Supplementary Table S1. Renewable energy ownership categories across Canada between 2010 and 2021 [31,33,88].

Province	Biomass					Total	Hyrdo					Total	Solar					Total	Wind					Total
	C	J	M	Pr	Pv		C	J	M	Pr	Pv		C	J	M	Pr	Pv		C	J	M	Pr	Pv	
AB				6		**6**						**0**	5		1	13		**19**			1	16		**17**
BC		2	1	19	1	**23**	2	7		41		**50**		1	1	1		**3**		3		10		**13**
MB						**0**	1					**1**				1		**1**				2		**2**
NB				3		**3**						**0**						**0**		1		6		**7**
NL				1		**1**						**0**						**0**				1		**1**
NT						**0**					2	**2**		1		1		**2**				1		**1**
NS				2		**2**						**0**		1		1		**2**	4	4	2	62		**72**
NU						**0**						**0**			1	1		**2**						**0**
ON	2	3	3	13	1	**22**	2	5	2	14	3	**26**		1		173		**174**	1	6		86		**93**
PE						**0**						**0**				1		**1**				1	1	**2**
QC				8		**8**		4	3	1	6	**14**				4		**4**		13	1	28		**42**
SK			2			**2**						**0**		1		5		**6**	1			6		**7**
YU						**0**				2		**2**				2		**2**						**0**
	2	5	6	52	2	**67**	5	16	5	58	11	**95**	5	5	3	203	0	**216**	6	27	4	219	1	**257**

AB: Alberta; BC: British Columbia; MB: Manitoba; NB: New Brunswick; NL: Newfoundland and Labrador; NT: Northwest Territories; NS: Nova Scotia; NU: Nunavut; ON: Ontario; PE: Prince Edward Island; QC: Quebec; SK: Saskatchewan; YU: Yukon

C: Community; J: Joint; M: Municipal; Pr: Private; Pv: Provincial

Supplementary Table S2. Provincial clean energy target in Canada [14].

Province	Renewable energy target	GHG reduction target	Other clean energy targets	Remarks
Alberta	30% electricity by 2030	45% methane reduction by 2025		To phase out coal by 2030
British Columbia	Already 98%	80% reduction target by 2050	100% zero-emission from vehicles by 2040; zero building energy efficiency by 2032; 20% low-carbon fuel by 2030	
Manitoba	Already 99%	1Mt emissions reduction for 2018 – 2022	1.5% electricity & 0.75% gas energy efficiency annual	
New Brunswick	40% met in 2020; 2,500 electric vehicles on the road by 2020; 20,000 electric vehicles by 2030	15Mt reduction target met by 2020; 11Mt by 2030; and 5Mt by 2050	Electric Vehicle Sales Target; 429 electric vehicles on the road by 2019	
Newfoundland and Labrador	Already 94%	Reduction 75 - 85% below 2001 levels by 2050, 40% by 2030 & 60% by 2040		
Northwest Territories	Space heating to 40% by 2030	Emission reduction to 2005 levels by 2030; electricity generation emission in diesel communities 25% by 2030	Building energy efficiency of 15% over 2015 levels by 2030	
Nova Scotia	40% by 2022; 55% by 2030 in the electricity sector	55% below 2005 levels by 2030; net-zero emissions by 2050	Indigenous efficiency upgrades to 80% by 2030	
Nunavut		None reduction target	Building energy efficiency by 20%	Yet to set a territory-wide goal
Ontario	Already 96% (plus nuclear)	30% below 2005 levels by 2030	Fuel suppliers blend (ethanol) gasoline 11% in 2025; 13% in 2028; & 15% in 2030	
Prince Edward Island	Already 99%	30% below 2005 levels by 2030; net-zero emissions by 2040	Energy efficiency of 2% electricity and fuel oil sales	
Quebec	Increase renewable energy output by 25% and bioenergy by 50% by 2030; thermal coal & petroleum reduction by 40% by 2030	Emissions reduction by 37.5% below 1990 levels by 2030; 80 - 90% below 1990 levels by 2050	Energy efficiency by 15% by 2030	
Saskatchewan	50% electricity generation by 2030	Electricity generation by 40% below 2005 levels by 2030; Methane emissions reduction of 4.5 million CO2e by 2025		
Yukon	97% of electricity generation by 2030; 50% of heating demand by 2030; & 30% by 2030 in fossil fuel reduction target	Emissions reduction of 30% below 2010 levels by 2030 & net-zero emissions by 2050		