulatively amount to a great deal.

Identifying and preventing air leaks at Sinclar Group's mills accounted for a surprising 1.3 gigawatt hours of energy savings. All told, through a variety of initiatives large and small, company employees have succeeded in slashing energy consumption throughout the company's operations by more than 25 per cent in little more than 18 months.

Sinclar Group won BC Hydro's highest award for energy conservation in its class as recognition of the achievement and became the first forest products company to be so honoured.

"At the Sinclar Group, we encourage a culture of creativity and innovation among our staff," summarizes Greg Stewart, Sinclar Group president. "We believe valuable ideas can emerge from day to day experiences in the field and on the shop floor. This accomplishment proves it."

Added David Cobb, BC Hydro president and CEO, when Apollo won its award: "A large part of our clean energy future relies upon wise and efficient use of electricity. Congratulations to our Power Smart finalists, leaders and winners. More importantly, thank you for helping us build an energy efficient culture in B.C."

Sinclar Group Forest Products is comprised of eight wood manufacturing facilities in British Columbia's central interior. Group members are Apollo and limited partner Tl'oh Forest Products in Fort St. James; Nechako Lumber Co, L&M Lumber Co., and Premium Pellet in Vanderhoof; and Lakeland Mills Ltd., Winton Global Lumber and Winton Global Homes in Prince George.

The company's operations in Prince George, Vanderhoof and Fort St. James are independently owned and managed by teams of dedicated professionals who strive to maintain the values of a small, family-run venture while consistently seeking opportunities for sustainable growth and innovation.

Through various initiatives, including the identification and elimination of air leaks, mill heat systems and general em-



employee awareness, the Sinclar Group as a whole has been able to reduce its electricity consumption by over 25 per cent in just over a year and half.

Sinclar Group developed energy maps to identify how each of their eight facilities uses energy. Then they developed rigorous monitoring, tracking and reporting systems to ensure accountability. Not satisfied with their initial energy management assessment, they made improvements. On their second assessment, they scored three stars on BC Hydro's One-2-Five Energy Diagnostic. They are one of only two companies in the forest sector to score three stars.

Sinclar Group's energy conservation efforts are driven by a strategic goal of continuous improvement. The company takes a systematic approach, carefully monitoring consumption, making improvements and then measuring results, so that savings are not just one-time changes but are persistent.

The group has been quick to recognize the benefits of forging a lasting working relationship with BC Hydro through the introduction of sustainable energy conservation practices. BC Hydro contributes generously toward sawmill capital projects which match its corporate objectives. The Crown Corporation has been mandated to achieve a 60 per cent reduction in energy consumption. Power Smart and associated programs are part of BC Hydro's drive to achieving its goals. The other 40 per cent of the province's predicted energy needs are to come from new generation and private energy sources.

Energy conservation in a sawmill context introduces other potential benefits. Collateral advantages can positively influence factors from mill production to environmental protection. And Sinclar now has the advantage of a new form of renewable energy: the enthusiasm, experience and enterprise of its engaged employees.

Eldred Rahko is the Sinclar Group's energy manager, who with the assistance of energy teams established in each operation, helps develop and implement sustainable energy management programs.

(Incidentally, energy conservation in the Sinclar context is encouraged beyond electricity use to include water, oil, fuels and natural gas.)

Rahko predicts baseline benchmarking in each Sinclar plant will follow the trend of a progressive, slow drop in electrical energy use that is sustainable. "And it is sustainability that is key," he declares. It is one reason why he was confident the Group as a whole would succeed in achieving a 30 per cent energy reduction in kilowatt hours consumed and a further five per cent energy reduction in each subsequent year.

Rahko explains the employee engagement process gathers momentum in each Sinclar operation with a four day energy blitz. Essentially, it's an awareness and education exercise resulting in the genesis of an action plan to create energy savings.

The Group has devised a range of subsequent strategies from various forms of training and updating to slogans on cheques, to maintain employee interest and build on the momentum created.



BC Hydro agreed to underwrite a significant percentage of the total cost for a new and more efficient heating system, primarily for the sawmill building at Apollo Forest Products, in Fort St. James. The PLC controlled system incorporates a heat energy exchanger fed from the existing Konus hot oil system. “We sized the unit for future expansion and it’s been working great,” reports Rahko. “We now have a new, manageable system and we know how much money it’s going to cost to heat the mill and we’ve eliminated the natural gas we used.”

He adds the mill building is now a warmer and potentially more productive environment in which to work.

Excess material that was being burned in the mill’s beehive burner is now sold to Pacific BioEnergy’s pellet making plant in Prince George.

Apart from creating a welcome revenue stream, the shutdown of burner fans has further contributed to energy savings.

BC Hydro is also funding a hydraulic study at Apollo which Rahko anticipates will stimulate benefits in safety and conservation issues along with identifying, correcting and monitoring energy saving opportunities.

Rahko recommends mill managers consider energy conservation issues when purchasing new machinery for sawmills and ancillary equipment.

He also has high energy saving expectations from a full acceptance of LED lighting in the sawmill sector. He believes the potential energy savings for the Sinclair Group through LED lighting initiatives would be in the millions of kilowatt hours. “LED lighting uses two-thirds less energy and produces two-thirds more light,” he maintains. “There are no maintenance costs and they’re guaranteed for eight years.” Rahko has two regional suppliers—Tom Hesse with Optogreen in Fort St. James and Lumisave connected with Westcana Electric in Prince George—poised to assist if the LED strategy for Sinclair’s plants materializes with BC Hydro.