

# CANFOR. POWERED BY RESPONSIBILITY.

For 75 years, Canfor has been a leading producer of quality forest products and today we are also leaders in producing green energy. Canfor Pulp is one of the largest single producers of bioenergy in North America.

We are committed to making the best use of every tree we harvest, and we turn virtually all of our fibre into useful products. We are able to reduce our carbon footprint by becoming more efficient and by using wood residuals produced as part of the production process as a source of renewable energy.

As a company we generate 895 million kWh of electricity a year. That's enough energy to power 74,500 homes – or a city the size of Prince George – for a year.<sup>1</sup> Our wood products manufacturing facilities have the ability to generate 6 million GJ of heat a year from utilizing our biomass

residuals – enough to heat 65,000 homes for a year.

We've only just begun. By the end of 2014, we expect to be using 10 million kWh less energy each year at our sawmills through business improvements and plan to displace an additional 24 million kWh of electricity annually through increased generation at our pulp mills.



**CANFOR GENERATES 895 MILLION KWH OF ELECTRICITY A YEAR – ENOUGH TO POWER A CITY THE SIZE OF PRINCE GEORGE**

1 Statistics Canada Average household energy use  
<http://www.statcan.gc.ca/pub/11-526-s/2010001/t004-eng.htm>

## CANFOR PULP'S ENERGY ADVANTAGE

Canfor Pulp has a true Energy Advantage, and our goal is to develop enough capacity to become energy self-sufficient.

Our modern Kraft pulp mills operate as a large-scale bio-refinery. They separate fibres and use the non-fibrous components as fuel, minimizing waste and the ecological impact. We use steam generated in our boilers to generate electricity and heat for our operations, and we export surplus power to the grid for other users.

The renewable energy facilities are certified to EcoLogo CCD -003-Renewable Low Impact and Green-e.



**20,000 MWH ANNUALLY EXPECTED TO BE SAVED BY CANFOR PULP'S MILLS BY 2014**

**BC HYDRO NAMED CANFOR PULP A 2012 / 2013 / 2014 POWER SMART LEADER**

**25% SAVED IN NATURAL GAS AT NORTHWOOD PULP**

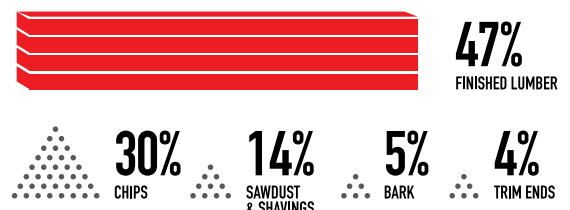
## MAKING THE BEST OF OUR FOREST RESOURCES

About half of every log taken out of the forest is turned into finished lumber. The rest includes chips that are used for pulp production and wood residuals such as bark, sawdust and planer shavings that can be used to generate renewable heat in place of fossil fuels and power for our operations.

Since 2006, Canfor has partnered with Pinnacle Pellet Inc. and Moricetown First Nation to operate a large wood pellet production facility adjacent to Canfor's Houston sawmill – turning sawmill and forestry wood residuals into pellets, a sustainable fuel source which is in high demand in Europe and Asia.

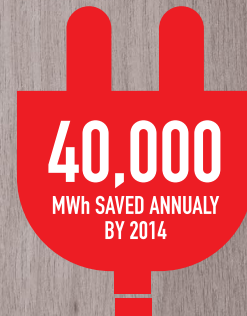
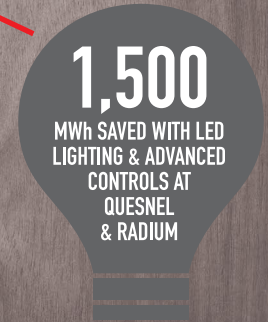
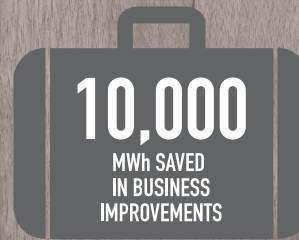
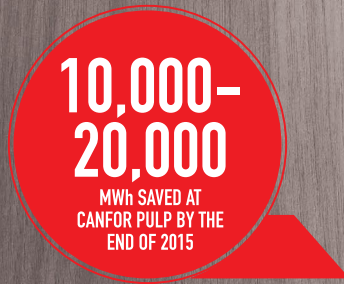


**PRODUCT YIELDS ON A SOLID WOOD BASIS**



## STRATEGIC ENERGY MANAGEMENT

Our strategic energy management plan for wood products targets 10% reduction in energy intensity (the electrical energy consumed per unit of production) for all of our wood products over two years – 2013 and 2014. This vision involves both hard-wired energy efficiency projects and changes in employee behaviour through increased awareness.



## MOVING TOWARD ENERGY SELF-SUFFICIENCY

Since 2007, Canfor has made substantial investments in thermal energy systems so we can reduce our dependence on natural gas and utilize wood residuals from lumber manufacturing to dry lumber and heat facilities. These include systems at Houston (2007), Fort St. John (2009), Mackenzie (2010), Prince George (2011), Chetwynd (2011), Plateau (2011) and Vavenby (2013).

The latest upgrades totaling \$38.5 million allowed us to restart our Radium sawmill in 2012 and install a 38 MMBTU/hr biomass-fired heat energy system that replaced propane for lumber drying. As a result of all these upgrades,

our total greenhouse gas emissions reduced by about 50,000 tonnes of carbon dioxide equivalent annually.



APPROXIMATELY 105,000 MWH OF RENEWABLE ELECTRICITY AND 200,000 GJ OF HEAT IS PRODUCED BY THE CANFOR GREEN ENERGY BIOMASS COGENERATION FACILITY IN GRAND PRAIRIE, ALBERTA.

## REPLACING BEEHIVE BURNERS

Prior to substantial investments into thermal energy systems, much of the wood residuals produced at our sawmills were burnt in inefficient beehive burners.

Today, these residuals are used as feedstock for renewable energy or pulp production. In 2011, Canfor

closed the last of our active beehive burners when we installed a 70 MMBTU/hr biomass heat energy system at our Plateau Sawmill near Vanderhoof.

