



KEY CONSIDERATIONS AND STRATEGIES FOR ENERGY PROCUREMENT BY COMMERCIAL AND INDUSTRIAL BUYERS

November 2025

Agenda

- Corporate and industrial buyers seeking energy procurement options
- Requirements and goals of C&I buyers
- Options for energy procurement - on-site, near-site and virtual PPAs
- Role of RECs in renewable energy procurement
- Steps to advancing strategy for renewable energy procurement
- Key technical, commercial and legal considerations in renewable procurement
- Typical terms in corporate PPAs



Commercial and Industrial Companies Seeking Options to Ensure Reliable Energy Supply and Achieve Renewable Energy Goals

C&I buyers often seek to procure a dedicated and reliable source of energy and may seek to identify renewable sources of supply

Many companies in the United States are seeking to identify options and strategies to *establish reliable energy supply* and *to support the development of renewable energy projects on a voluntary basis*.

According to NREL,* about 9.7 million customers procured about 319 million megawatt hours of voluntary renewable power in 2023, up from 4 million customers and 64 million MWh in 2013. Often, these efforts are based on a desire to achieve goals set to use a certain minimum percentage of renewable energy and reduce their scope 2 emissions.

Many corporate buyers are adopting the strategy of entering into long-term renewable power purchase agreements referred to as *corporate PPAs*.* Such transactions can involve the physical purchase and delivery of energy from *on-site or near-site generation projects* or may involve what is referred to as a *“virtual” transaction or VPPA*.

*Status and Trends in the U.S. Voluntary Power Market: 2023 Data

US Market for Corporate PPAs Has Doubled Since 2020

More than 10 GWs of Corporate PPAs have been executed each year since 2020 with more than 20 GWs contracted in 2024

[CEBA Deal Tracker - CEBA \(cebuyers.org\)](#)

Corporate Buyers Hit 100 GW Milestone

“In 2024, commercial and industrial customers brought total clean energy deal capacity up to 100 GW. This is not just a milestone, but a market shift. These energy customers are shifting the composition of the U.S. grid. Nearly three percent of clean energy generation on the U.S. grid comes from commercial and industrial customers completing deals.”

[CEBA CEO: Global Energy Market Reflects Generational Shift in How Energy is Produced and Consumed - CEBA](#)

Corporate Commitments

Once limited to technology companies, commitments by US Companies to go 100% renewable or even carbon negative have become more common - the [RE100 reports](#) that 94 of its 444 members are in the United States.

[Technical Guidance & FAQs | RE100 \(there100.org\)](#)

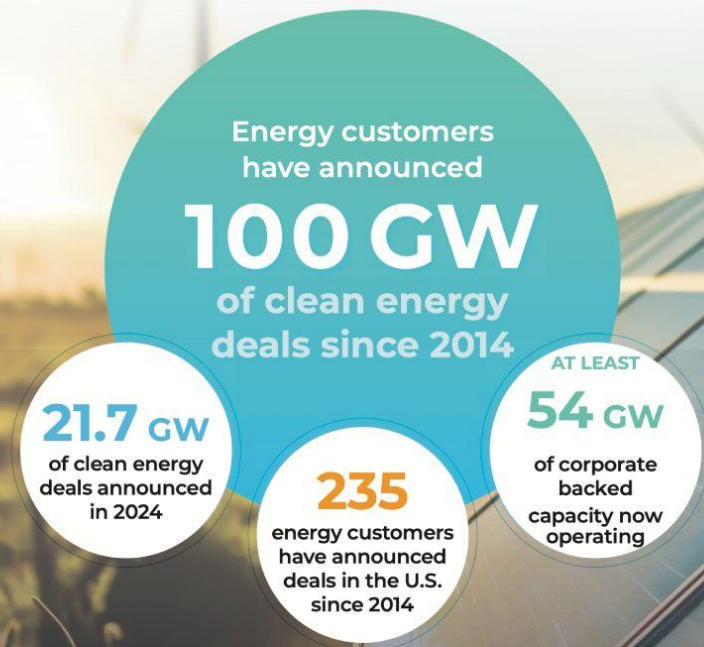
Commercial and Industrial Companies Seeking Options to Ensure Reliable Energy Supply and Achieve Renewable Energy Goals (cont'd)

Options include on-site or near-site generation, virtual PPAs and green tariffs.



- The goals and key considerations of C&I power buyers in the US have continued to evolve. Ensuring a reliable supply has become more challenging, especially for high-use operations, requiring some buyers to actively seek or develop supply options.
 - Corporate policies also impact how supply options are evaluated and selected, including reducing GHG emissions, community and environmental impact, grid resilience and the opportunity to enable the addition of new renewable generation projects.
- Options available to C&I buyers include on-site or near-site generation, virtual PPAs and sleeved arrangements offered by some utilities referred to as green tariffs.
 - For renewable energy buyers, local options involving the physical delivery and use of renewable energy are generally viewed as preferable to virtual transactions. Restrictive regulations on retail energy sales, space limitations, meteorological and other factors may limit the physical options available.

HOW ENERGY CUSTOMERS ENGAGED IN THE U.S. MARKET IN 2024



HIGHLIGHTS FROM 2024

21.7 GW

announced made 2024 the strongest year for clean energy on record despite high PPA prices and market uncertainty

20

customers announced first U.S. deal

73+%

of capacity announced involved solar

INNOVATION FROM 2024

1.5 GW

of nuclear procured

115 MW

of geothermal procured

300+%

growth in battery storage capacity announced in 2024

Multiple geothermal and nuclear deals involving energy customers were announced for the first time at scale.

The **CEBA Deal Tracker** represents publicly announced clean energy procurement by corporate customers through power purchase agreements, green tariffs, bilateral deals with utilities, tax equity investments, and direct project ownership in the U.S. from 2014-2024.

Evolving Goals and Targets of Corporate Buyers

Key Considerations and Goals of C&I Buyers

C&I Buyers - Multiple Considerations

- **Resiliency*** - Ensuring secure source of supply and managing risk of power outages which may be critical to business operations.
 - High-energy need buyers, such as data centers, and limitations in local retail supply capacity may require C&I buyers to actively seek a sufficient and reliable supply of energy.
 - Risks also include extreme weather events, cyberattacks and geopolitical conflicts.
- **Corporate Goals** - Corporate goals may also include overall reduction in GHG emissions, the use of zero-carbon energy as well as environmental and community-based considerations.

C&I Renewable Buyers - Goals and Targets**

- **Additionality** - Contract or purchase is sufficient to support the development and construction of a new renewable generation project and, therefore, adds to the pool of renewable resources.
- **Grid Resilience** - Enhancement of available resources, participation in market programs and use of storage to support grid operations and cooperation with utilities taking into consideration local resource planning. Additional considerations include community and generation asset resilience.
- **Environmental Sustainability** - Preservation or protection of environment and reduction of impact in siting and developing generation projects. Brownfield projects and dual-use of lands are examples of environmentally-driven strategies.
- **Proximity** - Focus has come to include the potential for reducing carbon emissions in local power market and a preference for a direct link between energy usage and the source of supply.

* The Clean Energy Buyers Institute Maximizes Clean Energy Benefits Beyond the Megawatt - CEBA

** Principles - Clean Energy Buyers Institute

Project Developers Offer Products and Services to Corporate Buyers

Key Considerations and Goals of C&I Buyers

From the Perspective of Project Developer - Benefits to Selling to C&I Buyers

- Buyers willing to make a long-term commitment
- Typically have strong credit rating
- Location may not be an issue if looking for a virtual transaction
- Buyers willing to accept market terms on construction completion and facility performance
- Also willing to share in other market risks like force majeure and in limited cases change in law .

From the Perspective of Project Developer - Challenges in Selling to C&I Buyers

- Many buyers use RFP or similar competitive process and look at various criteria in addition to price in assessing offers
- Heightened focus on rights and remedies associated with delivery of RECs from specific source and future environmental attributes
- If providing on-site generation:
 - Need specialized remedies upon breach or termination as no access to market
 - Need to assess condition at applicable site, including available space and infrastructure and obtain appropriate access rights
 - Need protection from any on-site environmental contamination
- Buyers often require project company to comply with buyer-specific corporate policies and standards of conduct. Issues of particular concern include use of forced labor within supply chain.

Options for Renewable Energy Procurement

Options for Procurement of Renewable Energy and RECs



Available options will vary by location based largely on level of regulation and meteorological considerations as to suitability of location for solar or wind power.

Primary Options

- **On-site Generation** - Includes ground-mounted or rooftop solar or solar + storage. Requires sufficient space to support required infrastructure and a location that allows for use of the preferred generation technology.
- **Traditional PPA** - Involves the direct purchase of energy from a generation project and the physical delivery of energy from such project and requires the ability to physically interconnect either directly or through the local transmission grid.
- **Green Tariffs** - Bundled products are offered by utilities in some locations including renewable power and RECs. Retail products can be market-based or linked to a specific renewable project which are sometimes called “Green Tariffs.”

Whether the primary options are available depends on local regulatory framework and the products offered by the local regulated utility. Varies materially state by state.

• Virtual Transactions -

- Contract for the purchase of RECs and the purchase of energy generated by a renewable project which is then physically delivered and sold into the regional wholesale market in which the project is located.
- Often structured as fixed-for-floating swap.

Role of Renewable Energy Credits

RECS represent the RECs non-power attributes of one megawatt-hour (MWh) of renewable electricity generated and delivered to the power grid.



- Renewable Energy Credits or “RECs” are the basis upon which an energy user can claim the use of renewable energy. Once such a claim is made, the RECs must be retired. RECs are generated and registered based on the generation of electricity from renewable resources. They are a virtual commodity traded through electronic platforms like WREGIS.
- RECs are used by load-serving entities to comply with state renewable procurement requirements. C&I buyers in the U.S. also purchase and retire RECs on a voluntary basis on their own behalf to establish a legal basis to publicly claim they have used renewable energy for their business operations.

- NREL* estimates that voluntary renewable power market sales represented about **44% of renewable energy sales** excluding large hydropower and about 8% of all U.S. retail electricity sales in 2023.
- Voluntary purchases may be (i) short-term or long-term, (ii) made from utilities through established green programs or from private wholesale sellers, (iii) be resource-specific or not, and (iv) include just RECs or bundled power and RECs.

[*Status and Trends in the U.S. Voluntary Power Market: 2023 Data](#)

Use of Renewable Energy Credits

Unbundled RECs v. Bundled Products



- **Unbundled RECs** - Can be purchased in the open market as generated by the operation of any renewable generation project, including existing facilities. The impact of such purchases is viewed as limited as it does not necessarily support the development of new projects.
- **Bundled Products** - Viewed as having a higher impact as purchase of power and RECs especially for an extended term establishes a firm source of revenue to support the development and construction of new renewable generation.
- The EPA has published guidance* as to credible claims as to the use of renewable energy in reliance upon the exclusive ownership of and retirement of RECs. Among other things, the EPA recommends buyers procure RECs which are certified and verified by an independent third-party like Green-e. See also [The-Legal-Basis-for-RECs.pdf](#) for additional discussion of the legal basis for RECs under state and federal law.
- The FTC has also implemented regulations** for claims regarding the use of renewable energy included in labeling, advertising, promotional materials and other forms of marketing

*Credible Claims | US EPA

**Guides for the Use of Environmental Marketing Claims ("Green Guides") | Federal Trade Commission

Steps to Advancing Strategy for Renewable Energy Procurement



1

Site screening - evaluate and select best option for individual locations; technical and legal screening to include consideration of on-site and near-site options and requires, among other things, evaluation of energy regulatory framework which controls available options.

Sample legal questions

- Is net metering available in the location?
- Are green tariffs available from the local utility?

Sample technical questions*

- Is location appropriate for solar generation?
- Is there sufficient space for ground-mounted or roof-mounted solar?

2

Once screening complete, implement preferred option via auction or bilateral negotiations

- Select and/or study relevant power market
- Develop form term sheet and form definitive agreement
- Conduct auction to generate competition, if applicable
- Evaluate bids/proposing developers, if applicable
- Negotiate definitive agreement (e.g., power purchase agreement, license or site lease, virtual power purchase agreement, guaranty)

Key Issues In Renewable Energy Procurement

Key Technical and Commercial Issues and Legal Risks



Procuring renewable energy and RECs involves the consideration of technical, commercial and legal issues based on the energy demand at each physical location and the transactions permitted and supported by the energy regulatory framework under applicable state law at each location.

Key Technical Issues

- In developing a strategy, it will be necessary to quantify the energy usage at each physical location of the corporate buyer and the current sources for such energy.
- Technology risk - risks associated with selected generation technology

Key Commercial Issues

- Cost of retail power and unbundled RECs versus bundled or virtual products
- Price risk and potential liability in downside case/options to limit exposure, including collars and revenue sharing arrangements
- ESG considerations/increased expectations of consumers
- Developer selection/credit risk
- Credit rating of proposed buyer
- Dedication of real property to energy infrastructure

Key Issues In Renewable Energy Procurement (cont.)

Key Technical and Commercial Issues and Legal Risks

Key Legal Risks

- **Transactions permitted within local power market based on the energy regulatory framework**
 - The extent to which direct wholesale transactions with an independent power producer in addition to options made available by the local utility varies materially from state to state.
 - Even in states where such wholesale transactions are not permitted, there is typically some exceptions for self-supply or co-located generation.
- **Price Risk**
 - Procurement of energy or RECs may expose C&I buyers to the risk of price fluctuations within the applicable market and differences between market and location-specific prices.
 - Agreements will likely address basis risk, negative market prices and loss of market index.
- **Credit and Collection Risk**
 - Seller is typically a special-purpose entity with no assets beyond applicable project.
 - Seller typically required to post significant credit support.
- **Agreement to address acceptable forms, issuers and draw conditions.**
- **Construction Risk**
 - Sellers expect C&I buyers to share in construction risk by allowing extensions of completion deadline in certain circumstances and limiting Seller's liability for breach pre-completion.
- **Compliant “Green” Declarations**
 - Retirement of RECs required to make claims as to the use of renewable power.
 - EPA and FTC have issued guidance and regulations as to green claims.
 - Risk of charges of false or deceptive marketing claims, including potential legal action.

Key Issues In Renewable Energy Procurement (cont.)

Key Technical and Commercial Issues and Legal Risks

Key Legal Risks

- **Supply and Performance**

- PPAs address expected energy volume and potential planned and unplanned outages.
- Remedies for underperformance include the payment of damages and procurement of substitute RECs.

- **Compliance Risk**

- C&I buyers typically very concerned about compliance by seller and project with applicable law. Often, compliance with specific buyer's compliance policies is also a key concern.
- Risks extend to contractors and subcontractors of seller.
- Issues include employment practices, including the use of forced labor and consideration of prevailing wage, environmental practices, community impact, diversity policies, cybersecurity risks and the treatment of confidential information.

- **Additional Risks**

- Excused performance for force majeure and other emergencies and need for back-up power.
- Impact of curtailment by local transmission provider
- Supply chain risks, including as to available equipment and additional costs associated with international procurement
- Treatment of change in law risk

Key Issues In Renewable Energy Procurement (cont.)

Key Technical and Commercial Issues and Legal Risks

To varying degrees, state legislation has been focused on rate classifications, co-location of energy facilities, back-up generation, and reporting requirements for C&I and large load customers.

- **Oregon - POWER Act (HB 3546)**

- Creates a new customer classification and rate class for large energy users, such as data centers, that consume more than 20 MW
- Requires large users to sign minimum 10-year contracts for energy
- Pay a minimum for energy use (based on projected usage) and additional infrastructure costs incurred for serving the large user

- **Texas - SB 6, SB 1942 and HB 3970**

- Expedited interconnection process for operators of large loads of at least 75 MW at a single site who agree to cease consuming energy from the power grid by exclusively using their behind-the-meter generation when directed
- Requires new large electric loads connected after December 31, 2025, to pay a \$100,000 fee for interconnection studies
- Large loads, especially those served at transmission voltage, are subject to curtailment during emergencies and can be required by ERCOT to deploy their own backup generation if they have it
- New large users must disclose any other similar project requests they have in Texas

Key Issues In Renewable Energy Procurement (cont.)

Key Technical and Commercial Issues and Legal Risks

To varying degrees, state legislation has been focused on rate classifications, co-location of energy facilities, back-up generation, and reporting requirements for C&I and large load customers.

- **Illinois - SB 2181**

- Starting 1/1/2026, data centers must file an annual report with the Illinois Power Agency report detailing their monthly energy and water consumption, including specifics about energy sources, water usage for cooling or other purposes, and any efficiency improvement measures undertaken during the previous year
- The Illinois Power Agency is also required to conduct a comprehensive study examining how data centers impact rate-paying customers, including their effects on electricity demand, rate changes, and environmental implications, which shall be submitted to the General Assembly and Governor

- **Georgia - HB 528 and PSC Docket No. 55378**

- Requires "high resource use facilities," including large data centers, to disclose details on energy usage, water usage, air quality permits, and noise levels
- Disclosures are required before a facility can enter into a contract for tax incentives or apply for permits to construct or operate
- Any new customers using more than 100MW of energy can be billed using terms and conditions beyond those used for standard customers, including commitment to pay for minimum load
- Starting 1/1/2026, in addition to site specific costs, data centers using more than 100MW of energy would pay for costs incurred by upstream generation, transmission and distribution to these large-load power users as construction of the data centers progresses
- Longer contract lengths (from minimum of 5-years to 15-years)

Typical Terms in Corporate PPAs

Key Terms Establish Allocation of Risks Between Buyer and Seller

- **Credit quality of corporate buyer and required credit support from buyer and seller.**
 - Corporate buyer must generally be investment-grade or provide comparable credit support acceptable to developer and applicable financing parties.
 - Non-recourse project financing will require creditworthy offtaker.
 - Seller is often a special-purpose entity so will be required to provide reasonable credit support.
- **Firmness of purchase obligations and term of commitment**
 - Developers will look to obtain firm commitment for a minimum term to establish firm revenues to support capital investment in proposed project.
 - Non-recourse project financing also requires firm contracted revenues.
- **Price for Energy and RECs**
 - Depending upon nature of arrangement, price may be fixed or linked to a published index. Virtual PPAs are often structured as fixed-for-floating swaps.
 - Transactions linked to variable price carry additional risk. Need to assess price risk within specific market; consider negative pricing scenarios.
- **Quality of RECs and Control over REC accounts**
 - Contracts should provide for purchase and delivery of RECs generated by power being purchased, including as to vintage. Owner of RECs has the sole right to publicly claim use of renewable power.
 - EPA recommends use of RECs certified and verified by a third party such as Green-e.
 - We recommend buyers establish their own REC accounts to control delivered RECs including retirement of same.

Typical Terms in Corporate PPAs

Key Terms Establish Allocation of Risks Between Buyer and Seller

• Remedies for Breach

- Liability of project company typically limited pre-completion if project development and construction is not successful.
- Similarly, liability for underperformance of project is often capped based on pre-agreed rate for liquidated damages.
- Remedy for termination typically based on traditional cover damages
 - losses of non-defaulting party typically assessed by comparison of then-current market price and contract price.

• Use of On-Site Property and Facilities

- For on-site projects, project company and buyer needs to agree on location for installation of project, access and use of existing infrastructure.
- Project company will likely seek covenants as to no changes or additions to site which could negatively impact project.

• Compliance with Applicable Law

- Corporate buyers typically have established corporate policies regarding compliance matters.
- Serious concerns regarding association with a non-compliant project

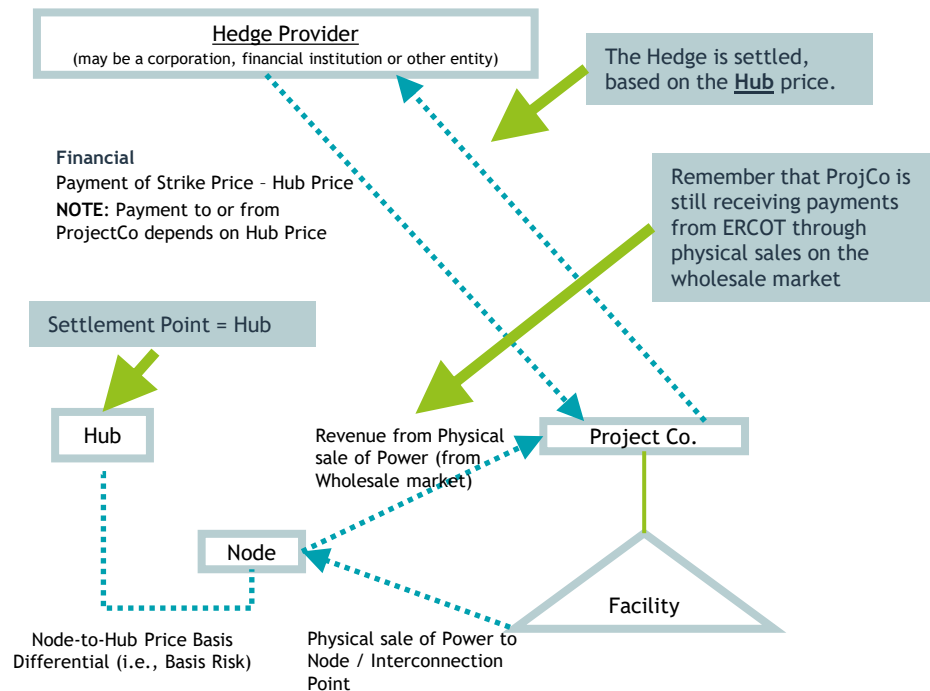
• Change in Law Risk

- The production and transmission of energy is subject to numerous restrictions and requirements under applicable law which continue to change and evolve, including as to compliance costs and the value of products sold.
- Sponsors typically seek some protection for change in law including as to state regulatory requirements, federal tax credits and permitting matters.

PPA Hedge Structures

PPA Hedge Mitigates Price Risk

Financially-Settled Hedge

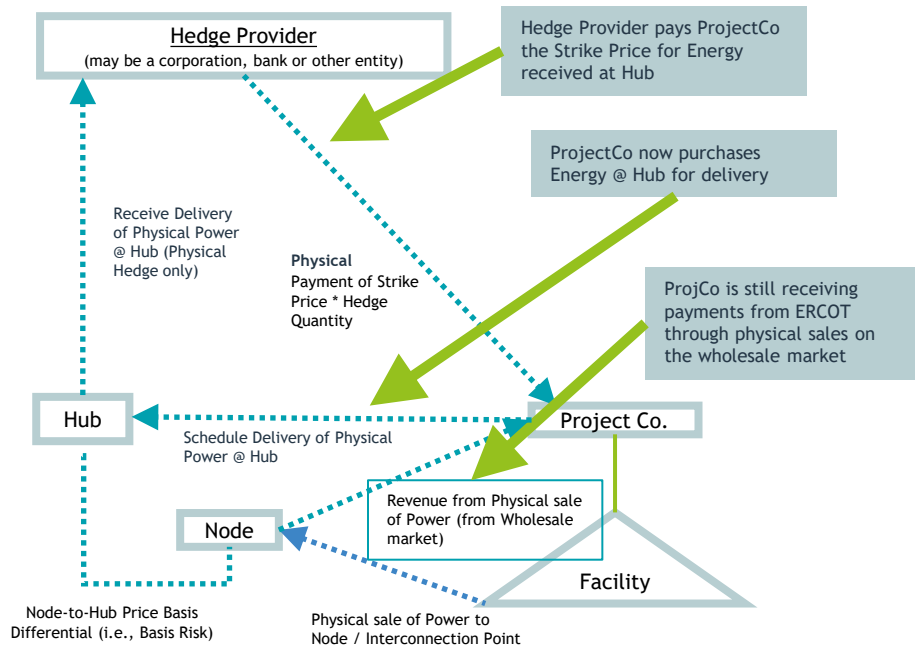


- Hedge Payments can flow either way in a Financially-Settled Hedge
 - Hedge Provider to Project Co. when the Hub Price is less than the Strike Price
 - Project Co. to Hedge Provider when the Hub Price is greater than the Strike Price
- Financially-Settled Hedges involve the sale of Energy at the Node and a settlement at the Hub between the Hedge Provider and the Project Company for the difference between the Strike Price and the Hub Price.

PPA Hedge Structures

PPA Hedge Mitigates Price Risk

Physically-Settled Hedge

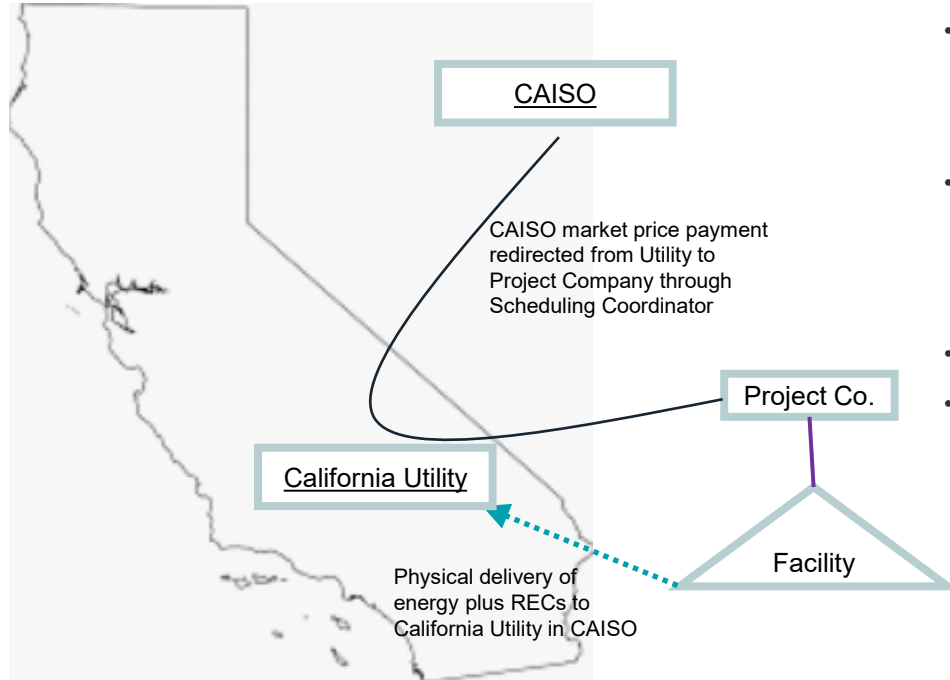


- Physically-Settled Hedges involve the sale of Energy at the Node and delivery of Energy at the Hub. Hedge Provider pays the Project Company for the delivered Energy at the Strike Price.
- Hedge Payments can flow from Hedge Provider to Project company in a Physically-Settled Hedge
 - Difference between the sale of Energy at the Node and purchase of Energy at the Hub (for delivery) is where the Basis Differential comes into play

PPA Structure (California Utility)

California Utility PPA For Energy and RECs

Index + PCC1 REC Agreements (California)



- California Utility physically purchases
 - (1) Energy at the floating market price and
 - (2) RECs that are derived from the Energy being delivered
- Product Content Category 1 (PCC-1) - A renewable resource located within the state of California or, a renewable resource that is directly delivered to California without energy substitution from another resource.
- Utility pays Project Company a certain \$/REC
- Utility tells the Scheduling Coordinator to send payments for sales into the CAISO market directly to Project Company in lieu of payment from Utility to Project Company

A large, stylized letter 'A' in a vibrant lime green color, positioned on the left side of the slide. It is composed of two thick diagonal strokes meeting at a point at the top, with a horizontal bar across the middle.

Thank You!

© 2024 Akin Gump Strauss Hauer & Feld LLP.
All rights reserved. Attorney advertising.
Prior results do not guarantee a similar outcome.

Akin[®]