



Welcome to your CDP Climate Change Questionnaire 2019

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Domtar is a leading provider of a wide variety of fiber-based products including communication, specialty and packaging papers, market pulp and absorbent hygiene products. We have a proud history of 171 years of manufacturing.

With approximately 10,000 employees serving more than 50 countries around the world, Domtar is driven by a commitment to turn sustainable wood fiber into useful products that people rely on to make their lives better every day, from writing paper to baby diapers.

Our operations include 13 pulp and paper mills in the United States and Canada, 10 paper-converting plants in the U.S. and five personal care manufacturing facilities, including three in the U.S., one in Spain and one in Sweden.

Our pulp and paper mills are largely integrated, and we are a net pulp producer. In addition to making pulp for our paper manufacturing, we sell market pulp to customers in Asia, Europe and North America. Eighty-eight percent of our personal care business' fluff pulp needs are supplied by our pulp mills.

We are committed to sustainability throughout our operations. Our investment in sustainability is rooted in responsibility, efficiency and engagement. We source wood responsibly, with 38 percent of our wood deliveries in 2018 coming from third-party certified forests. Working with non-governmental organizations and landowners, we have developed sustainable forestry principles to ensure the continued health of forestlands. In addition to working with landowners, we put those principles in practice on the 310,000 hectares of forest that we own and 6.6 million hectares of forest that we manage in Quebec and Ontario, Canada.



In our pulp and paper mills, we are working toward greater efficiency fueled by renewable energy. In 2018, 72 percent of the energy for these mills came from renewable sources, and the mills generated an equivalent of 72 percent of their electricity needs. We have set public goals related to our use of water, our disposal of waste to landfill and our emissions of greenhouse gases.

Innovation has been a key to our continued success in the past century and a half, and it continues to drive us forward. We are finding new ways to use the chemical building blocks of wood fiber to create bio-based alternatives to some fossil fuel-based products. This emerging area offers exciting possibilities for Domtar.

We don't go it alone. We have been part of many communities for more than a century, and we are proud of our history as a corporate citizen in towns and cities in North America and Europe. We regularly make investments in our communities to advance literacy, health and wellness and sustainability through financial and product donations and employee volunteerism. We work to deliver the highest value to our customers and investors, to empower our employees and to enrich our communities.

Domtar's annual sales are approximately \$5.5 billion, and its common stock is traded on the New York and Toronto stock exchanges. Domtar's principal executive office is in Fort Mill, South Carolina. To learn more, visit www.domtar.com.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Row 1	January 1, 2018	December 31, 2018	No

C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

- Canada
- Spain
- Sweden
- United States of America



C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Financial control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance
Agriculture/Forestry	
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	
Consumption	

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.



Agricultural commodity

Timber

% of revenue dependent on this agricultural commodity

More than 80%

Produced or sourced

Both

Please explain

Wood fiber from sustainably managed and harvested forest resources is our primary raw material for our products. Our preference is to use wood fiber from third-party certified forests. To advance the sustainability of forest resources in our local wood procurement regions, we are working with small private landowners to lower the technical and financial hurdles to certify their forest resources. One of the ways we advance certification with small, private landowners is through group certification. A great success story is more than 628,000 acres (254,000 hectares) and 220 members have enrolled in the Domtar-supported Four States Timberland Owners Association group Forest Stewardship Council (FSC) certification (<http://us.fsc.org/download.fsc-group-certification-handbook.361.htm>), which reduces the financial and technical hurdles to forest certification for small, private landowners.

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes



C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	Domtar's Environmental, Health, Safety and Sustainability (EHSS) Committee has responsibility at the Board-level for climate-related issues.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives 	<p>Domtar's Board EHSS Committee routinely reviews and guides development and execution of the company's sustainability agenda, including climate-related issues.</p> <p>The Board is very knowledgeable, active and engaged on climate issues and is aware of risks and benefits associated with climate change activities. They also monitor what is happening in other sectors and with interested stakeholders, and bring those outside perspectives to Domtar.</p>



	Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	
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C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other, please specify Greenhouse Gas Management Committee	Both assessing and managing climate-related risks and opportunities	Quarterly
Sustainability committee	Assessing climate-related risks and opportunities	Quarterly
Facility manager	Both assessing and managing climate-related risks and opportunities	Quarterly
Energy manager	Both assessing and managing climate-related risks and opportunities	Quarterly
Procurement manager ☞ ¹	Both assessing and managing climate-related risks and opportunities	Quarterly
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	Quarterly

☞¹Energy procurement.



C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Led by the Vice President of Corporate Services and Sustainability, Domtar's organizational governance for climate-related issues is a matrix structure and integrated within all levels of management throughout the organization.

Vice President of Corporate Services and Sustainability (Chief Sustainability Officer)

The Vice President of Corporate Services and Sustainability (VP CSS) has overall responsibility for our strategy and approach to managing climate-related issues. He/she regularly interacts with our business unit leaders, relevant corporate staff, environmental technical experts, internal and external government affairs experts, Sustainability Committee and Management Committee to keep informed of regulatory, policy, scientific and market trends as well as company business plans. He/she also utilizes these multi-disciplinary teams of senior leaders, managers and issue experts to seek input and strategize on climate-related opportunities and risks. On a quarterly basis, the VP CSS interacts with the company's Board of Directors (Environmental, Health, Safety and Sustainability Committee) to communicate and discuss climate-related performance, opportunities and risks to the business.

Greenhouse Gas Management Committee

The Greenhouse Gas (GHG) Management Committee is a multi-disciplinary team of managers and senior leaders from finance, environment and energy procurement from the facility and corporate level. The GHG Management Committee is tasked with evaluating global climate regulations and carbon pricing programs, short and long-term impacts to the business, compliance strategies and benchmarking the performance of competitors and other companies. Members of the Committee have experience in managing carbon pricing programs and trading of financial instruments.

Sustainability Committee

The Sustainability Committee (SC) is a nine-member, multi-discipline committee comprised of directors and vice presidents from finance, manufacturing, business operations (Pulp & Paper, Biomaterials and Personal Care), sales, research, EHS, corporate services and sustainability. The SC looks holistically across the business to identify and assess risks and opportunities and reviews and approves climate-related strategies.

Facility Management

Management teams from our manufacturing operations and facilities (*i.e.*, environment, energy, engineering, finance, government affairs, procurement and facility managers), collaborate and work with local, state or provincial and national governments on climate-related issues and regulatory



development and implementation. They conduct emission accounting and reporting, ensure compliance reports are third-party verified as required, conduct evaluations of projects for impacts on GHG emissions, and work with corporate management for project approvals.

Energy Management

Our energy management team is comprised of experienced energy managers and engineers who are tasked with evaluating and deploying energy efficiency initiatives and identifying and implementing fuel switching opportunities to lower our environmental footprints. They also are responsible for maximizing and optimizing the use of renewable biomass fuels and co-generation (simultaneous generation of thermal and electrical energy) using primarily carbon-neutral and other low-carbon fuels.

Energy Procurement

The energy procurement team helps our facilities evaluate and negotiate energy supply contracts, facilitate energy and energy attributes sales and purchases, and evaluate and make recommendations for participation in voluntary and government energy and emission reduction incentive programs.

Input from employees at all levels is encouraged and received through various communication channels.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

No

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	1	2	The time horizon for assessing climate-related risks and opportunities is aligned with other business practice time



			horizons.
Medium-term	3	5	The time horizon for assessing climate-related risks and opportunities is aligned with other business practice time horizons.
Long-term	6	20	The time horizon for assessing climate-related risks and opportunities is aligned with other business practice time horizons.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	1 to 3 years	Business risks that potentially are associated with climate change are evaluated as part of Domtar's annual Enterprise Risk Management (ERM) assessment process.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Domtar actively follows current and proposed climate legislation and regulations in the various jurisdictions in which it has operations and assesses the potential risks and opportunities at both the facility and company level. The company also monitors non-regulatory trends and activities to identify potential risks and opportunities and areas for potential engagement. We regularly engage with our suppliers and customers to better understand their



business and climate initiatives, and look for partnership opportunities to improve our environmental footprints. One of the focuses of Domtar's Biomaterials Group is to look for opportunities to replace fossil-based materials with renewable fiber-based materials.

Climate-related matters at the facility-level are periodically reviewed to assess potential operational risks that could impact operations and the business. Information from these facility-level reviews is shared for further review and consideration by the Greenhouse Gas (GHG) Management Committee and Sustainability Committees.

Both the GHG Management Committee and the Sustainability Committee look more holistically across the business to identify, assess and review potential climate-related risks for the business.

On a quarterly basis, climate-related matters that could impact business strategies are assessed and reviewed with the Board of Directors by the Vice President of Corporate Services and Sustainability.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Regulatory compliance is a risk which is routinely assessed.
Emerging regulation	Relevant, always included	Emerging regulations are tracked and impacts to the business are assessed.
Technology	Relevant, always included	Technology developments and advancements are routinely monitored and assessed to ensure they meet business needs, product specifications and other customer requirements.
Legal	Relevant,	Legal resources are consulted as needed.



	always included	
Market	Relevant, always included	Potential market risks from supply disruptions and impacts to customers are considered.
Reputation	Relevant, always included	We routinely engage with customers and other stakeholders on our sustainable business practices and efforts to mitigate risk.
Acute physical	Relevant, always included	The impact on business disruptions from major weather events and equipment and process failures are routinely assessed, regardless if they are related to climate change.
Chronic physical	Relevant, always included	If major disruption events were to be reoccurring, mitigation and adaptation measures would be employed to prevent recurrence, regardless if they are related to climate change. The wide distribution of our manufacturing locations and the ability to manufacture similar products at multiple locations is part of our preparedness plan to minimize business disruption.
Upstream	Relevant, always included	Domtar has the ability manufacture similar products in multiple locations. We also have robust inventory management systems to minimize disruption to the supply of raw materials and purchased energy.
Downstream	Relevant, always included	Domtar has the ability manufacture similar products in multiple locations. We also have a wide and strategically-located network of converting and distribution centers to ensure products are available and can be delivered to customers with little to no disruption.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Current and emerging regulatory requirements are reviewed for potential risks and opportunities as society transitions to a low-carbon economy. One of the focuses of Domtar's Biomaterials Group is to look for opportunities to replace fossil-based materials with renewable, fiber-based materials.



Climate-related matters at the facility-level are periodically reviewed to assess potential operational risks that could impact operations and the business. Information from these facility-level reviews is shared for further review and consideration by the Greenhouse Gas (GHG) Management Committee and Sustainability Committees.

Both the GHG Management Committee and the Sustainability Committee look more holistically across the business to identify, assess and review potential climate-related risks and opportunities for the business.

On a quarterly basis, climate-related issues that could impact business strategies are reviewed with the Board of Directors.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	<p>Potential impacts related to climate change are assessed in our annual Enterprise Risk Management (ERM) review process in relation to other identified business risks.</p> <p>In jurisdictions where we operate, climate-related issues, including carbon pricing programs, are emerging. Currently, climate change has not been identified to be a material business risk.</p> <p>Through our ERM review process, we have identified material business risks. Examples include:</p> <ul style="list-style-type: none"> -The company's Pulp and Paper Business may have difficulty obtaining wood fiber at favorable prices, or at all



		<p>(e.g., impacts from environmental litigation and regulatory developments, alternative use for energy production, reduction in harvesting, response to and prevention of catastrophic wildfires, adverse weather, insect infestation, disease, flooding and other man-made causes).</p> <p>-An increase in the cost of the company's purchased energy and other raw materials would lead to higher manufacturing costs, thereby reducing margins.</p> <p>-A material disruption at one or more of the company's manufacturing facilities could prevent it from meeting customer demand, reduce its sales and/or negatively impact its results of operations (e.g., due to the effect of drought or reduced rainfall on water supplies; adverse weather, fire, floods, earthquakes, hurricanes and other catastrophes; and disruptions in transportation infrastructure, including roads, bridges, railroad tracks and tunnels).</p> <p>These, and other material risk factors, are disclosed in Domtar Corporation's 2018 Annual Report on Form 10K.</p>
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C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1



Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Type of financial impact

Other, please specify

Biofuels (green energy)

Company-specific description

Domtar is building on our expertise as renewable, fiber innovators to expand into growth businesses. We are transforming to produce higher-value, biomaterial products for society by leveraging our extensive knowledge of wood fiber and the ability to extract the natural chemical building blocks of trees for use in biomaterial products.

Time horizon

Current

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)



Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Unknown.

Strategy to realize opportunity

Proprietary.

Cost to realize opportunity

Comment

Proprietary.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Type of financial impact



Other, please specify

Substitute for hydrocarbon-based product

Company-specific description

Domtar is building on our expertise as renewable, fiber innovators to expand into growth businesses. We are transforming to produce higher-value, biomaterial products for society by leveraging our extensive knowledge of wood fiber and the ability to extract the natural chemical building blocks of trees for use in biomaterial products.

Domtar's specialty papers team is working with current and potential new customers to help them replace single-use plastic products with lower-carbon, renewable, recyclable and/or biodegradable fiber-based products.

In July 2018, Domtar acquired a majority stake in Prisma Renewable Composites (PRC), a biomaterials company. PRC and Yanfeng Automotive Interiors (YFAI) entered into an agreement in May 2019, giving YFAI exclusive use of Prisma's lignin-based material in the development of automotive interiors. Use of low-carbon, renewable, lignin-based materials have great potential in replacing some of the petroleum-based acrylonitrile butadiene styrene currently used in plastic automotive parts.

One of Domtar's latest products being field-tested is a 100% biodegradable, lignin-coated paper for agricultural film applications that reduces the need for herbicides and irrigation while increasing crop yields.

Time horizon

Current

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)



Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Unknown.

Strategy to realize opportunity

Proprietary.

Cost to realize opportunity

Comment

Proprietary.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services



Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

Sale of renewable energy and renewable energy certificates (RECs).

Time horizon

Current

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Current revenue source at some pulp and paper mills.

Strategy to realize opportunity

Proprietary.



Cost to realize opportunity

Comment

Proprietary.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	<p>Domtar is building on our expertise as renewable fiber innovators to expand into growth businesses. We are transforming to produce higher-value, biomaterial products (biofuels and hydrocarbon-based product substitutions) for society by leveraging our extensive knowledge of wood fiber and the ability to extract the natural chemical building blocks of trees for use in biomaterial products.</p> <p>Domtar's heavy reliance on biomass fuels and extensive co-generation systems allows us to generate renewable energy certificates (RECs) that can be purchased by others to meet their business requirements.</p>
Supply chain and/or value chain	We have not identified any risks or opportunities	We continue to assess and evaluate through partnership opportunities with suppliers and customers.
Adaptation and mitigation activities	We have not identified any risks or opportunities	Domtar actively participates in sustainable forest management and harvesting practices. Our demand for locally sourced wood resources creates economic incentives for landowners to continue to maintain sustainably managed forests which provide society with recreational benefits, enhanced biodiversity and other ecological benefits such as carbon sequestration.
Investment in R&D	Impacted	Domtar is building on our expertise as renewable, fiber innovators to expand into growth businesses. We are transforming to produce higher-value, biomaterial products (biofuels and hydrocarbon-based product substitutions) for society by leveraging our extensive knowledge of wood fiber and the ability to extract the natural chemical building blocks of trees for use in biomaterial products.



Operations	We have not identified any risks or opportunities	Domtar can produce similar products at multiple locations, which minimizes business disruption to our customers. Domtar contracts with multiple suppliers of raw materials and transport to minimize inbound and outbound supply risks to our operations.
Other, please specify	We have not identified any risks or opportunities	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Not yet impacted	Our Biomaterials business is growing and material financial benefits have yet to be realized.
Operating costs	Not impacted	
Capital expenditures / capital allocation	Not impacted	
Acquisitions and divestments	Not yet impacted	In July 2018, Domtar acquired a majority stake in Prisma Renewable Composites, a biomaterials company based in Knoxville, Tennessee, that uses technology to reduce cost to the customer, improve their carbon footprint, decrease global dependence on oil, and improve the economy in rural communities. Domtar is regularly looking for opportunities to partner with other entities on research and product development for a low-carbon economy.
Access to capital	Not impacted	
Assets	Not impacted	



Liabilities	Not impacted	
Other		

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

No, but we anticipate doing so in the next two years

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

Yes

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

Domtar has been managing climate-related issues for nearly three decades. Led by the Vice President of Corporate Services and Sustainability, climate-related issues are identified, assessed, discussed and managed at both the facility and corporate levels using multi-disciplined

teams (Greenhouse Gas Management Committee, Sustainability Committee, Energy Management Team and Energy Procurement Team). On a quarterly basis, climate-related issues are reported and discussed with the company's Board of Directors (primarily Environmental, Health, Safety and Sustainability Committee) as we continue to prepare the business for risks and opportunities in a low-carbon economy.

Key components of Domtar's integrated climate-management strategy include:

- **Greenhouse Gas Reduction Goal:** Domtar has a goal to reduce total Scope 1 and 2 greenhouse emissions at our pulp and paper mills 15% by the end of 2020 relative to our 2010 baseline. In 2018, Domtar's mills achieved this goal for a second consecutive year by reducing total Scope 1 and 2 greenhouse gas emissions 15% since 2010.
- **Sustainable Forest Management:** Domtar is recognized as a leader in practicing and supporting sustainable forest management. Forests play a key role in climate regulation, by sequestering carbon. Forests also play a key role in water cycling and conserving biodiversity. We have a goal to increase the level of Forest Stewardship Council (FSC) certified fiber procured for our pulp and paper mills to 20% of total fiber use by the end of 2020. In 2018, we procured 21% of total fiber used from FSC-certified sources, meeting our goal for a second consecutive year.
- **Renewable Energy:** 72% of energy used in our pulp and paper mills comes from carbon-neutral, renewable energy sources - primarily from manufacturing byproducts and residuals. We continue to look for opportunities to maximize and optimize our generation and use of renewable energy.
- **Fuel Switching:** Domtar has converted six power boilers from coal to natural gas since 2014. Natural gas has a 40% lower carbon footprint than coal per unit energy. We continue to look for technically viable and commercially available alternatives to our remaining use of fossil fuels (primarily natural gas).
- **Co-generation (combined heat and power):** We efficiently co-generate steam and electricity for use in our operations and for sale to the grid. In 2018, our mills self-generated the equivalent of 72% of their electricity requirements.
- **Energy Efficiency:** Comprehensive energy efficiency reviews have been conducted at all of our pulp and paper mills. We continue to execute energy efficiency opportunities identified from these audits.
- **Beneficial Use of Manufacturing Residuals:** In 2018, Domtar's mills beneficially used 69% of the byproducts generated in our pulp and paper manufacturing processes. Through our efforts to reduce "waste" from our manufacturing processes and find new beneficial uses for our byproducts, Domtar has reduced the amount of material we landfill 19% since 2013, relative to our target of 40% reduction by the end of 2020.
- **Reduction in Water Use by Understanding Full Cost of Water:** Domtar has developed and is deploying a model to provide our manufacturing managers better understanding of the full cost-of-water utilization in our mills in order to improve our efficiency of water, energy and chemical use. Total water use at our pulp and paper mills decreased 2% in 2018 relative to 2014.
- **Sustainable by Design:** The primary ingredient of paper products is renewable wood fiber. Paper products sequester carbon during their useful life, and are highly recyclable.



- **Paper recovery and recycling:** In 2018, 68% of paper in the U.S. was recovered, making paper one of the most recycled materials. Domtar supports actions to help the American Forest & Paper Association (AF&PA) achieve its 2020 paper recovery goal of 70%.
- **Using Valuable Recovered Fiber Resources more Efficiently:** As a sustainability thought leader, Domtar brought together the Massachusetts Institute of Technology and AF&PA, to develop a simulation model that takes a system dynamics approach to advance the sustainability of paper recycling for the long term.
- **New Lower Carbon Products:** Domtar continues to research and explore opportunities to create new value-added products from biomaterials, by leveraging our expertise in fiber sourcing and processing. Bio-based products have the potential to replace numerous fossil fuel-based products society uses today with renewable, lower-carbon alternatives.
- **Sustainable Logistics:** Domtar has been a U.S. Environmental Protection Agency (EPA) SmartWay Transport Partner since 2015, covering of our pulp, paper and personal care products shipped in North America. The program is designed to improve fuel efficiency and reduce the environmental impacts from freight transport.
- **Stakeholder Engagement:** We regularly engage with suppliers, customers, investors, communities, non-governmental organizations, governmental organizations and other thought leaders to educate them about Domtar's climate-related performance and actions, and to identify opportunities for partnership in a low-carbon economy.

C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

Domtar has been managing climate-related issues for nearly three decades. Early actions, including investing in fuel switching, co-generation of steam and electricity, energy efficiency and improved product mixes have positioned us well to compete in a lower-carbon economy.

Domtar has a goal to reduce total Scope 1 and 2 greenhouse emissions at our pulp and paper mills 15% by the end of 2020 relative to our 2010 baseline. Our mills achieved this goal for a second consecutive year in 2018 with a 15% reduction over this period. In fact, since 1990, Domtar has reduced total direct GHG emissions by approximately 50%. On a global and regional scale, these results stand out. Domtar's greenhouse gas emissions from fossil fuels per ton of pulp and paper product are approximately 64% lower than the average emissions from mills in the Asia-Pacific region, and 9% lower than the industry average in North America for comparable mills.

Key elements of our low-carbon transition plan include:

- **Sustainable Forest Management:** Domtar is recognized as a leader in practicing and supporting sustainable forest management. Forests play a key role in climate regulation, by sequestering carbon. Forests also play a key role in water cycling and conserving biodiversity. We have a goal to increase the level of FSC-certified fiber procured for our pulp and paper mills to 20% of total fiber use by the end of 2020. In 2018, we increased the level of FSC-certified fiber to 21% of total fiber use, achieving our goal for a second consecutive year.
- **Maintaining Forested Landscapes:** We create economic incentive to maintain and enhance forested landscapes, especially for small, private landowners, from who we source the majority of our wood.
- **Renewable Energy:** 72% of the energy used in our pulp and paper mills comes from carbon-neutral, renewable energy sources - primarily from manufacturing byproducts and residuals.
- **Fuel Switching:** Domtar has converted six power boilers from coal to natural gas since 2014. Natural gas has a 40% lower carbon footprint than coal per unit energy. We continue to look for technically viable and commercially available alternatives to our remaining use of fossil fuels (primarily natural gas).
- **Co-generation (combined heat and power):** We efficiently co-generate steam and electricity for use in our operations and for sale to the grid. In 2018, our mills self-generated the equivalent of 72% of their electricity requirements.
- **Energy Efficiency:** Comprehensive energy efficiency reviews have been conducted at all of our pulp and paper mills. We continue to execute energy efficiency opportunities identified from these audits.
- **Beneficial Use of Manufacturing Residuals:** In 2018, Domtar's mills beneficially used 69% of the byproducts generated in our pulp and paper manufacturing processes. Through our efforts to reduce "waste" from our manufacturing processes and find new beneficial uses for our byproducts, Domtar has reduced the amount of material we landfill 19% since 2013, relative to our target of 40% reduction by the end of 2020.
- **Reduction in Water Use by Understanding Full Cost of Water:** Domtar has developed and is deploying a model to provide our manufacturing managers a better understanding of the full cost-of-water utilization in our mills in order to improve our efficiency of water, energy and chemical use. Total water use at our pulp and paper mills decreased 2% in 2018 relative to 2014.
- **Sustainable by Design:** The primary ingredient of paper products is renewable wood fiber. Paper products sequester carbon during their useful life, and are highly recyclable.
- **Paper recovery and recycling:** In 2018, 68% of paper in the U.S. was recovered, making paper one of the most recycled materials. Domtar supports actions to help the American Forest & Paper Association (AF&PA) achieve its 2020 recovery goal of 70%.
- **Using Valuable Recovered Fiber Resources more Efficiently:** As a sustainability thought leader, Domtar brought together the Massachusetts Institute of Technology and AF&PA, to develop a simulation model that takes a system dynamics approach to advance the sustainability of paper recycling for the long term.
- **New Lower Carbon Products:** Domtar continues to research and explore opportunities to create new value-added products from biomaterials, by leveraging our expertise in fiber sourcing and processing. Bio-based products have the potential to replace numerous fossil fuel-based products society uses today with renewable, lower-carbon alternatives.
- **Sustainable Logistics:** Domtar has been a U.S. Environmental Protection Agency (EPA) SmartWay Transport Partner since 2015, covering of our pulp, paper and personal care products shipped in North America. The program is designed to improve fuel efficiency and reduce the environmental impacts from freight transport.



C3.1g

(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

Domtar has begun to assess the various scenario planning tools available to identify the ones most suitable and applicable for our business.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Scope

Scope 1 +2 (market-based)

% emissions in Scope

98

Targeted % reduction from base year

15

Base year



2010

Start year

2014

Base year emissions covered by target (metric tons CO2e)

3,608,685

Target year

2020

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% of target achieved

100

Target status

Achieved

Please explain

In 2018, Domtar's pulp and paper mills reduced total direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions from purchased energy 15% from 2010 levels, achieving our goal of a 15% reduction from 2010 levels by the end of 2020 for a second consecutive year.

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Waste



KPI – Metric numerator

Dry metric tons of waste to landfill from pulp and paper mills.

KPI – Metric denominator (intensity targets only)

Base year

2013

Start year

2014

Target year

2020

KPI in baseline year

177,967

KPI in target year

106,780

% achieved in reporting year

47

Target Status

Underway

Please explain

In 2014, Domtar established a target to reduce total waste to landfill from pulp and paper mills 40% by the end of 2020 from a 2013 baseline. This target was established to: improve the efficiency of raw material usage during the pulp and paper manufacturing process, increase the amount manufacturing byproducts recycled or beneficially used, keep valuable materials circulating in the economy and out of landfills, lower our costs and improve our overall environmental footprint.



Part of emissions target

Domtar's waste to landfill reduction target provides GHG benefits from improved carbon sequestration in soils and plants (through land application of mill residuals on forests and agricultural lands) and avoided emissions of methane that can be generated in landfills from the decomposition of organic-based manufacturing byproducts. While this target is not in the scope of the company's current greenhouse gas emissions reduction target, it is part of our low-carbon transition plan that supports our long-term business strategy.

Is this target part of an overarching initiative?

Other, please specify
Sustainability improvement target

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	1	48,000
Implementation commenced*	1	147,000
Implemented*		
Not to be implemented		



C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO₂e savings (metric tonnes CO₂e)

48,000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative



Comment

Our mill in Espanola, Ontario, is planning for an investment in 2021 to modernize the mill's energy platform and upgrade the efficiency of the lime kilns. These projects will improve the energy and operational efficiency of the mill and allow the mill to burn more carbon-neutral, biomass fuels and decrease natural gas use.

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

147,000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative



Comment

Domtar invested capital in our fluff pulp mill in Plymouth, North Carolina, to further optimize its manufacturing processes and assets to remain viable in a competitive market. The smaller of the mill's two fluff pulp machines was permanently shut down in 2018, and the mill embarked on a multi-year investment program, beginning with several energy and environmental sustainability initiatives. The overall objective is to reduce the mill's total energy footprint and thereby lower its costs, resource use, and environmental footprint.

Capital projects at Plymouth in 2018 and 2019 included:

- › Reducing steam use through several energy efficiency projects in the pulp manufacturing process.
- › Reducing fuel use by improving the efficiency of one of the mill's power boilers.
- › Reducing fuel use to make steam by installing a condensing cooling tower and heat exchanger that will eliminate the use of about 11 million gallons per day of single-pass non-contact cooling water and recover heat from the process.
- › Installing a thermal oxidizer to provide a back-up air emission control device when the power boiler is not available to incinerate gases produced in the chemical pulp manufacturing process.
- › Reducing particulate matter emissions from one of the mill's power boilers by installing a new electrostatic precipitator.

The estimated annual greenhouse gas savings of 147,000 metric tons of CO2e include both fossil and biogenic combustion sources for all of the projects listed above.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	
Partnering with governments on technology development	
Employee engagement	Domtar's EarthChoice Ambassador Program offers employees opportunities to engage and provide input on



	sustainability improvements in our facilities and our communities.
Internal price on carbon	

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

Generation and sale of renewable energy certificates (RECs) and renewable energy from hydropower and co-generation of carbon-neutral, biomass fuels.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

As defined by various renewable energy markets through which Domtar sells renewable electricity and renewable energy certificates (e.g., state renewable portfolio standards, Green-e, etc.).



% revenue from low carbon product(s) in the reporting year

Comment

Before Domtar would be willing to publicly report this type of information, more work would be required to define "low-carbon" products to allow for comparable and consistent reporting across the global economy.

Level of aggregation

Group of products

Description of product/Group of products

Domtar continues to research and explore opportunities to create new, value-added products from biomaterials by leveraging our expertise in fiber sourcing and processing. Bio-based products have the potential to replace numerous fossil fuel-based products society uses today with renewable, lower-carbon alternatives.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify
Product substitutions

% revenue from low carbon product(s) in the reporting year

Comment

These products and markets are currently emerging. Before Domtar would be able to publicly report this type of information, more work would be required to define "low-carbon" products to allow for comparable and consistent reporting across the global economy.



C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO₂e)

2,459,887

Comment

The 2010 baseline includes greenhouse gas emissions from pulp and paper mills only. Domtar did not own personal care manufacturing facilities in 2010. Domtar began quantifying greenhouse gas emissions from stand-alone paper converting facilities in 2012 so 2010 data is currently not available; however, these facilities use very little energy relative to our pulp and paper mills and would have represented less than 0.1% of the company's total Scope 1 emissions in 2010.

Scope 2 (location-based)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO₂e)



634,276

Comment

The 2010 baseline includes greenhouse gas emissions from pulp and paper mills only. Domtar did not own personal care manufacturing facilities in 2010. Domtar began quantifying greenhouse gas emissions from stand-alone paper converting facilities in 2012 so 2010 data is currently not available; however, these facilities use little purchased electricity relative to our pulp and paper mills and would have represented about 5% of the company's Scope 2 location-based emissions in 2010.

Scope 2 (market-based)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO₂e)

1,148,798

Comment

The 2010 baseline includes greenhouse gas emissions from pulp and paper mills only. Domtar did not own personal care manufacturing facilities in 2010. Domtar began quantifying greenhouse gas emissions from stand-alone paper converting facilities in 2012 so 2010 data is currently not available; however, these facilities use little purchased electricity relative to pulp and paper mills and would have represented about 3% of the company's Scope 2 market-based emissions in 2010.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)



C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

1,943,386

Start date

January 1, 2018

End date

December 31, 2018

Comment

Includes Scope 1 emissions from stationary combustion and company-owned transportation vehicles/mobile equipment sources at 13 pulp and paper mills, 10 paper converting facilities and six personal care facilities.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based



We are reporting a Scope 2, market-based figure

Comment

Purchased electricity, steam and heat emission factors are updated annually using the latest available factors.

Emission factors for purchased electricity are sourced from the U.S. EPA eGRID for U.S. facilities (eGRID subregion-specific factors are used based on facility location), National Inventory Reports submitted to the UN Framework Convention on Climate Change by the Canadian government for Canadian facilities (provincial-specific factors used) and utility providers for our European facilities.

Scope 2 emissions from purchased steam at Domtar's mill in Rothschild, Wisconsin (USA), are based on supplier-specific greenhouse gas emission factors. Scope 2 emissions from purchased heat at Domtar's personal care facility in Aneby, Sweden, are based on supplier-specific emission factors from the local biomass-fueled district heating system.

Domtar's market-based Scope 2 emissions reflect the sale of renewable energy certificates (RECs) and/or renewable energy into various renewable energy marketplaces from the company's pulp and paper mills. In Europe, Domtar's Toledo, Spain, personal care manufacturing facility purchases 100% zero-carbon, renewable energy (wind and solar) to meet 100% of the plant's electricity requirements.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

596,813

Scope 2, market-based (if applicable)

1,201,746

Start date

January 1, 2018



End date

December 31, 2018

Comment

Purchased electricity, steam and heat emission factors are updated annually using the latest available factors.

Emission factors for purchased electricity are sourced from the U.S. EPA eGRID for U.S. facilities (eGRID subregion-specific factors are used based on facility location), National Inventory Reports submitted to the UN Framework Convention on Climate Change by the Canadian government for Canadian facilities (provincial-specific factors used) and utility providers for our European facilities.

Scope 2 emissions from purchased steam at Domtar's mill in Rothschild, Wisconsin (USA), are based on supplier-specific greenhouse gas emission factors. Scope 2 emissions from purchased heat at Domtar's personal care facility in Aneby, Sweden, are based on supplier-specific emission factors from the local biomass-fueled district heating system.

Domtar's market-based Scope 2 emissions reflect the sale of renewable energy certificates (RECs) and/or renewable energy into various renewable energy marketplaces from the company's pulp and paper mills. In Europe, Domtar's Toledo, Spain, personal care manufacturing facility purchases 100% zero-carbon, renewable energy (wind and solar) to meet 100% of the plant's electricity requirements.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status



Not evaluated

Explanation

Capital goods

Evaluation status

Not evaluated

Explanation

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not evaluated

Explanation

Upstream transportation and distribution

Evaluation status

Not evaluated

Explanation

Waste generated in operations

Evaluation status

Not evaluated



Explanation

Business travel

Evaluation status

Not evaluated

Explanation

Employee commuting

Evaluation status

Not evaluated

Explanation

Upstream leased assets

Evaluation status

Not evaluated

Explanation

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e



314,000

Emissions calculation methodology

Indirect emissions from the transport of pulp and paper products to customers for calendar year 2018 were estimated to be 314,000 metric tons of CO₂e. Emission estimates are based on the number of trips, distance, and mode of transport using emission factors from the U.S. EPA SmartWay Transport Partner Program and other public sources.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Explanation

Used mode-specific emission and fuel efficiency factors from the U.S. EPA SmartWay database and other public sources.

Processing of sold products

Evaluation status

Not evaluated

Explanation

Use of sold products

Evaluation status

Not relevant, explanation provided

Explanation

Pulp and paper products sequester carbon in the "use phase." Paper also has a high recovery rate (68% in 2018), which keeps the majority of our products out of landfills where they have the potential to generate methane under anaerobic conditions.

End of life treatment of sold products

Evaluation status



Not evaluated

Explanation

Downstream leased assets

Evaluation status

Not evaluated

Explanation

Franchises

Evaluation status

Not relevant, explanation provided

Explanation

Franchises are not relevant to Domtar's business.

Investments

Evaluation status

Not evaluated

Explanation

Other (upstream)

Evaluation status

Not evaluated



Explanation

Other (downstream)

Evaluation status

Not evaluated

Explanation

C-AC6.6/C-FB6.6/C-PF6.6

(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?

No

C-AC6.6b/C-FB6.6b/C-PF6.6b

(C-AC6.6b/C-FB6.6b/C-PF6.6b) Why can you not report your Scope 3 emissions by business activity area?

Row 1

Primary reason

Not an immediate business priority

Please explain

For Scope 3 emissions, Domtar has only estimated downstream transportation of pulp and paper products, so all of our Scope 3 emissions for which we have estimated thus far can be assigned to our Pulp and Paper business area.

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?



Yes

C6.7a

(C6.7a) Provide the emissions from biologically sequestered carbon relevant to your organization in metric tons CO2.

Row 1

Emissions from biologically sequestered carbon (metric tons CO2)

11,679,904

Comment

Includes biogenic carbon dioxide emissions from stationary combustion of black liquor, self-generated and purchased wood residuals (hog fuel), wastewater treatment residuals, lignin, crude tall oil/soap and turpentine. Default emission factor source: IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf.

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

Yes

C-AC6.8a/C-FB6.8a/C-PF6.8a

(C-AC6.8a/C-FB6.8a/C-PF6.8a) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

Emissions (metric tons CO2)

11,679,904

Methodology

Default emissions factors

Please explain

Includes biogenic carbon dioxide emissions from stationary combustion of black liquor, self-generated and purchased wood residuals (hog fuel), wastewater treatment residuals, lignin, crude tall oil/soap and turpentine. Default emission factor source: IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf.

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities

Timber

Do you collect or calculate GHG emissions for this commodity?

No

Please explain

Domtar has not estimated greenhouse gas emissions associated with the wood we purchase and harvest from company-owned lands. Our focus is on efforts to improve the sustainability and health of the forests from which we source wood. One of the ways we do this is by working on innovative solutions to lower the technical and financial hurdles to third-party certifying additional forests to one or more credible forest management standards. In 2018, 38% of the wood used in Domtar's pulp and paper manufacturing came from certified forests. Given that sustainable forest management practices enhance a forests' ability to provide ecosystem services, such as carbon sequestration over the long



term in areas where forest growth exceeds harvest, Domtar has not dedicated limited resources to quantify emissions from forest management and harvest activities. Our current efforts are focused on reducing Scope 1 and 2 greenhouse emissions that are more directly related to our manufacturing operations. Silvicultural and harvesting activities (and associated fuel use) for pulpwood and timber production on company-owned forest lands are performed by third-party contractors and therefore are not a Scope 1 emission.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.000466

Metric numerator (Gross global combined Scope 1 and 2 emissions)

2,540,199

Metric denominator

unit total revenue

Metric denominator: Unit total

5,455,000,000

Scope 2 figure used

Location-based

% change from previous year

1

Direction of change

Increased



Reason for change

Increased paper production and less market pulp production. Paper production is more carbon intensive than pulp production. Several of our mills also experienced operational challenges that increased natural gas use and decreased the use of carbon-neutral biomass fuels.

Intensity figure

260

Metric numerator (Gross global combined Scope 1 and 2 emissions)

2,540,199

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

9,784

Scope 2 figure used

Location-based

% change from previous year

8

Direction of change

Increased

Reason for change

Increased paper production and less market pulp production. Paper production is more carbon intensive than pulp production. Several of our mills also experienced operational challenges that increased natural gas use and decreased the use of carbon-neutral biomass fuels. The number of FTE's also decreased by 1 percent.



C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO ₂ e)	GWP Reference
CO ₂	1,829,720	IPCC Fourth Assessment Report (AR4 - 100 year)
CH ₄	16,029	IPCC Fourth Assessment Report (AR4 - 100 year)
N ₂ O	97,637	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO ₂ e)
United States of America	1,416,036
Canada	526,892
Spain	413
Sweden	45



C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Pulp and Paper	1,942,070
Personal Care	1,316

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Yes

C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Activity

Processing/Manufacturing

Emissions (metric tons CO2e)

1,943,386



Methodology

Default emissions factor

Please explain

Includes Scope 1 emissions from stationary combustion and company-owned transportation vehicles/mobile equipment sources at 13 pulp and paper mills, 10 paper converting facilities and six personal care manufacturing facilities. Silvicultural and harvesting activities (and associated fuel use) for pulpwood and timber production on company-owned forestlands are performed by third-party contractors, and therefore, are not a Scope 1 emission.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America ☞ ¹	579,513	1,190,773	1,504,089	
Canada ☞ ²	5,295	10,514	531,041	
Spain	11,546	0	38,484	38,484
Sweden	459	459	41,708	

☞¹Domtar's U.S. mills sold 1,320,704 MWh of renewable energy certificates (RECs) in 2018; therefore, our market-based Scope 2 emissions are higher than location-based Scope 2 emissions. It does not appear the CDP reporting protocol was designed for companies to report renewable energy and/or REC sales associated with market-based Scope 2 emissions; therefore, Domtar left column 5 (Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)) blank at this time as column 5 asks for "purchased and consumed" energy rather than renewable energy and REC sales.



Domtar's Canadian mills sold 466,952 MWh of renewable energy certificates (RECs) in 2018; therefore, our market-based Scope 2 emissions are higher than location-based Scope 2 emissions. It does not appear the CDP reporting protocol was designed for companies to report renewable energy and/or REC sales associated with market-based Scope 2 emissions; therefore, Domtar left column 5 (Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)) blank at this time as column 5 asks for "purchased and consumed" energy rather than renewable energy and REC sales.

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Pulp and Paper	534,947	1,151,426
Personal Care	61,866	50,320

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in	Direction of	Emissions value	Please explain calculation
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	emissions (metric tons CO2e)	change	(percentage)	
Change in renewable energy consumption	7,000	Increased	0.3	Decreased biomass/increased natural gas used to generate purchased steam.
Other emissions reduction activities	21,000	Decreased	0.9	Increased internal co-generation of electricity resulting in less purchased electricity and "greening" of grid-purchased electricity.
Divestment				
Acquisitions				
Mergers				
Change in output	50,000	Increased	2.2	Increased paper production.
Change in methodology				
Change in boundary				
Change in physical operating conditions	38,000	Increased	1.7	Shutdown of a fluff pulp machine and temporarily increased use of fossil fuels as mill energy optimization projects are underway. Greenhouse gas emissions are projected to decrease once the mill and energy optimization projects are completed in 2019.
Unidentified	3,000	Increased	0.1	
Other	82,000	Increased	3.6	Operational and equipment reliability issues led to increased use of fossil fuels and less use of renewable biomass fuels.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?



Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating	34,432,468	9,552,238	43,984,706



	value)			
Consumption of purchased or acquired electricity		38,484	1,631,658	1,670,142
Consumption of purchased or acquired heat		10,464	0	10,464
Consumption of purchased or acquired steam		244,439	63,796	308,235
Consumption of self-generated non-fuel renewable energy		183,369		183,369
Total energy consumption		34,909,224	11,247,692	46,156,916

C8.2b

(C8.2b) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Bituminous Coal



Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

494,144

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Petroleum Coke

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

28,971

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam



MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Waste Tires

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

53,705

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment



Fuels (excluding feedstocks)

Fuel Oil Number 1

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

150

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

101,507

MWh fuel consumed for self-generation of heat



MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Waste Oils

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

889

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment



Fuels (excluding feedstocks)

Propane Liquid

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

22,197

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

8,780,333



MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Black Liquor

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

26,392,303

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment



Fuels (excluding feedstocks)

Wood Waste

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

8,040,166

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)



Total fuel MWh consumed by the organization

60,950

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

9,392

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Bituminous Coal

Emission factor

0.09262

Unit

metric tons CO₂e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Black Liquor

Emission factor

0.00063

Unit

metric tons CO₂e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Diesel

Emission factor

0.07859

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Fuel Oil Number 1

Emission factor

0.07053

Unit



metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Fuel Oil Number 2

Emission factor

0.07053

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Motor Gasoline

Emission factor

0.06759



Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Natural Gas

Emission factor

0.05069

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Petroleum Coke

Emission factor

0.09287

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Propane Liquid

Emission factor

0.0611

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Waste Oils



Emission factor

0.07148

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

Waste Tires

Emission factor

0.08149

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment



Wood Waste

Emission factor

0.00142

Unit

metric tons CO2e per GJ

Emission factor source

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. The public weblink for the 2006 IPCC Guidelines is: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/> The volume that contains emission factors is Volume 2 Energy and the weblink for that volume is: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	3,752,026	2,387,026	3,148,135	1,964,370
Heat				
Steam				
Cooling				



C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), supported by energy attribute certificates

Low-carbon technology type

Solar PV

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

Europe

MWh consumed associated with low-carbon electricity, heat, steam or cooling

38,484

Emission factor (in units of metric tons CO₂e per MWh)

0

Comment

100% of the purchased electricity for Domtar's personal care manufacturing facility in Toledo, Spain, comes from wind and solar electricity sources.



C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

☞ Scope includes pulp and paper mills and personal care manufacturing facilities.

Metric value

147,548

Metric numerator

Dry metric tons of waste to landfill.

Metric denominator (intensity metric only)

% change from previous year

30

Direction of change

Increased

Please explain

In 2014, Domtar established a target to reduce total waste to landfill from pulp and paper mills 40% by the end of 2020 from a 2013 baseline. Our pulp and paper mills currently generate more than 95% of the materials the company discards of in landfills so this target was established to: improve the efficiency of raw material usage during pulp and paper manufacturing, increase the amount manufacturing byproducts recycled



or beneficially used, keep valuable materials circulating in the economy and out of landfills, lower our costs and improve our overall environmental footprint.

Domtar's waste to landfill reduction efforts are part of our low-carbon transition plan that supports our long-term business strategy. These initiatives provide GHG benefits from improved carbon sequestration in soils and plants (through land application of mill residuals on forests and agricultural lands) and avoided emissions of methane that can be generated in landfills from the decomposition of organic-based manufacturing byproducts. The "Metric Value" reported in this section includes pulp and paper mills and personal care manufacturing facilities.

Our pulp and paper mills have reduced the amount of waste sent to landfills 19 percent since 2013 through source reduction and beneficial-use programs. After four years of good progress, the amount of materials landfilled by our pulp and paper mills increased in 2018. This increase was largely due to operational, reliability and weather-related issues at a few mills. Domtar remains committed to meeting our landfill reduction goal.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.



Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Third party verification/assurance underway

Attach the statement

 Domtar Kamloops_GHG Verification Report_ 2018.pdf

 rapport de vérification de la déclaration des GES 2018 - Domtar usine de Windsor.pdf

Page/ section reference

Kamloops, British Columbia: See page 5 for verification criteria and page 9 for verified emissions.

Windsor, Quebec: See page 2 for verification criteria and page 3 for verified emissions.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

11

Scope

Scope 1



Verification or assurance cycle in place

Annual process

Status in the current reporting year


Underway but not complete for reporting year-previous statement of process attached

Type of verification or assurance

Third party verification/assurance underway

Attach the statement

 Domtar Espanola_2017_GHG-VER-RPT.pdf

 Domtar Dryden_2017_GHG-VER-RPT.pdf

Page/ section reference

Dryden, Ontario: See page 3 for 2017 verified emissions and page 6 for verification methods.

Espanola, Ontario: See page 3 for 2017 verified emissions and page 11 for verification methods.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

15

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure



C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

BC carbon tax

Québec CaT

Other carbon tax, please specify

Canadian Federal Carbon Pricing Program

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

Québec CaT

% of Scope 1 emissions covered by the ETS

5

Period start date

January 1, 2018

Period end date

December 31, 2018

Allowances allocated



81,747

Allowances purchased

0

Verified emissions in metric tons CO2e

91,314

Details of ownership

Facilities we own and operate

Comment

C11.1c

(C11.1c) Complete the following table for each of the tax systems in which you participate.

BC carbon tax

Period start date

January 1, 2018

Period end date

December 31, 2018

% of emissions covered by tax

5

Total cost of tax paid

3,400,000

Comment



The BC carbon tax is paid indirectly in the form of higher fossil fuel prices and fuel surcharges from raw material transporters.

Other carbon tax, please specify

Period start date

January 1, 2018

Period end date

December 31, 2018

% of emissions covered by tax

0

Total cost of tax paid

Comment

The Ontario Cap and Trade Program was repealed in 2018, and there were no compliance obligations in 2018 with termination of the program (reason for reporting 0% for % of emissions covered by tax for calendar year 2018). As of January 1, 2019, our facilities in Ontario are subject to the Canadian Federal Carbon Pricing Program.

The Canadian Federal Carbon Pricing Program applies in provinces and territories that do not have a carbon pricing program that meets federal requirements. The program includes a federal carbon surcharge on fossil fuels and an Output-Based Pricing System (OBPS) for industrial facilities that sets a performance standard for each industrial sector covered under the system. Companies have to pay a carbon charge for any emissions over the standard. If they perform better than the standard, they will have credits to sell. Under the Federal program, the price of carbon is \$20/tonne in 2019 and increasing to \$50/tonne by 2022. In Ontario, the OBPS commenced January 1, 2019, and the fuel surcharge started in April, 2019.

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

Domtar's strategy to meet the requirements of the various regulatory carbon pricing program varies by jurisdiction.



Across the company, Domtar continues to assess our asset base and identify opportunities for capital expenditures for asset modernization, including installation of new technological advancements. We continue to focus on energy efficiency initiatives that reduce our energy use and carbon footprint. Through our biomaterials work, we continue to research and trial technologies that are suitable to displace most of the remaining fossil fuels combusted in our processes.

In Quebec, Canada, Domtar has accumulated banked allocations that can be applied to any future compliance obligation as needed. We expect banked allocations to be available through the mid-2020s.

In British Columbia, Canada, the company is subject to the provincial carbon tax in the form of higher fossil fuel prices and fuel surcharges from raw material transporters. We continue to look for opportunities to reduce the use of fossil fuels in our own operations. We also look for opportunities to partner with our suppliers on projects to reduce fossil fuel use and improve efficiencies. The provincial government has announced the carbon tax trajectory through 2022.

In 2018, the new Ontario government terminated the provincial cap and trade program. An orderly wind down of the program occurred. In the absence of a provincial carbon pricing program, Ontario facilities are covered under the Canadian Federal Carbon Pricing Program that commenced on January 1, 2019. The Canadian Federal Carbon Pricing Program is currently scheduled to go through 2022.

The Greenhouse Gas Management Committee meets periodically to assess emerging climate and carbon pricing initiatives and regulatory requirements for their potential impact on our strategies and business operations.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes



C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations

GHG Scope

Scope 1

Scope 2

Scope 3

Application

Actual price(s) used (Currency /metric ton)

17

Variance of price(s) used

In Quebec and any assessments we would conduct in the U.S., we currently use \$16-\$18 USD/metric ton, which is based on the California market.

In British Columbia, we follow the carbon trajectory the province is on.

In Ontario, we follow the carbon trajectory for the Canadian Federal Carbon Pricing Program.

Type of internal carbon price

Shadow price

Impact & implication



We use this internal shadow price to assess large capital projects.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Run a campaign to encourage innovation to reduce climate impacts on products and services

Other, please specify

Raw material supply and utilization

% of suppliers by number

% total procurement spend (direct and indirect)



% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Domtar works with suppliers to improve the environmental profile of the raw materials we purchase (especially wood), our manufacturing processes, our products and transport of these products to our customers. Some of these initiatives include:

- Providing financial and technical support to help small, private landowners certify their forests to recognized sustainable forest management standards.
- Engaging in conversations and meetings with our suppliers to identify ways our manufacturing facilities can use raw materials more efficiently and substitute raw materials for alternatives with improved environmental profiles. Our suppliers also support engineering evaluations for new projects, products and services.
- Advocating through a national campaign to optimize logistics for improved efficiency by: increasing truck weight limits without creating additional safety and infrastructure issues, expanding intermodal options and ports, and optimizing product packaging and stacking arrangements to maximize truck volumes, especially for bulkier, lighter-weight personal care products.

Impact of engagement, including measures of success

Several recent successes from these efforts include:

- Enrolling more than 628,000 acres and more than 220 members in the Domtar-supported Four States Timberland Owners Association Group FSC certification, which reduces the financial and technical hurdles to forest certification for small, private landowners.
- Reducing pulp bleaching chemical use at Domtar's pulp mills by over 7% per unit pulp production since 2015. Part of the success in achieving these results was working with our major pulping chemical suppliers to conduct surveys at our pulp mills to identify opportunities to reduce chemical use.
- Developing and implementing innovative ways to get more personal care products on each truck, reducing the number of trips by: hand-stacking cases to fill the empty space between the last two rows of pallets, working with customers to accept taller pallet loads, utilizing new product stacking arrangements to get 17-20% more product on each truck, and utilizing an award-winning, high compression packaging system for incontinence products that reduces packaging volume by 30%.
- Engaging with 14 regional forestry partners near our mill in Windsor, Quebec, to promote sustainable forest management practices to small landowners, and to train loggers on harvesting methods that increase productivity and quality. Three years into this initiative, the fiber supply from forests located close to the mill has increased by 30 percent. The Windsor Mill is also undergoing a woodyard modernization project that



will improve productivity and chip quality, while reducing fiber loss and processing costs. As fiber yield from each unit of wood brought to the mill is increased, the number of wood deliveries required for each product will continue to decline.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Climate-related issues are part of some customer business meetings. We discuss areas where our companies can work together on mutually beneficial projects and initiatives. Domtar also participates in customer life cycle assessment (LCA) studies to better understand the environmental and climate impacts and opportunities from producing, using and end-of-life management of their final products. We also complete hundreds of customer information requests every year, some of which include information on climate-related emissions, performance and strategies.

Impact of engagement, including measures of success

These types of engagements with customers build awareness and trust, and uncover opportunities for strategic partnerships to develop more sustainable manufacturing processes, products, logistical systems and other services.

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

Domtar is active in initiatives with value chain partners to improve the environmental profile and logistical efficiency of moving raw materials and products, including:

- Optimizing available transport modes to most efficiently move our products.
- Optimizing product packaging and stacking arrangements to maximize truck volumes, especially for lighter and bulkier personal care products.
- Working with policymakers and local governments to educate them on how transportation efficiency can be improved by increasing truck weight limits without creating additional safety and infrastructure issues.
- Partnering with the City of Ashdown, Arkansas, and Little River County to study the feasibility of constructing an intermodal facility near our mill in Ashdown, to increase efficient shipping options.
- Continuing to be a member of the U.S. EPA SmartWay Transport Partner program designed to improve fuel efficiency and reduce the environmental impacts from freight transport.
- Working with regional forestry partners to promote sustainable forest management to small landowners closer to the mill to reduce the amount of transport required for our wood resources.

Domtar is also active in working with several non-governmental organization partners, including Rain Forest Alliance and the World Wildlife Fund, to advance sustainable forestry in our fiber procurement regions and to support global conservation efforts. Several of these initiatives include:

- Providing the World Wildlife Fund (WWF) nearly \$4.0 million to support conservation programs around the world since 2008.
- Supporting research in Canada with the National Council for Air and Stream Improvement (NCASI) to increase understanding of caribou nutritional and survival needs and integrate into forest management practices.
- Being a founding member of the Appalachian Woodlands Alliance to provide sustainable forest management tools to small, private landowners to increase the amount of sustainably managed forests around our Kingsport, Tennessee mill.
- Helping local landowners enroll in The Nature Conservancy's Working Woodlands Program, which provides landowners with a forest management plan and group Forest Stewardship Council certification.

These initiatives have positive sustainability benefits, including keeping forests as forests and reducing climate-related impacts.



C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support with minor exceptions	We engage with the Canadian Federal government and the provincial governments in Ontario and Quebec to share our key criteria for inclusion in cap and trade and other carbon pricing programs. These engagements are conducted through in-person meetings, webinars, conference calls and written comments, and are further supported by consultants, lobbyists and trade associations advocating on our behalf and for others in our sector.	Our key criteria for effective and competitive climate pricing programs include: <ul style="list-style-type: none"> -Recognition of our early actions to reduce greenhouse gas emissions, - Heavy reliance on carbon neutral biomass fuels, -Use of co-generation systems using mainly biomass fuels, -Remaining competitive in global markets, -Provisions to prevent leakage of emissions, jobs and investments to other jurisdictions with no or less restrictive carbon pricing programs,



			<ul style="list-style-type: none"> - Avoiding double regulation with provincial and federal government initiatives, - Limited opportunities for additional, significant emission reductions without the development and deployment of commercially available technology solutions that are compatible with our processes and product quality and performance requirements, and - Reinvesting proceeds collected from carbon pricing programs proportionally back into the industry sectors.
<p>Carbon tax</p>	<p>Support with minor exceptions</p>	<p>We engage with the Canadian Federal government and the provincial government in British Columbia to share our key criteria for inclusion in carbon tax and other carbon pricing programs. These engagements are conducted through in-person meetings, webinars, conference calls and written comments, and are further supported by consultants, lobbyists and trade associations advocating on our behalf and for others in our sector.</p>	<p>Our key criteria for effective and competitive climate pricing programs include:</p> <ul style="list-style-type: none"> - Recognition of our early actions to reduce greenhouse gas emissions, - Heavy reliance on carbon neutral biomass fuels, - Use of co-generation systems using mainly biomass fuels, - Remaining competitive in global markets, - Provisions to prevent leakage of emissions, jobs and investments to other jurisdictions with no or less



			<p>restrictive carbon pricing programs,</p> <ul style="list-style-type: none"> - Avoiding double regulation with provincial and federal government initiatives, - Limited opportunities for additional, significant emission reductions without the development and deployment of commercially available technology solutions that are compatible with our processes and product quality and performance requirements, and - Reinvesting proceeds collected from carbon pricing programs proportionally back into the industry sectors.
<p>Other, please specify</p> <p>Maintain biomass carbon neutrality</p>	<p>Support</p>	<p>We engage with the governments in the United States and Canada to advocate for continuing to maintain carbon neutrality of biomass fuels. These engagements are conducted through in-person meetings, webinars, conference calls and written comments, and are further supported by consultants, lobbyists and trade associations advocating on our behalf and for others in our sector.</p>	

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes



C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

American Forest & Paper Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Domtar supports the American Forest & Paper Association's climate-related policy positions, including:

-Maintaining carbon neutrality of biomass combustion.

-Advocating for the appropriate inclusion of combined heat and power utilization in industrial applications for the development of climate policies.

How have you influenced, or are you attempting to influence their position?

Domtar holds governance roles and participates on several American Forest & Paper Association committees and task forces to shape and develop climate-related policy positions supported by science and sustainable economics, including the Environmental Policy Committee, Energy Policy Committee, Biomass Task Force, Air Quality Subcommittee, and Government Affairs Coordinating Committee.

Trade association

Industrial Energy Consumers of America (IECA)

Is your position on climate change consistent with theirs?

Mixed



Please explain the trade association's position

All IECA members that are major energy users have a seat on the Board of Directors so we are a member of the IECA Board.

IECA's primary focuses regarding climate change include: protecting the competitiveness of member companies and ensuring proper treatment to protect against industrial greenhouse gas emission leakage to regions of the world with higher greenhouse gas emission profiles and lower production costs.

How have you influenced, or are you attempting to influence their position?

We hold a governance position and participate on the Environment Committee and participate on the Climate Committee.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

Yes

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

We have prepared internal position papers and have regular discussions with appropriate corporate staff. We also provide briefings to senior leaders and company officers and have regular meetings with our Greenhouse Gas Management Committee, Sustainability Committee and Board EHSS Committee. We also help shape the approach to climate change policy for relevant trade organizations of which we are a part through regular issue-specific meetings and comments.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

.....






Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

-  Domtar-2018 Sustainability-Update-En.pdf
-  Domtar_Sustainability Report 2017_ENG.pdf
-  Domtar-2018-Sustainability-Performance-Indicators.pdf

Page/Section reference

Please see pages 28-35 of Domtar's 2017 Sustainability Report for our approach and performance relative to managing energy and emissions.

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

Comment

Domtar's 2019 Sustainability Report will be released in August 2019. Energy and climate-related information can be found on pages 44-47 and 61 in this document.

Additional information on our approach to managing energy and greenhouse gas emissions can be found on our website at:



<https://www.domtar.com/en/how-we-work/sustainability-domtar/energy-and-emissions>

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Vice President of Corporate Services and Sustainability	Chief Sustainability Officer (CSO)



Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Public	Investors Customers	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms