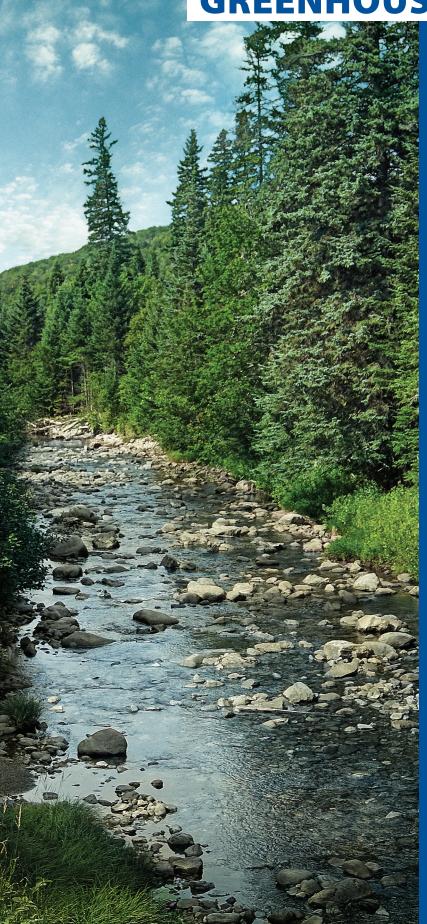
# **DOMTAR'S APPROACH TO MANAGING**

## **GREENHOUSE GAS EMISSIONS**



Domtar is Among the Most Carbon Efficient Pulp & Paper Manufacturers in the World

Since 1990, Domtar has reduced total direct greenhouse gas (GHG) emissions by approximately 50 percent. The reductions that Domtar has already achieved are on par with recent commitments made by the governments of the countries in which we operate.

As a result of early actions, Domtar is well positioned for a future with increased regulatory and market expectations around the issue of climate change. In fact, we may realize a competitive advantage. Consider that today, Domtar's direct greenhouse gas (GHG) emissions per ton of product are 66 percent less than those of the average pulp and paper producer in the Asia Pacific region, and 38 percent lower than the North American industry average.<sup>1</sup>

Our success is the result of staying focused on what we do best: managing wood fiber and energy.



#### **Our Forest Strategy**

Domtar understands, and believes that it is important for others to recognize, that not all biomass is carbon neutral. Different forest types and management practices determine whether or not biomass is carbon neutral. That's why Domtar was the first forest products company to support the U.S. Environmental Protection Agency's proposal to develop an accounting framework for recognizing the carbon neutrality of sustainably harvested biomass fuel in the United States.

Our demand for wood creates a powerful incentive for landowners to keep their land forested rather than clearing it for other purposes. This matters because sustainably harvested forests sequester carbon over the long term. That is why Domtar only uses wood from North America, where forest growth equals or exceeds harvest.

Over the last six decades, net U.S. forest area has increased more than three percent, and the net volume of trees on timberland has increased 58 percent.<sup>2</sup> In Canada, the forest cover has remained stable over the past two decades,<sup>3</sup> and the country currently harvests less than 0.5 percent of its forest resources each year.<sup>4</sup>

This is in stark contrast to some other areas of the world, particularly tropical regions of Asia and Africa, where deforestation and forest degradation are a source of substantial greenhouse gas emissions, not to mention other serious environmental harm. In fact, Domtar has funded the work of some of the world's most respected environmental organizations for over a decade, supporting conservation programs in those areas of the world that need it most.



### **Our Energy Strategy**

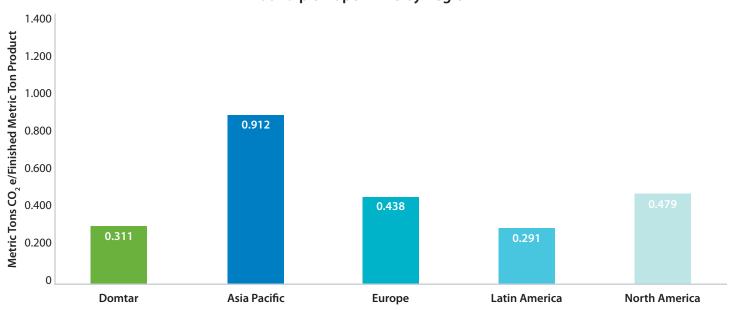
We make a point of understanding the complex tradeoffs embedded in many energy choices. This includes routinely assessing what fuels we use and finding opportunities to use energy more efficiently. We also examine our water use, materials and waste management, and transportation choices in the context of reducing emissions.

Our pulp and paper mills account for about 97 percent of our Company's combined direct and indirect GHG emissions (i.e., scope 1 and 2 emissions). Our goal is to reduce these emissions a further 15 percent by 2020 from 2010 levels. Here is how we are doing it:

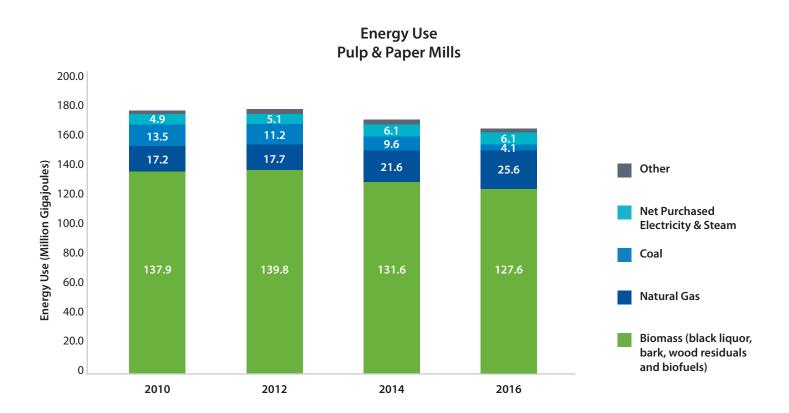
- Energy Efficiency: Domtar recently completed comprehensive energy audits at all of our pulp and paper mills to identify opportunities to reduce GHG emissions related to energy use and manufacturing efficiency. We continue to execute energy efficiency improvements identified in these audits across our mill system.
- Renewable Energy: Domtar is focused on optimizing the use of renewable biomass fuels in our facilities. Today, 75 percent of the energy used by Domtar's pulp and paper mills comes from renewable, carbonneutral biomass. This compares to a U.S. pulp and paper industry average of 67 percent.<sup>5</sup>
- Less Carbon-intensive Fuels: Domtar is capturing significant emissions reductions by converting boilers and process equipment from coal and oil to less carbon-intensive natural gas. We have invested \$20 million since 2014 to convert six power boilers from coal to natural gas at three of our mills.
- Cogeneration: Domtar's pulp and paper mills maximize the energy extracted from fuels by using cogeneration technologies to simultaneously produce electricity and heat for our manufacturing processes. Domtar's pulp and paper mills self-generated an equivalent of 72 percent of the electricity they used in 2016 compared to a U.S. pulp and paper industry average of 56 percent.<sup>5</sup>



## Average Greenhouse Gas Emissions from Fossil Fuel Combustion at Pulp & Paper Mills by Region



Source: Fisher International, Fisher Solve™, April 10, 2017



#### **REFERENCES**

- 1. Fisher International, Fisher Solve™, April 10, 2017
- 2. USDA Forest Service, 2012
- 3. The Conference Board of Canada, 2014
- 4. Natural Resources Canada, 2014
- 5. 2016 American Forest & Paper Association Sustainability Report