# Renewable virtual power purchase agreements and the clean energy landscape

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Canadian corporations are turning to renewable virtual power purchase agreements as an emerging component of their energy procurement strategies. By securing a long-term fixed price for renewable energy, VPPAs offer companies a mechanism to hedge against fluctuations in market prices, supporting corporate sustainability goals and providing a level of predictability in energy costs. However, the effectiveness of VPPAs as a hedge often hinges on artificial electricity markets.

This article will examine several recent examples of market rules changes across Canada and assess how these evolving frameworks impact VPPAs.

## What are VPPAs?

Virtual Power Purchase Agreements (VPPAs) are power purchase agreements, *i.e.*, contracts between energy developers and buyers, typically utilities, to purchase and receive power generated from energy assets, which differ from traditional power purchase agreements (PPAs) stemming from two key distinctions:

- **VPPAs are fundamentally financial agreements (usually contracts for differences):** Unlike traditional PPAs, VPPAs often act as hedges against volatile power market prices. Electricity consumers can use VPPAs to fix energy prices and avoid sudden price spikes, such as the surge to **$9000/MWh from an average of $50/MW** h on the ERCOT grid in February 2021**.** On the other hand, electricity generators can use VPPAs to fix energy prices and avoid sudden price drops, such as negative pricing arising due to surplus baseload generation.
- **VPPAs do not require a direct physical electrical interconnection:** The second significant difference between traditional PPAs and VPPAs is accessibility. Because specific physical electrical interconnection infrastructure is not required to convey the electricity directly from producer to buyer, corporations of all sizes and electricity market experience levels can participate in this market.

As utilities, system operators, customers and load-serving entities begin to procure different forms of renewable and traditional generation at a higher rate, *the distinction between traditional (or physical) PPAs and VPPAs has blurred*. Contractual clauses appropriate for physical and electrical interconnections have found their way into

VPPAs, and financial, contractual clauses have found their way into PPAs. This has given rise to “hybrid” power purchase agreements. These hybrid power purchase agreements have considerable variation and are often driven by specific regulatory frameworks and the business and policy objectives of the contracting counterparties.

### What are renewable VPPAs?

Renewable VPPAs are VPPAs tied to the output from a specific renewable electricity generating facility. Typically, renewable VPPAs are more financial in nature than other VPPAs, often stipulating the price of the electricity generated under the contract. In a jurisdiction with a competitive power market, a renewable VPPA might contain a contract for difference mechanism that can be used with the floating price determined by the market’s system operator.

In addition, some–*but not all*–renewable VPPAs include the environmental attributes **and the derivative registered or certified renewable energy certificates** (RECs) associated with the renewable electricity generating facility. Because RECs are traded as separate assets, they might also be sold separately.

## I. Regional changes to the renewable energy landscape

### Ontario

*Increases in Clean Energy Projects*

In August 2024, the Ontario provincial government launched the largest competitive energy procurement in provincial history, announcing a plan to procure up to 5,000 megawatts of renewable energy through a series of projects that will be rolled out on an accelerated timeline (concluding in February 2026) to meet rising energy demand in the province. Each energy project will require municipal support and an Agricultural Impact Assessment. The Independent Electricity System Operator is expected to report back to the Ontario provincial government with a procurement design framework by the end of September 2024.

*Amendments to Ontario Regulation 429/04*

In May 2024, the Ontario provincial government concluded a consultation on proposed amendments to Ontario Regulation 429/04, which establishes a global adjustment fee that purchasers must pay under a VPPA. Unlike the wholesale market price, the global adjustment cannot be hedged. If enacted, the proposed amendments will permit global adjustment hedging under limited circumstances, allowing certain energy market participants to offset their facility’s demand in the top five peak hours of a base period for settlement purposes by entering into VPPAs with non-emitting generation facilities that are not connected behind the facility’s meter. The proposed amendments will cover wind, solar, hydroelectric and biofuel energies.

### Alberta

*Electricity market reform*

In March 2024, the Alberta provincial government proposed sweeping reform to its electricity sector to combat recent supply shortfalls. The proposed reform will include, most notably, a day-ahead market similar to the market currently undergoing implementation in Ontario. The proposed reform also includes offer mitigation with a low price cap to mitigate extreme price events, administrative scarcity pricing, high price cap and negative floor price, additional ancillary service products, ramp-up reserves, strategic reserves and enhanced technical requirements, co-optimization of dispatch of energy and ancillary services, shorter settlement intervals and security-constrained economic dispatch.

The Alberta provincial government announced an ambitious timeline for the proposed reform, aiming for the new market rules and processes to be implemented in 2026. The proposed reform is complex and will likely result in hurdles for electricity market participants throughout its development and implementation.

*Renewables pause hangover and legislative reform*

In March 2024, the Alberta provincial government's sudden moratorium on renewable energy projects ended, permitting the development of renewable energy projects in the province to resume.

This occurred in sharp contrast to the *Generation Approvals Pause Regulation,* enacted by the Alberta provincial government in August 2023, which paused, effective immediately, the Alberta Utilities Commission (AUC) approval of new renewable electricity generation projects until early 2024. On that same day, the Alberta provincial government directed the AUC to conduct a broadly scoped inquiry into the ongoing economic, orderly and efficient development of electricity generation in Alberta. The moratorium and initiation of the inquiry immediately cast doubt on the future of renewable energy projects in the province – including projects that were in development at the time of the moratorium.

The AUC divided the inquiry into **Module A**, which would explore land impact issues, and **Module B**, which would explore renewable energy's impact on generation supply mix and electricity system reliability. AUC delivered its report on Module A to the Alberta provincial government in January 2024. The report contained significant legislative and policy recommendations, especially concerning the automatic grant of municipal government participation rights, the implementation of restrictions on the use of agricultural and environmental lands, the development of a policy regarding the use of Crown lands and revisions to existing rules to protect "***pristine viewscapes***".

In February 2024, the Alberta provincial government issued a summary of policy changes in response to the report. Among other matters, the Alberta provincial government indicated that the AUC would be required to take an agriculture-first approach when evaluating the use of agricultural and environmental lands. Further, the AUC would not be permitted to approve renewable development on certain agricultural lands; renewable developments on Crown lands would be assessed on a case-by-case basis, and there would be a 35km buffer zone around designated protected areas and pristine viewscapes. Finally, the Alberta provincial government indicated legislative development – and more policy development – was to come. Shortly after that, the AUC released its report on the Module to the public and began processing applications for renewable energy projects again.

*Transmission policy consultation*

In October 2023, the Alberta provincial government published a discussion paper detailing its analysis of current provincial transmission policies. This included a review of the existing generating unit owner's contribution (GUOC) regime that prescribes maximum and minimum GUOC rates, thereby ensuring that loads – not generators – pay for most of the transmission costs for new electricity. To mitigate the costs passed on to consumers, the Alberta provincial government suggested abolishing maximum and minimum GUOC rates, effectively requiring generators to pay for new electricity transmission costs instead. A consultation on the discussion paper is ongoing.

### Nova Scotia

*Green Choice Program*

In December 2023, the Nova Scotia provincial government announced the launch of its Green Choice Program, a program for large-scale electricity customers that will allow participating customers to purchase up to 100 per cent of their electricity use from local pooled renewable energy sources.

As part of the Green Choice Program, the Nova Scotia provincial government launched a procurement to secure new renewable energy projects expected to generate renewable electricity as early as 2027. The procurement is expected to result in five to seven renewable energy projects. The Nova Scotia provincial government anticipates that selected proponents will be announced in February 2025.

Contemporaneously with the procurement, the Nova Scotia provincial government opened applications for program participants. In June 2024, the Nova Scotia Utility and Review Board invited comments on a draft power purchase agreement template that will be used for program participants. Following the comment period, the Nova Scotia Utility and Review Board will publish the finalized power purchase agreement template. Program participants are expected to enter into the power purchase agreement in January 2025.

## II. Discussion

### Impact on projects

The variability in changes to the renewable energy landscape across the country has and continues to have an uneven impact on the development of new projects.

**In Alberta**, while the renewables pause may have ended, uncertainty persists. Looming legislative changes – and the lack of clarity as to what those legislative changes will entail – have a chilling effect on proponents' appetite to develop renewable energy projects in the province. Some of the Alberta provincial government's policy positions already contain restrictions (including those on location) on renewable energy projects, further exacerbating the stifling effect.

Energy market participants are bracing for a bumpy road to market rule reform. Some projects, including the Saamis Solar Farm, which received AUC approval in July 2024, are proceeding despite the policy conditions.

**In Ontario,** the provincial government touted its own procurement and proposed legislative amendments as significant contributions to supporting the growth of clean energy. However, the path to net-zero is not so clear. As currently drafted, the proposed legislative amendments are restricted to energy usage during peak hours, meaning that the proposed amendments will disproportionately support solar energy but not wind.

And **in Nova Scotia** , the Green Choice Program is expected to result in a boon to renewable energy projects in the province.

### Managing change with VPPAs

VPPAs can help provide certainty to contracting parties amidst an evolving renewable energy landscape, especially those without significant energy market experience. However, contracting parties should be cautious to consider the following clauses:

- **Market rules:** A market rules clause contains a series of rules that stipulate what happens to the VPPA if there is a change to market rules during the term of the VPPA. That is, as between the seller and the purchaser, who will bear the risk of changes to market rules? A market rules clause can be drafted in various ways to protect the generator or the purchaser - or strike a balance somewhere in between. A market rules clause can be tailored to a particular trigger, *eg.* a financial threshold or a specific change to a market rule.
- **Curtailment risk clause:** Often embedded in a market rules clause, a curtailment risk clause addresses the specific risk that the market operator might impose a curtailment, *eg.* the market operator instructs generators to turn off electricity production in response to a glut in the market. Or, if the market contains no existing curtailment right, market rules are amended to include a curtailment right.
- **Change in laws:** A change in laws clause addresses the risk that applicable law may be amended during the term of the VPPA. The clause stipulates the conditions under which the parties will open up the VPPA to address a change in law and the process by which the parties will agree on an amendment to the VPPA to reflect a change in law.

## The bottom line

Renewable VPPAs are levelling the energy market playing field for organizations of all sizes to achieve their carbon consumption goals. While this market has experienced rapid expansion over the last 15 years, it has also faced persistent change and disruption. How can buyers and sellers come on board to share the risks and benefits associated with these projects?

Successful renewable VPPA market participants tend to have the following elements in common:

- **Considering the context.** Is regulatory or market reform proposed in the jurisdiction in which the VPPA will operate? *Consider tailoring the reopener clause to draft rules, if available.*
- **Defining the bottom line.** Under what circumstances would you want to revisit the terms of the contract? What change to market rules or resultant impact would render the contract undesirable to you? *Draft backward from the worst-case scenario.*
- **Engaging subject-matter experts** . Experienced legal counsel can help *mitigate power imbalances* and guide negotiation.

BLG's experienced Energy, Resources and Renewables lawyers have extensive experience advising buyers and proponents of renewable VPPAs across Canada and routinely advise clients on market issues and trends in VPPA negotiations. To learn more, please contact any of the key contacts or authors listed below.

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