

## NEW TRENDS IN CORPORATE RENEWABLES: PPA CASE STUDIES OF THE FUTURE

Over the past decade, we have witnessed rapid growth in corporate PPAs as companies and institutions seek operational savings and to achieve sustainability objectives. Even in their dramatic growth from the early 2010s, corporate PPAs and the needs they fill for companies have evolved and will continue to do so. Recently, there have been a number of notable changes and advancements made to corporate PPAs foreshadowing additional changes to come. These advancements include the evolution of a 1) 24/7 PPA offering in Europe, 2) adoption of proxy generation PPA (pgPPAs) in the United States and 3) shaped PPA in Alberta, Canada. It is likely we will continue to see future PPA developments mirroring these as corporates look to meet their renewable energy goals and achieve greater decarbonization.

### 24/7 “Pure Statkraft PPA”

Statkraft, a Norway based renewables developer and operator, has launched a 24/7 PPA offering commercially called a “Pure Statkraft PPA.”<sup>1</sup> Developed in 2020, this PPA is designed to fit corporate 24/7 clean energy needs with 15-minute granularity through a portfolio of hydropower, solar and wind projects. Instead of purchasing a PPA for a specific project, companies are signing to a portfolio of projects to match their energy demand. To ensure the portfolio of project is meeting 24/7 energy demand, the PPA is independently verified by the German testing institute TÜV for real-time components and additionality. Statkraft’s first 24/7 PPA customer at the end of 2020 was German car manufacturer Daimler, more commonly known as Mercedes-Benz. As more companies achieve their initial sustainability and renewable energy goals, their commitments often shift to deeper decarbonization goals.

### Proxy Generation Power Purchase Agreements (pgPPA)

First documented for a Kansas based wind project in 2016, a proxy generation power purchase agreement (pgPPA) allows for weather-related risk to be managed through settling a facility’s energy transfer through a proxy generation index, instead of on actual metered generation. Proxy generation is an hourly index that determines the volume of energy to be produced by a project if it had been operated as specified by the owner or developer. This shifts the operation risk back on the seller rather than the buyer. pgPPAs rely on both parties, owner and offtaker, agreeing on a set of weather metrics to establish the proxy generation component. The owner and offtaker may look for a third party to serve as the calculation agent for the contract lifetime. To establish the pg PPA values, the actual wind or solar resources at a given facility are

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<sup>1</sup> <https://www.statkraft.com/what-we-offer/power-purchase-agreements/24-7-ppa/>

measured. The actual measurement is then run through an agreed-to formula that estimates how many megawatt hours (MWh) should have been produced given the facility size and operations under best practice standards.

Recently pgPPAs have expanded from just wind projects to solar as well. The first known solar pgPPA was signed between Lightsource and the Capital Solutions unit of Allianz Global Corporate & Specialty (AGCS) in partnership with Nephila Climate in January 2021.<sup>2</sup> The deal is for Lightsource bp's under construction 153 MW Briar Creek solar farm in Texas within the ERCOT market. REsurety Inc. is being used as the pgPPA's calculation agent and will provide hourly solar radiance data to be managed using PVsyst photovoltaic software.

### City of Edmonton RFP

As a part of its Road to Renewables Program, the City of Edmonton issued an RFP<sup>3</sup> in November 2020 for about 330,000 MWh of renewable generation annually with COD by January 1<sup>st</sup>, 2024. What is unique about this RFP is that Edmonton sought to procure 330,00 MWh with a specific monthly and hourly shape that matches its demand profile (see Figure 1). This concept is similar to the notion of a 24/7 PPA but with a more specific demand profile. Essentially this is a shaped deal, likely giving advantage to a hybrid project of wind and solar or wind/solar plus storage. The RFP allows for up to ten different renewable project facilities to meet the required MWh, but only a single strike price offer is to be submitted regardless of the number of facilities. This type of product leaves the seller with material merchant exposure. It is a novel advancement in corporate renewable energy procurement as the City of Edmonton is more directly hedging their consumption alongside green attributes. Edmonton's RFP is scheduled to close in March.

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<sup>2</sup> <https://www.lightsourcebp.com/2021/01/new-power-contract-signed-allianz-global-corporate-specialty-153mw-texas/>

<sup>3</sup> Accessible at: <https://service.ariba.com/Discovery.aw/ad/viewRFX?id=9311768>

**Figure 1: Edmonton Hourly Renewable Electricity Profile Requested**

