

ASSUMPTIONS & REFERENCES

Pertaining to the Contextual Statements that
Appear on Impact Reports

WATER

The typical North American pulp and paper mill returns 90% of water used to the source after treatment. The other 10% leaves with the paper, manufacturing residuals or evaporates.

Contextual Statement Comparison Topic:

U.S. average household water leakage

Source for Equivalency Statement:

Indoor Water Use in the United States — WaterSense, U.S. EPA

<http://www.epa.gov/WaterSense/pubs/indoor.html>

According to the U.S. EPA, the average U.S. family's household water leaks total to over 270 loads of laundry a year, or over 10,000 gallons of water.

ATMOSPHERE

Greenhouse gas (GHG) emissions are commonly expressed as carbon dioxide equivalents (CO₂e) emitted into the atmosphere.

Contextual Statement Comparison Topic:

Vehicle emissions/Passenger Vehicles per year, as it relates to direct GHG emissions

Source for Equivalency Statement:

Miles Driven by the Average Passenger Vehicle per Year: U.S. EPA

<http://www.epa.gov/cleanenergy/energy-resources/refs.html>

To determine annual greenhouse gas emissions per passenger vehicle, the following methodology was used: vehicle miles traveled (VMT) was divided by average gas mileage to determine gallons of gasoline consumed per vehicle per year. Gallons of gasoline consumed was multiplied by carbon dioxide per gallon of gasoline to determine carbon dioxide emitted per vehicle per year. Carbon dioxide emissions were then divided by the ratio of carbon dioxide emissions to total vehicle greenhouse gas emissions to account for vehicle methane and nitrous oxide emissions.

Calculation:

Note: Due to rounding, performing the calculations given in the equations below may not return the exact results shown.

8.89×10^{-3} metric tons CO₂/gallon gasoline \times 11,346 VMT_{car/truck average} \times 1/21.46 miles per gallon
car/truck average \times 1 CO₂, CH₄, and N₂O/0.986 CO₂ = 4.73 metric tons CO₂E /vehicle/year

ENERGY

About 75% of the energy generated at Domtar's mills comes from renewable sources, exceeding the U.S. Pulp & Paper industry renewable energy use average of 67%*, and far exceeding the U.S. grid average of 12.6%. Domtar's reported renewable energy figures are adjusted downward for the sale of Renewable Energy Certificates (RECs) so third-party buyers of RECs can make the appropriate renewable energy claims.

* 2014 industry average ([AF&PA 2016 Sustainability Report](#))

Contextual Statement Comparison Topic:

U.S. Home Energy Use

Source for Equivalency Statement:

Renewable Energy Consumption and Electricity Preliminary Statistics 2009-U.S. Energy Information Administration

<http://www.epa.gov/cleanenergy/energy-resources/refs.html>

http://www.eia.gov/totalenergy/data/monthly/pdf/sec1_7.pdf

According to EPA in 2012, there were 113.93 million homes in the United States (EIA 2013a). On average, each home consumed 12,069 kWh of delivered electricity. Regarding the grid average renewable energy share in the U.S., U.S. EIA notes 9.3% in 2013:

http://www.eia.gov/totalenergy/data/monthly/pdf/sec1_7.pdf

* This is using 2012 and 2013 averages, as there are no longer current averages for these particular metrics.

WASTE

Overall, Domtar sends less waste material to the landfill than the industry average. Efforts to reduce waste focus on source reduction and the reuse of manufacturing byproducts.

Contextual Statement Comparison Topic:

Overall U.S. Waste Generation Rate

Source for Equivalency Statement:

Materials and Waste Management in the United States: Key Facts and Figures for 2014 US EPA

<https://www.epa.gov/smm/advancing-sustainable-materials-management-facts-and-figures>

According the US EPA, on average in 2014, Americans generated 258 million tons of solid waste, of which 89 million tons were recycled and composted, equivalent to a 34.6% recycling rate.

<https://www.epa.gov/smm/advancing-sustainable-materials-management-facts-and-figures>

FIBER

The less distance fiber has to travel from its forest of origin to the mill, the better. Sourcing locally reduces shipping distances, supports rural economies, and results in less greenhouse gas (GHG) emissions.

Contextual Statement Comparison Topic:

Trips between cities

Source for Equivalency Statement:

Google Maps

<http://maps.google.com>

These average distance estimates are for general comparison purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, causing the Google Maps estimated route length to be shorter or longer than predicted.

DEFAULT TO CLOSEST MILL

In an effort to deliver the most accurate, mill-specific data to the customer, The Paper Trail will automatically utilize the customer's location requested upon entering the website to determine the mill of manufacture for their order, defaulting to the closest applicable mill to the customer's location. Additionally, a customer can manually choose to view the impacts of their order made at any additional mills that apply by selecting the mill from the drop-down menu in the order bar.

DISCLAIMER ON DATA SOURCES AND QUALITY

The mill-specific data contained in The Paper Trail is from calendar year 2016 and is derived from mill-level annual averages which provide an estimated environmental impact at the product level. Domtar collects these metrics from our mills and internally verifies the reasonableness of the figures relative to historically reported values from a given mill and the magnitude relative to other similar mills. A subset of the data collected is internally verified back to the source for accuracy by our Internal Audit and Corporate Environmental departments and corrections are made as appropriate. None of the data contained in The Paper Trail was third-party verified.

ASSUMPTIONS

Pertaining to Domtar Mill Environmental Data
for Reporting Year 2016

WATER

Process water use is calculated as final effluent discharged.

WASTE

Data reported for “Waste landfilled” at each location is reported on a dry basis.

RENEWABLE ENERGY

For each mill location, the percentage of renewable energy used towards their total energy use excludes the share of renewable energy sold as Renewable Energy Credits (RECs).

ENERGY SOURCES

In the disclosure of each mills’ energy sources, purchased electricity is only included as an energy source if the mill is a net purchaser of electricity from the grid.

RENEWABLE ENERGY-INDUSTRY AVERAGE

The industry average of renewable energy used out of total energy consumption/use is produced from 2014 industry data from the 2016 AF&PA Sustainability Report. This report can be found at:
https://sustainability.afandpa.org/wp-content/uploads/2017/02/AFPA-2016-Sustainability-Report_FINAL.pdf

FIBER

Tree Species Used indicates the virgin species harvested by the specified Domtar mill within its designated fiber basin. Products manufactured by the mill may also contain virgin fiber originating from species present within pulp purchased internally from other Domtar mills. For a list of species potentially present within this internal pulp, please view Domtar’s complete species listing [here](#). All products comply with Lacey Act and EUTR requirements.

ASSUMPTIONS & SOURCES

Used in Economic Calculations and Facts

EMPLOYMENT AND INDUSTRY STATISTICS BY STATE

AF&PA Economic Impact of Our Industry:

<http://www.afandpa.org/our-industry/economic-impact>

EMPLOYER RANKINGS

1. Ashdown:

<http://littlerivercounty.org/index.php/workplace>

http://www.arkansasedc.com/sites/default/files/content/little_river_10_131stqtr13.pdf

(updated 10/2013)

2. Dryden:

<http://database.pace-cf.on.ca/privateemployersview.php?community=City%20of%20Dryden>

http://www.dryden.ca/invest_in_dryden/site_selection/major_public_private_employers/

3. Espanola:

<http://www.espanola.ca/index.php/business-directory>

4. Hawesville:

<http://www.thinkkentucky.com/cmnty/BusInd.aspx?cw=045>

(Top Employers)

5. Johnsonburg:

http://www.workstats.dli.pa.gov/Documents/Top%2050/Elk_County_Top_50.pdf

6. Kamloops:

<http://venturekamloops.com/industries/forestry/>

<http://britishcolumbia.com/plan-your-trip/regions-and-towns/thompson-okanagan/kamloops/>

<http://venturekamloops.com/labour-force/major-employers/>

7. Kingsport:

www.networkstn.com/existing-industry/major-employers

(Top Employers)

8. Marlboro:

<http://www.marlbocountysc.org/doing-business-here/major-employers>

(Top Employers)

9. Nekoosa:

<http://www.wisconsinrapidschamber.com/sites/default/files/economic%20profile.pdf>

http://www.ncwrpc.org/profiles/PROFILE_Wood_2017.pdf

10. Plymouth:

http://accessnc.commerce.state.nc.us/docs/topEmployers/topEmp_37187.pdf

11. Port Huron:

<http://www.edascc.com/data-center/major-employers>

12. Rothschild:

http://en.wikipedia.org/wiki/Rothschild,_Wisconsin

13. Windsor:

<http://pdf.latribune.ca/cahiers/2014/03270104/HTML/index.html>