



J.D. IRVING, LIMITED



**ISO 14068-1**  
**Carbon Neutrality Report**  
**For Irving Tissue Products**  
**EXECUTIVE SUMMARY**

2023



*Bathroom tissue, Macon, GA*

## ISO 14068-1 CARBON NEUTRALITY EXECUTIVE SUMMARY

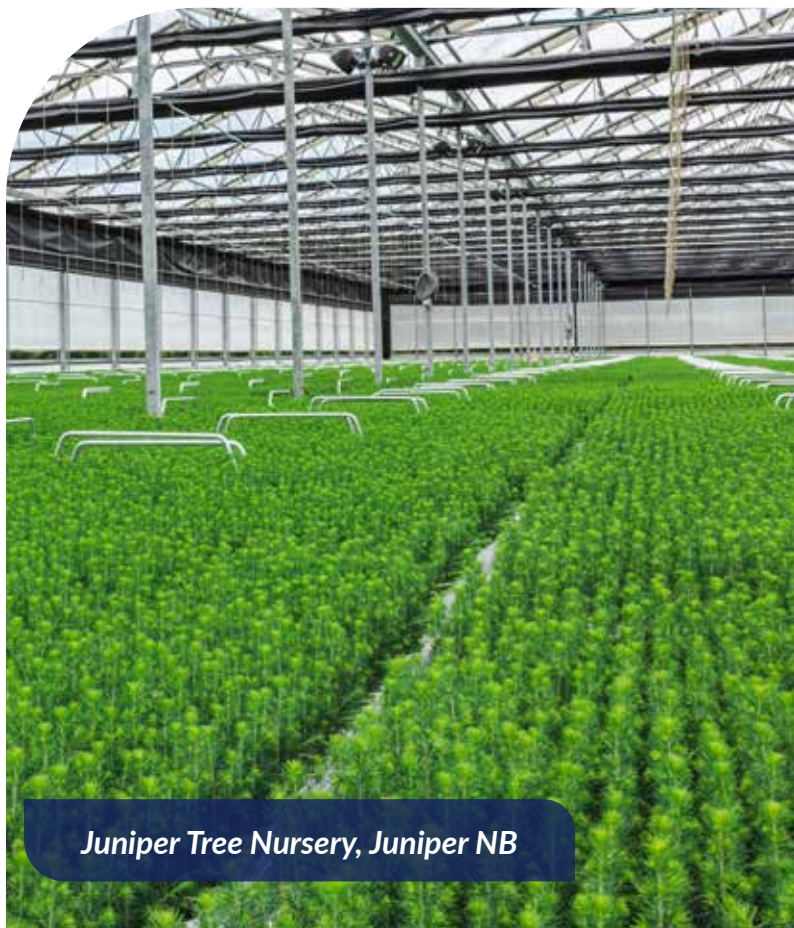
This executive summary report (“Executive Summary”) provides an overview of the ISO 14068-1 Carbon Neutrality Report for Irving Tissue Products (“Full Report”), which may be referenced at [www.jdirvingsustainability.com](http://www.jdirvingsustainability.com).

### SCOPE AND BOUNDARY OF THE SUBJECT

This Executive Summary is being issued by J.D. Irving, Limited (“Irving”) to describe the cradle-to-grave carbon footprint of all bathroom tissue, household towel, facial tissue, and napkin products, collectively referred to as “Tissue Products”, including Royale®, Scotties®, and private label branded tissue products for the “at-home” use market manufactured by Irving’s affiliates Irving Consumer Products Limited (“ICPL”) and Irving Consumer Products Inc. (“ICPI”). This Executive Summary provides an overview of the carbon footprint of Tissue Products, including greenhouse gas (“GHG”) emissions and removals in the material acquisition & pre-processing, production, distribution & storage, use, and end-of-life phases. More detailed information can be viewed in the Full Report at [www.jdirvingsustainability.com](http://www.jdirvingsustainability.com).

ICPL and ICPI are part of the Irving affiliated corporations included within the “Forest Supply Chain”<sup>1</sup> referred to throughout this Executive Summary.

Further details regarding the activities of the Forest Supply Chain and its organizational carbon footprint can be found in the Climate, Conservation & Community Impact report, or in the annual PAS2060 Declaration of Carbon Neutrality Qualifying Explanatory Statements of the Carbon Footprint of the Irving Forest Supply Chain which are both available at [www.jdirvingsustainability.com](http://www.jdirvingsustainability.com).



*Juniper Tree Nursery, Juniper NB*

<sup>1</sup> Includes operations wholly or partially in various Irving entities, including J.D. Irving, Limited; Irving Pulp & Paper, Limited; Irving Paper Limited; Irving Consumer Products Limited; Irving Consumer Products, Inc.; The New Brunswick Railway Company; Rothesay Paper Holdings Ltd.; St. George Pulp & Paper Limited; St. George Power LP; Charlotte Pulp and Paper Co. Ltd.; Miramichi Timber Holdings Limited; Allagash Timberlands LLC; Aroostook Timberlands LLC; Maine Woodlands Realty Company; and Irving Forest Products, Inc.

# CARBON FOOTPRINT OF A PRODUCT REPORT

Table 1: Carbon Footprint of a Product Executive Summary Table

CFP Requirement	Description
Functional unit and reference flow	Kg CO <sub>2</sub> e/ tonne (Tissue Product sales)
List of GHG accounted for	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O
Timing of GHG emissions and removals	January 2023 to December 2023 for the GHG emissions and removals in the Material Acquisition & Pre-Processing, Production, Distribution & Storage and Use stages. End-of-Life emissions extend beyond the reporting period but relate to products sold between January 2023 and December 2023.
Methodology	ISO 14067:2018 Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification.
Treatment of electricity use	Location-based approach.
Allocation procedures	Mass balance primary forest products and semi-finished wood products that flow through the supply chain to Tissue Products.
Time period CFP is representative	CFP accounting and verification is for the previous years' emissions and removals and is considered representative for two years after the year of verification with the assumption that there are no material (>10%) changes in production over the two-year period following verification.
Materiality Criteria (cutoffs)	Emissions or removals greater than 1%, representing 95% of total emissions or removals.
Limitations	The CFP is limited by its focus on GHG emissions and the inherent uncertainty in reporting GHG emissions and removals, which is affected by the methodologies, including limitations of the CBM-CFS3 forest carbon model, US EPA WARM model, assumptions, data quality, and exclusions. Refer to the "Uncertainty" section of the Full Report for assessment of how data quality affects the CFP.
Carbon footprint offset with credits	Not applicable
Type of credits purchased and retired to achieve carbon neutrality	Not applicable
Double counting	Double counting has been avoided with strong internal controls by Irving.
Carbon Neutrality verified by:	KPMG Performance Registrar Inc.
Verification date:	December 23, 2024
Link to the full ISO14068-1 Carbon Neutrality Report for Irving Tissue Products – 2023	<a href="http://www.jdirvingsustainability.com">www.jdirvingsustainability.com</a>

# SYSTEM BOUNDARY – CRADLE-TO-GRAVE

The cradle-to-grave boundary of Tissue Products has been determined in accordance with ISO14067:2018. A description of each phase, methodology, assumptions, exclusions, data quality, uncertainty, and references are detailed in the Full Report.

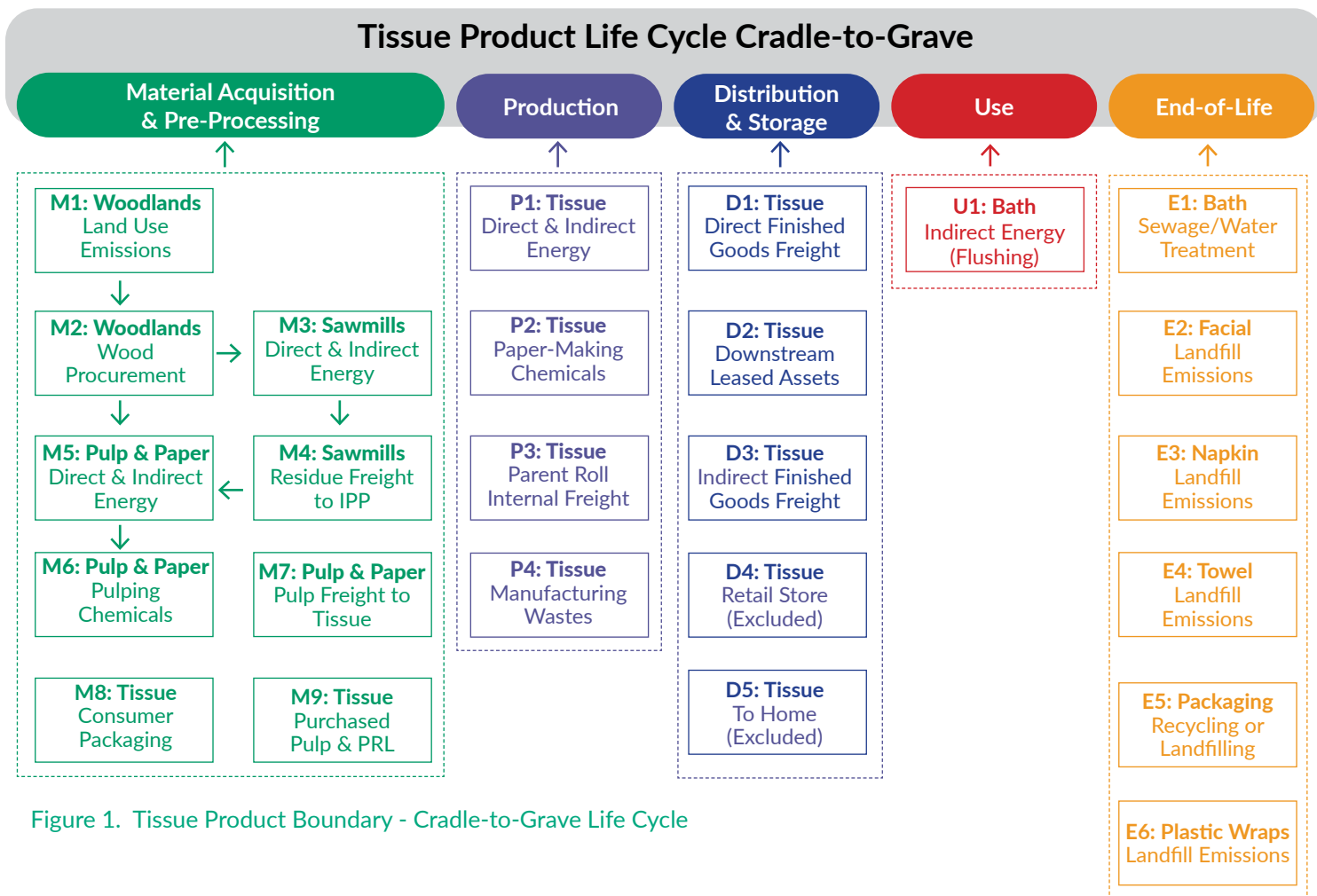


Figure 1. Tissue Product Boundary - Cradle-to-Grave Life Cycle

## GREENHOUSE GAS EMISSIONS AND REMOVALS

Table 2: Greenhouse Gas Emissions and Removals by Life Cycle Stage

Source	Tonnes CO <sub>2</sub> e	Kg CO <sub>2</sub> e /tonne	%
Material Acquisition & Pre-Processing	255,368	697	28%
Production	477,083	1,302	54%
Distribution & Storage	70,214	192	8%
Use	2,773	19	0%
End-of-Life	91,208	249	10%
Aircraft Transportation	0	0	0%
Net Fossil Fuel Emissions & Removals	896,646	2,459	100%
Land Use	(1,154,441)	(3,150)	
Direct Land Use Change (dLUC)	0	0	0%
Carbon Footprint of the Product	(257,795)	(703)	

## CARBON NEUTRALITY MANAGEMENT PLAN

The organizational Carbon Neutrality Management plan has a high level of ambition extending beyond the carbon neutrality of Tissue Products with a commitment to maintain carbon neutrality for the entire Irving Forest Supply Chain. Organizational carbon neutrality is achieved from forest removals from Irving private forest lands and the transfer of carbon from living trees into harvested wood products.

The objective is for organizational carbon neutrality to be maintained by continuing with:

- Responsible, long-term management of the forest in a way that ensures that growth exceeds harvest and carbon removal exceeds emissions. This includes efficient harvesting and processing of wood products which transfers carbon from

living biomass into harvested wood products that store carbon for an additional period. Responsible long-term forest management includes forest inventory, forest growth and yield modeling, control of annual harvest levels, production of genetically improved and well adapted local seedlings, reforestation activities such as tree planting and tending, and forest protection activities.

- Continuous improvement initiatives focused on productivity and energy efficiency in manufacturing and transportation.
- Major capital investments to reduce energy costs and GHG emissions.

## CARBON NEUTRALITY PATHWAY

To be the most useful for the intended end users, the organizational Carbon Neutrality Management Plan results in a Carbon Neutrality Pathway for the organization that maintains carbon neutrality and has been forecasted until 2030. This commitment to carbon neutrality is expected to continue beyond 2030 due to the organization's long-term focus on increasing forest growth above the rate of harvest.

The demand for forest products from responsibly managed forests continues to grow with population. Major capital investments will slow the rate of absolute increases in fossil fuel emissions associated with manufacturing and distribution, however absolute emissions are expected to continue to increase with business growth. Therefore, both absolute and intensity-based tracking are used to ensure that energy use efficiency and productivity gains are captured on an emissions per tonne basis.

The Carbon Neutrality Pathway is based on maintaining organizational carbon neutrality and reducing GHG emissions on an emissions intensity basis (Kg CO<sub>2</sub>e per tonne of output). The forecasted emissions intensity is compared to an internationally recognized pathway of less than 2°C warming following the IPCC AR6 WG3 methodology. This pathway requires a 2.5% emissions reduction per year.

For more information on the organizational Carbon Neutrality Management Plan and the Carbon Neutrality Pathway, please reference the Full Report.



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