POWERING CORPORATE CHOICE

A policy review for enabling corporate renewables procurement in Canada

BUSINESS RENEWABLES CENTRE CANADA

Contents

Executive Summary

Powering Corporate Choice builds on the work of the Business Renewables Centre - Canada to help corporations and public institutions procure renewable energy. Through a comprehensive review of Canadian provincial energy markets, it examines the considerations essential for designing effective corporate procurement programs. This resource equips provincial policymakers and regulators with the framework and tools needed to develop corporate procurement mechanisms within their jurisdictions.

CORPORATE RENEWABLE ENERGY PROCUREMENT DRIVES VALUE

Corporate renewable energy procurement has become a major driver of global clean energy deployment, enabling tens of billions of dollars in annual investment. Renewable energy procurement allows corporations to improve their competitiveness by complying with regulations and in securing low-cost capital.

BENEFITS FOR HOSTS: JURISDICTIONS ARE OPENING THEIR MARKETS TO CORPORATE PROCUREMENT

Jurisdictions that accommodate direct renewable energy procurement attract new capital, jobs, and commercial activity. Over the last decade, programs enabling corporate renewable energy procurement have proliferated in the United States and around the world, with corporate energy customers announcing hundreds of deals for carbon-free energy.

CORPORATE RENEWABLES PROCUREMENT IN CANADA TO-DATE

Although Canada has world-class renewable energy resources and strong corporate demand, few provinces have taken intentional steps to unlock this opportunity. From 2019 to 2025, 3.3 GW of wind and solar energy capacity has been contracted in Alberta, representing more than 90% of the country's 3.6 GW of deals. Nova Scotia's successful Green Choice Program and Saskatchewan's small-scale pilots also show the potential for growth when policy makes room for it.

PROVINCIAL ELECTRICITY SYSTEM BARRIERS TO CORPORATE PROCUREMENT

In most provinces, vertically integrated utility structures block corporate procurement from emerging naturally — even where the underlying economics strongly favour new renewable energy and investors and job creators want access to corporate procurement opportunities to substantiate climate action claims and to hedge against rising carbon risk.

Although Canada has world-class renewable energy resources and strong corporate demand, few provinces have taken intentional steps to unlock this opportunity.

POLICY AND PROGRAM SOLUTIONS EXIST TO RESOLVE BARRIERS

But because these conditions are policy constructs rather than intrinsic to the provinces' electricity systems, policy and program solutions can make these systems receptive to hosting corporate renewable energy procurement. These corporate renewable procurement programs come in a wide variety of shapes and sizes.

KEY DESIGN ELEMENTS OF CORPORATE RENEWABLES PROCUREMENT PROGRAMS

Many specific design elements go into successful program design, but there is a small set of essential parameters:

- **Procurement process** – how to select the new generation projects that will supply renewable energy to buyers;
- **Program engagement and marketing** – how to factor input from generation developers and prospective developers, as well as the broader stakeholder community, into program design and implementation;
- **Rate setting and cost allocation** – how to assign costs and credits through tariffs or rates to the generators and participating buyers, factoring in fairness for the broader ratebase; and
- **Program and rate review** – how are programs independently and transparently reviewed for fairness to all customers.

MODELS TO REVIEW WHEN CHOOSING AND DESIGNING A CORPORATE RENEWABLES PROCUREMENT PROGRAM

The many design elements offer near-infinite combinations – fortunately, jurisdictions looking to host corporate procurement can look to dozens of examples in the United States (typically called "green tariffs") and elsewhere as models. Summaries of programs already exist as a good initial resource, and this report identifies some of the most interesting recent U.S. programs to consider, as well as reviews in some detail, for the first time in one place, the relevant programs implemented or under development in Nova Scotia, Saskatchewan, and Ontario.

BEST DESIGN PRINCIPLES FOR CORPORATE RENEWABLES PROCUREMENT PROGRAMS

Reviewing these programs and their degrees of success distills a set of high-level principles applied as best practices for successful corporate renewables procurement programs:

- **Identifying and addressing key system barriers** – every program has to start with identifying the specific barrier in the grid regulatory system that prevents the utility from running an attractive program or buyers from effectively entering purchase agreements;
- **Stakeholder engagement, transparency and marketing** – while open engagement and incorporation of stakeholder perspectives in program design may not be sufficient to guarantee program success, it is necessary, as the most successful programs have all undertaken considerable open engagement for design and also marketed the program to prospective buyers;
- **Prioritizing design structures that facilitate what buyers want** – choose design approaches that will meet buyers' needs, in terms of, for example, facilitating aggregation for smaller buyers or flexibility for larger buyers;
- **Flexibility around eligibility of both generators and buyers** – unnecessary restrictions on generator eligibility only raises program costs and reduces benefits, and restrictions on buyers directly limit program uptake;
- **Setting fair, reasonable, and predictable rates and charges** – buyers seeking corporate procurement opportunities are not asking for special treatment or to avoid system costs, they are seeking to secure their renewable energy needs and mitigate their carbon cost risk by incurring the fair costs of buying new, low-cost

renewable energy (typically offering a small discount, thanks to the low cost of renewable energy), and for these costs to be transparent and predictable upfront;

- **Regulatory review** – transparent and independent regulatory review ensures win-win programs that benefit participants and the broader ratebase, improving program social licence and sustainability; and
- **Social objectives** – there is a strengthening norm in Canada for renewable energy procurements to include strong (even majority) Indigenous equity participation in the new generation projects.

OPPORTUNITIES ACROSS ALL CANADIAN PROVINCES TO PURSUE THE BENEFITS OF CORPORATE RENEWABLES PROCUREMENT

While provinces can improve their receptiveness to corporate renewables procurement through these programs, their readiness to host corporate procurement varies across four key parameters: grid emissions, experience with renewable energy, load size and load characteristics, and electricity price levels and volatility. But given the strengthening demand for low cost renewable energy, even provinces that are weak on ripeness have prospects to harness the opportunities of these markets, though each type of electricity system has considerations for implementing appropriate, attractive, and ultimately successful programs:

- **British Columbia, Manitoba, Quebec:** Hydro-dominated grids with large recent procurements for renewable energy; opportunity to leverage corporate-backed financing to accelerate renewable energy development through sleeve-deal programs, without drawing on limited public or utility credit.
- **Newfoundland & Labrador:** Small hydro-dominated grid; new renewable energy procurement signals openness to building new capacity to support emerging industrial loads.
- **New Brunswick and Prince Edward Island:** Material emissions on New Brunswick's grid, which largely powers PEI as well; a subscription program could enable smaller organizations to decarbonize their electricity use and a program that coordinates the two provinces could capture a larger pool of consumers.
- **Nova Scotia:** A leading example for regulated markets; further rounds of the Green Choice Program can build on strong demand and early success.
- **Saskatchewan:** High emissions and strong demand make it very "ripe"; scaling beyond the limited pilot programs, while improving design through comprehensive and transparent stakeholder engagement, are essential to meet buyer interest.
- **Ontario:** Large pent-up demand and high grid costs; the new corporate PPA mechanism is promising but should be expanded to more customers and technology categories like energy storage.
- **Alberta:** Historically open by default but now in transition; clarity on market reforms will determine whether corporate procurement rebounds or whether a formal program is needed to overcome new barriers introduced through yet-to-be-settled electricity system reforms.

Canada's climate competitiveness will benefit from further provincial efforts to accommodate corporate demand for renewable energy. The federal government has a role to play in fostering innovations to enable corporate renewable procurement, as it has already done as a buyer through its Greening Government Initiative. Sharing the lessons from this experience, taking additional steps with new technologies such as energy storage, and convening provinces to inform the next steps in corporate renewables procurement would advance Canada's attractiveness to investment.

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Introduction

Corporate procurement of renewable energy is a very big business. Globally, procurement of renewable energy by business represents tens of billions of dollars of annual commercial transactions, cumulatively enabling hundreds of billions of dollars of capital investment in clean energy. These markets enhance the economic competitiveness of jurisdictions by attracting job-creating operations in dozens of commercial and industrial sectors.

With abundant opportunities to procure low-cost, carbon-competitive power, jurisdictions that enable access have seen existing industrial facilities growing, while new operations have set up shop. The opportunity for private-sector renewable energy procurement is helping to keep and attract investments, but only in the jurisdictions that accommodate and successfully enable these deals.

While programs and policies to enable renewable energy procurement have proliferated in the United States and globally, only limited progress has been made in Canada. The market for corporate procurement flourished in Alberta, where the electricity regulatory system enabled these commercial deals by default. Beyond Alberta, though, only Nova Scotia has made significant progress, with smaller steps taken in Saskatchewan and Ontario. No other province has taken strides to crack the code on enabling new investment through corporate renewables procurement.

This report endeavours to support consideration for policies and programs to enable corporate renewable energy procurement across Canada by:

- Reviewing the existing opportunities for procurement in Canada and the foundations of electricity systems and their regulatory schemes;
- Scanning policies and programs to enable procurement in other jurisdictions, particularly U.S. states, to identify applicable successful programs and their key attributes; and
- Tailoring recommendations for Canadian provinces to enable procurement.

In this way, we hope that this report will help build awareness of corporate renewables procurement opportunities among provincial governments and system operators.

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Background

The rapid acceleration of corporate procurement underlines the clear business case for market-based renewable energy development. Jurisdictions with the right policies and programs to host this procurement have seen explosive uptake, with the accompanying capital investment numbers for evidence. Businesses want renewable energy. But why? And how do they acquire and claim that renewable energy for their own use? These foundational concepts are crucial for thinking through what each province needs to begin hosting the investment and economic competitiveness that come with corporate renewable energy programs.

Why do organizations want to buy renewable energy?

In short, businesses and institutions procure renewable energy because it offers one of the most cost-competitive options to achieve environmental, social and governance (ESG) targets and to comply with greenhouse gas emissions regulations or pricing schemes. At the highest level, it's as simple as that.

Digging a bit deeper, businesses are motivated to seek credible greenhouse gas emissions reductions to achieve two broad categories of outcomes or drivers:

- **"Voluntary" targets,** typically made under sustainability or ESG strategies; and
- **"Compliance" obligations,** which typically refer to government-mandated climate regulations, which can come in various forms.

These labels provide a simple, helpful rubric for understanding and discussing the drivers of corporate renewable energy procurement. However, the simplified dichotomy masks some overlap and complexity in the real world – for example:

- **Is voluntary really voluntary?** Expectations from investors and creditors regarding ESG strategies no longer feel "voluntary" for corporations seeking financing from capital markets or for organizations responding to stakeholder demands. Moreover, ESG targets are scrutinized by various national and international watchdogs and are subject to prevailing accounting standards and disclosure requirements for emissions profiles (e.g., GHG Protocol, IFRS). Stretching the meaning of "voluntary" even further, some governments and security regulators have sustainable investment guidelines and even mandatory climate disclosures.
- **Is renewable energy procurement for compliance obligations really "mandatory"?** While some compliance obligations (such as renewable portfolio standards) may require renewable energy procurement, others (such as carbon pricing schemes) merely allow it among other compliance flexibilities. Furthermore, market-based carbon pricing does not "require" renewable energy procurement at all – it merely incentivizes non-emitting energy purchasing through regulatory carbon charges on emitting energy sources.
- **Are voluntary targets and climate obligations mutually exclusive?** No – organizations with regulatory "compliance" obligations often also have "voluntary" ESG targets, both of which can be advanced through renewable energy procurements.

Still, this simplified rubric of two categories of corporate drivers remains in everyday use and helps explain the market for corporate renewable energy procurement and the deals and instruments that make it up. **Table 1. Key elements of voluntary and compliance drivers.** summarizes the key elements of each type of driver and how these broad, useful – though imperfect – categories differ and compare.

Driver	"Voluntary" targets	"Compliance" obligations
Source of driver	ESG targets	Climate regulations
Required by	Stakeholders, capital markets, creditors	Governments, political actions, regulators
Types of policies	100% renewable targets, net-zero targets	Carbon tax, cap and trade, intensity limits, renewable portfolio standards
Examples	RE100, Science Based Targets Initiative, Corporate Net-Zero Standard	Federal output-based production standard (OBPS), Alberta's Technology Innovation and Emissions Reduction (TIER) System
Environmental attributes used	RECs for renewable targets and displacing emitting grid use	RECs for renewable portfolio standards (RPSs)
	Offsets for Scope 2 emissions	Offsets against emissions to avoid taxes, comply with caps or meet emissions intensity limits

Table 1.
Key elements of voluntary and compliance drivers.

Scope 2 emissions are the indirect greenhouse gas emissions from an organization's purchase electricity, steam, heat or cooling.

Both drivers cut to the core of business competitiveness. Clearly, under public regulations, non-compliance can come with steep penalties and carbon pricing can be more expensive than mitigation options to reduce carbon price exposure. But voluntary ESG targets are not simply the product of altruism and public-mindedness: demonstrating credible strategies to reduce emissions and carbon exposure is now a key component of customer attraction and retention and perhaps even more important when competing for the lowest-cost capital through either debt financing, institutional investment or equity markets.

Organizations have limited options for complying with either ESG targets or climate regulations. They might reduce their own onsite or supply chain emissions directly or produce their own energy. In many cases, though, economic on-site "low-hanging fruit" is limited and only gets the organization so far. For most, renewable energy procurement quickly becomes the next most attractive option for deeply reducing their carbon exposure. As such, organizations are increasingly seeking credible opportunities for climate action through renewable energy, using either RECs or offsets.

With growing power demand from emerging technologies, demand for clean power will only strengthen. For example, power-hungry technologies like data centres are serving technology sector players who are especially attuned to ESG climate targets. Moreover, technologies whose very purpose is to address GHGs, such as direct air capture (DAC), are held to special scrutiny regarding their lifecycle GHG impacts, so they must be paired with non-emitting power. In fact, government programs to recognize their activities as GHG offsets may even require that they be powered with new renewable power. So, beyond typical RECs and offset use, the use case for renewable energy environmental attributes is slated to become even broader and stronger.

How can organizations acquire renewable energy and claim renewable energy use and emissions offsets?

Environmental attributes – principally renewable energy certificates (RECs) and emissions offsets – are the key to buying utility-scale renewable energy and claiming these purchases to cover electricity or emissions needs.

When an organization buys renewable energy from generating facilities that are offsite from their load (their operations that use electricity), they cannot claim to use the generators' electric energy physically. The generators' electricity is fed into a grid, where electrons are fungible across the entire interconnected electric system. Power flows naturally from generation centres to load centres and the energy from any one generator is indiscernible from the rest over the wires that transmit the electricity.

What allows buyers to claim the use of the renewable energy from specific generators is accounting systems that enable the creation of intangible commodities called environmental hour (MWh) of electric energy a renewable energy facility generates, it can also generate a megawatt-hour of environmental attributes.

In general, renewable energy environmental attributes include:

1. **RECs** are certificates serialized through REC tracking systems associated principally with each grid reliability council in North America and similar grid coordinating agencies internationally. They represent a MWh of renewable energy, with each MWh serialized so it cannot be double-counted and tracked through to retirement by an end-user who uses the REC to claim renewable energy use. In this way, the "renewable aspect" of a renewably generated MWh of electric energy can be claimed by the buyer, with certainty that no one else can make the same claim. Green-e and ECOLOGO are two independent bodies that certify RECs for certain key attributes.

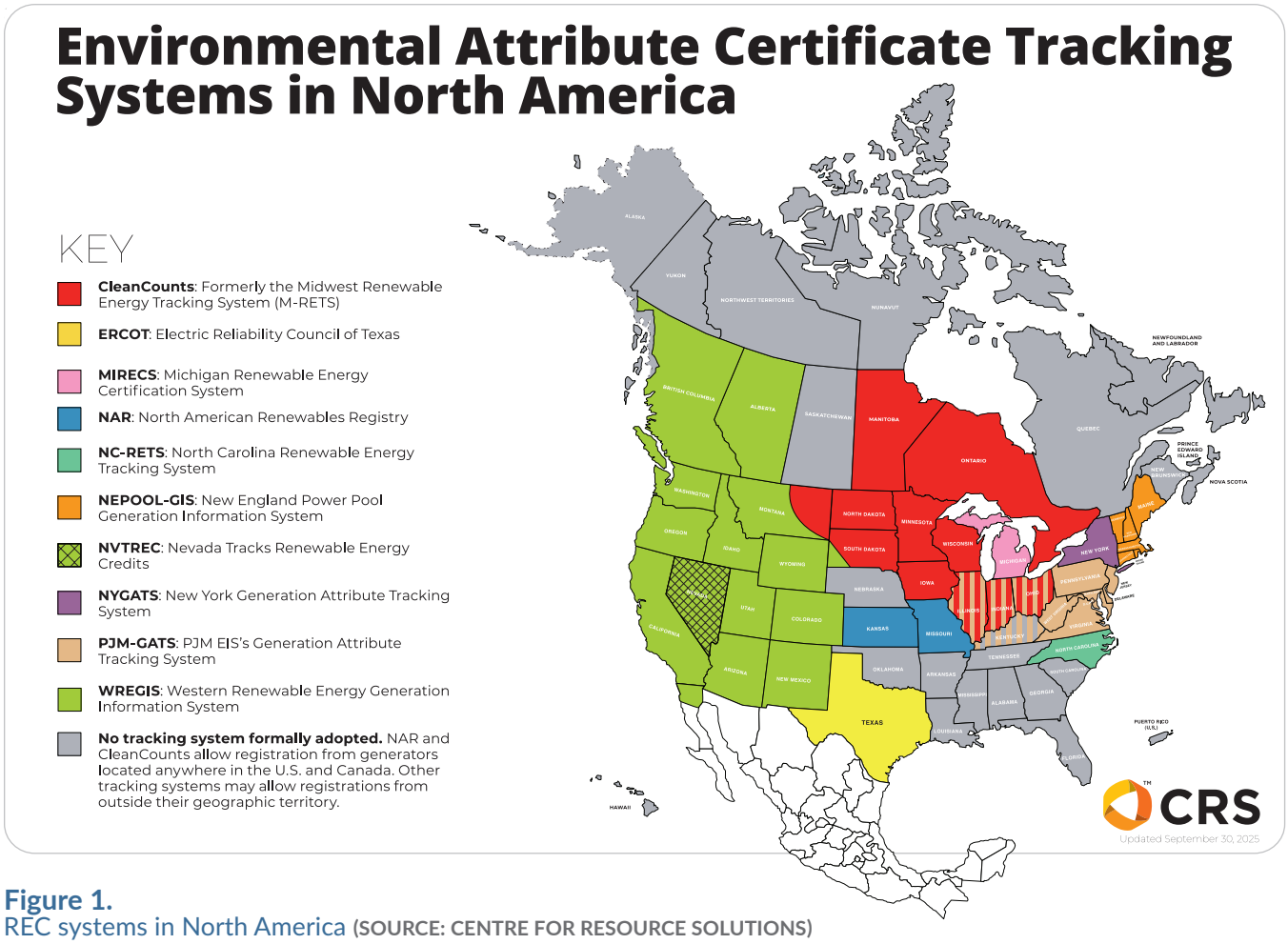

Figure 1.
REC systems in North America (SOURCE: CENTRE FOR RESOURCE SOLUTIONS)

2. **Offsets** are instruments generated through an established protocol to credibly estimate the greenhouse gas emissions that are avoided through an activity that is beyond business-as-usual. The protocol is established by a public regulating body or a civil society standards association. For non-emitting electric energy, the protocol is based on the avoided emissions from displacing emitting electricity generation. A factor reflecting these estimated avoided emissions is used to convert the MWh of non-emitting energy into a tonne of avoided greenhouse gas emissions, expressed as a tonne of carbon dioxide equivalent (t CO2e).

Table 2 compares these two categories of environmental attributes with respect to certain key parameters.

Class of environmental attribute	Renewable energy certificates (RECs)	Greenhouse gas emissions offsets
Intended to represent	Renewable energy	Avoided emissions
Specific to renewable energy?	Yes, only eligible renewable energy that meets certification standards – however, certificate systems for other "low-emissions" electricity are now emerging	No, offsets can conceivably be generated by any activity that avoids emissions or sequesters carbon beyond business-as-usual activities
Used in	Voluntary: renewable energy use claims, negating grid energy use (and associated Scope 2 emissions)	Voluntary: might be used to offset corporate emissions (Scope 2 or otherwise)
	Compliance: renewable portfolio standards (RPS), common in US states	Compliance: used to meet regulated emissions standards and/or avoid emissions charges
Might be best for buyers who…	Are subject to an RPS, mitigating Scope 2 emissions, or trying to meet targets of renewable energy use	Are subject to GHG emissions regulations or carbon pricing
Unit	Megawatt-hour (MWh) of electric energy	Tonne of carbon dioxide equivalent (CO_2e) greenhouse gas emissions
Method of calculation	Direct: one MWh of REC for each MWh of electric energy	Indirect: requires a t/MWh factor that reflects GHGs avoided by displacing grid energy
Certifying mechanisms and authorities (e.g.)	Green-e, ECOLOGO	TIER

Table 2.
Comparison between renewable energy certificates and greenhouse gas emissions offsets.

Although a MWh of eligible renewable energy could generate either of these instruments, it should not be possible for the same MWh of renewable energy to generate both environmental attributes. If it could, the certification system would lack credibility, because both attributes can substantiate claims about GHG emissions avoidance. A key feature of the REC attribute is its claim to climate action. Commonly, when a buyer retires a REC, it applies the REC against the default grid electricity that it is physically consuming, negating the grid electricity emissions it would otherwise claim in Scope 2. The user cannot credibly claim the REC against Scope 2 emissions if the GHG offset has been peeled from the MWh and retired separately.

So, although we view these two environmental attributes as distinct instruments in terms of the claims for which they are used and the targets against which they are applied, they are inescapably interconnected. They overlap in their purpose of substantiating climate mitigation efforts and claims, whether under voluntary targets or compliance obligations, as shown in **Tables 1 and 2**. While they are mutually exclusive for any one MWh, these markets are interconnected – the supply/demand dynamics of the offset market impact the REC market and vice-versa. The key is that buyers have a choice in using the instrument that best suits their needs to meet ESG targets and/or government climate regulations.

Why do jurisdictions want to accommodate this market?

By enabling this market to flourish within their jurisdiction, policymakers can capture the economic benefits that these renewable energy projects offer. From January 2019 to November 2025, renewable energy projects backed by corporate procurement have created 7,000 jobs, $7.5 billion in capital investment and enough electricity to power 1.9 million homes. Across Alberta alone, wind and solar generation projects paid host municipalities $70 million in tax revenue in 2025.

Much larger, but more challenging to quantify, is the investment attractiveness – beyond renewable energy investment – of jurisdictions that accommodate this competitiveness enablement; in other words, more investment and jobs come to places that allow investors and job creators to benefit from the competitiveness advantages of corporate renewables procurement. Through policy adjustments to unlock these markets, jurisdictions can take advantage of business interest to procure renewable energy and bring significant benefits to their communities.

Across Alberta alone, wind and solar generation projects paid host municipalities $70 million in tax revenue in 2025.

What evidence is there that this market exists?

A short list of U.S. states was an early leader in harnessing corporate demand and credit to attract renewable energy investment capital. As corporate ESG targets became ubiquitous among major investors and employers, states and utilities responded to their need for access to new renewable energy, implementing programs and policies to enable corporate renewable energy procurement. This has been replicated in a growing number of countries worldwide. The uptake has varied due to the appeal and design of different programs, but in jurisdictions that have gotten it right, uptake has been rapid and voluminous.

United States

Since 2014, 235 different energy customers in the United States have announced over 100 GW of deals for carbon-free energy. The boom in corporate renewable energy procurement began in Texas, where the open, competitive electricity market enabled this private-sector innovation in commercial transactions and financing. From the early years through 2017, annual deal volume ranged from 1 to 4 GW.

By the mid-2010s, green tariff programs began to proliferate in response to demands from major industrial and commercial utility customers demanding the opportunity to purchase low-cost renewable energy. By 2018, the list had grown to 22 programs in 16 states, and by 2020, it had reached nearly two dozen states. More states and investor-owned utilities entered the spread of green tariff programs, as the most active corporate buyers began to factor their availability into their siting decisions for new operations.

The proliferation of green tariffs, alongside ongoing growth in the strong Texas market, led to rapid expansion of corporate renewable energy procurement. In-year deal volume tripled to 9.5 GW in two years from 2017-2019, then doubled again to 21.7 GW in 2024. For comparison, the U.S. deal volume (capacity of new contract announcements) in 2024 alone nearly matches the total installed capacity of all generation types in Alberta's interconnected electricity system.

Global

The rapid success of corporate renewable energy procurement in the United States drew global attention, as the commercial innovation of private-sector contracts for renewables spread in deregulated energy markets. In contrast, jurisdictions with regulated markets began to deploy green tariffs. Growth through the late 2010s and early 2020s has made 2024 not only a big year for renewable energy procurement for our neighbors to the south, but also a significant year for many regions around the world.

Europe

Europe reached 15.2 GW of contracted capacity across 316 deals in 2024. While this represented an 11% decrease in capacity compared to 2023, the total number of deals rose by 14%. It is interesting to note that 2024 also saw the highest number of inaugural deals, companies procuring renewable energy for the first time. In total, 152 companies signed their first-ever corporate procurement agreements, representing 5.2 GW of capacity.

Australia

In 2024, Australia set a new record for the third consecutive year for the highest volume of corporate renewable procurement. Approximately 3.4 GW was contracted last year, double the volume seen in 2023. Looking ahead, 2025 has already recorded more than 1,500 GWh of corporate offtake across the country.

Asia

Although year-to-date figures are not available, Asia's corporate renewable energy procurement market in 2024 showcased a mix of large-scale utility deals and growing corporate procurement activity:

- Japan saw a few notable deals such as EDPR's 44 MW Fukushima project and Honda's 63 MW wind project.
- Singapore saw over 330 MWp of solar power signed to provide renewable energy to major corporate buyers like Microsoft and Equinix.
- The largest utility distributor in the Philippines signed a 850 MW, 20-year solar contract paired with 4.5 GWh of battery storage. The country has also awarded around 5 GW of solar and wind power purchase agreements (PPAs) in recent years, signaling the strong demand for renewable energy within the country.
- To achieve their commitment of installing 500 GW of non-fossil fuel capacity by 2030, India has driven a lot of the corporate procurement in Asia. The country added 1.9 GW of corporate renewable capacity in the second quarter of 2024 alone, bringing its total deal capacity to approximately 39.7 GW. There are also ongoing discussions about adding an additional 40 GW of renewable capacity in the near future.
- Other regions like Thailand are pursuing their renewable energy commitments by introducing new schemes that will enable corporate renewables procurement in the coming years. Vietnam and Malaysia are also taking steps to implement similar frameworks, signaling broader corporate access to renewable energy across the region in the coming years.

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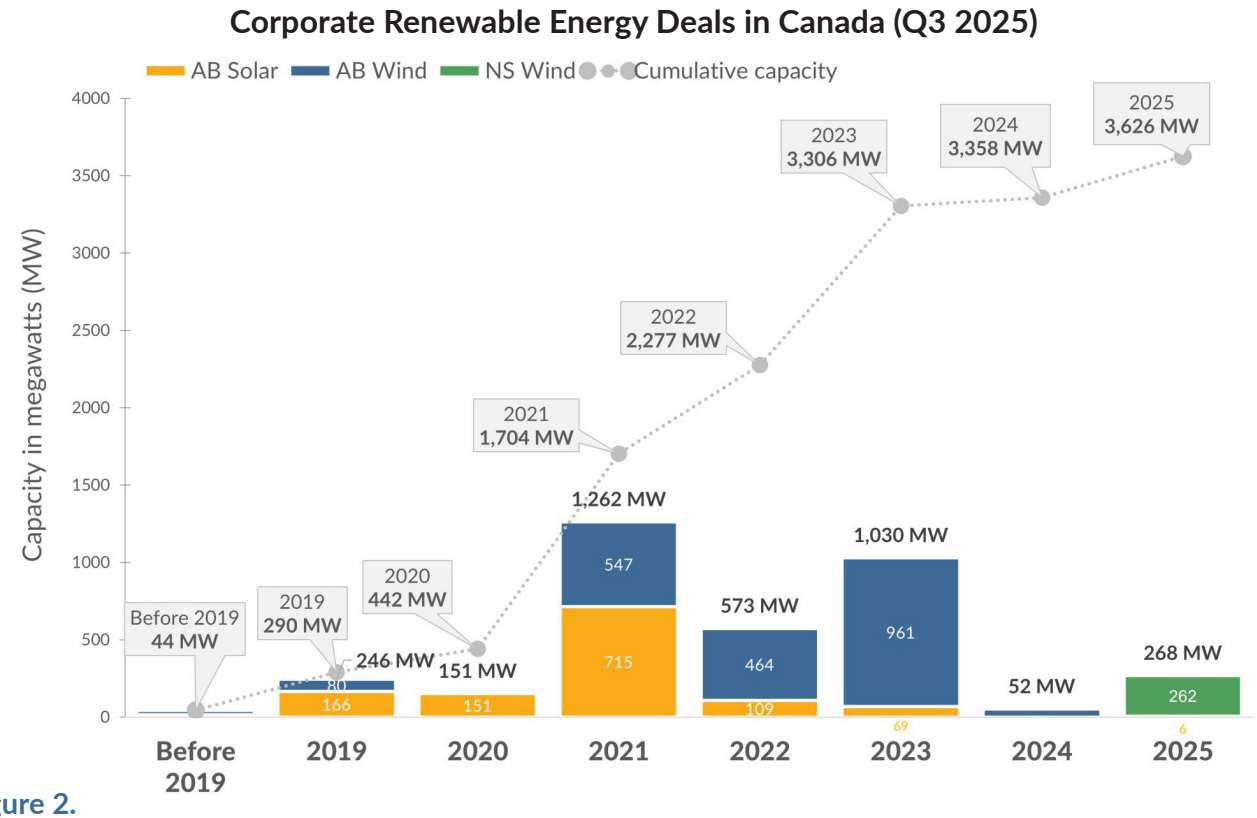

Figure 2.
BRC-Canada's Deal Tracker, which shows publicly disclosed corporate procurement of renewable energy in Canada.

Canada

Although only available in certain jurisdictions, corporate renewables procurement has blossomed in Canada. BRC-Canada's Deal Tracker, which logs publicly disclosed corporate renewable energy purchases, has tracked over 40 deals totalling more than 3,626 MW of renewable energy capacity as of September 2025.

Alberta – with its liberalized, open, competitive electricity market – has been the centre of the market, accounting for 90 per cent of purchased capacity. However, regulatory changes that enabled a successful green tariff allowed Nova Scotia to burst onto the scene in 2025, having announced the results of a fully subscribed first round of the Green Choice Program. In Saskatchewan, the first project enabled through the pilot of the Renewable Access Service was announced. **Figure 2** shows a breakdown of the deals by technology and province over the years.

While there are only two provinces on the Deal Tracker, this is not because of a lack of demand in other jurisdictions. As published in our report From Pledge to Power, the top 100 publicly traded Canadian companies have voluntary climate targets that would amount to 7.7 GW of renewable energy demand by 2040, based on their voluntary climate targets. Over 6 GW of this is demand is for power in provinces that aren't yet on the Deal Tracker, including 4,225 MW in Ontario, 819 MW in Quebec and 451 MW in B.C.

Nova Scotia's resounding success with its first Green Choice Program round attests to the pent-up demand for opportunity for corporations and institutions to procure renewable energy outside of Alberta. But barriers remain in all eight other provinces because of their electricity regulatory systems; barriers that dozens of U.S. states, dozens more jurisdictions globally, and Nova Scotia itself have demonstrated can be surmounted. The purpose of this report is to identify and begin assessing opportunities for this expansion across Canadian provinces.[1]

1. The three territories (Yukon, Northwest Territories and Nunavut) are outside the scope of this analysis because their electricity systems differ fundamentally from those in the provinces. Territorial grids are small, largely isolated, and in many cases reliant on off-grid or community-scale generation with unique ownership, regulatory and cost structures. These conditions mean that the corporate renewable procurement models evaluated in this report—designed for larger, interconnected, rate-regulated or market-based provincial systems—are not directly applicable or comparable.

Key Drivers and Barriers to Corporate Renewables Procurement

Where jurisdictions provide corporations with an attractive value proposition, a successful corporate procurement market can thrive

In the right circumstances, purchasing renewable energy can offer some of the most valuable and cost-competitive options for ESG- or regulation-driven emissions reductions. Those circumstances arise when the right conditions are in place for corporate buyers to find valuable renewable energy purchasing opportunities at low cost. These conditions relate to intrinsic attributes of the electricity system and its electricity generation resource mix, which factor into the cost of renewable energy and the value of renewable energy attributes and carbon cost avoidance. Where jurisdictions provide corporations with an attractive value proposition, a successful corporate procurement market can thrive. Unfortunately, even where the key intrinsic attributes are present, the most common electricity system regulatory structures in Canada – cost-of-service regulation of a vertically integrated monopoly utilities – present a barrier to the natural development of corporate renewables procurement markets, requiring policy solutions.

What are the basic conditions for a successful corporate renewables market?

As with any market, a successful corporate renewable energy procurement market requires demand: robust interest from corporations or institutions seeking credible emissions-reduction measures. So, the basic conditions for a successful market are those that enable the procurement of renewable energy that meets buyers' interests.

The primary driver of demand for corporate renewable energy procurement is to gain cost-effective environmental attributes to substantiate corporate climate action. However, additional co-benefits add to an attractive overall value proposition. The features that contribute to the uniquely low cost of renewable energy procurement are:

- Access to low-cost new renewable energy; and
- Secure renewable energy supply at low fixed rates.

The features that add to the value of renewable energy procurement are:

- Measurable, additional climate action;
- Association with tangible, visible, popular clean energy projects; and
- Hedging against rising carbon costs.

Access to low-cost new renewable energy

With decades of global deployment, both wind and solar technologies have matured to highly efficient designs. The resulting low equipment costs and high production rates make these the two lowest-cost new energy sources on a levelized-cost basis. In some instances, they can even be cheaper than the operating costs of emitting thermal generation, especially where carbon is priced. As other non-emitting electricity generation technologies mature and deployment spreads, the same dynamic of improved economics driven by scale and learning-by-doing will emerge.

Deployment of both wind and solar also grew considerably in Canada over the last two decades. As a result, the development sector in Canada is also mature. Regulatory systems have been tested and, in many instances, improved, further lowering the total installed costs. Sector know-how has rendered a cost-effective industry across most provinces in Canada.

This know-how has also mitigated development risks, so buyers know what they're getting when they negotiate with developers. Solar and wind resource and technology performance are well established across much of the best resource regimes. Buyers are not participating in the tough, uncertain work that comes with leading by doing – they are taking advantage of the renewable energy pioneers who have taken this on over two decades. Moreover, in many provinces, multiple developers are pursuing one or more projects at various stages of development, resulting in a competitive environment for renewable energy supply – in some instances, even a buyer's market.

Key condition: Avoid unnecessary fees, costs, or red tape that add development delay and risk, or that limit the potential supply of renewable energy projects by excessively limiting access to land or imposing excessive restrictions on development.

Secure renewable energy supply at low fixed rates

Wind and solar have low, largely fixed operating costs, with cost structures skewed heavily toward upfront capital costs. As such, they have minimal incremental marginal cost for additional energy generation. In other words, once the facility is built, the next MWh of energy is effectively free, with no exposure to fuel price volatility or risk. This means relative certainty on the cost side, barring policy and regulatory risk, from the very beginning of the project. This cost certainty can be passed on to buyers through long-term contracts.

The corollary of renewable energy's skew toward upfront capital cost is that renewable energy generators are price takers: once built, they want to sell as much of their energy as possible, as they cannot earn revenue for dispatching up and down. As such, they have no control over the rate at which they receive revenue when left to real-time market dynamics. This volatile revenue from the real-time market is difficult to secure against for project financing. The solution is a long-term offtaker who agrees to a fixed price they will pay for electric energy generated over a long period of time, sufficient for a return of and on capital costs. Called a power purchase agreement (PPA), this arrangement provides stable, reliable future revenue for the project, making it financeable. As a general rule, renewable energy developers need offtakers to make their projects financeable; they are motivated sellers of long-term energy supply at a fixed rate.

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These agreements allocate risk optimally, minimizing the cost of capital and resulting in very low long-term PPA prices by shifting merchant risk to a buyer who, because of their typical position as power consumers, is better able to absorb it than generators. That's because the set price not only helps generators finance projects with the cheapest cost of capital, making the lowest-cost renewable energy possible. It can also serve as useful risk mitigation for buyers: as grid prices inevitably rise due to rising fuel prices, increased demand from electrification and large tech-driven loads, and supply constraints, locking in a rate for power can help mitigate these long-range cost risks. It can also smooth out medium-range volatility in power prices, resulting from fuel price volatility or temporary supply/demand imbalance.

To be clear, the primary driver for corporate renewable energy procurement is to obtain the environmental attributes (offsets or RECs) at very low cost, necessary to meet key ESG commitments or to comply cost-effectively with climate regulations. But because of the value of renewable energy to the electricity system, which generators and buyers can capture, the all-in cost of environmental attributes through renewable energy procurement can be very low or even a net savings (i.e., negative cost) for buyers – clearly a very attractive prospect. This is typically not guaranteed, but it demonstrates the win-win dynamic in which overall savings are achieved by efficiently allocating risk through commercial transactions.

In some circumstances, the value of renewable energy and the hedge it provides to buyers can be imperfect. This is owed mainly to lack of temporal correlation between the buyers' power needs and the time of production of particularly variable resources, like wind and solar. For this reason, it is worth noting that power price hedging benefits are typically not a primary objective in renewable energy procurement. However, there are instances where generation and load profiles correlate reasonably (e.g., many offices or commercial loads correlate well with solar production), if imperfectly. Moreover, storage technologies have advanced considerably and now offer a viable option as part of a suite or portfolio to firm up variable power and offer a valuable hedge. How storage fits into these commercial agreements is not specifically in scope for this report, but it is beginning to form part of renewable energy offtake agreements in other countries, and it is now even present in Canada.

Key condition: The dynamic described in this subsection underpins the corporate renewable procurement market. For a successful corporate procurement program/market, it is crucial that these conditions are enabled:

- Allow buyers to purchase renewable energy from suppliers under long-term, fixed-rate (or predictable-rate) contracts.
- Avoid regulatory or policy risks that create unpredictable operating cost dynamics, which undermine the long-term cost certainty of renewable energy for developers, financiers, and buyers.
- Allow the inclusion of storage in hybrid projects with renewable energy or virtual hybrids by enabling their inclusion in offtake agreements, to better match renewable energy procured to buyers' load profiles.

When a buyer contracts with a renewable energy developer to purchase the energy long-term, the impact is demonstrable.

Measurable, additional climate action

In some settings, every REC or offset might be created equal. In others, such as public relations, branding, and increasing scrutiny of corporate climate action, that is not the case. When a buyer contracts with a renewable energy developer to purchase the energy long-term, the impact is demonstrable. The project is clearly new, built after the deal is struck and announced. It is also additional and material – the project likely would not have been built but for the contract (for the reasons summarized in the prior subsection describing the key role that offtaker agreements play in attracting financing for new, capital-intensive renewable energy projects), so the action goes beyond business-as-usual. It produces metered energy without emissions, so the outputs are measurable, whereas some offset-generating activities are more speculative and modelled. And there are mature, settled protocols for quantifying the emissions avoided by displacing emitting power. In gradations of credibility across the spectrum of available credit types and offsets, this is solid, real, and verifiable.

Key condition: Allow renewable energy generators to tap into credible REC tracking, accounting, and certification systems and/or offset protocols, which allow buyers to rely on the grade-A credibility of climate action mediated by new renewable energy development, and enable differentiation from similar instruments generated by less credible activities.

Association with tangible, visible, popular clean energy projects

Aside from the technical credibility of GHG offsetting, partnering with a renewable energy company has public relations benefits. When buying energy from a specific, new project, you can point to it, name it, talk about your association with it, and publicize its construction progress. You can point to the landowners who get lease payments, the labourers who get jobs, the organizations that get local community investments, and the communities that get local taxes. Renewable energy of all types is very popular in all public opinion polling across Canada.

Key condition: Allow buyers to either contract directly with the renewable energy project of their choice or provide input on the attributes they seek, and at a minimum, allow them to point to the specific source of their environmental attributes (rather than a pool of undifferentiated instruments).

Renewable energy of all types is very popular in all public opinion polling across Canada.

Hedge against rising carbon costs

Purchasing non-emitting energy long-term can serve as a hedge against rising carbon costs associated with the default-emitting electricity supply in a grid. This depends on the industrial carbon-pricing design in a jurisdiction, as well as the opportunity within the jurisdiction's corporate renewables procurement system to price against default energy costs and/or receive a carbon-cost credit.

In a real-time energy market system, for example, full carbon pricing could be reflected in the market price earned by renewable generation, and a contract-for-difference (CfD) long-term fixed contract price can allow buyers to receive the benefit of carbon pricing by pegging the contract strike price against the market price that includes carbon pricing. Under a green-tariff or similar program (described further in the next section) in a cost-of-service regulated electricity system, the buyer can either: a) receive the PPA price under contract with the renewable generator, which has no associated carbon costs, offering an attractive comparison against the default grid price, which includes carbon costs; or b) receive a carbon credit against the default grid price, reflecting their contribution to reducing the electricity system's carbon costs by displacing emitting generation. Either way, if the parameters are in place, this hedge can be very valuable.

Key condition: Enable buyers to receive a credit for the emissions avoided by displacing default emitting generation or enable commercial transactions that allow buyers to receive the benefit of lower power prices resulting from carbon costs saved with non-emitting power.

How can electricity system regulatory structures impede the natural emergence of a corporate procurement market?

Even where these key conditions combine to make corporate renewable energy procurement attractive, the electricity system regulatory structure can block the market. The receptiveness ranges from open energy-only wholesale markets – which, in their purest form, are receptive by default – to fully regulated vertically-integrated monopoly utilities – which are unreceptive by default. But the nuances of utility and market structures place each jurisdiction in a different position along this spectrum, depending on its market design or on measures adopted to circumvent the default barriers posed by regulated systems.

Open end of the spectrum: Energy-only wholesale markets

As discussed in the Background section, Alberta's open, energy-only wholesale market was, by default, open to corporate renewable energy procurement. It provides retail choice for consumers and an open-access system in which private investment decisions can bring on a new generation without direction from central utility or system operator decisions. As an energy-only market with only minor ancillary services markets and very limited out-of-market contracting, it has had an undiluted price signal, meaning a robust price signal against which new renewable energy has been able to market its uniquely low energy costs.As a result, corporate procurement has directly contracted for new renewable energy, owing to an openly competitive market, an open access system, and retail choice. Moreover, contracts have pegged against a robust price signal in the energy market, effectively providing a strong energy price credit that incorporates the costs of carbon. In this way, the openly competitive energy-only market offers buyers the opportunity to procure renewable energy attributes under a long-term contract and internalize a credit against energy and carbon costs from an identifiable project of their choosing, all while credibly claiming that their contract enabled the additional renewable energy. By default, and without tailored government or utility policy, the market made the key conditions of a successful corporate procurement market available.

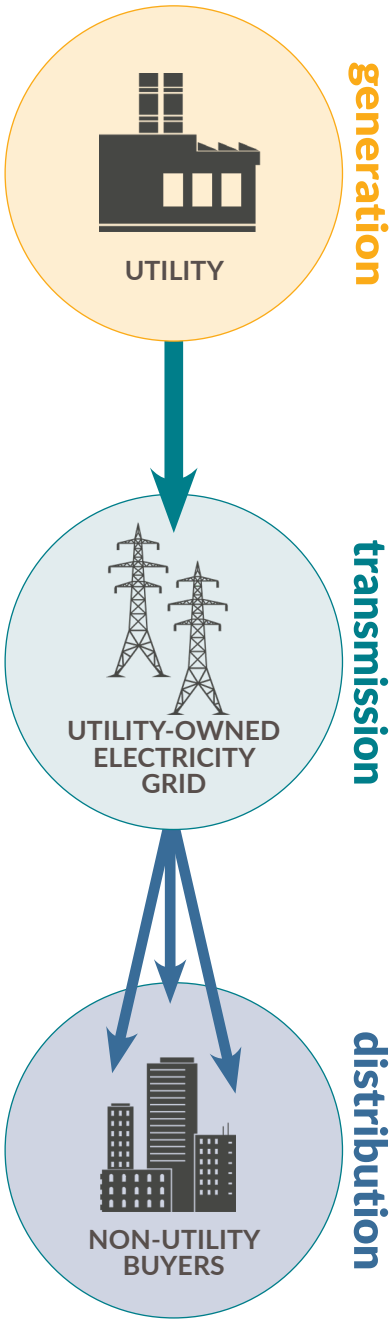
Closed end of the spectrum: Regulated vertically integrated monopoly utilities

At the other extreme of the scale, customers in vertically integrated, cost-of-service regulatory systems lack retail choice. Instead, they must pay their monopoly service provider's rates, which are typically determined through cost-of-service regulatory review by public utilities commissions (PUCs) or utility review boards (URBs). For the most part, the main utility for this service territory (sometimes as large as an entire province) owns and operates both the generation supply and the grid delivery systems. These systems are commonly referred to as "vertically integrated utilities" with "exclusive franchise" in "regulated electricity systems". These are the most common utility regulatory structures in Canada and are also seen in many U.S. states.

Generation supply decisions are made centrally by the utility through integrated resource plans (IRPs), typically reviewed by the PUC/URB. In practice, many, if not most, jurisdictions with vertically integrated utilities have begun to contract power from independent power producers (IPPs), especially (though not exclusively) when seeking new wind and solar generation, often through competitive procurements for long-term power supply agreements. However, the utility typically retains its exclusive franchise and controls the opportunities for IPPs to own and supply electricity through the utility solely to the entire ratebase of the utility's exclusive service territory.

Given the lack of consumer choice and the absence of an open energy market for new generation to be built on private-sector investment decisions, these systems are, by default, closed to corporate renewable energy procurement. Put simply, without additional programs and policies, buyers do not have the "retail choice" to purchase renewable energy, nor do new renewable energy projects have the ability to build and feed the grid without the utility directing them to do so. Even if they could, there is also no market against which to trade the power, so no opportunity to receive a credit against captured market energy revenues.

Given the lack of consumer choice and the absence of an open energy market for new generation to be built on private-sector investment decisions, these systems are, by default, closed to corporate renewable energy procurement.



Nuanced circumstances: Markets with caveats

Some jurisdictions operate organized wholesale energy markets, where system operators use price signals to coordinate generation dispatch. The central purpose of the markets is to choose - or dispatch - generators that reliably meet demand with the lowest-marginal cost options. In many cases, the wholesale energy market is not meant to provide a sufficient price signal for new capital investment, so to ensure supply adequacy and other reliability needs, value is found instead in other markets, diminishing the value of the energy market. This can include additional markets (ancillary services, day-ahead markets, capacity markets, etc.) or out-of-market contracting (long-term contracts to provide revenue certainty and enable financing for new generators).

Typically, the more complex the market structure, the less value there is in the energy wholesale market for generators and the more costs that consumers will incur beyond their retail energy charge. These two dynamics undermine the value proposition for corporate renewables procurement. In many instances, the market may technically be open to corporate procurement but remain unreceptive due to these complexities and market barriers.

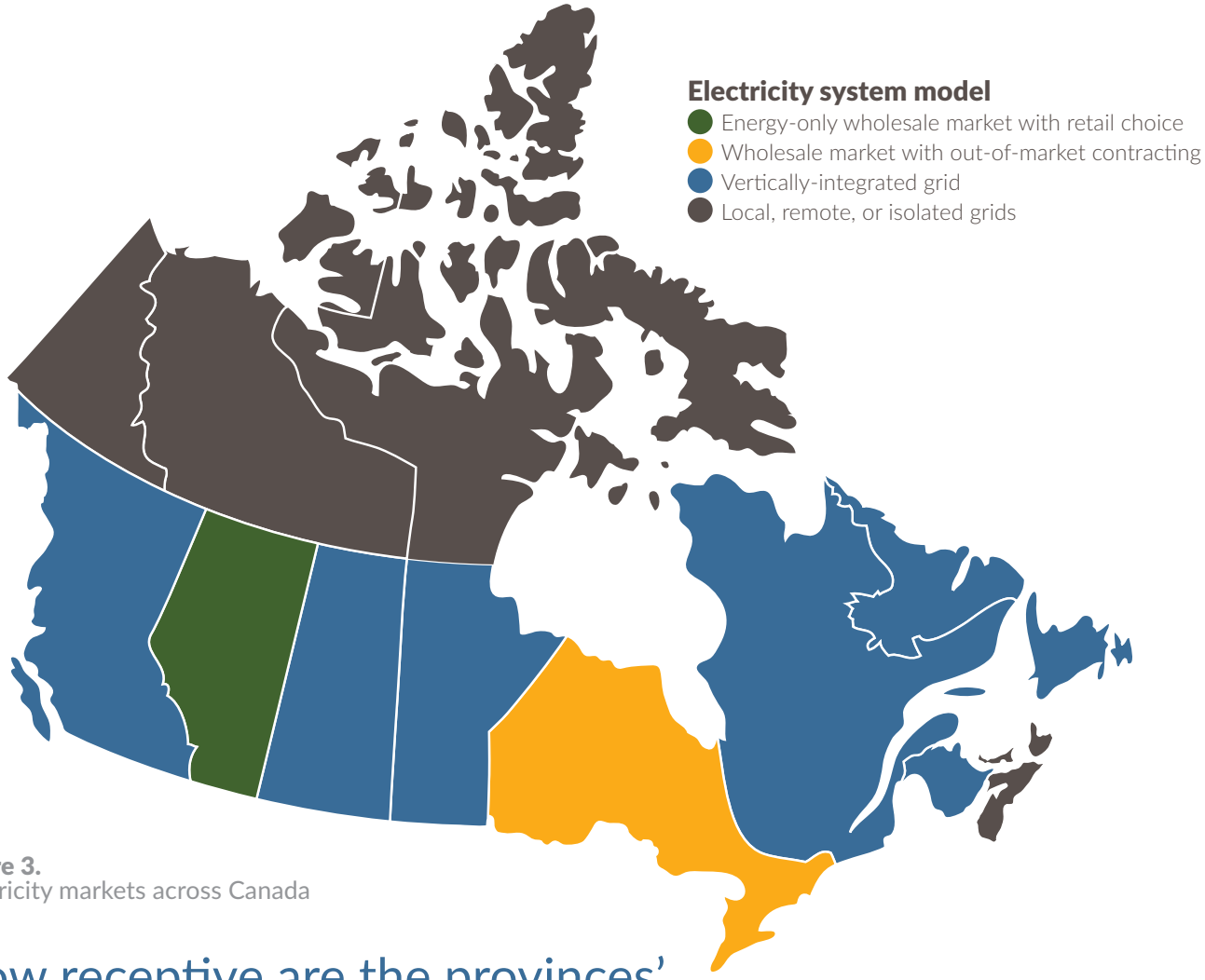


Figure 3.
Electricity markets across Canada

How receptive are the provinces' utility regulatory structures?

The provinces and territories display the full breadth of this utility system regulatory spectrum:

Closed end of the spectrum:

Eight provinces, shown in blue in **Figure 3**, have vertically integrated, cost-of-service regulatory systems. These eight provinces can be further divided into two categories:

- Six provinces (British Columbia, Saskatchewan, Manitoba, Quebec, New Brunswick, and Newfoundland and Labrador) where the vertically integrated utility is a provincial Crown corporation, though there may be local, municipally owned utilities with limited service territories that own local distribution systems and act as service and rate providers.
- Two exceptions, Nova Scotia and Prince Edward Island, where the vertically integrated utility has been privatized. These can add a layer of complication to working through renewable energy choice programs because a separate entity, the investor-owned utility, has responsibilities (to provide reliable service) and rights (to earn a return on its capital investment) that must be accounted for.

Market with caveats:

Ontario has an energy wholesale market and retailchoice. Technically, customers can contract directly with renewable energy developers, but in practice, there are two key impediments: out-of-market contracting and the global adjustment charge. Instead of leaving it to the wholesale market to create the investment signal for new generation, the system operator has entered long-term, out-of-market (i.e., insulated from the market price) contracts with a variety of generators. These remove value from the energy market by paying set, long-term rates to most generators, so that the market price does not reflect the actual all-in costs of energy production.

Ontario's system operator recovers the costs of these above market rates through a "global adjustment" charge on all customers. Under existing policies, cannot contract out of the global adjustment charges, which can be much higher than the wholesale energy price. As a result, new generators only receive the artificially low market energy price. Together, this makes corporate renewable procurement infeasible in practice: generators don't get a fair price in the market, and buyers end up paying not only for their contracted wind and solar but also for most of the system's generation costs via the global adjustment charge.

Open end of the spectrum:
Alberta is the only province with an energy-only wholesale market where – by contrast with Ontario – the value in the energy market is meant to reflect not only the marginal cost of dispatched energy, but also the price signal and economic case for new generation investment (i.e., the energy market is meant to reflect the full life-cycle cost of electricity generation, including the opportunity to earn a return of and on capital). However, Alberta is currently undergoing a market restructuring initiative that could dampen the impact of market prices and their investment signals. With electricity market restructuring underway since late 2023, market complexity is poised to weaken market signals and impose new barriers to corporate procurement, just as other provinces are beginning to unchain their grids to enable it.

Policies to render utility systems more receptive to corporate procurement

Because these conditions are policy constructs and not intrinsic to the provinces' electricity systems, measures exist to address this unreceptiveness with policy and program solutions, if political or utility will exist to make the jurisdiction receptive. Even where the fundamental utility system regulatory constructs – which are very slow and cumbersome to change – are, by default, unreceptive to corporate renewable energy procurement, programs and policies can be bolted on to clear these hurdles. Anywhere where the inherent parameters of a jurisdiction – existing or threat of future grid greenhouse gas emissions to avoid; mature, low-cost renewable energy sector; industrial, commercial or institutional load that needs low-cost options for emissions reductions; and power prices that reflect the actual cost of current and future electricity generation needs – line up to make it "ripe" for Corporate renewable procurement, programs and policies can resolve the system regulatory impediments to make it "receptive". Indeed, some have already been deployed in Canada. The following section details these potential solutions.

Exclusive franchise utility systems typically start with established perspectives, seeing exemptions as undermining the centrally planned whole. A new independent power producer (IPP) developer entry may be seen as a threat to the existing business model of the exclusive franchise utility. However, programs to enable corporate procurement can benefit the system and ratepayers. In their absence, large companies will move elsewhere to establish and grow their operations and employment and to purchase new renewable energy supply. Suppose jurisdictions want to attract investment and job creation while enabling new, low-cost energy supply and spreading system costs over a broader rate base. In that case, they need to adopt a constructive approach to satisfying this growing customer demand.

> Anywhere where the inherent parameters of a jurisdiction line up to make it "ripe" for corporate renewable procurement, programs and policies can resolve the system regulatory impediments to make it "receptive."

Solving for Utility System Barriers

The policy innovations used to resolve utility system barriers to corporate renewable procurement are commonly called "green tariffs." They are designed to work alongside utility systems and address the various barriers they pose, as discussed in the last section. This is a broad category of government or utility policies and programs that vary widely in design features and details, depending on the specifics of the utility regulatory system, any energy market constructs, and the specific interests of the corporate and institutional load in that jurisdiction. Looking at examples across Canada and the United States helps to discern key features and considerations for successful program design.

What are corporate procurement programs?

A corporate procurement program is any government or utility measure that enables corporate renewable energy procurement by resolving barriers within the utility regulatory or market system.

The most common and earliest variants emerged predominantly in U.S. states with regulated, vertically integrated utilities, typically without retail choice, that may or may not have wholesale energy markets. As discussed in the last section, these regulatory structures prevent the kind of open-market corporate procurement that emerges in deregulated wholesale energy markets like Texas and Alberta. In most of these jurisdictions, the local monopoly (exclusive franchise) utility has designed a program offering a special rate to appeal to large corporate consumers. Because this operates as an exception to the standard ratebase-wide tariff, overall fairness to all ratepayers is typically reviewed by the state's public utility commission (PUC), a review that commonly recognizes the benefits to the entire ratebase of retaining or even attracting new load to share in shouldering overall system costs. As the focus of these programs is on the special rate to enable corporate climate action, this class of programs has been named "green tariffs".

In fact, these programs have other important features beyond just the special ratesetting, including mechanisms to procure and allow the integration of new renewable energy in the system. The broader "corporate procurement program" label captures a diverse set of features involved in programs designed to address barriers to serving corporate demand for new renewable energy across a wide variety of systems. Beyond this common element of enabling corporate demand for new renewable energy procurement, programs can vary widely in program design.

At their core, these programs must enable the buyer:

1. to purchase bundled energy and environmental attributes from new renewable energy generators pursuant to long-term contract terms; and
2. to displace or receive a fair credit against their grid energy costs, including carbon charges or embedded carbon pricing.

What are some of the main models of corporate procurement programs?

Variation in corporate procurement programs allows them to service the specific barriers of certain jurisdictions and the needs of their dominant corporate or institutional buyers. One of the essential differences between program types relates to the accessibility and appeal of the program to different buyer sizes and how much the buyers have over the selection of renewable energy projects. On this axis, different programs lie on a spectrum between two paradigms, as shown in **Figure 4**:

1. **pure subscription-based models**, which allow multiple customers to subscribe to a portion of a large clean energy project (or projects), while the utility contracts for energy supply via a PPA or owns the project; and
2. **pure trilateral sleeve deal models**, which grant access to individual PPAs with direct involvement from one or more large buyers in negotiation with a developer and the utility (through which the PPA contract and transaction passes, like a sleeve, and which must connect and integrate the physical energy on the grid).

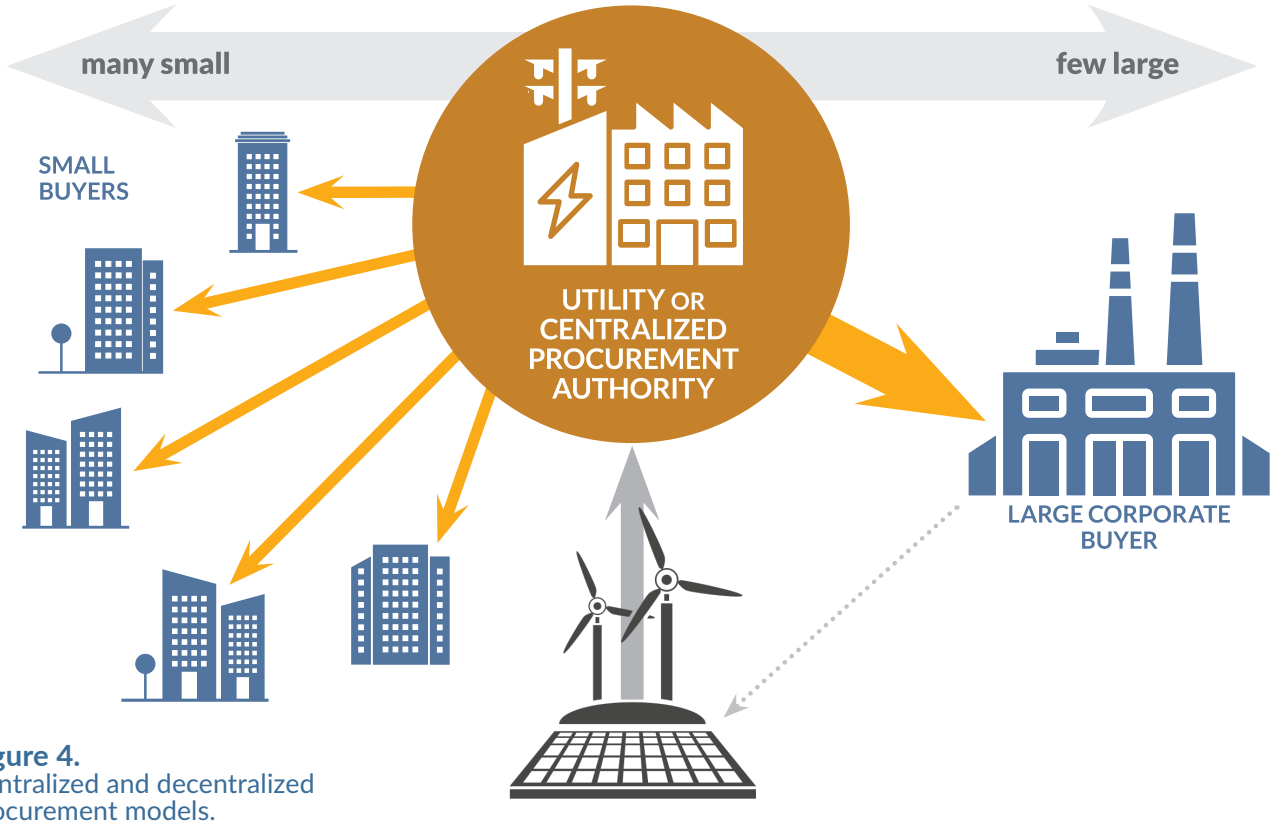


Figure 4.
Centralized and decentralized procurement models.

The two models are attractive to different buyer types based on their processes for deciding the key parameters: centralized versus decentralized decision-making. In essence, who leads in project selection and contract design and negotiation, including around key parameters like:

- volume of energy,
- renewable energy technology type,
- project eligibility (e.g., size and location of projects),
- developer qualification and ownership requirements (e.g., developer experience),
- process for choosing successful projects with which to contract (i.e., competitive procurement versus bilateral negotiation),
- other key social benefits to accommodate (e.g., Indigenous community benefits or equity stake), and
- term (length) of contract (for both the developer's energy and the buyers' purchasing commitment).

All of these design decisions can be consequential for program success, but the high-level dichotomy between these two models revolves around the process through which these decisions are made – in particular, whether and how the program either: a) lets large buyers take the lead on their own (or in small consortia); or b) seeks to accommodate many disaggregated, often smaller buyers. Some key differences between these two models are summarized in **Table 3**.

Parameter	Subscription programs	Sleeve-deal programs
Key decisions are made by…	Centralized: utility or central procurement authority	Decentralized: Buyers in negotiation with developers, within program design parameters
Appeals especially to…	Smaller commercial and institutional buyers	Larger corporate buyers with specific interests in terms of projects or terms
Procurement process	Comprehensive, fair, open, competitive RFP processes	Varies according to the buyers' preference, often bilateral negotiation with a short list
Transparency and publicity	To drive subscription, a very open, transparent design and sign-up process	Can be an "open season" program for wide sign-up or more closed-door trilateral collaboration between utility, buyer(s) and developer(s)
Main strength	Enables broad participation, aggregating demand from many different players to overcome barriers of scale	Prioritizes buyers' choice and individual preferences by letting buyers lead or participate directly in project choice and negotiation
Weakness	Centralizes decision-making	Excludes smaller buyers that lack capacity or sophistication
Keys for success	Design for the broadest appeal, engage prospective buyers in design	Parameters that grant leeway to buyers, within minimum standards or constraints to protect the system and ratebase

Table 3.
Differences between subscription and sleeve-deal programs

In practice, this dichotomy is not absolute, nor are the options mutually exclusive. Indeed, good subscription-model programs don't exclude buyer preferences from their design — they engage prospective buyers in advance to design a program that will appeal to them, drive subscription, and maximize the renewable energy investment benefit.

Conversely, utilities and governments are often not simply passive intermediaries in sleeve deal programs. They will typically define eligibility parameters, interconnection requirements, and tariff rates that will influence the outcomes of deals between buyers and developers.

Moreover, the same utility or jurisdiction can run two or more programs simultaneously, drawing from each model to accommodate different buyer types and interests. The key for policymakers is to deploy programs that meet the needs of their industries, businesses, and other job creators that are hungry for renewable energy.

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What are other common design features of corporate procurement programs?

While designs vary broadly, certain common features are found in many programs, and design choices have to be made on universal program parameters.

Procurement process

While designs vary broadly, certain common features are found in many programs, and design choices have to be made on universal program parameters.As noted above, corporate procurement programs must settle on the key elements of the procurement itself, including how to select projects. To do this, as summarized in **Table 3**, subscription programs typically undertake comprehensive competitive procurement processes, issuing requests for proposals to bid on defined long-term contract terms and clear criteria for assessing proposal offers.

The sophistication and integrity of these processes commonly match public (government) procurement processes and can look similar or identical to a conventional ratebase IPP renewable energy procurement (i.e., "call for power"). This requires clear procurement criteria, designed in advance before launching the RFP. Sleeve-deal programs, by contrast, typically leave these decisions to one or more buyers, who more commonly select informal bilateral negotiation processes with a preferred developer or a short list of developers. This process enables more flexible negotiation dynamics, enabling the buyer to discover their preferences iteratively through discussions and negotiations.

Program engagement and marketing

Engagement and outreach are important components of program design and implementation. Program success turns on satisfying commercial and industrial demand for corporate procurement, which requires that the procurement (including the long-term contract on offer) works for both:

- renewable developers, without whom the new projects needed to supply the corporate procurement demand would not be possible; and
- corporate and institutional buyers, for whom the program is designed, in order to serve their demand for renewable energy and establish the jurisdiction as an attractive host for their operations.

As such, program designers will typically engage these two stakeholder groups in the elements that are of interest to them, particularly the PPA drafting, system access (including congestion risks), and generation tariffs and fees for developers and the buyers' contract terms and relevant tariffs and credits for prospective buyers. The extent of this engagement varies across programs and tends toward the heavier end of the engagement spectrum for subscription programs because procurement is typically handled centrally by the program implementer or a contracted procurement administrator, and because subscription programs need to aggregate demand from a diffuse set of buyers. For the same reason, program marketing is also typically more extensive for subscription programs, to solicit many developers for competitive procurement and to secure strong subscription sales from the broad, disaggregated set of prospective buyers. programs, to solicit many developers for competitive procurement and to secure strong subscription sales.

Rate setting and cost allocation

A key component of any corporate procurement program is the assignment of costs and credits through tariffs or rates applied to the generators and participating buyers. This is commonly the most complex design component and often one of the most important determinants of program success. Costs involved in the implementation of a program include:

- Administrative costs for program implementation;
- Price of energy paid under the PPA (typically in $/MWh); and
- Generator connection costs and system costs for integrating the generation.

A significant part of program rate or tariff setting involves discerning what system costs are caused by the program and therefore should be allocated to the generator (with the effect of increasing the PPA price, as generators will incorporate these costs into the economics used to set their bid price) or buyer, versus what costs are not actually caused by the program and should remain with the ratebase. Best practice would allocate any costs that can be mitigated by more efficient generation choices (e.g., new generators on parts of the grid with capacity and lower line losses) to the generators, so that these costs can be minimized through the competitive procurement process.

The cost savings are predominantly the avoided cost of alternative generation in the system (which can often be higher than the PPA price of the new renewable energy, resulting in a net credit to energy rates), which may include the avoided cost of carbon associated with the costs of emitting generation. How this is determined and assigned depends on the presence or absence of a wholesale energy market for dispatch, other regulatory features, and the existing structures in place for setting energy rates for consumers.

As such, the different designs and approaches vary wildly and can be very specific to each unique system, but typically, if the costs of the PPA energy under the program are flowed through to buyers, then buyers deserve a credit against the default (ratebase-wide) energy costs or avoided energy costs in the market. In service territories that have or are part of a wholesale energy market, for which there are many examples in the United States, this is sometimes recognized as a "market-based rate program", a third form recognized alongside sleeved PPA and subscription models. In these systems, the market value could be a charge or credit reflecting overlapping organized wholesale market rates or nearby energy hub prices, variable hourly or day-ahead values or prices, or the difference between contracted prices and organized wholesale market prices.

Best practice would allocate any costs that can be mitigated by more efficient generation choices to the generators, so that these costs can be minimized through the competitive procurement process.

There are two broad frameworks for assigning energy charges and credits that reflect the program's system costs and savings. Considerable variation exists within these two categories, but at a high level, charge and credit systems can:

Build from the ground up: charge the PPA rate to the buyer(s) instead of the default energy rate for their rate class.

- This naturally allows the buyer(s) to avoid the carbon costs in the system, because of purchasing non-emitting energy.
- The system costs of integrating the renewable energy may be charged to the developers, so that these costs are priced into the PPA bids or can be added as an additional charge to the buyers' tariff, requiring a complex determination of what integration costs are appropriate to assign to the buyers.
- This approach is more common in systems where the default rate has an identifiable energy component that can be replaced with the PPA rate.

Charge and credit against default tariffs: charge the default energy rate for their rate class to the buyer(s), with credits for avoided system costs.

- This system requires the system cost savings of the new renewable energy (including carbon costs avoided by the system, owing to the displacement of the default energy supply with new non-emitting energy) to be estimated and assigned to the buyer(s) as credits.
- This approach is more common in systems with bundled default rates that comprise both energy and other system (e.g., transmission, reliability services, etc.) charges and where the regulatory system is not set up to extract or identify the energy cost separately.

One additional note on program administration costs: they can be set per buyer, vary based on the volume of energy purchased by the buyer, or a combination of both. This choice should avoid disadvantaging smaller buyers while reflecting the fact that some administrative costs are higher with each additional buyer. In contrast, others are fixed regardless of how many buyers subscribe.

Program and rate review

Finally, different regulatory systems and approaches will result in the overall program design undergoing varying degrees of regulatory review, typically involving the PUC/URB. This element is important for program sustainability: programs that cannot transparently demonstrate and satisfy an independent regulator that they serve the interests of the broader ratebase are unlikely to maintain the social licence they need to be sustained or repeated in further program rounds. Fortunately, many regulators have acknowledged the ratebase benefits of maintaining and growing industrial and commercial load in the service territory and of supplying the grid with more low-cost renewable energy.

Also important is the review of implemented programs against program objectives. While engagement in advance is important, so are *post mortem* analyses, including particularly engaging with buyers around additional interest and what improvements are necessary to drive more uptake.

What programs exist that are good reference examples?

With so many different utility service territories and utility regulatory structures, the United States has been the great innovator of corporate renewable energy procurement programs, generally referred to as green tariff programs. But three Canadian provinces have also initiated measures for corporate procurement programs, with a remarkable breadth of approaches. Reviewing these programs has distilled the common features noted in the prior subsection and the best practices in the following subsection.

United States

The United States offers a nearby inspiration for Canada's policy development to enable corporate procurement. Many jurisdictions have vertically integrated markets, similar to provinces in Canada, though wholesale markets have developed alongside regulated rate programs in many. The high grid emissions intensity across most states has driven significant corporate renewable energy demand to meet voluntary targets, even in the absence of carbon pricing in most of the country. With this corporate interest and the large number of different utility service territories, the number of green tariff programs have accumulated into the s everal dozen (around 60 known programs developed since 2016) in well over half of all states, as shown in **Figure 5**.

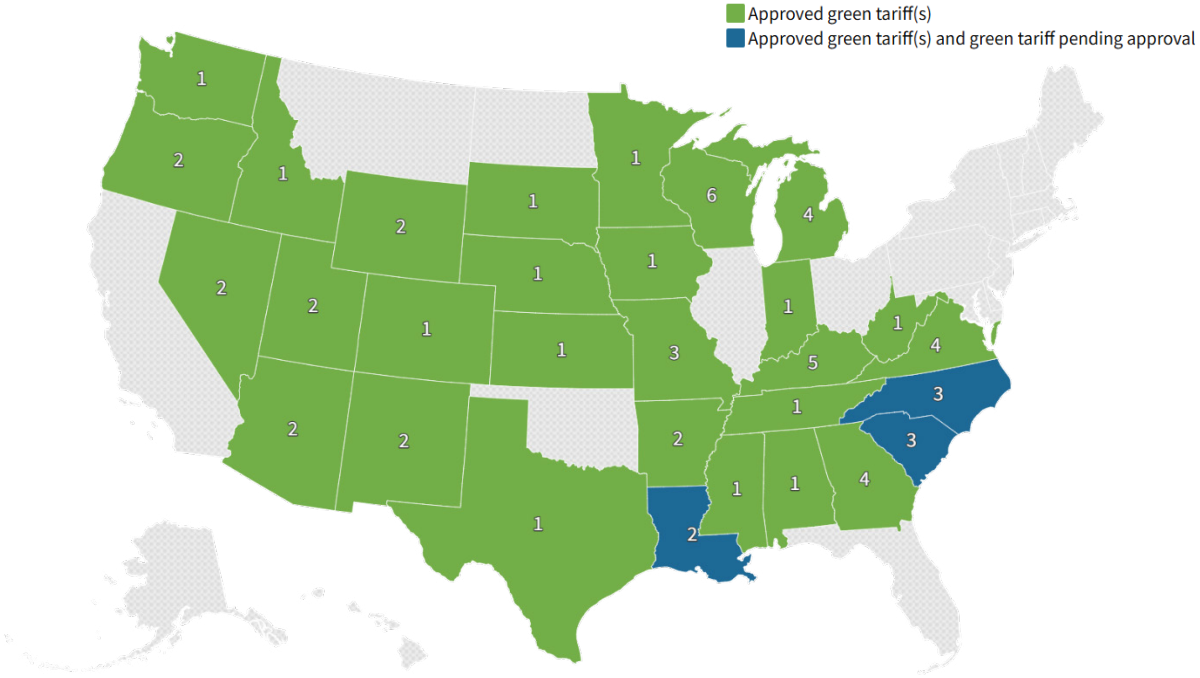

Figure 5.
U.S. regions with approved green tariff programs. (SOURCE: CEBA)

In January 2023, the U.S. Clean Energy Buyers Association (CEBA) updated its U.S. Utility Green Tariff Report, which tracks 50 green tariff programs approved or pending approval. That report, alongside its precedent report from December 2020, provides the most comprehensive overview of all known green tariffs up to January 2023, with information about renewable energy project eligibility, program size, participant (buyer) types, eligibility limitations, key strictures, tariff and contract structures for buyers, administrative fees, how RECs are managed, and regulatory review, with links to additional resources. The fifty programs are listed in **Appendix A.**

Additional investigation undertaken for this report since 2023 identified eleven programs, two of which were only recently found and predate January 2023, with the remaining nine developed in 2023 and 2024. These programs are listed in **Appendix B**.

All of these programs were assessed against the following design quality criteria:

- Whether buyers receive the EAs (or utility retires on the buyer's behalf);
- Whether the program drives new renewable energy generation;
- Whether the program shields other rate payers from program costs;
- Whether any additional costs to the program buyer participant are clearly disclosed to them up front; and
- Whether the program includes avoided cost credit or discount to the buyer.

The programs were also reviewed for whether they have attracted buyers, whether the utility has gained experience and learned from prior programs, and whether the program is from a fully regulated utility, enabling stronger alignment with most Canadian provinces. Based on the results of this assessment, five programs are highlighted for further attention from Canadian program designers, summarized in **Table 4**.

Program	Market regulation	Key features for review
Green Source Advantage Choice (revised)	Duke Energy, fully regulated	• Duke has a long history of tri-party agreements with buyers • Tariff aligns with all buyer needs (i.e.: the five criteria) • Has not been seen to be used, but is also quite new
Green Direct	Puget Sound Energy, fully regulated	• For existing loads • Very strong take up by companies • Tariff aligns with all buyer needs (i.e.: the five criteria)
Go Zero	Entergy Arkansas, fully regulated	• Has been used by companies and aligns with most buyer needs (i.e.: the five criteria) – no credit for savings gained by the utility • Builds on Entergy Arkansas' Green Promise tariff
Green Energy Rider	NV Energy, fully regulated	• Companies have used this tariff, which offers some flexibility in structure • REC retirement approach allocates to RPS first, but ignoring this aligns with other buyers' needs
Clean and Renewable Energy Subscription	Georgia Power, full regulated	• Seems to align with all buyer needs (i.e.: the five criteria) • For new and existing loads • Cost structure may be relatively high, but no other option exists for most buyers • Georgia Power hasn't stated if the program has been used

Table 4.
Corporate procurement programs in U.S.

Nova Scotia

Nova Scotia's vertically integrated, privatized monopoly utility, Nova Scotia Power, previously served nearly all of the province's power generation needs. However, many functions are transitioning to the newly formed Independent Electricity System Operator. To date, Nova Scotia Power has had limited experience with IPP wind power and community generation programs, though the government has run a handful of successful renewable energy programs since as early as 2011. The utility is subject to regulation by the Nova Scotia Energy Board (previously the Utility and Review Board, UARB). In response to corporate and institutional demand for access to renewable energy, the provincial government launched a multi-faceted process to create a corporate procurement program through legislation, regulations, and program design and implementation, working with an expert advisory and procurement administrator.

The legislature passed the Green Choice Program (GCP) legislation in early 2020, effectively enabling the program as an exemption from the utility's exclusive franchise. From there, the Nova Scotia government undertook a comprehensive design and engagement process with a primary consultant that also served as the procurement administrator, drawing on dozens of other jurisdictions – particularly U.S. states – as models. At each stage of program design, the government engaged with both buyers and developers to ensure the program would meet their respective needs, particularly around buyer participation eligibility parameters and the PPA drafting. The program's broad framework survived a government change, though both political events (elections) and the COVID-19 pandemic, as well as a ratebase procurement, caused delays, resulting in the program taking around 5 years to reach an outcome.

After some evolution through the iterative engagement and design process, the final program launched with broader flexibility for buyer eligibility than initially envisioned. With this subscription-model program, many public institutions and commercial and industrial loads were eligible for new or existing loads in the Nova Scotia Power service territory, so long as they had an estimated GCP power purchase of at least 10,000 MWh/year. However, the final GCP eligibility built in flexibilities to enable aggregation of purchasing volume across multiple facilities and even subsidiaries, and public institutions of at least 1,000 MWh/year each could aggregate with multiple other institutions to meet the 10,000 MWh/year threshold. These flexibilities are evidence of the strong engagement and design iteration that identified an interest that could be served with these simple flexibilities.

For generators, the competitive process was open, transparent, and clear, with RFP and PPA drafts released for feedback, and approved in advance by the Board. The procurement benefited from recent success with a rate-based procurement that was given priority early in the GCP planning process, delaying the GCP roll-out but strengthening procurement outcomes. The procurement process awarded points to project bids with minority ownership by Mi'kmaq of Nova Scotia entities and extra points for majority ownership.

Midwest Renewable Energy Tracking System (M-RETS) was selected by Nova Scotia Power for REC tracking, handling registration and retirement centrally on behalf of participants. The rate-setting approach landed squarely in the second category of rates, the charge-and-credit-against-default-rate approach, reflected in Figure 6. The exact cost and credit settings have not yet been submitted by Nova Scotia Power to the Board for decision as of November 2025. These will be set in terms of 5-year increments.

Per provincial regulations, the following parameters are in place. Under the GCP, a participating buyer still pays their default (business-as-usual) electricity rate. However, they will receive a GCP credit for the volume of GCP energy purchased (based on a % of the capacity of the GCP-procured power, calculated to meet the volume of energy enrolled by the buyer), which reflects the avoided carbon tax in the Nova Scotia power system. Buyers will also pay a GCP cost that reflects the program's administrative costs, up to a maximum of $1/MWh and a total of $100,000 per participant per year (balancing the need to enable small buyers while acknowledging the economies of scale in transaction costs for large buyers).

There are two main upshots of this crediting approach that are instructive for further design. First, the benefits of the very low PPA costs achieved through the procurement will primarily accrue to the entire ratebase – in the Nova Scotia government's words: "PPA prices support **all customers**" (emphasis in original). While this might undermine the program's attractiveness compared to flowing the PPA rate through the GCP participating buyers, it supports the case that the GCP is fair and beneficial to the entire ratebase, helping the program's social licence. Moreover, Nova Scotia indicates that this approach makes sense in a system on a path toward system-wide decarbonization (phasing out coal and reaching an 80% renewable energy supply by 2030), within which GCP customers already benefit from the emissions-reduction benefits of the entire system.

Second, the overall rate effect is almost certain to be a net-credit to participating buyers, because the cost of carbon in the default energy supply is higher than the GCP administrative charge. While the cost of carbon is not fixed in advance in the buyers' GCP contracts, the calculation method is clear, transparent, and subject to regulatory review. In fact, the variability in reflecting the actual embedded carbon cost in the default Nova Scotia electricity supply offers a valuable hedge to buyers: their cost savings with the program will be proportional to the actual carbon cost to which they are exposed through their power consumption. In this way, buyers can achieve some economic certainty against the political risk inherent in the price schedule of Canada's industrial carbon pricing scheme.

In the end, Nova Scotia announced 11 participating buyers (a mix of public institutions and private corporations) from the six successful project proponents (625 MW of new wind energy) – all partnerships between private developers and Mi'kmaw communities – under its first Green Choice Program. However, after the announcement, four of the projects were cancelled, ultimately leaving two of the wind projects to move forward, representing 262 MW of the original 625 MW.

Another procurement round is expected in the first half of 2026, recognizing that participant demand exceeded available generation. Separately, Nova Scotia has previously considered a sleeve-deal option for large industrial consumers, to enable large current and prospective power consumers to meet their renewable energy procurement needs.

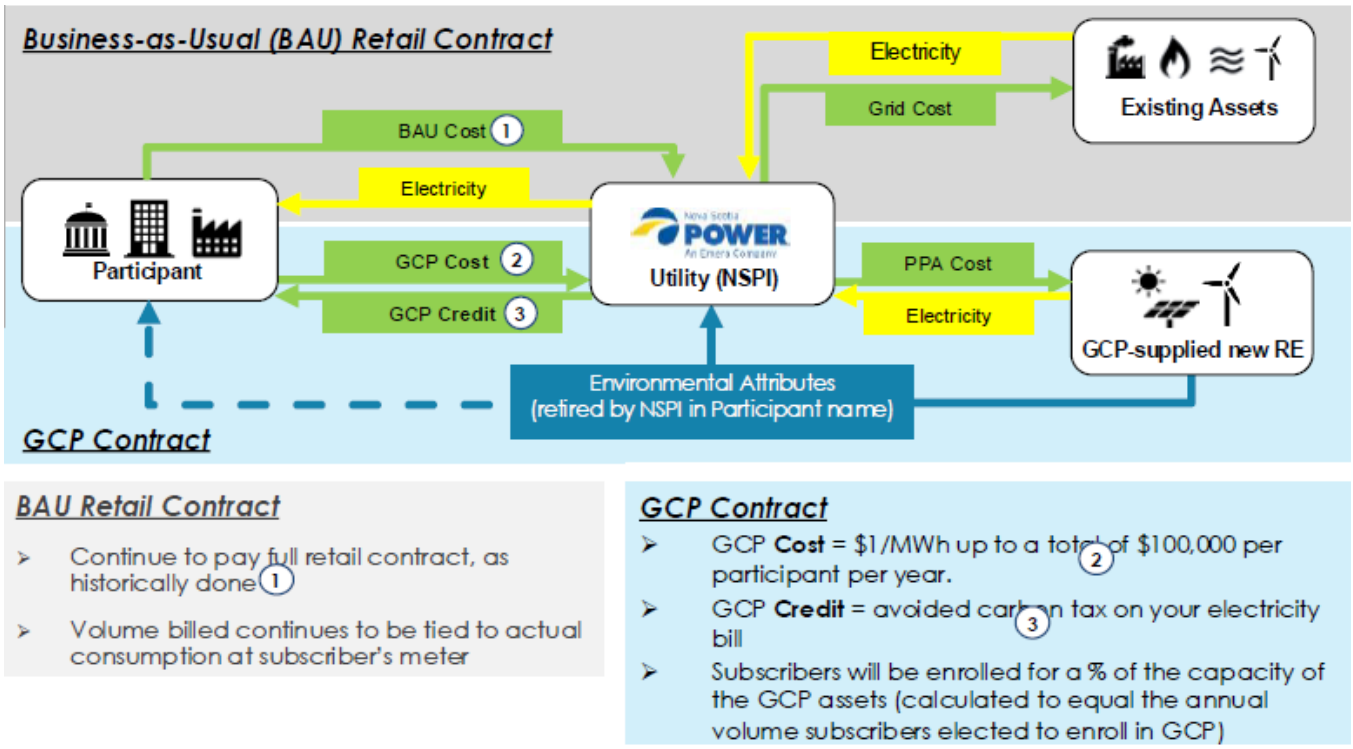

Figure 6.
Overview of the Green Choice Program (SOURCE: GREEN CHOICE PROGRAM WEBINAR)

Saskatchewan

Saskatchewan has a vertically-integrated monopoly Crown utility, Saskatchewan Power Corporation (SaskPower). As a public utility without the profit drive of private investor ownership, utility regulation in Saskatchewan is relatively weak compared to most systems with exclusive franchise utilities. As such, SaskPower has substantial leeway within its mandate and authorizing legislation to achieve a broad set of public policy objectives and government mandates, and it clearly operates as a policy-taker within the ecosystem of Crown corporation governance in Saskatchewan.

Perhaps a corollary of this dynamic, SaskPower is also on the least transparent end of utility systems in Canada. So, while SaskPower has launched two corporate renewable energy procurement programs, little public information is available about either, and neither SaskPower nor the Saskatchewan government has been forthcoming with additional information. Moreover, both programs have, so far, been very limited with only limited uptake.

The first program was the Renewable Portfolio Option (RPO), a subscription-model program, ran in around 2023-2024 after initial planning started in 2021. The RPO was limited to 100 MW of solar (the size of the procurement), despite far more interest being identified in initial investigations. Moreover, instead of allowing buyers to enroll for the energy they need, the program limited the solar capacity a participating buyer could enroll to the peak capacity of their demand, effectively restricting them to the solar facility's capacity factor (approximately one quarter). It is not clear how these limitations were chosen or what degree of engagement SaskPower or the government undertook with prospective buyers. In any case, it is understood that the 100 MW was fully subscribed, though there is insufficient public information to confirm the volume purchased by corporate or institutional offtakers. It is not known whether SaskPower intends to run another round. Still, this procurement established an ongoing practice for SaskPower procurements to require at least 10% Indigenous equity ownership, as represented by the Turning Sun solar facility, which included 10% ownership by Ocean Man First Nation.

Under the RPO, SaskPower chose a ground-up approach to its ratesetting and cost allocation, by contrast with Nova Scotia's GCP. In this instance, for the volume of solar energy purchased by the buyers, the PPA rate is flowed through to the buyers. On top of that, SaskPower would add a "balancing and management fee" (estimated at $5-10/MWh) to reflect SaskPower's costs for administering the program, integrating the new solar energy into the system, and firming it for the buyer. It would then credit the buyers an amount they determined would reflect the avoided cost for SaskPower of generating the default energy on the grid (estimated at around $39/MWh) as well as the avoided costs of carbon embedded in the system generation (estimated at around $6/MWh, but potentially rising over time, though Saskatchewan has since cancelled its industrial carbon price outright). The resulting cost was estimated to be a premium against SaskPower's default rate in the range of $10-25/MWh in the near term, followed by a discount if carbon prices continued to rise, though the final charges and credits have not been published, so this is unknown. It is also not clear how predictable or transparent the calculation of these charges and credits was in advance for buyers before subscribing, and therefore what risk of unexpected additional costs they would be assuming.

The second program is the Renewable Access Service (RAS), a sleeve-deal model tailored to large SaskPower customers, in which the customer chooses its renewable energy project partner and negotiates a price directly with them. However, SaskPower would apply a series of charges to the generators and buyers under this program, reflecting the cost to SaskPower for wheeling the electricity (including higher rates for longer distances on the grid) and for integrating and balancing the new renewable energy. Notably, although SaskPower decided to apply significant tariff costs to account for the variability of wind and solar energy, it has apparently deemed storage-hybrid projects ineligible, despite the fact that these would have supported power balancing, resulting in a fairer and cost-effective option for buyers. It is also possible – though too little information has been shared to know for certain – that SaskPower limited the volume of energy that buyers could purchase under the RAS to only meet their peak load (like with the RPO) for the same variability and balancing reasons that SaskPower added additional charges for RAS participation. Either the charge or the volume restriction should have been unnecessary.

It is not clear how much engagement SaskPower had in designing the RAS to work for prospective buyers, or how much marketing SaskPower did with large customers to raise awareness of the RAS. To date, there has not been an "open season" on the RAS; only a "pilot phase" that has been ongoing for at least 2 years, with only 1 pilot announced to date, which supports a 100% Indigenous-owned solar project. It is not clear when SaskPower will announce more pilots or open the program beyond the narrowly selected pilot buyers. What is clear is that there is considerable demand among industrial buyers in Saskatchewan for workable programs.

Ontario

Effective July 1, 2025, the Ontario Ministry of Energy and Mines has made amendments to the relevant regulation governing the application of "adjustment charges" to power consumers, in order to mitigate a key barrier to corporate renewable energy procurements in Ontario, in particular, the application of the global adjustment charge (GAC). In effect, as described in the last section, corporate customers in Ontario already had the opportunity to procure renewable energy under a long-term contract pegged against the wholesale energy market. However, the wholesale energy market has very little value for renewable energy and most customer costs relating to energy are actually incurred through the global adjustment charge.

Initiated in 2023 and finalized in early 2025, the regulation establishes a mechanism for corporate buyers to use the new renewable energy they've procured under PPA to offset Global Adjustment charge costs by offsetting their peak hour demand for base period calculations, on which their Global Adjustment charge costs are based. In effect, the buyer is virtually assigned the clean energy under contract to help offset these additional costs that they could not otherwise mitigate through their procurement. The outcome is effectively a market-based program in which buyers choose their preferred renewable energy project partner and contract terms, and can contract against the wholesale energy market. The unique twist is a new "tariff" feature that allows buyers to mitigate additional charges reflecting energy costs. This approach was designed to address considerable engagement and comment periods on drafts and enables buyers to receive reasonable credit for their procurement while also hedging against wholesale energy and global adjustment costs.

The province restricted program eligibility to Class A market participants, with aggregated demand excluding some relatively large customers. It also excluded hybrid renewable-storage facilities from the eligible list of generators, which is unfortunate, given that this could help Ontario's system while also enabling buyers to maximize their cost offsetting. Further, the regulation restricts eligible renewable energy generators to those with a municipal support agreement and excludes projects developed on prime agricultural lands. At this time, it is too soon to know what uptake the program will attract.

Summary of Canadian jurisdictions with existing programs

	Nova Scotia Green Choice Program	Saskatchewan Renewable Portfolio Option	Saskatchewan Renewable Access Service	Ontario GAC Treatment for Corporate PPAs
Program type	Subscription	Subscription	Sleeve-deal	Sleeve-deal
Program size to date	262 MW (wind)	100 MW (solar)	32 MW (solar)	To be determined
Eligibility	>10,000 MWh/ year, aggregation supported	Enrollment restricted to peak capacity of demand	Enrollment restricted to peak capacity of demand	Enrollment limited to Class A consumers only
Procurement approach	Public and transparent consultation and competitive procurement process	Pilot, limited engagement	Pilot, storage projects ineligible, limited engagement	Storage projects ineligible
Indigenous equity participation requirement	Procurement process awarded points to project bids with Mi'kmaq ownership	Procurement included 10% Indigenous ownership requirement	Unclear, but first pilot project is 100% Indigenous	Project ownership left to the contracting parties
Charge/credit approach	Charge and credit against default: buyers pay general rate, receive credit for avoided carbon, pay $1/MWh administrative fee	Ground up: Buyers pay PPA rate + balancing and management fee, receive credit for avoided cost for SaskPower and avoided carbon cost	Ground up: Undisclosed and untransparent – however, expected to apply charges for balancing, management	Ground up: PPA energy can offset Global Adjustment charge by offsetting peak hour demand
Beneficiary of PPA rate	Ratebase	Buyer	Buyer	Buyer
Net effect of participation on buyer's rate	Forecast to be a credit that rises with carbon pricing	Forecast to be a premium unless carbon pricing (currently cancelled) rises	Unknown but likely a premium unless carbon pricing (currently cancelled) rises	To be determined

Table 5.
Summary of existing corporate procurement programs in Canada.

What are some of the best practices featured in successful programs

Successful corporate renewable energy procurement programs can take many forms. There is no single program design that will exactly suit all corporate or institutional buyers, nor one that best fits the wide diversity of jurisdictions and their different utility regulatory structures. However, reviewing successful programs can distill a set of design approaches, principles, and features that are best to meet the needs and interests of corporate and institutional buyers seeking to procure renewable energy, which is key to keeping and growing their local operations.

Identifying and addressing key system barriers

Every jurisdiction is different. Some jurisdictions give utilities the leeway to develop and apply green tariffs without regulatory reform, based on flexibility with varying classes of rate and broad recognition that attracting corporate load is good for diffusing system costs across a broader ratebase. But some do not, or at least the regulatory strictures are not sufficiently clear for utilities to feel comfortable proceeding with programs in the face of the threat of litigation or costly regulatory reviews.

In some instances, where utilities have that authority and broad discretion to serve customers reliably and at the lowest cost, utilities have found that green tariffs can support these mandates. In these cases, governments may want to push reluctant utilities (who only see the loss of their market share to IPPs rather than the growth of their load base) to open the jurisdiction to this investment through regulatory changes and government direction, as in Nova Scotia.

Still, in other jurisdictions, like Ontario, the market structure and grid openness technically allow corporate procurement, but energy costs embedded in non-market charges make these efforts unfeasible in practice. In these systems, tariff or rate changes may be necessary. The key is to engage the community of prospective buyers and generators to identify the barriers and focus on those elements.

The key is to engage the community of prospective buyers and generators to identify the barriers and focus on those elements.

Stakeholder engagement, transparency, and marketing

Corporate procurement programs can be relatively complex initiatives, with their nuanced design elements. Procurement materials need to be attractive to developers to drive competitive processes, and the treatment of participant eligibility and costs will determine the program's amenability to uptake from the prospective buyers it intends to serve. Throughout the regulatory and program development process, policy-makers need to engage with prospective buyers to assess the needs of the important commercial, industrial and institutional customers they wish to serve through a green tariff program.

There is now a diverse menu of programs available to be copied from U.S. states, but engaging local corporate electricity consumers to understand their interests and preferences will inform the most appealing program design and eligibility parameters, maximizing subscriptions and benefits for the jurisdiction. Finally, it is key to program sustainability to engage with consumer representatives, to ensure a fair allocation of costs and benefits and inform tariff development that will sustain social licence for the program. The most critical key, then, to successful program design is fulsome, transparent engagement with these crucial stakeholder groups, with a commitment to iterative design improvements based on feedback on draft designs. Nova Scotia's GCP is a model for this fulsome engagement. Once the program is running, disseminating information about it – including the costs and benefits for participants – is essential to drive uptake.

Prioritizing design structures that facilitate what buyers want

When selecting between subscription-model or sleeve-deal model programs as a starting point, focus on what will work best for buyers. Large numbers of relatively small, diffuse prospective buyers (often institutional and smaller commercial buyers) will likely have less interest in demanding particular generation types and prefer to relinquish control over the details in favour of subscribing to a procurement where a central authority does most of the work. By contrast, large corporate buyers may have specific objectives for their renewable energy to meet ESG drivers and prefer to take the lead in choosing their generation source and contract terms. If a jurisdiction sees demand from both types, it may mean running both types of programs, as in Nova Scotia and Saskatchewan.

Flexibility around eligibility of both generators and buyers

Unnecessary restrictions on generator eligibility only restrict the competition among generators. This undermines the opportunity to find the lowest-cost power. This should be avoided, as with Nova Scotia's GCP. Of particular salience as the penetration of variable renewable power increases on grids, new programs should consider how to incorporate renewable-storage hybrid projects into generator eligibility. This will benefit the grid and likely make programs more attractive.

Moreover, eligibility restrictions for buyers should also be minimized. If buyers are interested and have the wherewithal to take on the transaction costs and administrative burden of assessing and implementing their participation, they should be welcome, where possible. Appropriately tailored administrative charges, as seen in Nova Scotia, can help ensure that this does not unduly burden government or utility resources to deal with large numbers of very small buyers. But so long as those are set correctly, it may not be necessary to restrict eligibility to specific buyer sizes or demand. Enabling more demand can usually lead to greater economies of scale and more cost-effective programs.

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Setting fair, reasonable, and predictable rates and charges

Policy and regulatory amendments may be required to ensure that regulatory processes are in place to fairly allocate the costs of procuring and integrating renewable energy to participating buyers.

Buyers seeking corporate procurement opportunities are not asking for special treatment or to avoid system costs by circumventing grid energy; they are seeking to secure their renewable energy needs and mitigate their carbon cost risk by paying the fair costs of buying new, low-cost renewable energy that is added to the grid.

Because of the low cost of wind and solar, they see an opportunity to reduce their long-term costs through renewable energy procurement — but they also accept the need to pay their fair share to use the electricity system. If the corporate procurement program rates (charges net of credits) are not unfairly punitive to buyers and allow them to capture a fair proportion of the benefits that renewable energy brings to the grid, the program design will drive uptake. Accommodating large customer demand for renewable energy can help to control system costs for all customer types.

Often, thanks to the exceptionally low cost of renewable energy, appropriate corporate procurement program rates will mean a small discount relative to the energy system. This is particularly true in jurisdictions with carbon costs embedded in the default energy supply. This outcome recognizes that corporate and institutional buyers are facilitating the financing of additional low-cost renewable energy on the grid by applying their financial credit to take on the buyers' risk of long-term offtake agreements. This can ease the burden on utilities' credit, on which ratepayers rely.

However, the discount is not guaranteed and may be a small premium in certain circumstances, such as when carbon prices do not rise as expected or when default grid energy is unexpectedly cheap. More key than whether the net outcome of charges and credits is a discount or premium against the default grid energy is that the charges and credits to which a corporate procurement participant is subject are transparent and predictable. The fees should either be known in advance or capable of being modelled within reasonable bounds of uncertainty based on a clear, transparent calculation methodology.

Regulatory review

Corporate procurement programs that are subject to regulatory review will incur additional administrative burdens and sometimes prolonged, uncertain timelines. However, the regulatory review process offers certain benefits. First, it ensures outcomes that are beneficial for the entire ratebase and adds legitimacy to the design, improving program sustainability and social licence, features that are attractive to buyers. Second, it forces transparency through disclosure and regulatory filings and often incents fulsome engagement upfront. Finally, an additional design check can prompt sensible improvements.

Social objectives

Finally, recent successful procurements in Canada, including corporate procurement programs in Nova Scotia and Saskatchewan, demonstrate the importance of integrating crucial social objectives into corporate renewable energy procurement alongside environmental objectives. In Canada this clearly includes Indigenous equity participation in generation projects, which has become so commonplace as to be expected by generators, buyers, and procurement authorities as a key part of how renewable energy development is contributing to economic reconciliation.

Design considerations for provinces

No provincial electricity grid is the same as any other. The differences abound, including variations in parameters related to the conditions that enable a strong value proposition for renewable energy procurement.

As we know from the previous section, provinces' different utility system regulatory structures make them receptive or unreceptive to corporate renewables procurement. While these barriers can be absolute – erecting a complete bar to corporate procurement in closed systems, even where there is strong corporate demand – they are constructs of policy and therefore can be mitigated or resolved through policy. But other factors influencing prospects for corporate procurement relate to innate aspects of the electricity system and its generation resource mix: factors that are much more challenging to address. These affect the grid's ripeness. Reviewing how the provinces are positioned in terms of ripeness for corporate renewables procurement helps identify program design considerations best-suited to each province's existing grid system.

How ripe is each province for a robust corporate renewables procurement market?

As reviewed in the Background, prospective corporate renewable energy buyers are driven by certain factors relating to the cost and value of procuring renewable energy. The factors in a grid that affect this corporate enthusiasm for procuring renewable energy determine the "ripeness" of that grid. **Table 6.** summarizes the relationship between these grid attributes and the drivers of corporate procurement.

Parameter	Relevant to which key conditions for successful procurement markets?
Grid GHG Intensity	Higher intensity means new renewable energy will avoid more emissions per unit of energy, creating more value through environmental attributes and carbon cost avoidance.
Existing renewable fleet	Larger existing fleet means more sector maturity and fewer unknowns for project developers, regulators and ultimately, buyers.
Load size and characteristics	Larger grids generally have more infrastructure and supply robustness to integrate new renewable energy capacity. Industrial and commercial loads generally represent corporate procurement demand, due to corporate emissions targets.
Electricity price dynamic	Higher and more volatile electricity prices increase the value of low-cost, fixed renewable energy contracts, especially if complemented with storage to improve the value of the hedge.

Table 6.
How different grid attributes impact corporate procurement

Canada's provinces vary dramatically with respect to these factors – some are very ripe, while others are not ripe at all on each factor. Reviewing the conditions and their presence or prospective presence in each province, summarized in **Table 7.**, provides a starting point for understanding effective program and policy design to achieve successful corporate procurement opportunities.

Province	Utility structure	Grid GHG intensity	Existing renewable fleet	Load size and characteristics	Electricity price dynamic
British Columbia	Crown monopoly, vertically integrated	Low	Independent power producers (IPPs) contracted through competitive procurement	Large, mixed	Low, stable
Alberta	Liberalized wholesale market	Very high	Predominantly merchant / privately contracted	Large, industrial-dominated	Very high, very volatile
Saskatchewan	Crown monopoly, vertically integrated	Very high	IPPs contracted through competitive procurement	Medium, industrial-dominated	Medium, stable
Manitoba	Crown monopoly, vertically integrated	Very low, some risk of growth	IPPs contracted through competitive procurement	Medium, mixed	Very low, stable
Ontario	Liberalized wholesale market with substantial out-of-market contracting	Medium, risk of growth	Mostly IPPs contracted through competitive procurement	Very large, mixed	Medium, medium volatility
Quebec	Crown monopoly, vertically integrated	Very low	IPPs contracted through competitive procurement	Very large, industrial and residential dominated	Very low, stable
New Brunswick	Crown monopoly, vertically integrated	High	Relatively small amount of IPP wind, some competitively procured	Small, industrial and residential dominated	Medium, stable
Nova Scotia	Privatized monopoly, vertically integrated	Very high	IPPs contracted through competitive procurement	Small, residential and commercial dominated	High, medium volatility
Prince Edward Island	Privatized monopoly, vertically integrated	Very low domestic, but high import-exposure	Relatively large amount, mostly Crown corporation owned and operated	Very small, commercial and industrial dominated	High, stable
Newfoundland & Labrador	Partly Crown, partly privatized, monopoly by service territory	Low	Initiating competitive procurement process	Small, residential and industrial dominated	Medium, stable

Table 7.
Provincial determinants to corporate procurement

Grid GHG intensity

Why is it relevant? A province's grid GHG intensity is relevant to the volume of emissions avoidance claims that come with a MWh of renewable energy procurement. An electricity consumer will typically report fewer Scope 2 emissions for the electricity they consume in a low-emissions grid, meaning a smaller quantum to drive their demand for renewable energy to displace those emissions. Conversely, a grid's GHG intensity is a key factor for determining the amount of emissions avoided by adding renewable energy to the grid. This means that renewable energy added to a high-GHG-intensity grid will reduce emissions more than it does in a lower-intensity grid. In terms of the value of environmental attribute instruments, this means that: more offsets are available from grids with higher GHG intensity;[2] and/or there is more credibility in applying RECs from higher-GHG-intensity grids against electricity consumption in lower grids than vice versa.

How are the provinces positioned on this parameter?

Provinces vary widely in the GHG intensity of their grids, with four nearly non-emitting grids dominated by hydro-electricity (British Columbia, Manitoba, Quebec, and Newfoundland and Labrador), four highly emitting grids that rely heavily on fossil fuels for generation (Alberta, Saskatchewan, New Brunswick and Nova Scotia), and two unique or edge cases:

- Ontario has lower-than-national-average emissions intensity because of its large grid size and heavy complement of nuclear and hydro, but significant (over 10 per cent of total generation) reliance on natural gas-fired power that emits considerable GHGs (more total GHGs than New Brunswick electricity); and
- Prince Edward Island has very small amounts of GHG emissions from generation on the island itself (alongside considerable renewable energy generation), but relies on New Brunswick (and its relatively emissions-intensive grid) for more than two-thirds of its electricity needs.

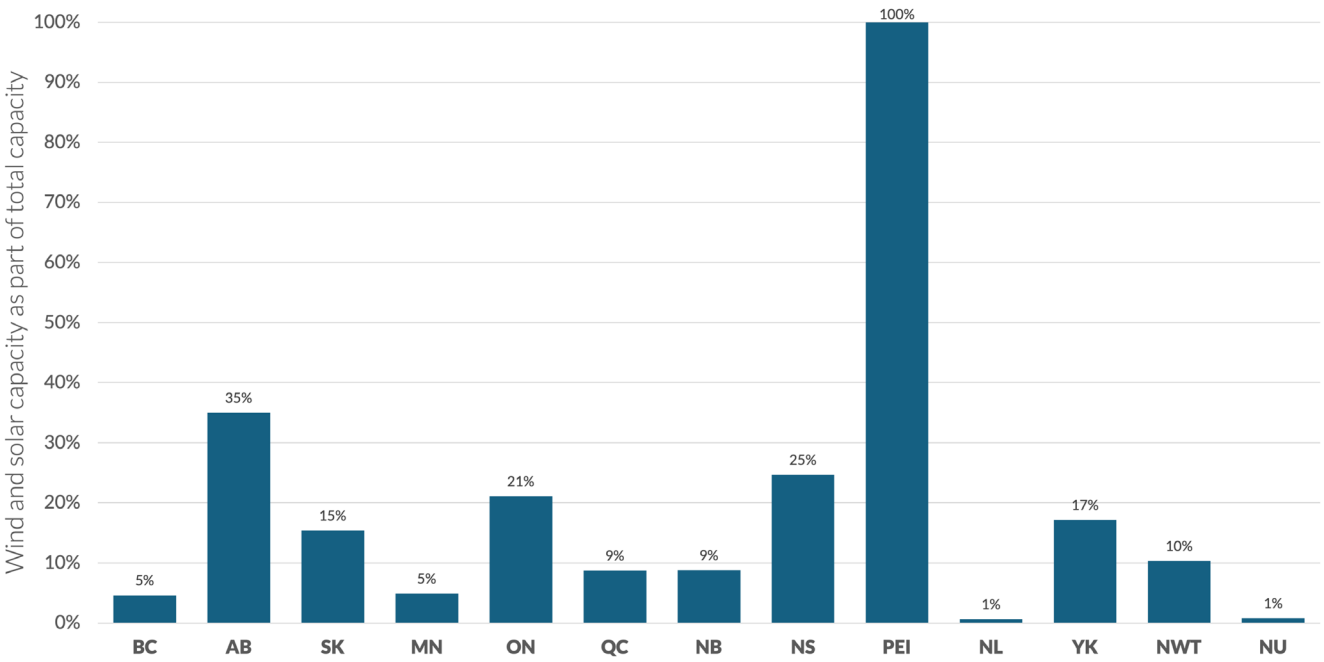

Figure 7.
Emissions intensity of power generation by province and territory. (SOURCE: GOVERNMENT OF CANADA)

2. The calculation can be more complicated, but there is always a correlation between average grid intensity and offset factor. For instance, one best-practice option for offset calculation applies a particular weighting between the GHG intensity of the grid's operating margin (the average GHG intensity of the last generator to be dispatched in all intervals across a year) and the grid's build margin (the weighted average GHG intensity of the different types of generation that has recently been added to the grid). Both of these parameters typically have a correlation to the average grid GHG intensity.

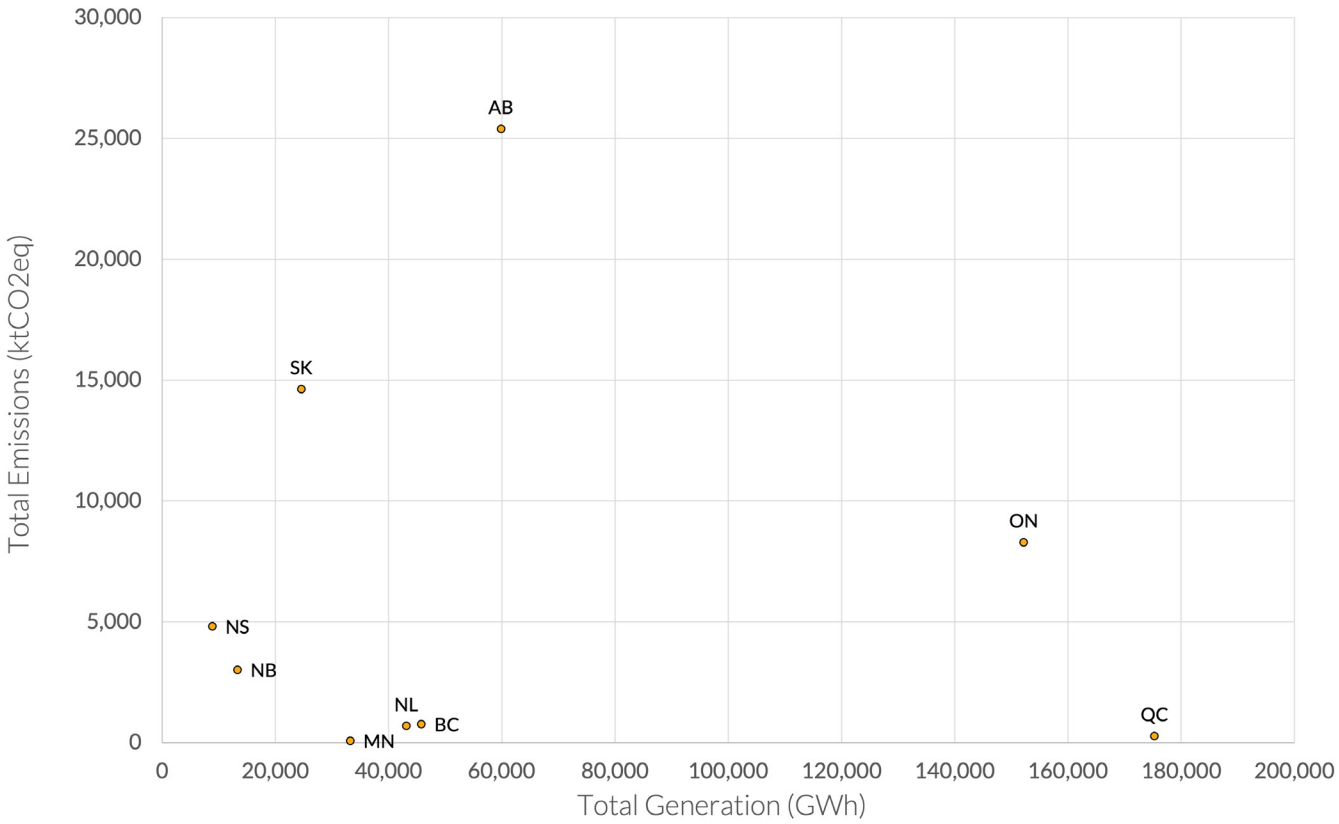

Figure 8.
Total annual generation and resulting emissions by province and territory. (SOURCE: GOVERNMENT OF CANADA)

NOTE: Jurisdictions with less than 1,000 GWh of annual generation are excluded (Prince Edward Island, Yukon, Northwest Territories, Nunavut).

What opportunity is there in jurisdictions that are weak on this parameter?

There may be a reason for corporations to procure renewable energy even in jurisdictions with very low GHG intensity. The rapid growth in electricity demand anticipated as a result of electrification, data centre proliferation, and the rise of other electricity-intensive industries threatens to prompt provinces to consider new emission-generating options, even in grids that currently rely almost exclusively on non-emitting generation sources. **Figure 9** shows that recent projections for load growth in provinces from 2021 to 2050 ranges from around 40% to over 250%, with most provinces forecasting as much as a doubling of power demand or more. Power consumers that are especially sensitive to the emissions associated with electricity inputs (such as direct air capture, because its entire business case is based on carbon reductions, or data centres because of the heightened scrutiny of climate performance in the power-hungry tech industry) will be seeking renewable energy options for their operations even in jurisdictions with low current grid emissions intensity. The high power consumption of some of these new industrial users exposes them to a heightened risk of causing new emissions from generation built in whole or in part to help meet their additional grid demands.

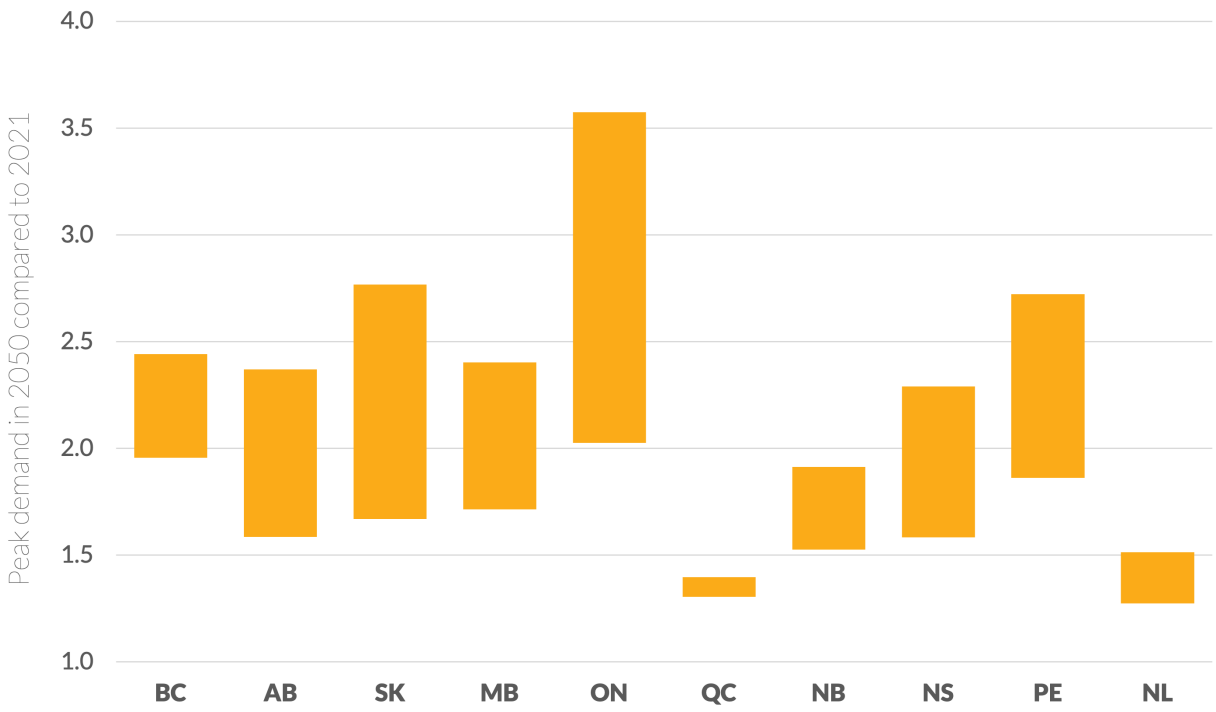

Figure 9.
Range of estimated peak demand in 2050 compared to demand in 2021. (SOURCE: GOVERNMENT OF CANADA)

NOTE: Based on scenarios from Canada's Energy Future 2023. Values are expressed as ratios of demand in 2021. The three scenarios included in the study are: (1) Canada reaches net-zero by 2050 as well as the rest of the world, (2) Canada reaches net-zero by 2050, but the rest of the world does not move as quickly, and (3) Canada maintains current measures and does not reach net-zero by 2050.

Existing renewable fleet

Why is it relevant? Having a strong existing fleet of renewable energy demonstrates sector maturity, which can be an important factor in and an indicator of the availability of low-cost renewable energy. Summed up as "learning by doing", an existing complement of renewable energy supports cost-effective new renewable energy development because it demonstrates:

- a regulatory system that has been tested and works for renewable energy development, often because of improvements to the regulatory system after previous policies erected excessive barriers;
- an ecosystem of professional services, consultants and experts that have experience with successfully bringing renewable energy projects through approvals, financing, and construction;
- a labour market and construction infrastructure that has experience in bringing renewable projects to completion, has gained efficiencies in doing so, and may even have competition driving efficiency in these services;
- electricity grid infrastructure and system operation that has integrated renewable energy without unnecessary restrictions or curtailment;
- a pool of interested developers and, likely, development projects that are nearly ready for construction, having missed previous procurement or development opportunities.

How are the provinces positioned on this parameter?

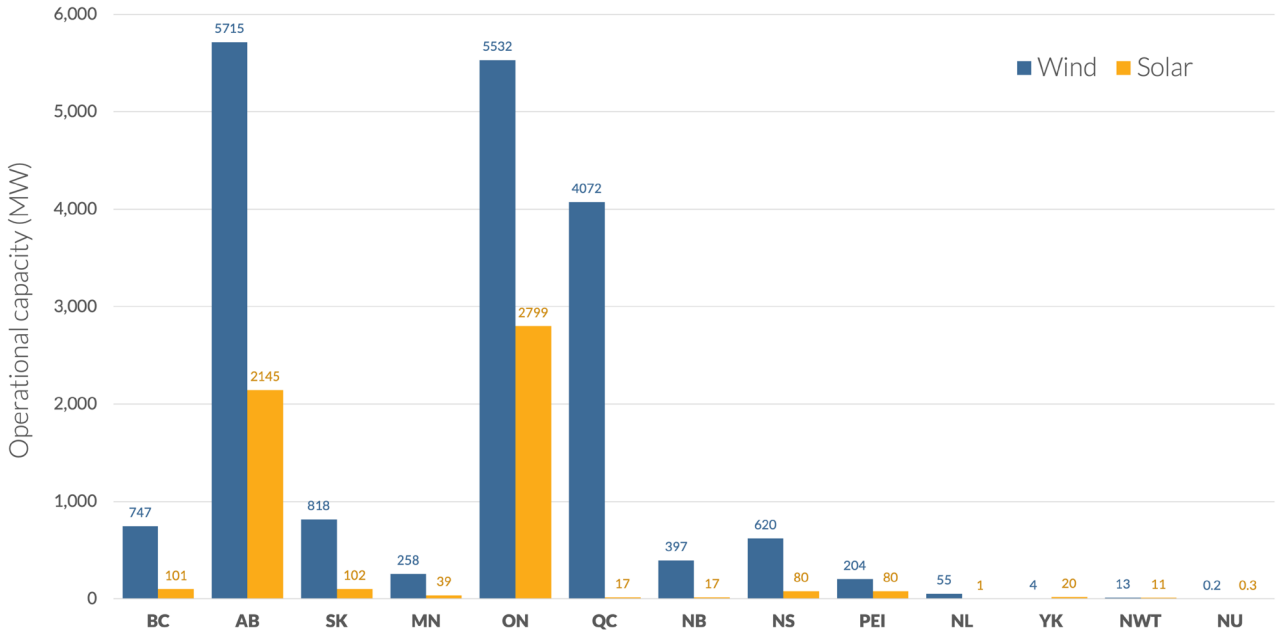

Figure 10.
Existing renewable energy capacity on the grid by province, as of the end of 2024. (SOURCE: CANREA)

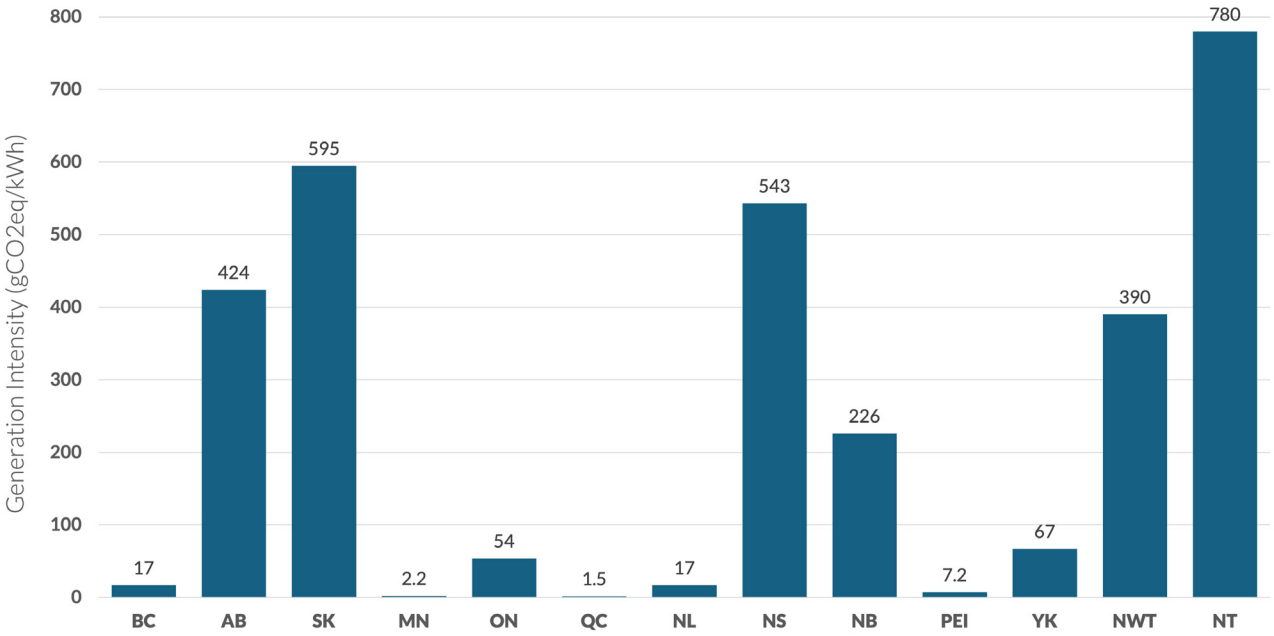

Figure 11.
Wind and solar capacity as a percentage of total operational generating capacity. (SOURCE: GOVERNMENT OF CANADA)

What opportunity is there in jurisdictions that are weak on this parameter?

With so much development experience in other Canadian jurisdictions, there is plenty of opportunity for provinces with little wind and solar experience to leapfrog the gradual efficiency improvements that come with learning by doing and instead adopt best practices from the leading jurisdictions. Moreover, the absence of existing wind and solar projects likely means there are low-hanging fruit opportunities for cost-competitive projects. Finally, fewer challenges arise when integrating variable renewable energy resources at very low penetration levels. The key will be to avoid unnecessary regulatory restrictions and to pilot some projects through approvals and interconnection processes.

Why is it relevant?

Larger grids have more infrastructure capacity and often greater supply diversity to integrate larger new additions of variable renewable energy. Moreover, their larger total load means more potential demand from buyers who may prefer to procure their renewable energy from the same grid that they consume power. This is particularly true when a grid's power consumption is more heavily weighted toward consumers that undertake corporate procurement: industrial and large commercial loads. These types of consumers are more commonly subject to greenhouse gas reduction commitments or obligations and have the scale to undertake sophisticated procurement activities.

How are the provinces positioned on this parameter?

Extremely large provincial grids like Quebec's and Ontario's attract substantial attention for generation development opportunities solely because of their absolute scale. But even very small grids can enable significant renewable energy procurement opportunities for their similarly small economies. **Figure 12** shows that Alberta and Saskatchewan stand out in the relative weighting of their load toward large industrial consumers, followed by Quebec and British Columbia. But a strong mix of industrial and commercial load also exists in Prince Edward Island, and Ontario.

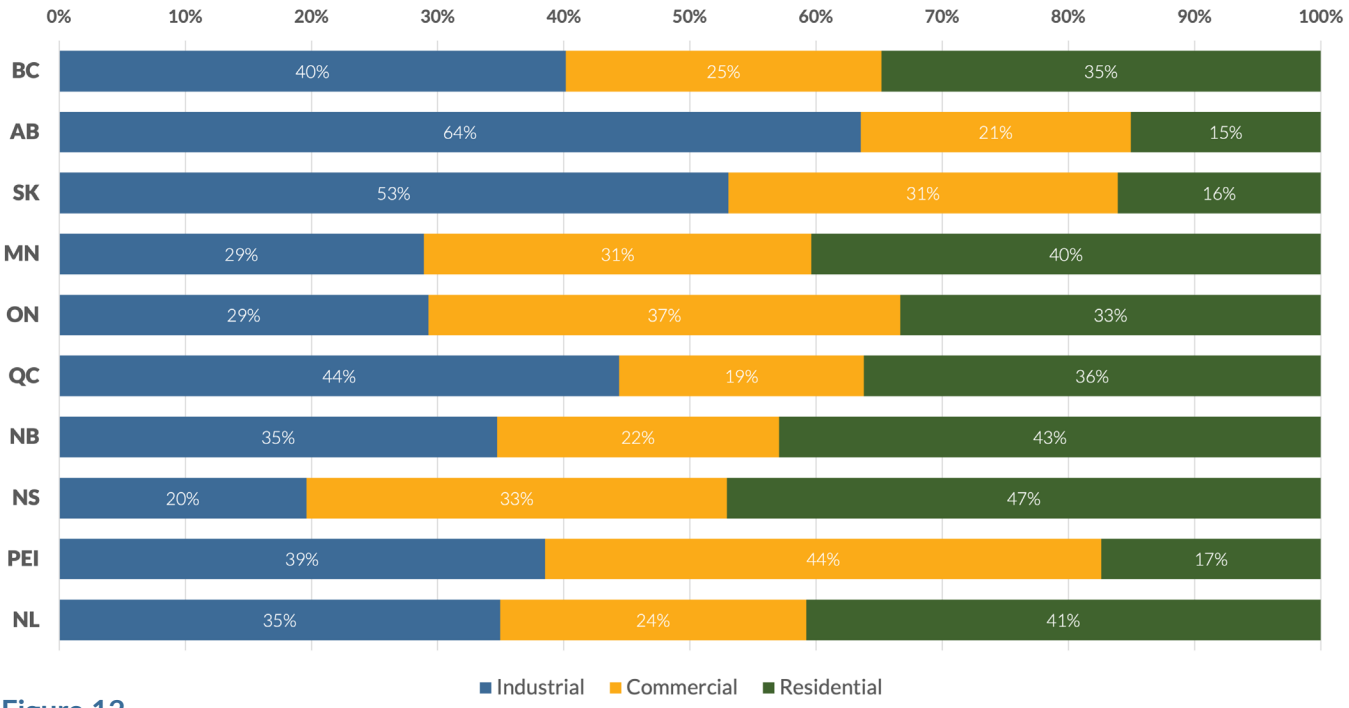

Figure 12.
Proportion of electricity demand across each province (SOURCE: GOVERNMENT OF CANADA)

What opportunity is there in jurisdictions that are weak on this parameter?

Industrial and commercial load exists in enough volume in every province to represent at least half of all electricity consumption, so there is a business renewable energy procurement opportunity everywhere. In provinces with relatively smaller industry, commercial load, and institutions (like municipalities and educational institutions), these entities may also have GHG reduction targets, and subscription programs that enable aggregation of demand can help clear the barrier of scale that is necessary for a procurement.

Electricity price dynamic

Why is it relevant?

When the costs of new renewable energy are lower than those of the rest of the energy grid (which is almost universally the case now), there is additional value to newly procured renewable energy. Someone can capture this value, either:

- the buyer – by receiving a type of credit of cost avoidance against some of the default system costs they would otherwise incur;
- the broader ratebase – by reducing the cost of energy across the entire system and capturing this benefit for benefit for the ratebase instead of passing this along to the buyer; or
- both – by apportioning some of the benefits to each.

The fairest and most effective result is sharing the benefits:

- fairest because it recognizes that the "buyer" group incurs some credit risk in backing the financing of the new generation, while the broader ratebase has built the system that can integrate the new generation;
- most effective because these benefits can be an important part of making the business case to drive interest from corporate buyers, but the political feasibility of the corporate procurement system relies on a broader social licence to be sustainable over the long term.

Assuming these rents are distributed fairly and effectively, the higher grid electricity costs, the more attractive the corporate renewable energy procurement opportunity becomes. Moreover, the more volatile and unpredictable those costs (i.e., the more exposed to volatile fuel prices or cyclical supply constraints), the more attractive stable, long-term contract rates become.

How are the provinces positioned on this parameter?

Figure 13 shows the average all-in delivered electricity rates for large customers in each province over the most recent five years for which data were available. It shows a single clear outlier in terms of cost and volatility: Alberta, where rates doubled between 2021 and 2023. While Alberta's prices have moderated since 2023, its volatility reflects its reliance on natural gas fuel inputs and the price pendulum swings that come when supply constraints drive up prices and there is a lag before new supply investment responds to correct the price spike.

Though Alberta's 2023 price spike washes out differences among other provinces (quadrupling the rates of some), there is still a significant spread, with Nova Scotia's rates double those in the lowest-cost provinces. The least expensive provinces are the hydro-heavy provinces of Quebec, Manitoba, and British Columbia, where long-term capital investments are generating power at very low, stable costs. Nova Scotia, PEI, and Ontario all have more exposure to fuel price volatility and reliance on imports, resulting in relatively high rates where renewable energy is clearly economic against the default current energy costs.

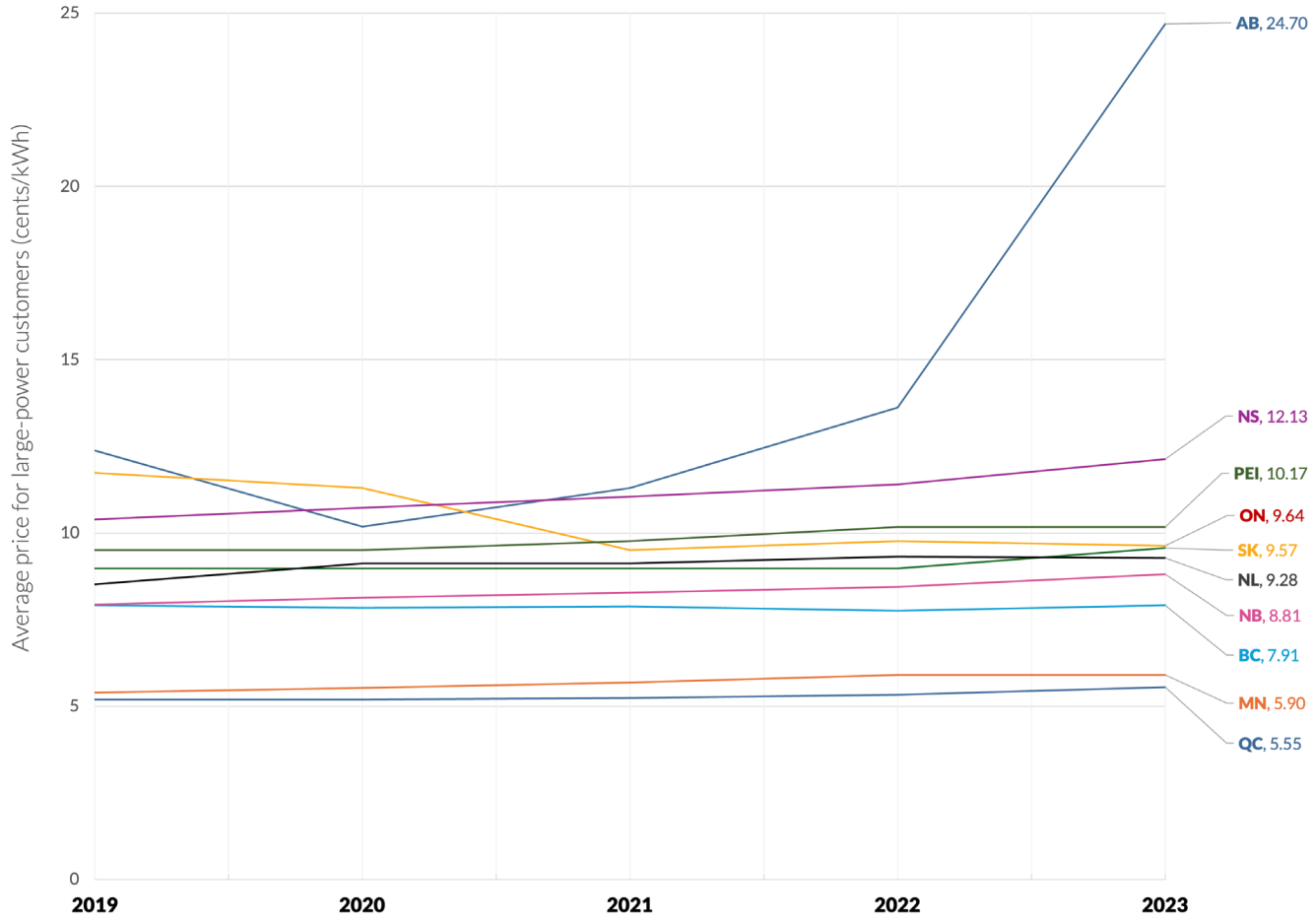

Figure 13.
Average electricity prices for large-power customers across Canada (SOURCE: HYDRO-QUEBEC)

Note: Data for large-power customers was taken, and city-level prices were extended to the province. In situations where data for multiple cities within a province was provided, an average was taken to determine the province price.

What opportunity is there in jurisdictions that are weak on this parameter?

Even where current prices are low, the expectation of rapid load growth discussed above creates the need for more low-cost sources. Even low-cost jurisdictions like British Columbia, Manitoba and Quebec are currently and/or have recently procured renewable energy because of their projections for load growth and the realization that wind and solar offer the most economic new energy sources. If these provinces want to look to corporate procurement to help finance new renewable energy, they would do well to recognize private-sector support by apportioning some of the benefits of that renewable energy (and its lower costs relative to other new generation options) to buyers.

What are some of the key corporate procurement program design considerations for each province?

While these factors affect the priority corporations place on renewable energy procurement in those jurisdictions (the jurisdictions' "ripeness" for corporate renewables procurement), none of them constitute an absolute bar, as noted in the final paragraph of each subsection. In fact, every province offers some prospects for corporate procurement to advance low-cost, non-emitting energy and support the investment case for new industrial and commercial operations.

British Columbia, Manitoba, and Quebec

Provincial circumstances:

These provincial grids, which rely heavily on hydroelectricity, have compelling reasons to add low-cost renewable energy – so they are. They all recognize that they already have a competitive advantage with low-cost, low-emissions electricity, and so they are all forecasting rapid load growth that was relatively unexpected only a few short years ago. As such, they are all procuring renewable energy to meet that growing demand with low-cost energy that can be developed much more quickly than almost any other generation option, particularly hydro. Their hydro-heavy grids integrate well with renewable energy, and the renewable energy helps reduce hydro use, allowing dams to store a limited water supply for when the grid needs it most to generate power. Under these circumstances, where the grid is already decarbonized and there is relatively limited threat of new emitting generation due to load growth, it is hardest to find a compelling reason that corporate procurements would prioritize these provinces.

Considerations for corporate procurement programs:

Having said that, these provinces' experience with renewable energy indicates a mature, competitive sector in each. A very large-load industry may begin to feel the expectation to bring its own non-emitting power when imposing new requirements on local grids. In that case, it would likely be large industry looking for sleeve deals to be able to lead procurement in these vertically integrated monopoly Crown corporation utility systems. Recognizing that existing grids are well-equipped to incorporate renewable energy, it may be fair to let low-PPA prices flow through to these industries without grid integration charges. To that end, each province might want to begin thinking about how to tap into corporate financial backing for these provinces as a measure to ensure these new facilities can add to the grid without impacting the public's or ratebase's credit.

Newfoundland and Labrador

Provincial circumstances:

Newfoundland and Labrador is in a similar situation, with the province's heavy reliance on hydro in a vertically integrated, Crown-owned utility. A recent request for expressions of interest for 150 MW of renewable energy capacity signals the province's interest in increasing its capacity to generate low-cost energy, which would allow it to save its hydro resource for higher-value periods in its export markets.

Considerations for corporate procurement programs:

It remains an open question how power-hungry clean tech sectors (like green hydrogen) will see their obligation to bring low-impact renewable energy with them when establishing operations in grids that rely on largely non-emitting, but higher-impact renewable energy. If this obligation materializes, Newfoundland and Labrador will need to seriously consider corporate procurement program options – likely large sleeve deals – to attract these operations. Given the province's existing grid, it should be able to offer a program that allows buyers to internalize the low costs of new renewable energy while imposing minimum charges related to grid integration.

New Brunswick and Prince Edward Island

Provincial circumstances:

New Brunswick has material emissions on its grid. However, it also has an unreceptive, closed system, in the sense of a vertically integrated Crown utility monopoly. There is interest among institutional and industrial consumers in accessing corporate renewable energy procurement opportunities to address the emissions they see on the grid, as well as the rising exposure to carbon pricing implicit in those emissions. At present, New Brunswick's obligations under its participation with U.S. regional grid coordination require it to offer open access for industry outside the province to contract with generation in the province. As such, ironically, load-based outside the province (and therefore bringing investment and job creation outside the province) technically can contract for new renewable energy in the province, though this has not been exploited, and there is no opportunity to receive credit against the default energy costs in the grid.

Prince Edward Island, meanwhile, is heavily reliant on electricity from New Brunswick. It is not clear how power consumers on PEI factor New Brunswick's grid emission intensity into their Scope 2 emissions calculations. But if much scrutiny is applied, this is a consideration that existing and new corporate loads should take into account.

Considerations for corporate procurement programs:

Both provinces have existing wind generation, and New Brunswick has some solar, so their systems are ripe for enabling further development from a regulatory and interconnection standpoint. Moreover, the opposition in New Brunswick's legislature put forward a concept of enabling private PPAs between buyers and community renewable energy generation in 2020 and 2021. New Brunswick could partner with PEI to achieve the scale and opportunity for new renewable energy development that could make for a successful corporate procurement program. Subscription-model programs would allow smaller consumers like small industry, commercial business, and institutional buyers to participate in the program, while also allowing the central program administration to retain control over province-specific generation choices like technology, location, community equity participation, and project size. This would require active coordination between the two provincial governments to navigate the complexity of marrying a procurement program between a Crown monopoly utility (New Brunswick) and an investor-owned monopoly utility (PEI).

Nova Scotia

Provincial circumstances:

Nova Scotia's government is the Canadian institution that has grappled most comprehensively with the design and deployment of corporate procurement programs. In fact, it is a model for the program design process across jurisdictions. There remains untapped corporate demand for renewable energy procurement in the province.

Considerations for corporate procurement programs:

Nova Scotia should undertake a comprehensive, transparent post mortem on its initial GCP round, assessing what further demand exists and what program changes would be necessary to serve even further corporate demand and tap into this to help support financing for additional renewable energy as Nova Scotia pursues its ambitious grid climate targets. At the same time, Nova Scotia should resume considering a sleeve-deal model corporate procurement program and disclose the resulting agreements publicly to enable follow-on agreements from additional buyers. It is encouraging to see Nova Scotia intends to open another GCP program round in 2026.

Saskatchewan

Provincial circumstances:

Saskatchewan has a large industrial load, with industry subject to global finance's ESG expectations and under scrutiny for using energy from Canada's most emissions-intensive provincial grid. Moreover, electricity costs have trended toward the higher end of the range across provinces. There is strong demand for corporate renewable energy procurement in the province, which has so far been met only by a small subscription-model RPO and initial pilot steps toward a sleeve-deal-model RAS, both with very little public engagement and transparency.

Considerations for corporate procurement programs:

SaskPower has taken sensible steps to develop both a subscription- and sleeve-deal model to address the varying corporate and institutional demand in the province. However, as it develops these programs further to enable access for more of the corporate demand that has so far been unmet, there is a lot of opportunity for improvement:

- Greater transparency around the decisions of eligibility and rate design, along with open engagement with both generators and buyers to take advantage of the wealth of experience of these stakeholders with corporate procurement programs in other similar jurisdictions;
- Justifications for system integration charges that seem unnecessarily high and duplicate the eligibility restrictions that see buyers limited to the capacity of their peak demand; and
- Removal of eligibility restrictions that limit the volume buyers can procure and preclude storage resources from supporting the grid integration concerns that seem to be driving SaskPower's decisions to restrict the programs.

Saskatchewan is the province with perhaps the largest gap between the scale of opportunity and existing efforts to enable corporate procurement.

Ontario

Provincial circumstances:

Ontario has the third-highest absolute grid emissions in Canada, so the scale of the opportunity to reduce grid emissions is large. Moreover, Ontario is the seat of Canada's financial sector, which drives many ESG considerations, as well as some of Canada's largest power-intensive industries. It stands to see load growth rise dramatically, new power-hungry industries, and advances in electrification. This includes many commercial loads seeking access to low-cost, non-emitting power while offsetting some of the serious grid charges that undermine the province's investment competitiveness. Ontario's market-based sleeve-deal program is laudable and likely to attract close scrutiny from industry.

Considerations for corporate procurement programs:

First, Ontario should assess the market's appetite for using its Corporate PPA program and undertake a fulsome engagement to identify opportunities for improvement. Second, Ontario should undertake assessments and design work to consider removing restrictions that render renewables-storage hybrid projects ineligible. Finally, Ontario should consider market demand for a subscription-model corporate procurement program to enable competitiveness improvements for businesses – such as small industry and commercial operations – that lack the scale to undertake a relatively complex bilateral corporate PPA.

Alberta

Provincial circumstances:

Alberta's energy-only wholesale market has been open to procurement by default, which corporate procurement buyers have used to bring on new renewable energy in the province. However, a restructuring of the energy market and an overhaul of transmission policy are very likely to fundamentally change the economics and financing of renewable energy development, as well as the long-term offtake agreements that have driven renewable energy development so far this decade. New ancillary services products will remove value from the energy market, put new non-energy costs on consumers, and potentially also add costs for renewable generation developers. Moreover, congestion and locational marginal pricing risk could prove to difficult for project financing arrangements to manage, further complicating the risk allocation within corporate PPAs. For the moment, there has been a near-total freeze on the corporate procurement market in Alberta. In contrast, market participants continue to await clarity from the reforms and an opportunity to assess the prospects for continuing with agreements. One way or another, some clarity will likely come in 2026, a proof-point year for the workability of corporate procurement within the new market.

Considerations for corporate procurement programs:

Alberta has further strides to make in developing new low-cost renewable energy to make its electricity grid more competitive for new power-hungry industry investment. Financing for this new renewable energy is very unlikely to materialize in the absence of corporate offtake agreements. In other words, the grid will not reduce emissions through additional low-cost non-emitting power without corporate procurement. Existing and new corporate loads will continue to demand the opportunity to procure renewable energy, and if they cannot make this work within the new market restructuring and reforms, the absence of a feasible corporate procurement opportunity will come to a head. It would not be surprising for a chorus of demand from existing and new load (the province has strong ambitions for new data centre load) to force a corporate procurement program that adds new regulatory enablement for corporate procurement to the new market structure, as with Ontario's market-based corporate PPA program. In the meantime, the opportunity to attract investment through feasible corporate procurement will be available to other provinces in Canada that are taking measures to open their systems.

What does this mean for the next steps in Canada?

As Canada navigates a new era of economic threats and opportunities, our attractiveness to industries and investors that prioritize climate competitiveness has become a national priority. While the electricity regulatory systems – and any corporate renewables procurement programs to enhance them – are naturally within provincial jurisdiction, the federal government has a role to play in supporting them. It has already done so with its Greening Government Initiative, by leveraging its influence as a customer: the federal government has pursued renewable energy procurements for its own operations in Canada's most emissions-intensive grids, which sparked early planning for programs already developed in Nova Scotia and Saskatchewan. Sharing learnings from these efforts and pursuing the next steps of corporate procurement (for example, leading with storage capacity procurement to help the renewable energy match load) would support learning-by-doing across Canada's provinces. The federal government's convening role could also foster new innovations to enable corporate renewables procurement, taking the findings of this report and catalyzing the next program enhancements to bolster Canada's attractiveness for investment.

As Canada navigates a new era of economic threats and opportunities, our attractiveness to industries and investors that prioritize climate competitiveness has become a national priority.

Appendix A

U.S. Green Tariff overview

Source: Clean Energy Buyers Association (CEBA), U.S. Utility Green Tariff Report (2023)

Year Approved	State	Utility	Program Name
2013	Nevada	NV Energy	GreenEnergy Rider, Schedule NGR
	North Carolina	Duke	Energy Green Source Rider, Rider GS
2015	Utah	Rocky Mountain Power	Service from Renewable Energy Facilities, Schedule 32
2016	Colorado	Xcel Energy	Renewable*Connect
	New Mexico	Public Service Co. of New Mexico (PNM)	Green Energy Rider, Rider No. 47
	Utah	RMP	Renewable Energy Purchases for Qualified Customers, Schedule 34
	Virginia	Dominion Energy	Schedule MBR
	Washington	Puget Sound Energy	Schedule No. 139, Green Direct
	Wyoming	Black Hills Energy	Large Power Contract Service
2017	Georgia	Georgia Power	Commercial and Industrial REDI schedule
	Nebraska	Omaha Public Power District	Large Power-High Voltage Transmission Level-Market Energy, Schedule No. 261 M
	Wisconsin	Madison Gas and Electric	Renewable Energy Rider
2018	Kansas	Evergy	Renewables Direct
	Kentucky	Kentucky Power	Renewable Power Option Rider
	Michigan	Consumers Energy	Voluntary Large Customer Renewable Energy Pilot Program
	Missouri	Ameren Missouri	Renewable Choice Program
	Missouri	Evergy	Renewables Direct
	Virginia	Dominion Energy	Schedule RF
	Virginia	Dominion Energy	Renewable Energy Supply Service, Schedule RG
	Tennessee	Tennessee Valley Authority	Green Invest
	Wisconsin	Wisconsin Electric Power Co. (We Energies)	Dedicated Renewable Energy Resource
	Wisconsin	Xcel Energy	Renewable*Connect

Year Approved	State	Utility	Program Name
2019	Arizona	Salt River Project	Sustainable Energy Services Pilot Rider
	Georgia	Georgia Power	Customer Renewable Supply Procurement
	Kentucky	LG&E and KU Energy	Standard Rate Rider Green Tariff
	Michigan	DTE Energy	MIGreenPower, Rider 19
	Minnesota	Xcel Energy	Renewable*Connect
	North Carolina	Duke Energy	Green Source Advantage
	Oregon	Portland General Electric	Green Future Impact
	South Dakota	Black Hills Energy	Renewable Ready Service
	Wisconsin	Alliant Energy	Renewable Energy Partner Program
2020	Iowa	Alliant Energy	Renewable Energy Partner Program
	Indiana	Indiana Michigan Power	IM Green Customer Agreement Option
	Kentucky	Duke Energy	Green Source Advantage
	Kentucky	East Kentucky Power Cooperative	Renewable Energy Program
	Michigan	Indiana Michigan Power	IM Green Bring Your Own Contract
	Nevada	NV Energy	Large Customer Market Price Energy
	New Mexico	PNM	Solar Direct, Rider No. 50
	Virginia	Dominion Energy	Rate Schedule MBR, Large General Service Market-Based Rate
	Virginia	Kentucky Utilities	Green Tariff
	Wyoming	Black Hills Energy	Renewable Ready Service
2021	Arizona	Arizona Public Service	Green Power Partners Program
	Idaho	Idaho Power	Clean Energy Your Way
	South Carolina	Duke Energy	Green Source Advantage
2022	Arkansas	Entergy Arkansas	Green Promise
	Louisiana	Entergy Louisiana	Geaux Green
	West Virginia	Appalachian Power	Renewable Power Plus
2023	Georgia	Georgia Power	Clean and Renewable Energy Subscription
	North Carolina	Duke Energy	GSA Choice

Appendix B

Additional U.S. Green Tariff programs

This list identifies programs not included in CEBA's review in 2023, shown in Appendix A. Some were not yet approved as of July 2025, and are indicated below if they are Applied or Proposed programs.

Year Approved or Proposed	US State	Utility	Program name
2012	Wisconsin	Wisconsin Energy	Energy for Tomorrow
2022	Mississippi	Entergy Mississippi	RenewABLE Community Option
2023	Arkansas	Entergy Arkansas	Go Zero (Rider GZ, Rate Schedule number 70)
2024	Nevada	NV Energy	Clean Transition Tariff (geothermal with Google) (*Proposed*)
	North Carolina	Duke Energy	Accelerating Clearn Energy (ACE) tariffs (SMR LDEs with Amazon, Google, Microsoft, Nucor Steel)
	North Carolina	Duke Energy	(revised) Green Source Advantage Choice
	South Carolina	Duke Energy	Clean Energy Connection (*Proposed*)
	Alabama	Alabama Power	Clean Energy Select
	Hawaii	Hawaiian Electric Companies	Green tariff pilot program for University of Hawai'i at Mānoa (*Applied*)
	Louisiana	Entergy Louisiana	Geaux Green Limited (Rider GGL)
	Louisiana	Entergy Louisiana	Geaux ZERO (Rider GZ)

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