

Apple, Akamai, Etsy and Swiss Re partner on largest renewable energy aggregation to date

While many companies seek to make a demonstrable impact on climate change by bringing new renewable energy projects into their electricity supply portfolio, this aspiration has been challenging for companies with smaller or geographically distributed loads whose needs are too small to enable a project to come to fruition. Enter aggregation.

By joining together, smaller energy users can create enough buying power to make a material impact on a project's financial outlook, attracting the attention of project developers and opening this impactful solution to a wider range of companies. In addition, by bringing multiple companies into a single procurement, aggregation has the ability to reduce transaction costs and create economies of scale.

In 2018, 3Degrees supported Apple, Akamai Technologies (Akamai), Etsy and Swiss Re as they leveraged their collective buying power in the largest aggregated corporate renewable energy transaction to date. This aggregation resulted in six power purchase agreements - the largest one greater than 130 MW and the smallest less than 5 MW. The companies' efforts demonstrate how corporate energy buyers of all sizes can successfully purchase renewable energy directly from new renewable projects.

Challenges

News in the corporate renewable energy space is often dominated by announcements of mega-purchases, where a large energy user strikes a deal with the developer of a large wind or solar project. These announcements send an implicit message that the economic and environmental benefits of contracting with large renewable energy projects are only available to the largest of electricity users. Fortunately, the market is evolving to serve buyers of all sizes. Aggregated purchasing is one effective option gaining traction among buyers with diverse needs.

This aggregation came together when four prospective energy buyers - Apple, Akamai, Etsy and Swiss Re - decided to act jointly to purchase renewable energy in the PJM energy market.¹ The participants recognized their common aims through their already-active work in the energy sustainability

¹ PJM is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia.



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“Through this aggregation and 3Degrees' support, Swiss Re is able to reduce its carbon footprint, which helps us to live up to our goal of making the world more resilient. We hope that this deal will encourage other organizations with smaller energy consumptions to join together and switch to renewable energy.”

DR. LASSE WALLQUIST

Senior Sustainability Risk Manager
at Swiss Re

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space - variously as buyer-supplier companies, peer-to-peer colleagues, and as clients of 3Degrees. They also shared a desire to help prove new renewable energy purchasing models so as to enable other companies to secure renewable supply more quickly and easily. These four companies, dubbed The PJM Gang, had diverse energy needs but also had corporate renewable energy goals with similar timing requirements and a consistent view toward the importance of making an impact with their purchase.

After the team of buyers was in place, 3Degrees was tasked with finding the perfect blend of projects in terms of size, technology, location, economics and timing. While generally aligned, each company had unique needs. It was also essential to ensure that all four buyers were ready and willing to move cohesively through the procurement to contract execution.

How we helped

3Degrees led the procurement process, resulting in individual PPAs for each company, while providing stakeholder education and support to each company individually, according to their differing needs.

The first stage of the process consisted of quick market price discovery and analysis to gather the facts necessary to engage, educate and align company stakeholders. This early market analysis was critical to ensure all companies had a green light for the procurement, as well as gained approval on contract length, acceptable pricing, general terms and conditions, and offtake amounts. Each buyer made a go/no-go decision regarding participation in the second stage.

After all four companies gave the thumbs up, 3Degrees solicited proposals from project developers, validated project development assumptions and



“Etsy is excited to be a part of a project that will benefit both the planet and our customers. This agreement will help Etsy to meet our goal of powering operations with 100% renewable electricity while also innovating by paving the way for small companies to participate in the renewable energy market.”

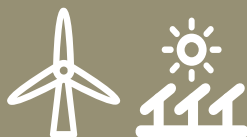
RACHEL GLASER

Etsy Chief Financial Officer

OVERVIEW



4 COMPANIES



2 RENEWABLE ENERGY PROJECTS



6 PPAS

Resulting in 290 MW of new wind and solar capacity to be installed in the PJM energy market (800,000 MWh/year)

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completed rigorous risk and financial analyses. For the shortlisted projects, a deep-dive qualitative due diligence was conducted to provide the four companies with a holistic picture of each project's viability, the reputation of the developers, as well as background on the developers' engagement with the local community to date.

For the top ranked projects, 3Degrees evaluated numerous project pricing options to determine the best possible financial offers, then navigated the intricate process of allocating the offtake available from several projects still under consideration among the four buyers – balancing differing project characteristics and financial specifics across the buyers' needs and aspirations. Next, a custom calculator was developed to compare prices across multiple project combinations, considering a variety of hypothetical wholesale energy market price scenarios which would affect the purchase's overall economics. Ultimately, the buyers selected an Illinois wind project and a Virginia solar project, agreed upon the final offtake allocation and entered into the contract negotiation phase.

3Degrees supported the buyers throughout the contracting process – acting as a unified voice for the group during negotiations, advising on contract terms and making recommendations based on each client's unique needs and priorities. In spite of varying risk tolerances and needs for specific terms, the PJM Gang negotiated from a single set of commercial terms which were ultimately translated into side-by-side PPAs for each buyer and project.

Results

- + 290 MW of additional renewable energy will be coming on-line by the end of 2019 thanks to the joint collaboration of Apple, Akamai, Etsy and Swiss Re.
- + The PJM Gang aggregation is a clear demonstration of how corporate energy buyers of all sizes can successfully purchase renewable energy.

At 3Degrees, our business is our mission. We make it possible for businesses and their customers to take urgent action on climate change. As a certified B Corporation, we provide renewable energy and emission reduction solutions to Fortune 500 companies, utilities, universities, green building firms and other organizations. Headquartered in San Francisco, 3Degrees serves clients around the world.



“Our collaboration with 3Degrees, Apple, Etsy and Swiss Re resulted in a superior outcome than we could have achieved on our own, and gives us confidence that we will achieve our 2020 global renewable energy goal.”

DR. NICOLA PEILL-MOELTER
Senior Director of Environmental Sustainability at Akamai