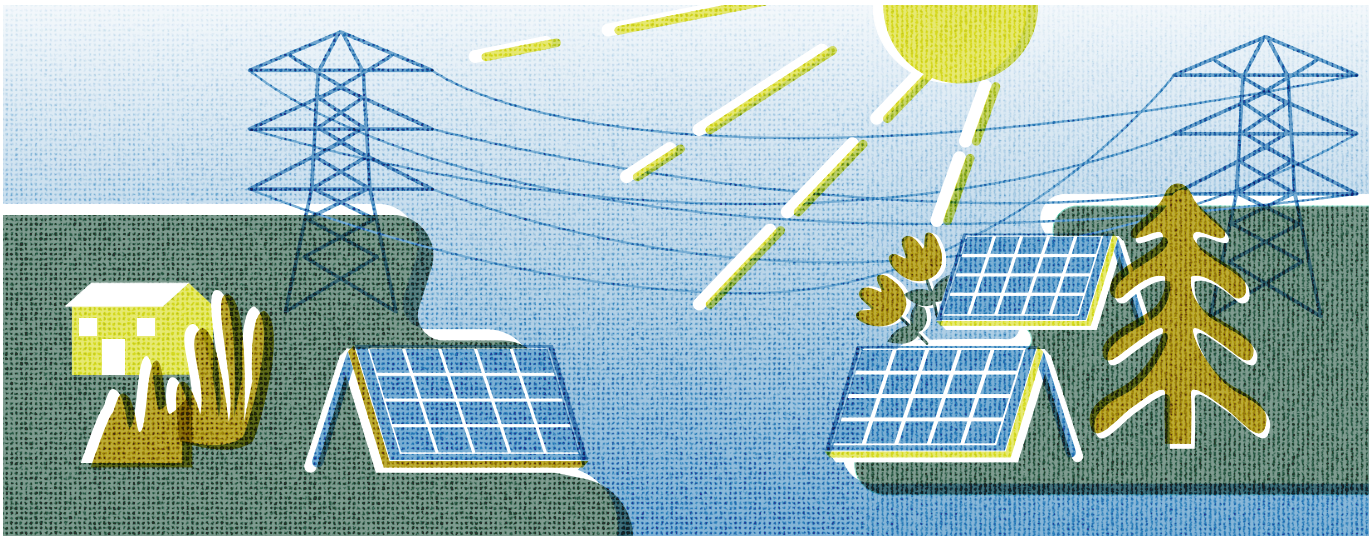

BRIEFING NOTE

ECONOMIC IMPACT OF A NATIONAL EAST-WEST ELECTRICITY TRANSMISSION SYSTEM

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This study builds on the David Suzuki Foundation's 2022 report: "Shifting Power: Zero-Emissions Electricity Across Canada by 2035," which provides a pathway to secure a fast transition to an efficient, zero-emissions electricity system by investing $400 billion (2018 dollars) by 2035 to expand electricity generation, storage, transmission and operation and maintenance spending in their "Zero Plus" scenario.

METHODOLOGY

This report focuses on the recommendation to spend $24 billion (2018 dollars), restated to $30.6 billion in 2025 dollars, to enhance Canada's east-west electricity transmission system by 2035. An input-output model is used to estimate the economic impact of the capital spending on the transmission system. The model was constructed using Statistics Canada's most recent (2022) supply-use tables.

This capital spending is assumed to occur over the next decade with 89.5 per cent going to transmission systems engineering construction and 10 per cent to power transformers required to enable long-distance power transport, minimize energy loss and stabilize voltage. The remaining 0.5 per cent is spent on software systems to manage the power network performing load flow analysis, protection coordination, outage management, etc.

Two scenarios are presented to examine the benefits of using domestic iron, steel and aluminum products to build the east-west electricity transmission system with key iron, steel and aluminum commodities import shares set to zero for one scenario versus their current (2022 data) average value.

RESULTS

Note: the results represent the impact of the capital spending over the full duration of construction project and are not annual impacts. Similarly, employment impacts are reported as years of work generated, which is not equivalent to new jobs.

- A dollar of capital spending adds up to $1.07 and at least $1.01 to the economy.
- Direct impacts account for a little under half the total impact, with indirect impacts just over a quarter and induced impacts just under a quarter of the total.
- $1 million of capital spending adds at least six years of work to the economy.
- Imports rise $0.41 for each dollar of capital spending using current import shares, but this can fall to $0.35 if domestic iron, steel and aluminum products are used.

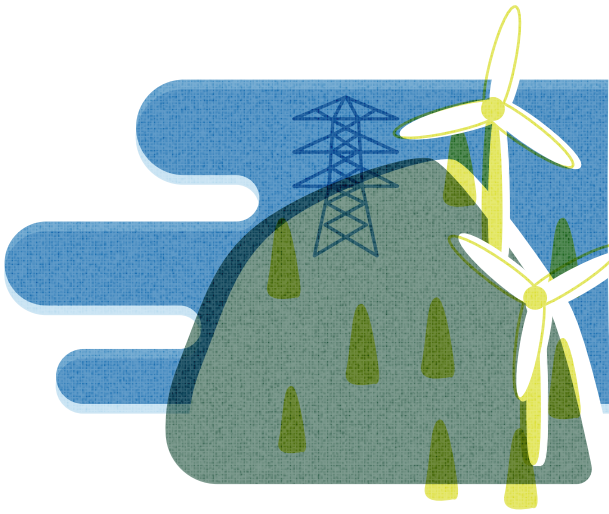
National East-West Electricity Transmission System Construction: Summary Impacts

	DOMESTIC STEEL & ALUMINUM				IMPORTED STEEL & ALUMINUM			
	Total	Direct	Indirect	Induced	Total	Direct	Indirect	Induced
Millions of 2025 Dollars (unless otherwise specified)								
Gross Output (Sales & Resales)	66,503	30,588	20,762	15,153	62,241	30,588	17,260	14,393
Gross Domestic Product	32,752	15,498	9,233	8,021	31,021	15,498	7,904	7,619
Labour Income	19,909	8,926	5,677	5,306	18,910	8,926	4,944	5,040
Imports	10,597	643	7,804	2,149	12,662	643	9,977	2,042
Years of Work (000's)	194.8	65.0	63.5	66.3	183.1	65.0	55.1	63.0
Economic Multipliers (per $ of spending unless otherwise specified)								
Gross Output (Sales & Resales)	2.17	1.00	0.68	0.50	2.03	1.00	0.56	0.47
Gross Domestic Product	1.07	0.51	0.30	0.26	1.01	0.51	0.26	0.25
Labour Income	0.65	0.29	0.19	0.17	0.62	0.29	0.16	0.16
Imports	0.35	0.02	0.26	0.07	0.41	0.02	0.33	0.07
Years of Work (jobs per $ million)	6.4	2.1	2.1	2.2	6.0	2.1	1.8	2.1

Note: GDP impacts and multipliers are significantly lower than gross output impacts and multipliers because they net out resale activity between industries and to households and represent the impact to the economy rather than the impact to all businesses.

Note: Employment multipliers depend on prevailing wages and productivity and tend to fall as these rise over time.

Note: Gross output, value added, labour income and import multipliers can shift based on changes in the structure of the economy over time.



National East-West Electricity Transmission System Construction: Iron, Steel & Aluminum Impacts								
	DOMESTIC STEEL & ALUMINUM				IMPORTED STEEL & ALUMINUM			
	Total	Direct	Indirect	Induced	Total	Direct	Indirect	Induced
Value Added (millions of 2025 dollars)								
Manufacturing [31-33]	5,586	1,044	3,701	842	4,705	1,044	2,862	800
Primary metal manufacturing [331]	599	0	584	15	272	0	258	14
Fabricated metal product manufacturing [332]	2,074	0	2,029	45	1,639	0	1,596	43
Years of Work (number)								
Manufacturing [31-33]	52,144	9,031	36,664	6,450	43,895	9,031	28,738	6,126
Primary metal manufacturing [331]	3,118	0	3,018	101	1,302	0	1,207	96
Fabricated metal product manufacturing [332]	26,346	0	26,140	205	20,758	0	20,563	195

INDUSTRY SECTOR IMPACTS

- Direct impacts are concentrated in the construction sector, with a lesser contribution from the manufacturing sector.
- Indirect impacts are led by the manufacturing and business services sectors followed by finance, insurance and real estate.
- Induced impacts, while led by the finance, insurance and real estate sectors (primarily housing costs), are distributed across industry sectors.

IRON, STEEL AND ALUMINUM SECTOR IMPACTS

- Electricity grid enhancements boost fabricated metal years worked over the construction period by up to 26,300 and primary metal jobs by 3,100 if domestic steel and aluminum are used.
- Replacing imported iron, steel and aluminum with domestically produced products boosts years of work by 2,800 over the construction period to nearly 29,500 years of work for primary and fabricated metal manufacturing workers.

CONCLUSIONS AND OBSERVATIONS

Canada needs a robust, reliable electricity transmission system to power our future economy. Each dollar of capital spending adds over a dollar to Canada's GDP and using domestic iron, steel and aluminum products would boost jobs and output. The benefits in this report represent solely the construction impact and do not include the long-term benefits to the economy from a national east-west electricity transmission system.