

Introduction

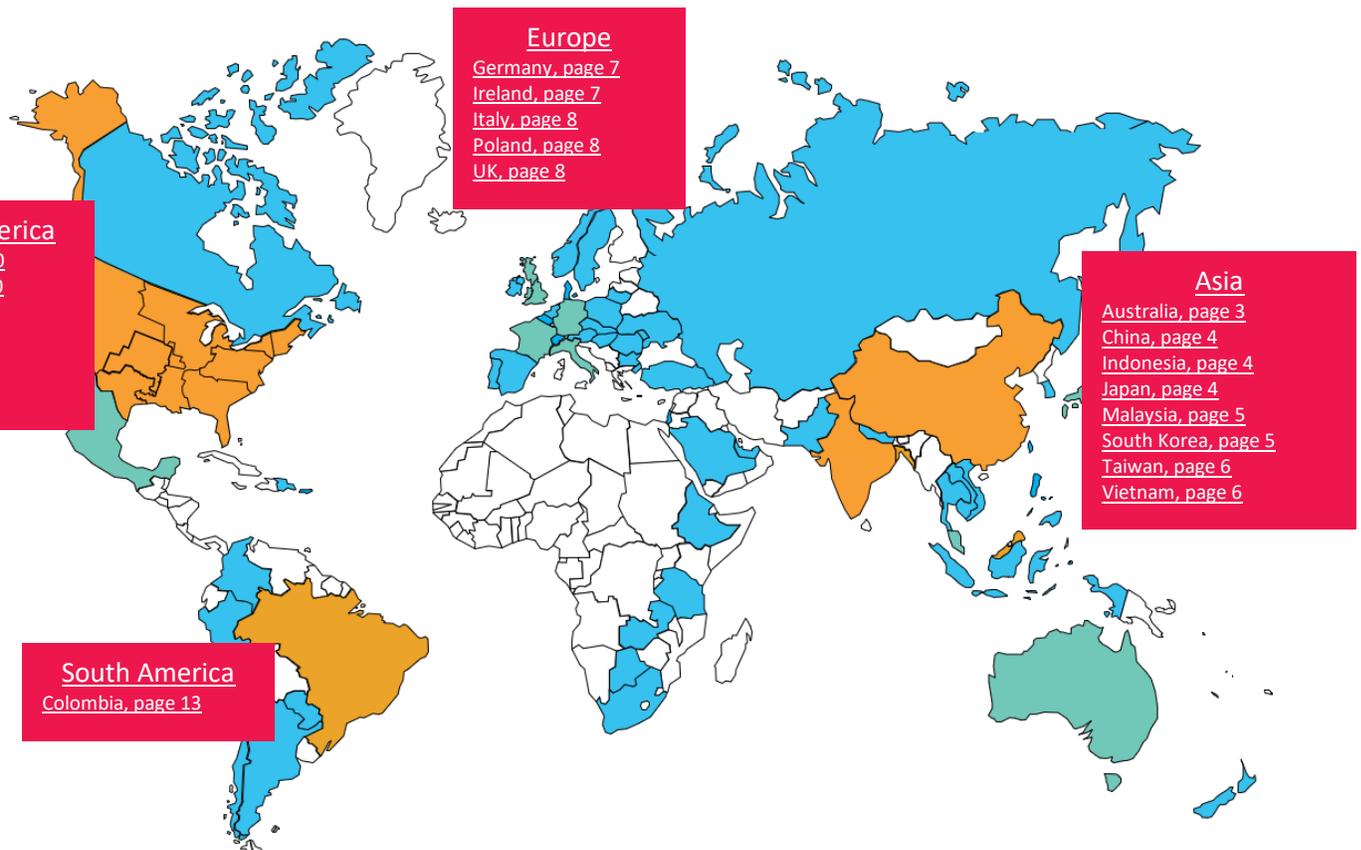
Large-scale energy buyers continue to drive the expansion of international clean energy markets as they look to reduce the energy impact of their operations and supply chain worldwide. The tri-annual **C&I Procurement Update** highlights international energy market updates, connects you with international organizations supporting sustainability practitioners, and communicates best practices implemented in the market to accelerate the procurement of renewable energy.

If you are interested in providing input, please contact the REBA team: supplychain@rebuyers.org

Table of Contents

The map below highlights the energy markets from which large energy buyers are interested in procuring renewable energy. Each issue of the C&I Procurement Update will reflect relevant market updates.

You have the option to read through the update in its entirety *or* use the map to jump to the specific market of interest.



Legend: identified buyer interest



All buyer companies can connect with peers, worldwide

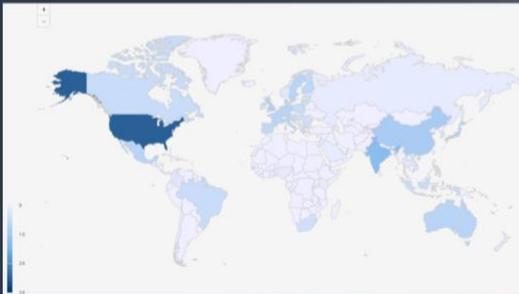
The International Connection Platform

The International Connection Platform (the Platform) has been built to enable connections and relationships among buyers and NGOs to accelerate sustainable energy goals in any energy market worldwide.

Through the Platform, you can see who else has interest and experience in specific energy markets, create company profiles, and connect with others working in markets of interest.

The Platform is free to any energy buyer and NGO acting to accelerate corporate procurement of renewable energy. To register and use the Platform yourself, visit: <https://rebuyers.org/international-connection-platform/>

See who else has interest in specific energy markets



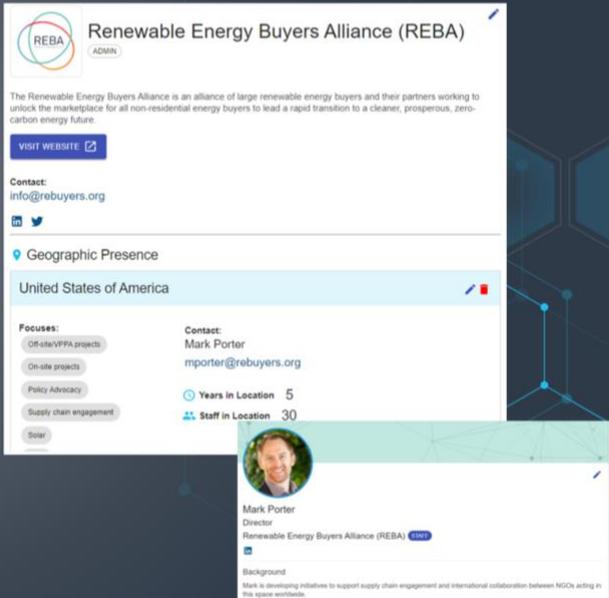
Large energy buyers and NGOs, searchable by energy market and focus areas



Australia China India Japan Mexico South Korea United States of America Vietnam



Update your profile: <https://portal.rebuyers.org/profile>



We would like to thank the We Mean Business Coalition for investing in this unique connection tool and the many partners and members that have been involved in feedback and development of the Platform.

Worldwide Wednesdays: an international connection discussion series

Worldwide Wednesday is a monthly virtual discussion series to share the latest developments and opportunities in renewable energy procurement in international markets of interest. Sessions will be co-hosted by energy buyers and NGOs with interest or experience in specific global energy markets. If your organization is interested in co-leading a session, please contact supplychain@rebuyers.org.

Future Updates

The C&I Procurement Update is meant to supplement existing information and research on international markets for large-scale energy buyers and should not be seen as comprehensive, covering all aspects of an energy market.

REBA and all contributors welcome feedback on the content and will endeavor to expand market coverage pending interest.

To provide direct feedback, please contact the REBA team: supplychain@rebuyers.org

Contributor Acknowledgements

REBA is proud to collaborate on the C&I Procurement Update with peer NGOs and for profit companies to support large-scale energy buyers' journeys towards emissions reductions through the implementation of renewable energy and to accelerate the transition to a zero-carbon energy system.

The following collaborators supported the development of this C&I Procurement Update issue based on areas of interest and activity as identified by corporate buyers. Please note, not all NGOs active in the energy sector were able to contribute.

Contributors: NGOs

[BRC Australia](#)
[BRC Canada](#)
[Clean Energy Investment Accelerator](#)
[Renewable Energy Institute](#)
[RE-Source](#)
[The Climate Group](#)

REBA extends sincere gratitude to the NGOs that contributed and a special thanks to [The We Mean Business coalition](#) for supporting greater collaboration among NGOs worldwide and specifically the International Connection Platform.

Contributors: For profit companies

[3Degrees](#)
[Apala Group](#)
[Edison Energy](#)
[Ernst & Young LLP](#)
[LevelTen Energy](#)
[Mt. Stonegate Green Asset Management Ltd.](#)
[Wilson Sonsini](#)

Asia

Australia

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With thanks to BRC Australia

After a record year in 2020 for corporate renewable Power Purchase Agreements (PPAs) in Australia, the first quarter of 2021 has seen a solid level of deal activity. During 2020, there were 26 corporate renewable PPAs announced, directly contracting 1.3 GW of renewable energy and supporting more than 4.5 GW of generation. So far, there have been 7 corporate PPAs announced in Australia in 2021 including:

- Two deals by leading energy and resource companies BHP and BP: BHP signed a 100 MW PPA with Western Australia's largest solar farm to supply half the electricity requirements for a refinery and BP signed a PPA with a new 107 MW solar farm for its petrol stations in the state of New South Wales (NSW).
- Leading retailer Coles signed two PPAs for green-certificates (Large Generation Certificates; LGC): the LGC-only PPAs with operating solar farms follow deals signed last year for electricity from new solar farms in the states of NSW and Queensland.
- Three deals signed by local councils (Eurobodalla, Northern Beaches) and a university (Flinders): local government and universities with ambitious renewable energy targets have been a strong source of demand for corporate PPAs.

Australia's corporate PPA sector continues to be primarily a dual market with large corporates signing wholesale PPAs and mid-sized buyers signing retail PPAs. One interesting trend appears to be the growth of green retail supply agreements with multiple solar and wind farms across the portfolio of the retailer.

In 2020, as retailer investment in solar and wind sharply declined after an investment boom to meet obligations under the 2020 national Renewable Energy Target, corporate renewable PPAs played a key role in maintaining investment and avoiding the boom-bust cycle that has been a feature of the Australian renewable energy market for the past decade. Corporate PPAs remain the major source of new investment in renewable energy in 2021 to date.

Although there has been a strong economic recovery in Australia as the economy has opened up again, conditions remain challenging for corporate PPAs. A combination of moderate temperatures, lower demand, and the growth of renewable energy have led to major falls in wholesale electricity prices, for example, the average wholesale price in Victoria fell from \$79/MWh in Q1 2020 to \$25/MWh in Q1 2021. In South Australia, where the penetration of renewable energy is highest, the average price during peak solar generation period (10am – 3pm) in Q1 2021 was \$12/MWh. The high wholesale electricity prices that led to a surge of interest in corporate PPAs in 2018-19 have dissipated. The demand for corporate PPAs is now amongst buyers with renewable energy or climate targets or larger energy users taking a longer-term, risk management perspective.

The State Governments in the three largest states of the National Electricity Market (New South Wales, Queensland, and Victoria) are currently developing programs for Renewable Energy Zones (REZs) to unlock investment in transmission and generation in the regional areas with the best resources. The future of corporate PPAs will be significantly influenced by development through the REZ programs. The first REZ under development in New South Wales seeks 'shovel-ready' projects by the end of 2022. At the date of this issue, project specifics, including offtake and financing structure, are unclear.

Read the BRC-A's [2020 State of the Market](#) report on Corporate Renewable PPAs for a detailed analysis of the Corporate Renewable PPA market.

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China

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With thanks to Mt. Stonegate Green Asset Management

At a National level, the pace of renewable energy development is expected to rise significantly, as China's net zero target will require an additional 15 TW in capacity. Putting this in context, China's installed capacity grew by 30% to 260 GW in the period from 2016 – 2020, and is planned to grow at 50% from 2021 – 2025 (the 14th Five Year Plan).

At a provincial level, several provinces are developing or deploying renewable energy procurement mechanisms, and the impression is that the eight provinces trialing spot markets are those most advanced towards voluntary procurement of renewable energy. Specifically, during this issue, Guangdong released trial rules for a renewable energy direct power purchase (DPP) mechanism. The DPP rules allow for provincial-level renewable energy transactions through annual- or monthly-bilaterally negotiated transactions with large energy users, or through electricity retailers for smaller-load corporates.

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Indonesia

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With thanks to the Clean Energy Investment Accelerator

Building on developments covered in previous issues (see previous issue links, right), Indonesia's state-owned utility, PLN, advanced its renewable energy certificate (REC) service product by making certificates available to corporate and other buyers through APX's TIGRs verification mechanism, providing market confidence and preventing double-counting.

Moving forward, PLN plans to expand the program to increase the number of RECs available and by integrating RECs into other renewable energy procurement options that open an opportunity for direct private sector investment into renewable energy expansion.

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Japan

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With thanks to Renewable Energy Institute and Mt. Stonegate Green Asset Management

Building on developments covered in previous issues (see previous issue links, right), Non-Fossil Certificates (NFCs) continue to represent almost 100% of renewable electricity supplied through the grid network and are the key solution for corporates to meet procurement targets, despite the retailer-bundling requirement. But following calls from corporate energy users for more flexible trading options, the Japanese government is now considering revising the NFC rules and seeks to implement the revised rules by the end of this year. It is expected that 'flexible NFCs' will entail two markets:

- one related to environmental attributes from feed-in tariff (FIT) incentivized projects (FIT-NFCs), and
- the other related to environmental attributes from projects not utilizing a FIT scheme, primarily large hydropower and nuclear projects (non-FIT NFCs).

The market expects that FIT-NFCs will be directly purchasable, effectively enabling the purchase of unbundled NFCs. Non-FIT NFCs are expected to only be purchasable by retailers.

The expected NFC changes may provide more options for procuring renewable electricity, but there is a remaining issue as to whether corporate energy users can acquire non-FIT-NFCs directly from new projects in which they invest/sign PPAs and enhance the impact story. The government mentioned this issue is under consideration but has not announced any plan.

Another expected NFC change is a floor price reduction for FIT-NFCs, currently JPY1.3/kWh, and expanding the national tracking system.

Lastly, environmental attributes can now be procured through the International REC (I-REC) Standard. To qualify, strict requirements have been developed to avoid overlapping issues with other schemes, renewable energy projects are not allowed to issue I-RECs if they are receiving either FIT-NFCs or non-FIT NFCs, green energy certificates (GECs), or J-Credits.

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Malaysia

Previous issues with content: -

With thanks to Apala Group

The Malaysian government has initiated key policies in recent years, including a 31% target for renewable energy by 2025 and key reforms such as the Large Scale Solar (LSS) program and the Net Energy Metering (NEM) scheme. LSS is a competitive bidding program that has helped to drive down the Levelized Cost of Energy (LCOE) for large scale solar photovoltaic (PV) plants. Beginning with the third LSS program (LSS3) in 2019, solar generators in the program automatically transfer their energy attribute certificates (EACs) to the peninsular Malaysia utility, Tenaga Nasional Berhad (TNB). NEM allows for PPAs between the corporate buyer and project developers for on-site solar generation, without involving TNB. A virtual NEM, or Net Offset Virtual Agreement (NOVA), allows solar PV energy produced on-site that is not self-consumed to be exported to up to three designated premises, providing bill credits to the accounts of these designated premises.

In peninsular Malaysia, TNB has historically played the role of a traditional vertically integrated utility, but has recently integrated corporate renewable energy infrastructure by creating mGATS. This platform, along with I-RECs and TIGRs, allow corporations to purchase RE100 and CDP recognized EACs to match their local electricity consumption. In addition, TNB launched their myGreen+ product, a retail renewable energy offering that pairs EACs with electricity sales. The New Enhance Dispatch Arrangement (NEDA) was established in 2017 allowing merchant generators to sell power to a single buyer. Corporations now have the potential to procure both offsite physical PPAs and virtual PPAs, although there have been limited transactions to date.

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South Korea

Previous issues with content: [3](#)

With thanks to the Climate Group (RE100)

The bilateral (direct) PPA bill was passed in South Korea's National Assembly at the end of March. Detailed rules will be designed within the bill's six-month launch timeframe, but it is feared they will closely resemble those recently announced for third-party (indirect) PPAs: the most expensive level of transmission and distribution fees (costlier than coal), and an inability to sign contracts below the average industrial electricity price.

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Taiwan

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With thanks to 3Degrees

In April 2021, President Tsai provided an Earth Day announcement that Taiwan is actively assessing and planning for potential pathways to reach net zero emissions by 2050. The announcement is seen by many as an encouraging opportunity for further renewable energy development in the grid-isolated island nation.

The announcement comes shortly after Taiwan's January release of the 2021 rates for the national FIT. The new FIT rates are lower than 2020 rates; however, the FIT remains high compared to the low price of state-subsidized electricity. The FIT rate continues to create a price barrier to corporate transactions as PPA prices need to match or exceed the FIT rate to motivate project developers to contract with corporates.

Meanwhile, onsite solar remains a popular option, with some new retailers introducing innovative leasing models.

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Vietnam

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With thanks to Clean Energy Investment Accelerator

The Ministry of Industry and Trade (MOIT) recently published the draft Circular for the Direct Power Purchase Agreement (DPPA) pilot program. English and Vietnamese language versions of the draft Circular are available [here](#). MOIT was soliciting public comments on the Circular through early June, and recent media reports indicate MOIT will approve it by the third quarter of 2021. When finalized, the Circular should enable the DPPA pilot program to begin, opening the opportunity for offsite PPAs between industrial power consumers and independent solar and wind power producers, a first in Vietnam. Up to 1,000 MW of projects using contracts for differences will be approved in the pilot phase, likely available to applicants on a first-come-first-served basis.

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Europe

Germany

Previous issues with content: [2](#)

With thanks to RE-Source

Over 1.1 GW of corporate PPAs have been announced to date, including multiple announcements this year.

- In February, Power & Air Solutions and Vattenfall announced a 60 MW PPA with a solar project that will not receive public financial support.
- In March, Daimler and Statkraft announced a wind and solar PPA to power Mercedes factories. The wind power will come from 24 existing wind farms no longer receiving financial support through the FIT system. The deal allows the projects to continue operating, helping to prevent early decommissioning of the turbines. The deal also provides 100% renewable energy 24/7 by combining wind and solar power with back-up hydro capacity in Norway.

The ongoing FIT system phase-out will continue to improve the near-term business case for corporate PPAs, however, there are still renewable energy sourcing barriers that must be removed. For example, energy intensive industries in Germany are unnecessarily penalized today if they sign a renewable PPA, as the current interpretation of the Emissions Trading System (ETS) State Aid Guidelines prevents them from receiving compensation for indirect EU ETS costs. Germany also continues to retain Guarantees of Origin (GOs) from renewable energy projects that benefit from State Aid, preventing some companies from retaining and retiring GOs needed for traceability.

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Ireland

Previous issues with content: [4](#)

With thanks to Ernst & Young LLP

Corporate PPAs are gaining popularity and traction in Ireland. This can primarily be attributed to:

- the replacement of the FIT scheme with a competitive auction support scheme, the Renewable Electricity Support Scheme (RESS), which essentially levels the playing field between government support and corporate PPAs;
- renewable electricity generation prices, which continue to fall; and
- large electricity users, particularly in the technology/data center sector taking a more active role in corporate sustainability.

Corporate participation in renewable energy is viewed as a key component to achieving Ireland's 2030 renewable energy targets by the Irish government, and a key enabler in developing Ireland's ambitious renewable pipeline. The Irish government set a 15% goal of renewable electricity to be sourced through corporate PPAs by 2030.

To provide greater impetus to the market, clarification is needed on the interchangeability of Renewable Energy Guarantees of Origin (REGOs) / GOs and their effectiveness for sustainability reporting, which is now potentially in doubt following Brexit, given the Republic of Ireland's and Northern Ireland's shared electricity market.

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Italy

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With thanks to Ernst & Young Parthenon

This issue saw the continued rebound of wholesale energy prices, from a low of 22€/MWh in May 2020 (average price), to 54€/MWh in December 2020, and 68€/MWh in April 2021 (average) with daily peaks of over 80€/MWh, implying the trend will continue.

Within this backdrop, a ‘National Recovery and Resilience Plan’ is in place to provide for high levels of investment in renewable energy sources and aims to simplify authorization procedures for the development of new plants, to alleviate one of the main constraints to corporate PPAs in Italy.

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Poland

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With thanks to Altenex Energy

In this issue, Poland adopted a new long-term energy plan, Poland Energy Strategy 2040, into law. The strategy directs the reduction of coal generation to 37–56% of the power mix by 2030, and between 11–28% by 2040. The strategy also targets renewables to grow to 32% of the generation mix by 2030, with specific targets for 5.9 GW of offshore wind, 8–9 GW of onshore wind, and 5–7 GW of solar photovoltaic (PV).

The Polish Government have also submitted the national reconstruction plan to the EU Commission. This plan will enable Poland access funds available from the European Recovery and Resilience Facility (RRF), which provides €750 billion in aid to Member States. Poland is the fourth largest beneficiary of this scheme and will receive €58 Billion Euros of which €22.5 Billion has been allocated as the maximum budget to support offshore wind farm projects.

Also In this issue, HeidelbergCement’s Polish subsidiary, Górażdże Cement, signed an offtake agreement with BayWa r.e. for output from a 65 MW solar PV project under development. This is Poland’s first corporate transaction with a solar PV project.

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UK

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With thanks to Ernst & Young LLP

The UK market is expected to double in size each year for the next few years, as many new corporates start to see offsite PPAs as being a key part of their greenhouse gas reduction strategies. Indeed, supply of new ready-to-build assets is still outstripping demand, with many developers bidding into each corporate PPA tender process, and keeping prices attractively competitive for the offtakers. Currently high power prices mean that savings can be possible from year one.

Brexit consequences have meant that it is unlikely that REGOs will be fully interchangeable with GOs, though not finally confirmed, so corporates with operations across Europe may need to view the UK as a stand-alone PPA market, rather than aggregating in a cross-border structure.

The trend from physical PPAs in 'sleeved' structures to virtual 'financial' structures is expected to continue due to simpler contracting structure and accounting treatment under the International Financial Reporting Standards being better understood. A second trend expected to continue is the payment basis, moving from a 'pay-as-produced' on hourly day-ahead wholesale market basis, to more baseload structures, both virtual and physical, as corporates become more aware of profile/shape risk.

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North America

Canada

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With thanks to BRC Canada

This year is already a record year for corporate and institutional procurement in Canada. With an influx of new deals in April, agreements announced to date in 2021 have a total capacity of 268 MW, taking Canada to a total contracted capacity of 684 MW and pushing new investment past \$1 billion CDN. In tandem, the Business Renewables Centre Canada has launched its [Deal Tracker](#), a tool to track corporate renewable energy deals in Canada, which will be updated quarterly.

On April 8, [Shell Canada and BluEarth Renewables announced a PPA](#) for 100 MW of electricity and emissions offsets from a 130 MW wind farm in Alberta, which will be the single largest wind project supported by a corporate PPA in Canada. On April 13, bakery company [Bimbo Canada announced two virtual PPAs](#) for a total of 50 MW with both a wind and a solar project developed by RES, which have a combined installed capacity of 170 MW. This deal covers 100% of Bimbo Canada's electricity consumption. On April 19, [Amazon announced its first renewable project in Canada](#), an 80 MW solar project that is the largest known solar virtual PPA in Canada. On the same day [Labatt and Capital Power announced a virtual PPA](#) for just over half of the 75 MW Enchant solar project, the largest public renewable electricity commitment ever made by a Canadian brewer.

Hot on the heels of April's record-breaking month for corporate renewables deals in Canada, May kicked off with another major announcement of a [deal between TransAlta and Pembina Pipeline](#) for 100 MW of wind energy.

Outside of Alberta, where all the above projects are being developed, the [Government of Nova Scotia is kicking off a green tariff program](#) to allow corporate procurement in the province through the utility, which buyers are invited to investigate.

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Mexico

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With thanks to Clean Energy Investment Accelerator

On March 9, 2021, Mexico's President Andrés Manuel López Obrador signed into law a measure that would dramatically constrain continued growth of utility scale wind and solar PV renewable electricity, with potentially significant negative impacts on corporate procurement.

The new law's primary provisions include:

- Invalidating many "Self-Supply" offsite corporate renewable energy PPAs;
- Re-prioritizing electricity dispatch by producer, not price (favoring sale of government-owned generation before sale of any lower-cost, privately-owned renewable energy generation);
- New, opaque permitting requirements potentially impacting offsite wind and solar projects; and
- Significantly lowering the value of existing and future CELs (Mexico's environmental attribute certificates) through significantly increased supply.

The government however, may never actually implement these provisions. The law was immediately challenged, and on March 11, a federal court issued an indefinite injunction. Subsequently, on April 22, Mexico's Federal Economic Competition Commission filed a protest against the law in Mexico's Supreme Court on anti-trust grounds. The law's outcome will probably remain in limbo until a Supreme Court hearing, likely early in 2022. To

provide certainty for market participants, Mexico’s energy ministry announced they could continue pre-March 2021 market operations rules until the Supreme Court’s decision.

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United States (CAISO)

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With thanks to Wilson Sonsini and Ernst & Young LLP

CAISO offers an enticing renewable energy market for corporate buyers, but one in which frequent regulatory and policy changes require agility and adaptation. As described in the March 2021 [joint agency report](#), California is well on its way toward implementing an ambitious goal of 100% clean electricity, with the goal to achieve a carbon-free grid by 2045. The high level of renewable penetration has created a supply-load mismatch (the “duck curve”) and storage is being deployed as the solution.

At least one corporate has seen potential value of solar plus storage in California: this April, Amazon announced its 100 MW solar / 70 MW storage project in the state. According to a member of CAISO’s Board of Governors, as California continues decarbonizing, there will be a potential need for as much as 30,000 MW of capacity for four hours every day during the evening ramp across CAISO – this includes significant opportunities for storage paired with solar, and a path has been shown for how corporates can participate.

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United States (MISO)

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With thanks to Ernst & Young LLP

There has been mixed news from the MISO region. On the positive side, the ISO continued to make progress regarding its ongoing grid connection challenges, which have plagued renewables projects in MISO’s queue for years. And in addition to the new study group launched last fall with SPP to explore transmission projects between those ISOs, in March 2021, MISO approved a separate interregional project with the PJM grid region to the east.

However, on the negative side, the region was also affected by rolling blackouts during a spell of unseasonably cold weather in February 2021, sparking reliability concerns. And this March, MISO requested a delay of three years (to 2025) to its plans for removing barriers to participation for storage in the wholesale power markets, to the dismay of clean energy advocates and utilities pursuing such projects.

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United States (PJM)

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With thanks to Edison Energy

The ongoing regulatory debate about capacity market redesigns and minimum offer price rule (MOPR) in PJM (see previous issue links, right) sustain elevated price risks for buyers.

First, after over a year of delays, PJM held its first capacity auction with MOPR in effect in May 2021. This auction resulted in lower than anticipated clearing prices, with the market-wide clearing price set at \$50/MW-day. These results constitute a 65% drop from the previous capacity auction, with clearing prices at \$140/MW-day across the RTO. While renewable energy developers will need additional time to fully evaluate the implications of the PJM's May capacity auction results, some have already noted potential upward pricing pressure if developers are unable to rely on capacity values with MOPR in effect.

Secondly, both the Federal Energy Regulatory Commission (FERC) and PJM initiated separate discussions seeking new solutions on PJM capacity market redesigns and MOPR reforms:

- PJM began a fast-track stakeholder process to reach consensus on MOPR reforms and intends to file a petition at FERC by July 16, which if aligned with their April 28 proposal, would recommend removing the MOPR from state-subsidized resources. Removing the need for these renewable projects to comply with the MOPR could give buyers greater flexibility to pursue renewable projects offering REC swaps, in return for a lower PPA price.
- Should FERC provide a ruling on a redesigned or reformed PJM capacity market by September 2021, the outcomes from these expedited conversations could be implemented in time for the next capacity auction, scheduled for December 2021, and impact prices for buyers.

Buyers seeking to transact in PJM should watch both regulatory proceedings and take note of potential contracting or pricing impacts following the May auction results.

Thirdly, the supply-demand dynamic has moved the PJM market to where most projects on the market are at an earlier stage of development than ever before. As a consequence, all buyers – including those with experience in PJM – should note the increased project completion- and contract execution-risk, and expect offers with permitting and/or interconnection-related Conditions Precedents.

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United States (SPP)

Previous issues with content: [3](#)

With thanks to LevelTen Energy

SPP wind prices currently represent some of the lowest PPA prices available in North America and have remained relatively stable in recent quarters. However, the continued increase in wind penetration in SPP has led to a decline in the production-weighted wholesale market prices these wind projects capture, putting downward pressure on overall wind project values. Corporate buyers should carefully examine and mitigate risks such as basis risk and shape risk (i.e., negative covariance) when evaluating SPP wind projects.

SPP solar prices have exhibited a dramatic rising trend over the last year, increasing by nearly 25% between Q1 2020 to Q1 2021. One explanation may be the influx of solar projects in SPP North compared to a year ago, when there was a higher concentration of solar projects in SPP's southern region. These SPP North solar projects are in areas with lower relative insolation, and therefore require higher PPA prices to be economically viable.

Though local permitting roadblocks are less of a concern in most SPP states, other development bottlenecks, such as clogged interconnection queues and grid congestion constraints (in the absence of significant transmission investments) may hinder the ability for renewable supply to keep up with growing demand. Earlier this year, SPP opened its energy imbalance market to utilities adjacent to the SPP footprint, a development which could unlock corporate procurement opportunities across new geographies in the Southwest and Rocky Mountain West.

Author Rob Collier



Renewable Energy Buyers Alliance

C&I Procurement Update

Issue 5: June 2021

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South America

Colombia

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With thanks to Clean Energy Investment Accelerator

On March 3, 2021, Colombia’s Ministry of Energy and Mines issued Resolution 40060, which could make corporate procurement of renewables in Colombia significantly more affordable. Resolution 40060 expands coverage of the pre-existing 10% obligatory renewable portfolio standard (RPS)—which must be enjoined via “long-term” (i.e., ten-year) contracts—to all wholesale energy market participants starting in 2023, including those servicing non-regulated customers, not just regulated customers. Previously, only the country’s major retail electricity utilities that serviced the regulated market were obligated to meet the RPS.

This timing matches perfectly with Colombia’s grid operator XM launching the country’s first domestic REC registration and tracking system, called *EcoGox*, on December 4, 2020. While I-RECs had been in use to a small degree in Colombia until now, XM’s system is the first fully-Colombian effort. Now corporate electricity buyers in Colombia have a source from which to obtain RECs and interested customers, retail electricity companies, that need to buy RECs, which the corporate buyers can only obtain by procuring clean energy.

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Contact us

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About REBA

A community of energy buyers
accelerating the zero-carbon energy
future—greening the grid for all

[Learn more about REBA](#)

Upcoming NGO-hosted events

Dates	Event	Location
June 16, 2021	BRC Canada: Managing Risk in a PPA	Online
June 16, 2021	REBA: Worldwide Wednesday - Mexico	Online
June 22, 2021	RE-Source: Summer Buyers Bootcamp	Online
July 28, 2021	REBA: Worldwide Wednesday - UK	Online
August 11, 2021	REBA: Worldwide Wednesday - Vietnam	Online
September 15, 2021	REBA: Worldwide Wednesday - Poland	Online
October 26, 2021	BRC Canada: Corporate Renewables 101	Online
October 13, 20, & 27, 2021	BRC Canada: Fall Member Series	Online
November 17-18, 2021	BRC Canada: Mini Buyers Boot Camp	Online

C&I Procurement Update market coverage

The following energy markets have been discussed in the C&I Procurement Update series

Energy market	Issue 1	Issue 2	Issue 3	Issue 4	Issue 5
Asia					
Australia	✓	✓	✓	✓	Page 3
China (National)	✓	✓	✓	✓	Page 4
China (Guangdong)			✓		
China (Jiangsu)	✓				
China (Sichuan)	✓				
India	✓	✓		✓	
Indonesia	✓	✓	✓		Page 4
Japan	✓	✓	✓	✓	Page 4
Malaysia					Page 5
Russia	✓	✓	✓		
Singapore			✓		
South Korea				✓	Page 5
Taiwan	✓		✓	✓	Page 6
Vietnam	✓	✓	✓	✓	Page 6
Europe					
Denmark			✓		
Germany		✓			Page 7
France			✓		
Ireland				✓	Page 7
Italy	✓	✓	✓	✓	Page 8
Poland	✓	✓	✓	✓	Page 8
Spain	✓	✓	✓	✓	
Sweden				✓	
UK	✓	✓	✓	✓	Page 8
North America					
Canada	✓	✓	✓	✓	Page 10
Mexico		✓	✓	✓	Page 10
United States (CAISO)		✓		✓	Page 11
United States (ERCOT)		✓	✓	✓	
United States (ISO NE)	✓		✓	✓	
United States (MISO)	✓	✓	✓	✓	Page 11
United States (NYSO)				✓	
United States (PJM)	✓	✓	✓	✓	Page 11
United States (South Carolina)				✓	
United States (SPP)			✓		Page 12
South America					
Brazil	✓	✓			
Colombia	✓	✓		✓	Page 14