

**POWEREX OFFERS CUSTOMERS NEW OPTIONS TO MEET RELIABILITY AND ENVIRONMENTAL GOALS**

*Three New “Least-Cost Best-Fit” Products Enabled by WRAP And Markets+*

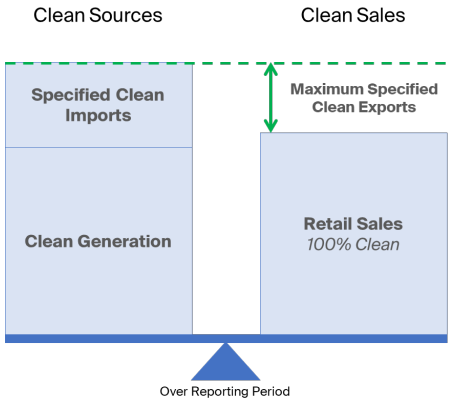
The rapid transformation of the western electricity grid has brought both enormous opportunities and challenges. Technological advances have made it feasible to acquire and install large amounts of wind, solar, and other clean generation technologies. At the same time, a large portion of the region’s conventional fossil generation fleet is being retired, requiring new strategies to manage the variability and uncertainty of this new clean supply and ensure reliable service to customers.

To meet this challenge, and to enable the fullest possible de-carbonization of the western electricity grid, diverse entities across the region have come together to develop formal programs to harness the diversity of loads and resources across a multi-state area.

Western Resource Adequacy Program (WRAP)	7 months before each season, requires all participants to commit enough supply to ensure reliability. Sharing of supply reduces costs.
Markets+	Hour-to-hour and within each hour, dispatches generation resources to meet demand at lowest production cost

Both of these programs are founded on the robust, independent governance necessary to ensure they are designed and operated efficiently and equitably for all entities. Powerex has been active in the development of WRAP since its inception, is funding and participating in its non-binding implementation phase, and recently announced its commitment to fund and participate in the WRAP’s binding implementation phase. Powerex has also supported the development of Markets+, and recently became the first entity to announce its commitment to join that market.

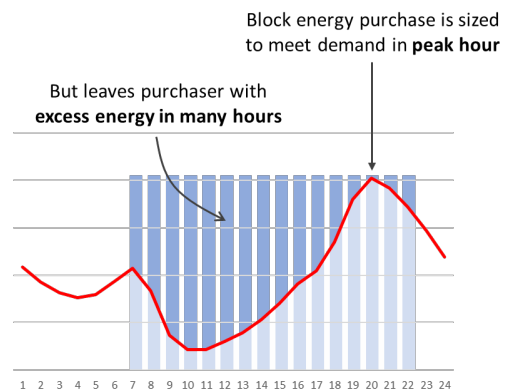
On the environmental policy front, multiple western states have now set a goal of acquiring sufficient clean energy supply to meet 100% of their retail demand, to be achieved as early as 2045. In 2021, Powerex took the unprecedented step of voluntarily and immediately adopting a similar 100% clean energy standard, requiring 100% clean energy supply for all of BC Hydro’s retail demand and all of Powerex’s Specified Clean exports. Powerex’s implementation of its Clean Energy Trade Standard provides Powerex’s customers confidence that the Specified Clean energy purchased from Powerex is truly surplus clean supply that is not backfilled by fossil-fueled generation or by market purchases from unspecified sources.



Powerex’s commitments to participate in WRAP and in Markets+, together with the adoption of its Clean Energy Trade Standard, enables Powerex to now offer its customers three industry-leading solutions to meet their reliability and renewable resource integration needs. The first product is a highly cost-effective **Markets+ Resource Adequacy Transfer Product**, which will enable purchasers to meet their forward capacity needs under WRAP, while also enabling them to minimize the amount and cost of the associated energy procurement. In addition, Powerex is introducing two additional premium products that are designed to provide unparalleled integration of renewable and clean resources: an **Enhanced 8-Hour Clean Battery Service**, and a **24x7 Clean Load Service**.

*Core Product: Markets+ Resource Adequacy Transfer Product*

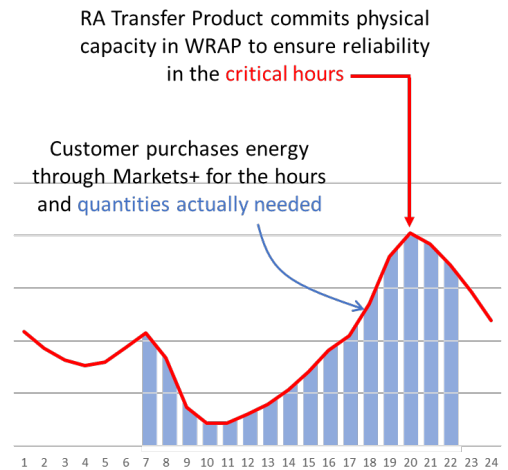
Many entities in the west often need to procure additional wholesale supply to meet their reliability needs during peak demand periods. To date, this is largely accomplished through the purchase of blocks of energy for an entire summer or winter season, typically in 16-hour blocks for six or seven days of every week. Such forward firm energy products are generally transacted at prices that exceed the expected short-term energy prices, with this capacity premium reflecting the value of committing physical resources in advance in order to ensure delivery.



Unfortunately, meeting reliability needs in this manner leaves the purchaser with energy it does not need in many hours, which it then must sell in the spot markets at prices that are typically well below what they paid for the forward blocks of energy.

The development of WRAP has spurred interest in a new type of product—a Resource Adequacy (RA) Transfer Product—that allows a customer to procure physical capacity, but does not commit the customer to receiving seasonal blocks of energy that they often do not need. Instead, the committed physical capacity is made available in the operational timeframe to meet the purchaser’s reliability needs, but with actual energy procurement only occurring in the hours of actual need, and from the most economic resources that are available in the market.

Powerex is supporting the development of—and will ultimately offer its customers—a **Markets+ Resource Adequacy Transfer Product** that will enable customers to cost-effectively meet their WRAP requirements by leveraging Markets+. The product would commit identified physical capacity and firm transmission service to ensure resource adequacy, consistent with WRAP, while the deployment of energy to the purchaser would be optimized through the Markets+ economic dispatch. Powerex will actively support stakeholder discussions, both at WRAP and in Markets+, to clarify the requirements and procedures, and will subsequently offer a **Markets+ Resource Adequacy Transfer Product** to customers.

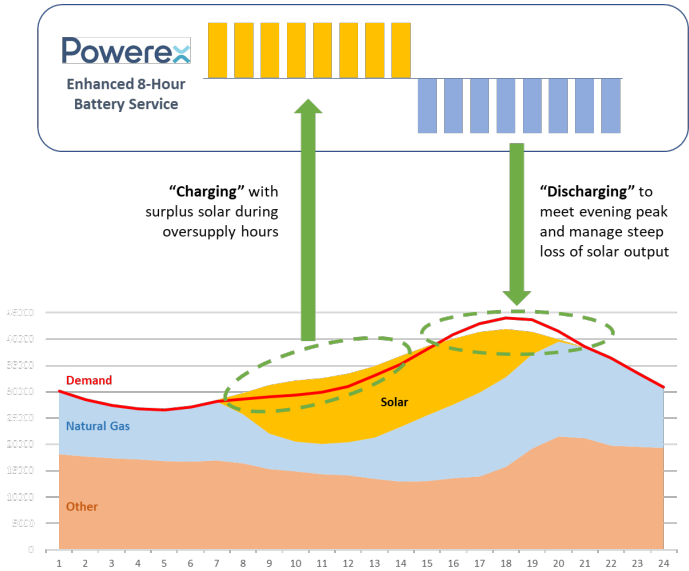


Powerex anticipates that the **Markets+ Resource Adequacy Transfer Product** will provide customers with very significant cost savings compared to conventional procurement of forward firm energy in seasonal or yearly blocks, as it avoids paying for forward energy that it does not need and that is often sold at a loss.

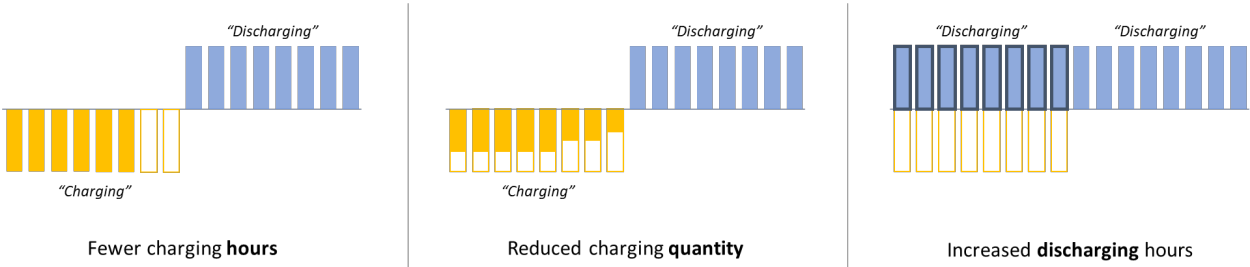
*Premium Offering 1: Enhanced 8-Hour Clean Battery Service*

Many entities in the west not only need capacity to meet reliability needs, but must also manage oversupply challenges, particularly for entities installing significant solar PV resources. As a result, battery storage projects will play an increasingly vital role in helping to “shape” the available solar output away from oversupply hours and into the early evening hours. However, even with battery storage, important challenges remain; current batteries are generally limited to providing four hours of storage, and batteries do not address the risk of periods in which the solar resource may not be fully available to charge the batteries.

Powerex is pleased to be the first to offer its customers an **Enhanced 8-Hour Clean Battery Service** that addresses both of these limitations. Customers will receive the contracted quantity during the 8 “discharge” hours of their choosing each day, and will deliver the contracted quantity to Powerex during the 8 “charging” hours, also of the customer’s choosing. This provides customers an unprecedented ability to shift 8 hours of excess solar output out of the solar oversupply hours and into the hours of greater need.



In addition, Powerex has designed the **Enhanced 8-Hour Clean Battery Service** to provide customers with new tools to manage the risk of reduced solar output or other supply challenges. Customers will have the option of reducing the quantity or hours of their “charging” deliveries to Powerex—or even to convert “charging” hours into additional “discharging” hours in which they receive supply from Powerex—up to a defined portion of the total monthly volume of the battery service. This enhancement goes well beyond a battery storage service, and ensures customers are able to rely on receiving clean reliable supply even during multi-day periods of reduced solar availability. The **Enhanced 8-Hour Clean Battery Service** will also strongly complement a customer’s 4-hour battery storage resources, enabling customers to charge their installed 4-hour batteries with deliveries from Powerex when their solar resources are unavailable, effectively providing the benefits of a 72-hour battery (or longer) well in advance of any commercially viable breakthrough in physical battery technologies.



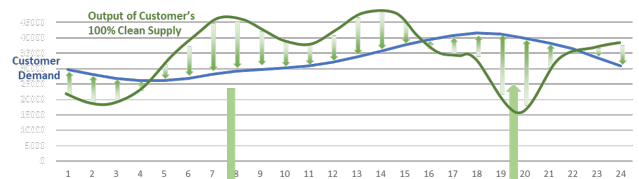
Powerex intends to offer the **Enhanced 8-Hour Clean Battery Service** to customers for one or more particular months, for an entire season, or for the entire year, under yearly or multi-year agreements that can extend well into the future. Once offered, the service will be available with minimal lead time, and without in-service date risk. Since the **Enhanced 8-Hour Clean Battery**

**Service** will be supported by identified physical capacity committed by Powerex, it will enable customers to meet their WRAP forward showing requirements, just like the core **Markets+ Resource Adequacy Transfer Product**. In the operational timeframe, the **Enhanced 8-Hour Clean Battery Service** will also leverage the intra-hour balancing functionality of Markets+, efficiently managing variations from the hourly charging and discharging base schedules that are submitted on a day-ahead basis.

*Premium Offering 2: 24x7 Clean Load Service*

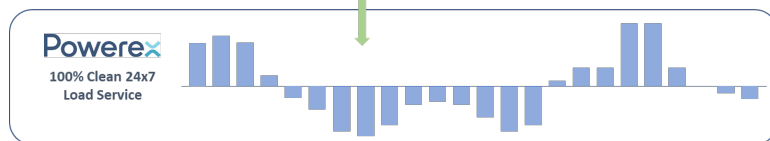
A growing number of wholesale customers in the west, particularly high-profile commercial entities with significant and growing electricity consumption, are exploring opportunities to meet their future demand from a portfolio of 100% clean resources that are matched to their consumption on an hour-to-hour, 24x7 basis.

Powerex is pleased to introduce a **24x7 Clean Load Service** to meet this need. Under this premium offering, Powerex will manage the output of the customer’s renewable and clean resources to meet the customer’s load on a 24x7 basis. This service provides the capability of an always-available 24x7 battery service, shaping the customer’s renewable production to match the customer’s hour-to-hour



Surplus 100% Clean supply is delivered to Powerex

Deliveries from Powerex provide additional 100% Clean supply during deficit hours



demand. Powerex has designed the **24x7 Clean Load Service** to also allow the customer to manage any cumulative mismatches over time between its renewable supply and its consumption. If the cumulative output from the customer’s renewable supply resources is less than the customer’s cumulative load over a defined period, Powerex will provide to the customer additional 100% clean supply from its own portfolio. Conversely, if the cumulative output from the customer’s renewable supply resources exceeds the customer’s cumulative load over the period, Powerex will purchase this surplus 100% clean supply from the customer.

Powerex will offer the **24x7 Clean Load Service** to customers year-round on a multi-year basis. Since the **24x7 Clean Load Service** will be supported by identified physical capacity committed by Powerex, it will enable customers to meet their WRAP forward showing requirements, just like the core **Markets+ Resource Adequacy Transfer Product**. In the operational timeframe, the **24x7 Clean Load Service** will leverage the intra-hour balancing functionality of Markets+ for participants, efficiently managing variations from the hourly base schedules, submitted on a day-ahead basis, for deliveries between Powerex and its customer.

## Summary Of Powerex's New Products And Services

	Forward Timeframe	Operational Timeframe	Key Customer Benefit
<b>Core Markets+ Resource Adequacy Transfer Product</b>	<b>All products</b> meet customer's WRAP Forward Showing Program Requirements with identified physical capacity and transmission service.	Committed capacity offered into Markets+.  Customer only purchases energy in the quantity and hours it needs it.	Highly cost-effective product for meeting reliability needs.  Avoids costly purchasing of energy in blocks for entire month or season that do not match customer's needs, with excess energy disposed of at a lower price.
<b>Enhanced 8-Hour Clean Battery Service</b>		Customer designates hours for "charging" and "discharging" deliveries.  Hourly schedules submitted to Markets+ day-ahead.  Variations from hourly schedules managed through Markets+.	Cost-effectively meets reliability needs, as above,  <i>Plus</i>  Enables integration of solar resources by "shifting" output from oversupply hours to hours of high net demand.
<b>24x7 Clean Load Service</b>		Customer delivers all renewable output to Powerex, and Powerex delivers clean supply to meet all customer's load.  Hourly schedules submitted to Markets+ day-ahead.  Variations from hourly schedules managed through Markets+.  Periodic settlement of customer's accumulated clean supply surplus or deficit.	Cost-effectively meets reliability needs, as above,  <i>Plus</i>  Enables customer to meet all of its energy needs with 100% clean supply, on a 24x7 basis, from deliverable resources, including its own renewable resources.