

Optimizing Performance with Integrated Energy Management: One Client's Success Story

CustomerFirst Renewables (CFR) is proud to be the leading energy advisor to corporate, higher education and other large institutional clients looking to transition to renewable energy. Our work on this engagement demonstrates how a tailored, holistic energy management approach helps our clients generate meaningful cost savings while achieving their ambitious environmental goals.

When unexpected market fluctuations led one client's offsite solar asset to underperform in the first year of a 20-year power purchase agreement (PPA), CFR helped the client develop a grid power purchasing strategy that would more fully capture the hedge value of the solar project. CFR advised the client to switch to an index-facing product for its remaining retail load not served by the PPA. This new strategy created immediate savings for the client that are projected to endure for the duration of the contract's term.

THE SITUATION: AN EARLY MOVER IMPLEMENTS AN INNOVATIVE PPA SOLUTION

The client initially engaged CFR to support its transition to a decarbonized energy supply in line with its set of ambitious carbon neutrality goals, which included a near-term emissions reduction target. CFR worked with the client to develop and implement a renewable energy strategy. With CFR's support, the client signed a 20-year PPA for an offsite solar asset.

CFR aimed to source a project that provided the highest likelihood of a positive spread between the PPA rate and the wholesale market price for electricity at the project's location, thereby providing a net economic benefit to the client. Guided by

CFR's typically rigorous economic and risk analysis process, the client ultimately selected an offsite solar project that would account for more than 60% of its total electricity needs. Once the solar project came online, the client planned to use the project's associated renewable energy certificates (RECs) to make significant strides towards its carbon reduction goal. The PPA, one of the first of its scale in the client's industry, immediately elevated the client to a climate and sustainability leadership position amongst its peers.

THE CHALLENGE: NAVIGATING UNEXPECTED MARKET SHIFTS

While the PPA immediately began delivering on its environmental goals, it failed to create the early-term savings the client and its partners had anticipated. At the time of contract execution, wholesale market prices were trending upwards, and these trends were incorporated when benchmarking the project's expected performance. But in reality, market forces – including the growth of shale energy production during the project's implementation – led to an unexpected 30-40% drop in wholesale electricity prices, causing the project's average wholesale market strike price to fall below the PPA rate. The

Client Type:

Higher Education

Services provided:

RE strategy and procurement support; Retail integration planning and oversight; ongoing performance management

Procurement specifics:

20-year PPA for offsite solar

PPA was becoming financially riskier than the client and its partners had expected.

Without adjusting the retail purchasing portion of its strategy, it was apparent that the client would continue to face ongoing market risk – both on the PPA contract as well as on its ongoing retail power purchases

CFR’S ADVICE: TAKE THE INTEGRATED APPROACH

At the end of year one, the client was drawing 30-40 % of its electricity load from retail purchases. CFR recognized that the solar PPA had no value as a hedge against retail pricing fluctuations unless the client’s fixed-price retail power purchasing strategy for the remainder of its load was altered to a more controllable market exposure strategy. By restructuring the client’s retail electricity purchasing strategy to seamlessly integrate the solar PPA with retail purchases, the client could address this market risk by creating an “inverse hedge,” thereby minimizing exposure to electricity market price fluctuations on both the wholesale and retail level.

CFR advised the client to switch from a fully fixed-price retail purchasing strategy towards purchasing variable-sized “blocks” of fixed-price retail power, leaving a small amount of index-facing load. These “blocks” could be bought on different time schedules, embedding another layer of risk management into the client’s power purchasing strategy. This adjustment allowed the client to reduce its total costs as measured against its prior procurement strategy.

THE OUTCOME: \$1.1M ANNUAL SAVINGS

Once the integration portion of the strategy was fully implemented, the client immediately began to realize relative savings; rather than sourcing retail energy from 100% grid power on fixed-price term contracts, the client now executed its procurement process in a cohesive, integrated fashion.



CFR quantified the client’s savings by tracking the total cost of the new strategy of a 50/50 renewable/ grid power solution against its prior 100% grid power strategy. CFR used pricing from a then-recent retail procurement to understand what the client’s costs would have looked like had it maintained its prior methodology versus pursuing a solar solution.

The graph at the bottom of the page shows the project’s implementation timeline, along with the savings generated by the retail integrated PPA solution.

The rapidly improving financial results have further elevated the client’s financial and environmental outcomes, and significantly bolstered its progress towards its ambitious carbon neutrality goal.

Using this integrated portfolio approach allowed the client to transform its energy portfolio into something innovative and resilient, and still achieve significant cost savings despite unexpected and unfavorable market fluctuations. With corporates, higher education institutions, and large businesses now setting the standard for climate action, a more holistic energy management approach is not only important but necessary in order to achieve both climate and financial goals.



CustomerFirst Renewables (CFR) is a trusted energy advisor that helps impact-oriented businesses and institutions move confidently towards a renewable energy future. We work with our clients to develop actionable energy strategies, implement tailored solutions, and optimize performance over time.

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Integrated solar performance: BAU vs. current annual spend

