



# What Your Renewable Energy Strategy is Probably Missing

March 25, 2021



# Meet our Renewable Energy Experts



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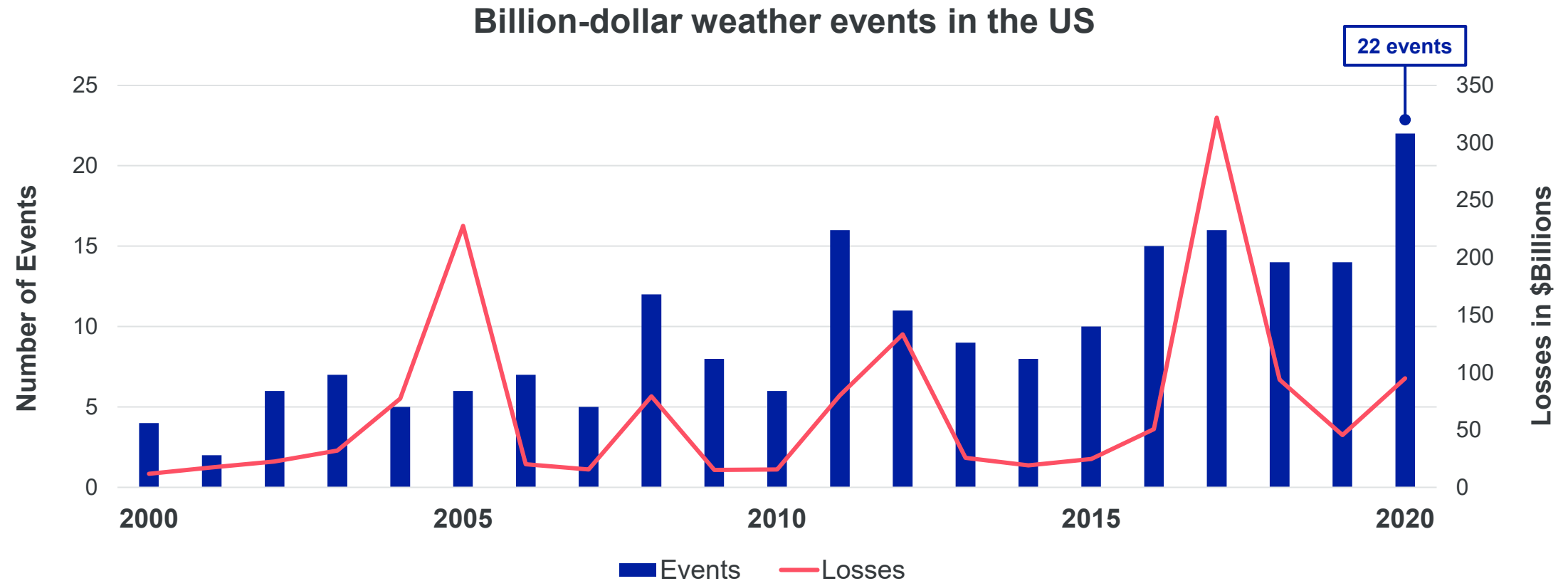
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# Extreme Weather Events Are More Common And More Costly



Source: NOAA (<https://www.ncdc.noaa.gov/billions/time-series>)

# Credit Rating Agencies, Investors, and Regulators are Responding

## MOODY'S

September 14, 2020

"Moody's Corporation announced today the formation of an [ESG] Solutions Group to serve the growing demand for ESG insights.

**ESG and climate risk considerations are already integrated into credit ratings**

and research...and will be integrated into a range of Moody's Analytics risk management solutions, research, data and analytics platforms."



## BlackRock

December 16, 2020

"We modified our principles to be clear that we expect boards to shape and monitor management's approach to material sustainability factors in a company's business model.

We will **hold directors accountable** where business practices or disclosures fall short of our expectations."



March 4, 2021

Securities and Exchange Commission announces creation of Climate and ESG Task Force in Division of Enforcement.

The Task Force will "develop initiatives to proactively identify ESG-related misconduct."

Initial focus will be "to **identify any material gaps or misstatements** in issuers' disclosure of climate risks."



# Key Discussion Topics

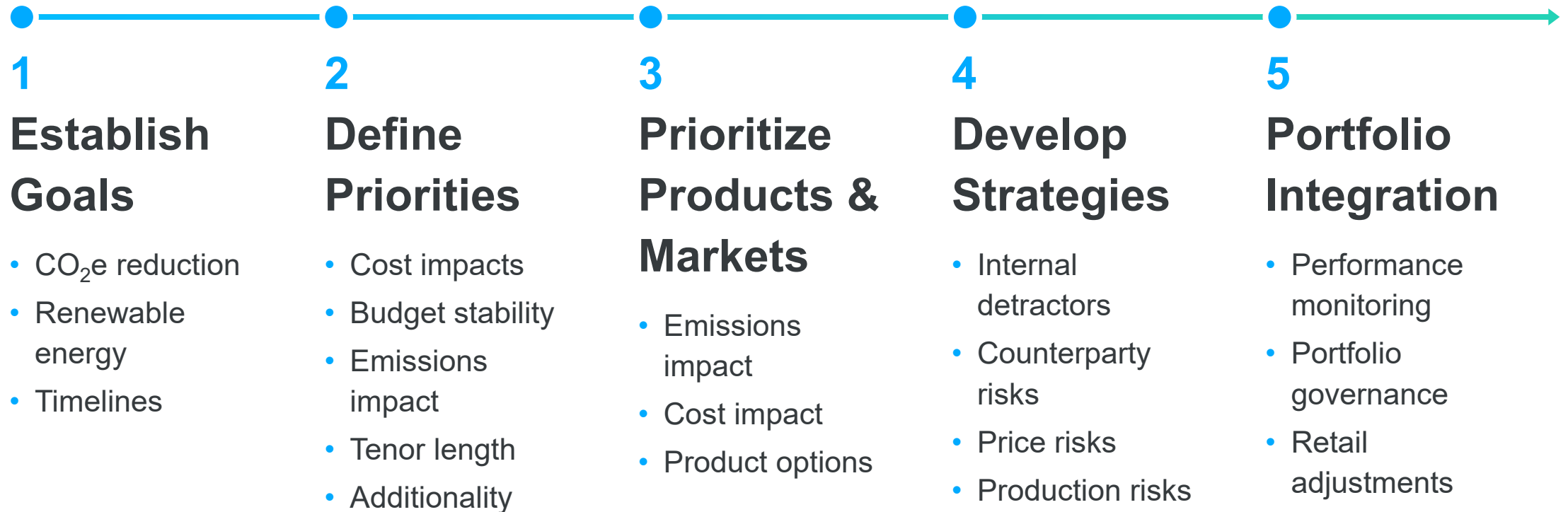
**How to evaluate VPPAs among different renewable options**

**Where VPPA prices are trending, and why it matters**

**What to expect over the life of a VPPA, and how to manage risk**

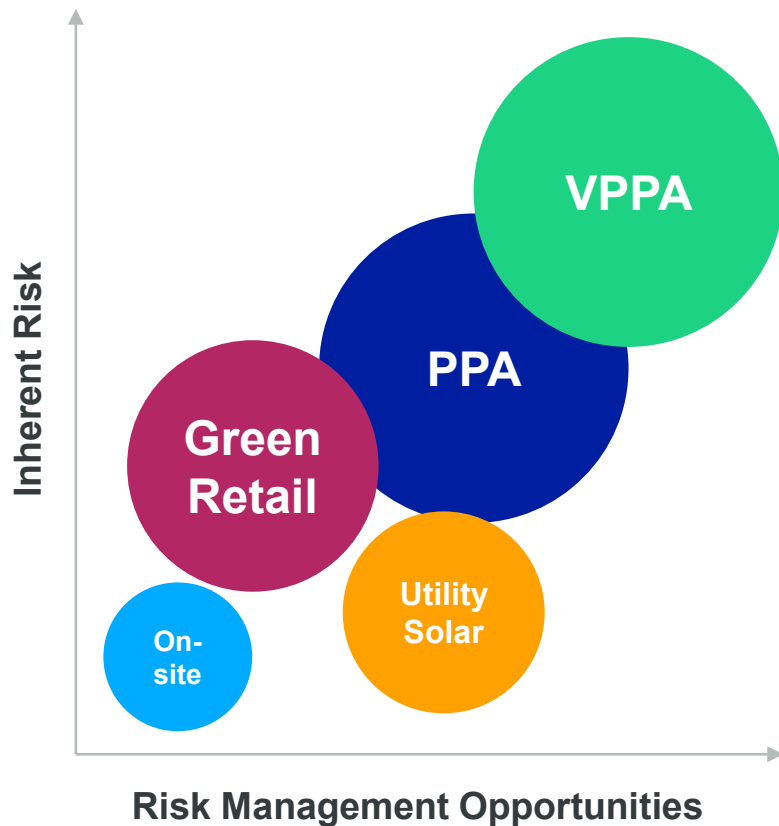
# From Goals to Action

A proven process to achieve targets and manage risk



# Renewable Energy Options

Renewable products offer different financial and environmental benefits



**On-site Solar** Primarily a cost-saving tool with limited environmental impact. Difficult to implement across large portfolios.

**Utility & Community Solar** Primarily a cost-saving tool with varying environmental benefits. Easier to implement across large portfolios.

**Green Retail** Primarily an environmental tool with limited financial benefits. Easier to execute and manage than PPAs.

**PPA** Efficient hedging and environmental tool, but less risk management options than VPPAs. Better suited for concentrated loads.

**VPPA** Less efficient hedge, but more risk management options. Better support for distributed portfolios.

# On-Site and Community Solar Examples

Renewable energy tools that reduce cost



New Jersey



California



New York

Program	On-site solar	PGE solar choice	Community solar
Contract	10+ yrs.	N/A	3+ yrs.
Savings	~\$30/MWh	\$9/MWh	~10%
Emissions Impact	N/A	RECs included	N/A
Additional?	Yes	No	Potential with longer terms

## Key Considerations



**Must be quick** – capacity fills up fast



**Environmental benefits vary by program** – some include RECs




**Limited performance monitoring** – savings materialize at end of billing cycle



# Green Retail and PPAs

Renewable energy tools that reduce emissions

## Green Retail

- ✓ 10-page contracts
  - ✓ Shorter terms
  - ✓ Fully managed
  - ✓ Supports distributed portfolios
- 
- ✗ Fewer markets and vendor options
  - ✗ Modest cost premiums
  - ✗ No additionality for shorter-terms
  - ✗ Tied to single supplier for term

## PPA

- ✗ 50+ page contracts
  - ✗ 12+ year terms
  - ✗ Requires active management
  - ✗ Designed for concentrated loads
- ✓ Mature developer and utility market
  - ✓ Efficient hedging instruments
  - ✓ Additionality
  - ✓ Not tied to any single supplier

# Why VPPAs Might Be The Right Tool

State targets and investor pressure is accelerating market access

## What makes a good VPPA candidate?



Environmental urgency



Multi-site, dispersed portfolio



Centralized energy governance



Willingness for active management

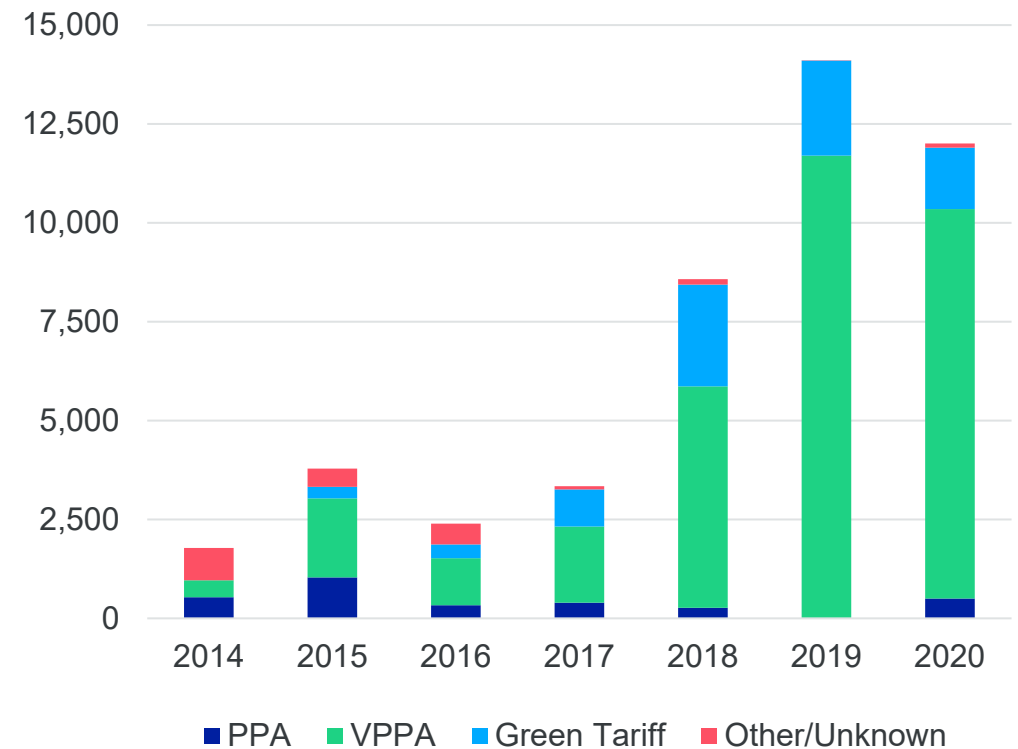


Investment grade credit



Budget risk tolerance

Publicly Announced United States C&I Purchases





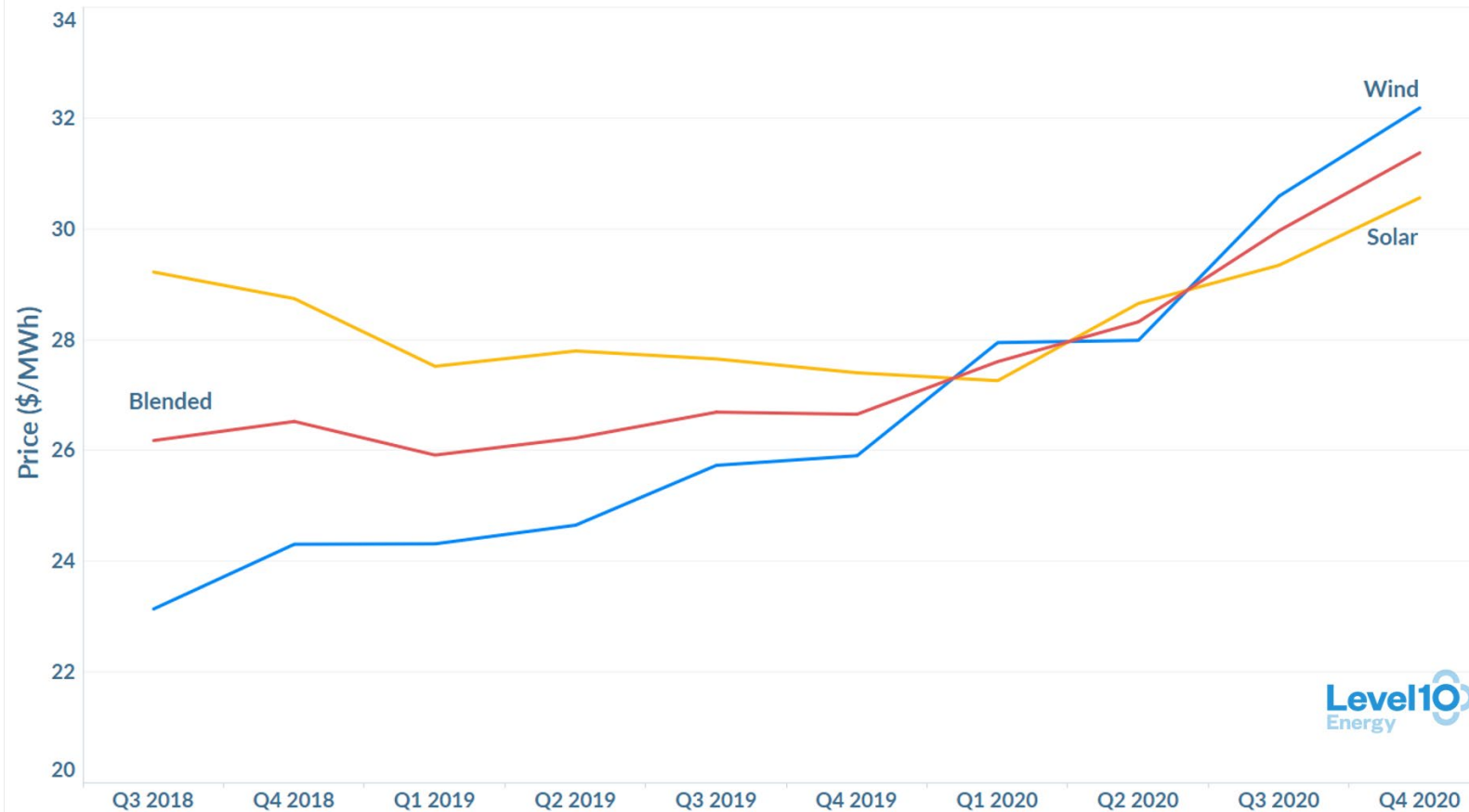


# PPA Pricing Trends



# In 2020, PPA offer prices rose 17%

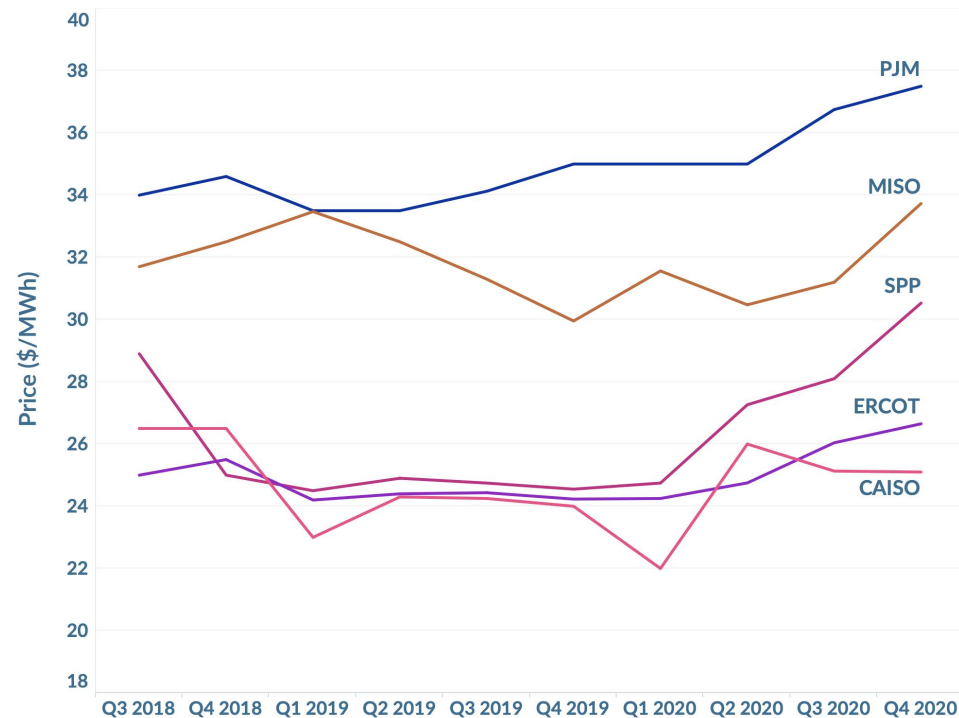
Quarterly Aggregate Price Index - P25



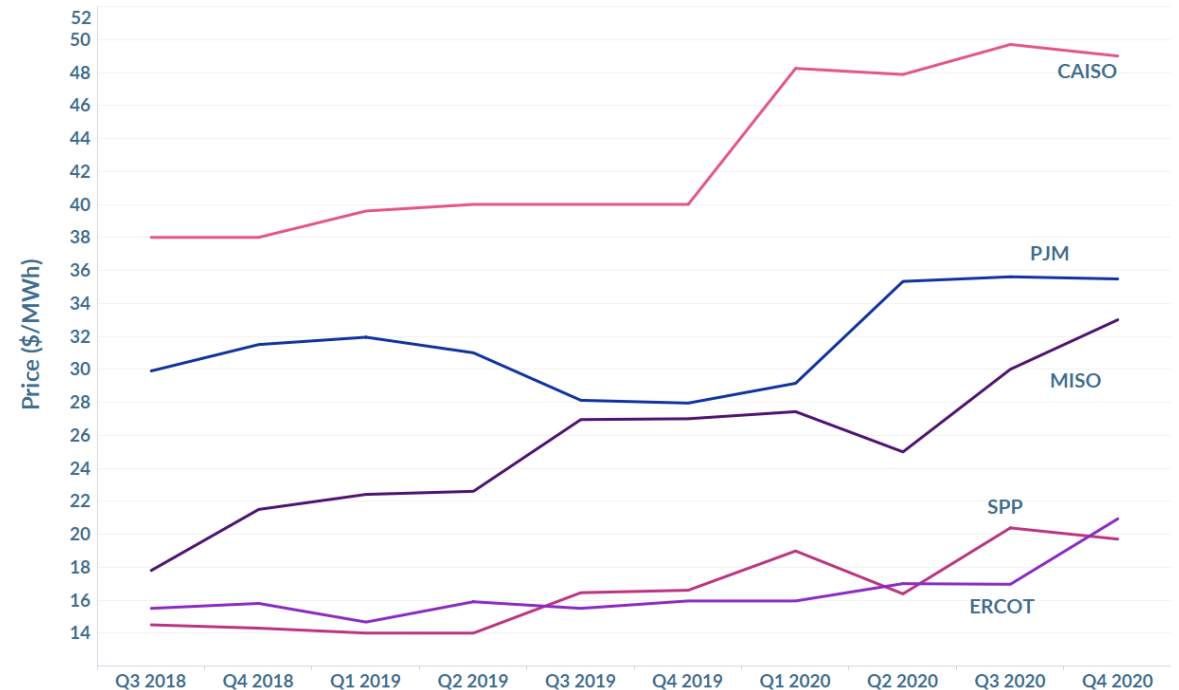
Level10  
Energy

# Price Spikes Felt in High Density Areas

## Solar PPA Prices by ISO



## Wind PPA Prices by ISO

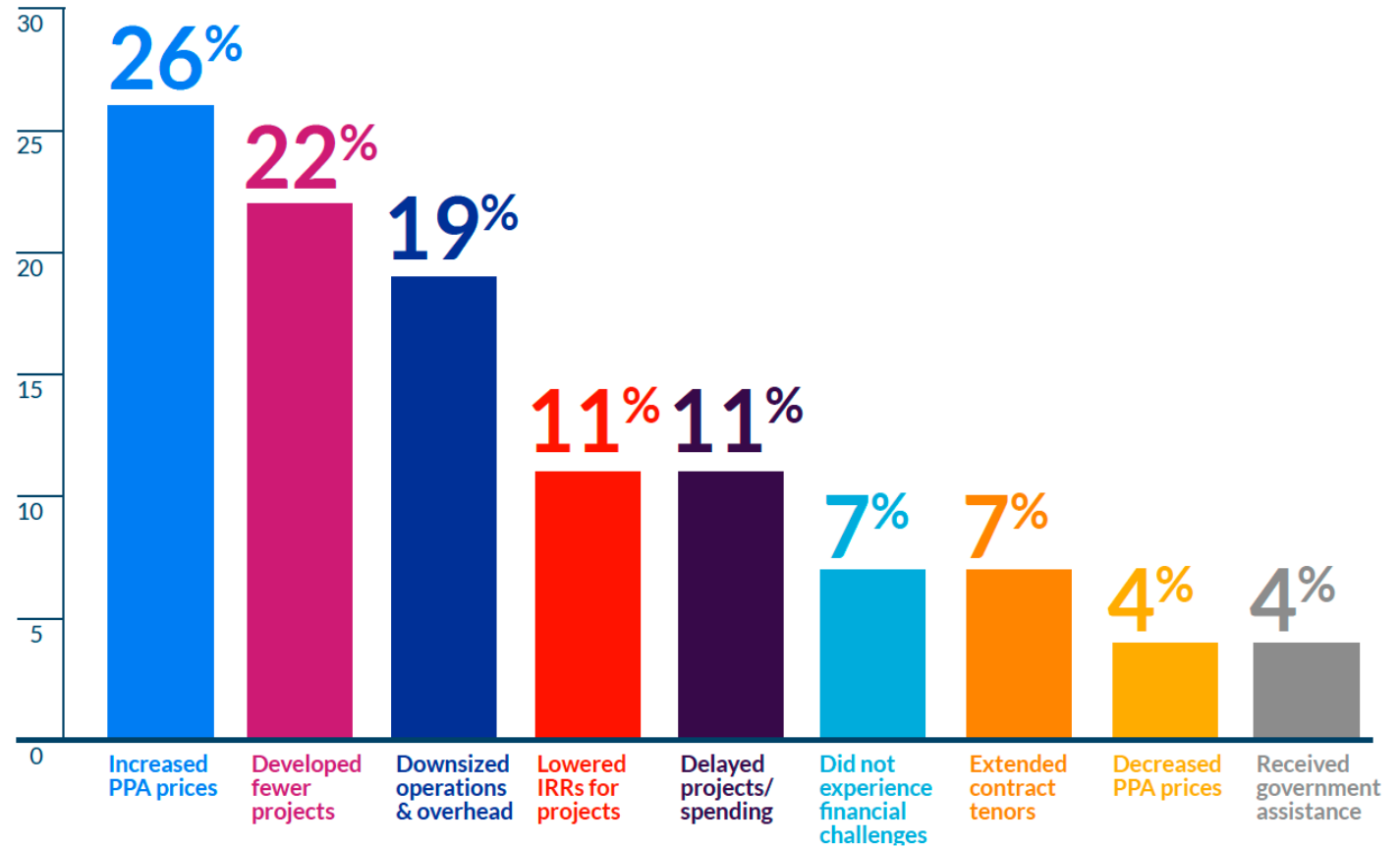




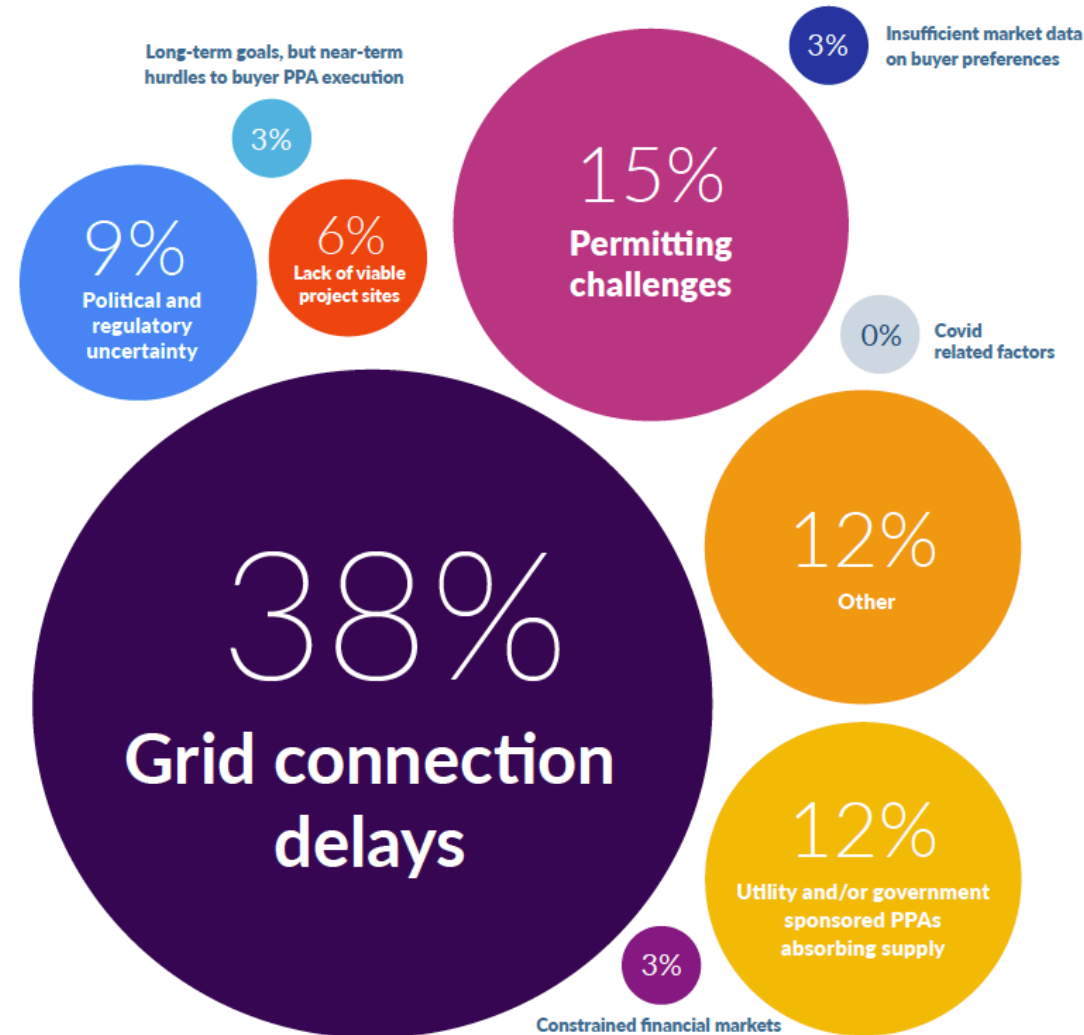
# COVID-19 Not the Only Cause

**What measures have you taken to overcome financial challenges caused by COVID?**

Respondents could select more than one option



# Renewable Supply is Constrained



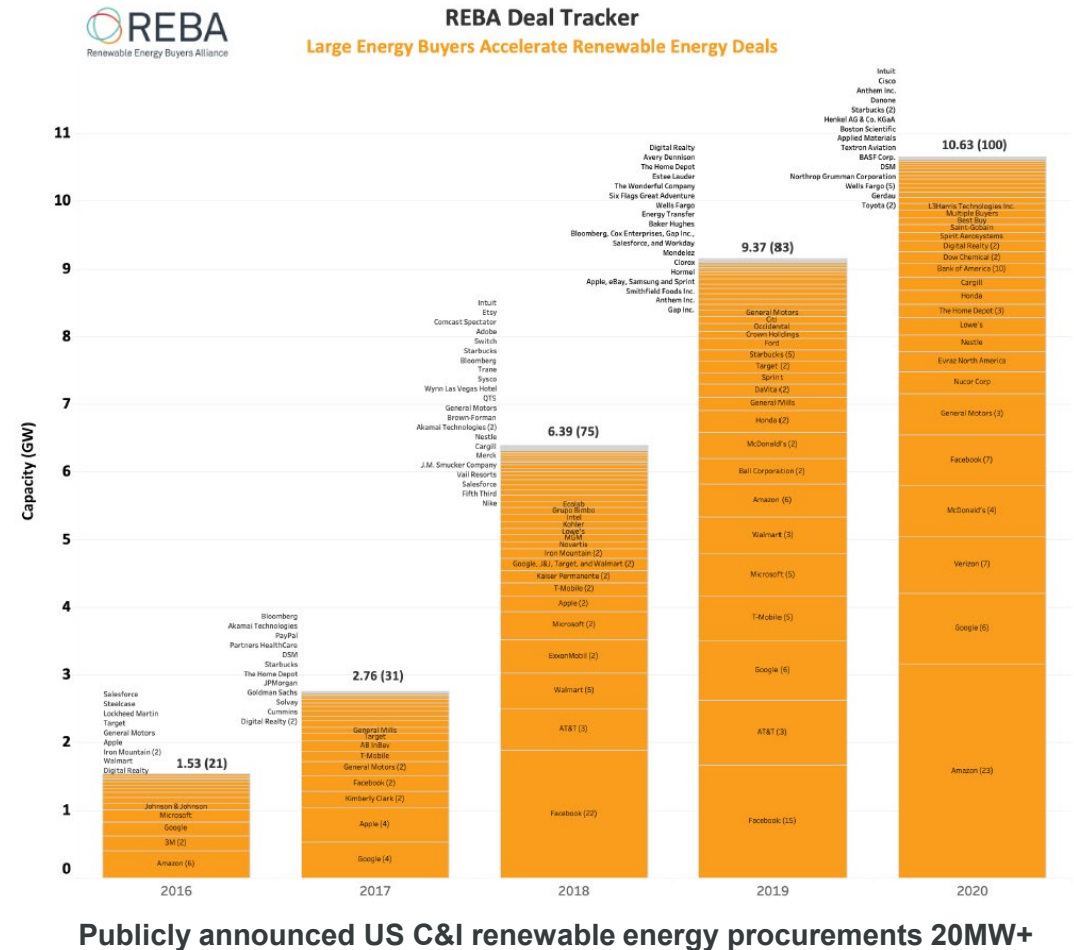
# Demand is Skyrocketing

**35** C&I buyers announced **100 deals** in 2020 (17% increase from 2019)

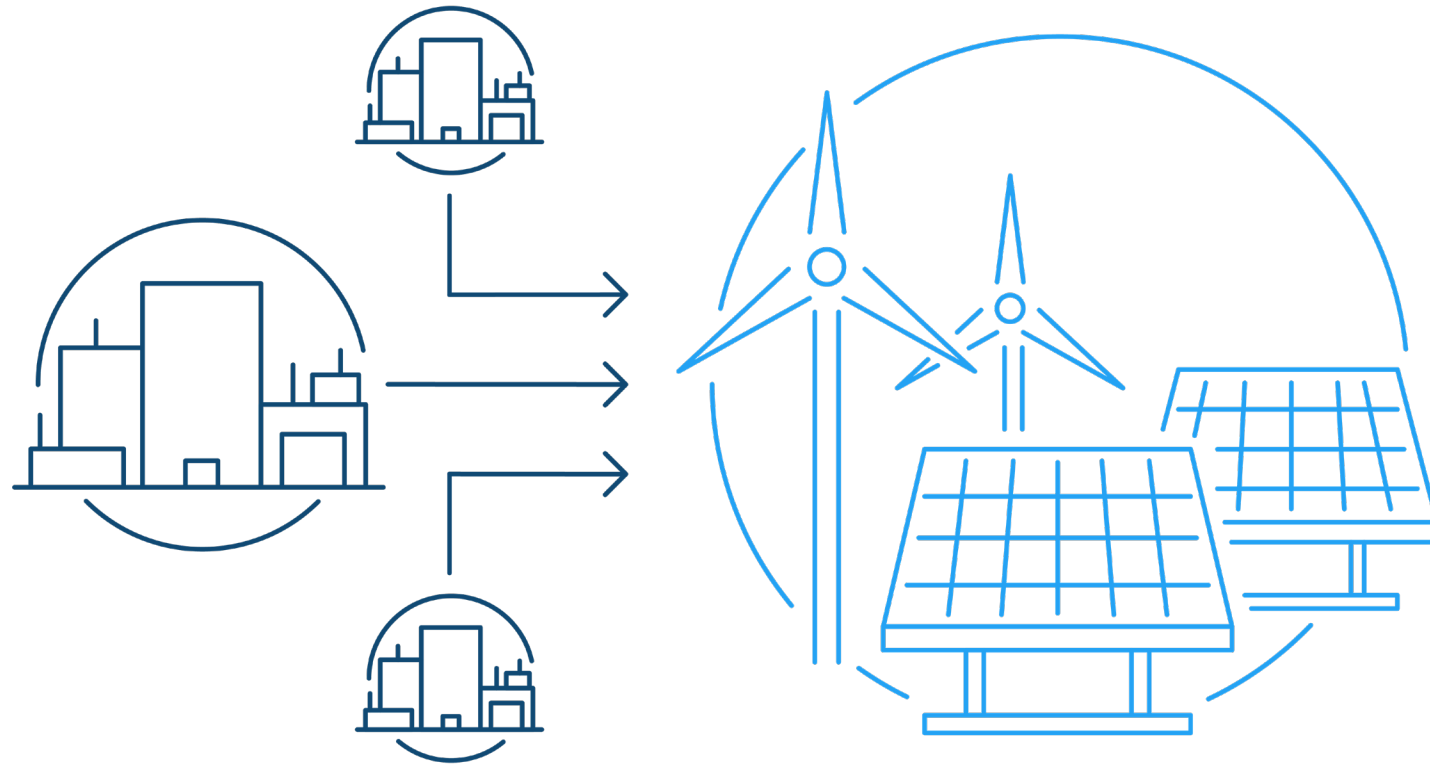
Deals totaled **10.6 GW** of capacity (13% increase from 2019)

Nearly **half** (49%) of energy buyers that announced deals in 2020 were new to the market

Top industry sector for new buyers was **Industrials and Materials**



# The Takeaway? Act Now.



An aerial photograph of a vast solar farm, showing numerous rows of blue solar panels stretching across a landscape. The panels are arranged in a grid-like pattern, with some areas showing green grass and dirt paths. The perspective is from a high angle, looking down at the solar array.

# **Managing VPPAs Risks Over The Contract Term**

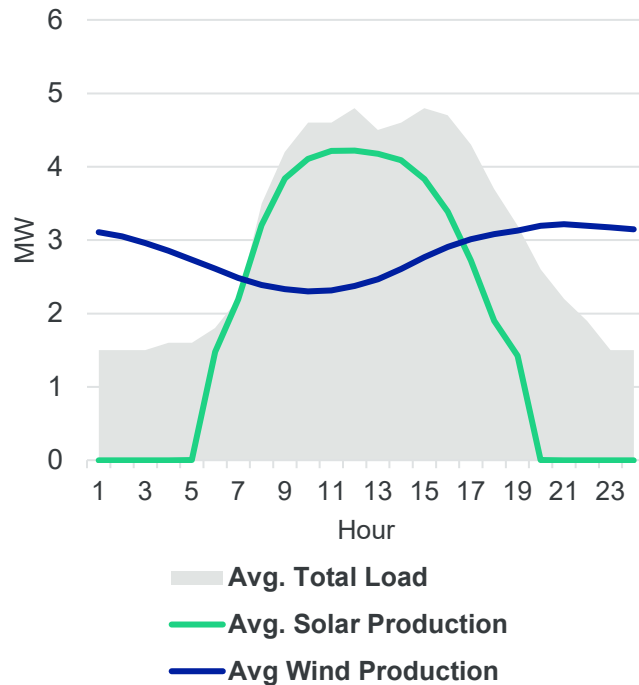


# 3 Critical Lenses for your VPPA & Retail Strategy

Facility demand, market dynamics, and retail strategies must be integrated

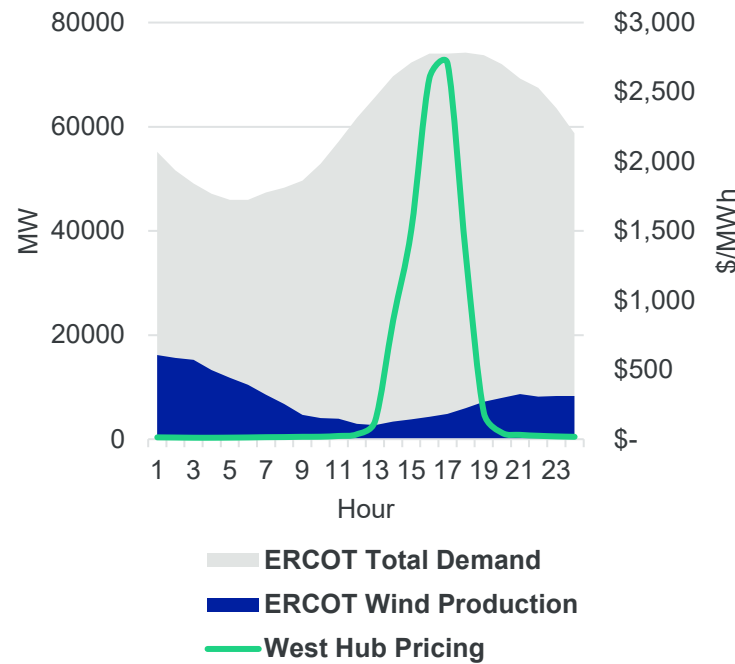
## Demand Profile

Shaping risk may vary by resource and should inform retail strategies.



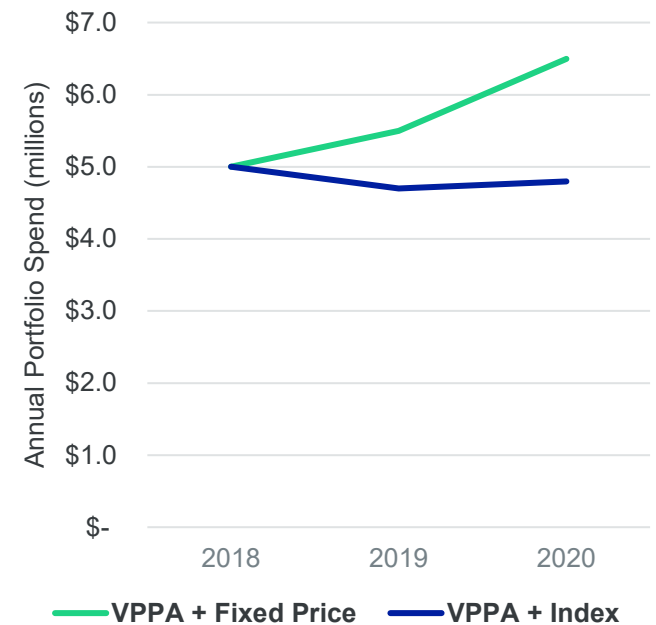
## Market Covariance

Evaluate hourly settlements, not just averages to manage budgetary risks.



## Hedge Efficiency

A VPPA + fixed-price approach is a bet that wholesale prices will increase.

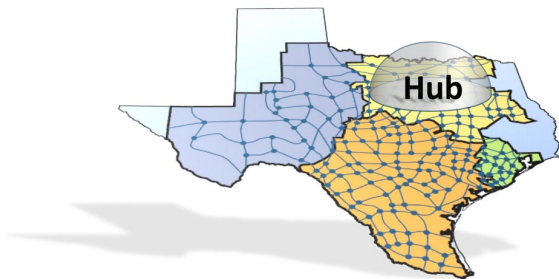


# Key Contract Terms To Qualify Pricing

Two projects with the same price likely offer very different value

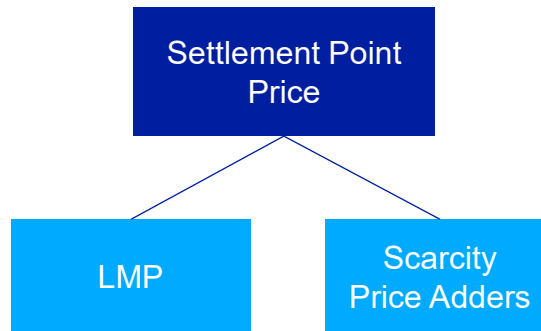
## Settlement Location

Hub-settled agreements may cost more than those settled at the project node, but they will better protect budgets from transmission constraints.



## Settlement Index

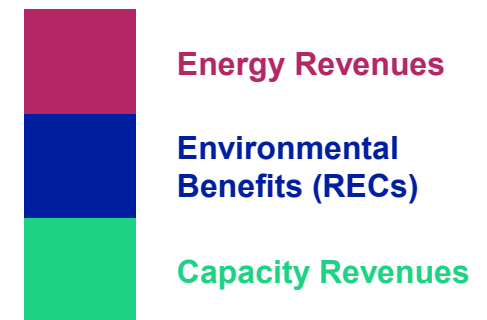
Average SPP prices trended around \$9,000/MWh during February freeze, while LMP prices trended below \$2,000.



## Capacity

Texas does not currently have a capacity market, but buyers may want to protect capacity revenues if one should arise in the future.

### PPA Value Streams



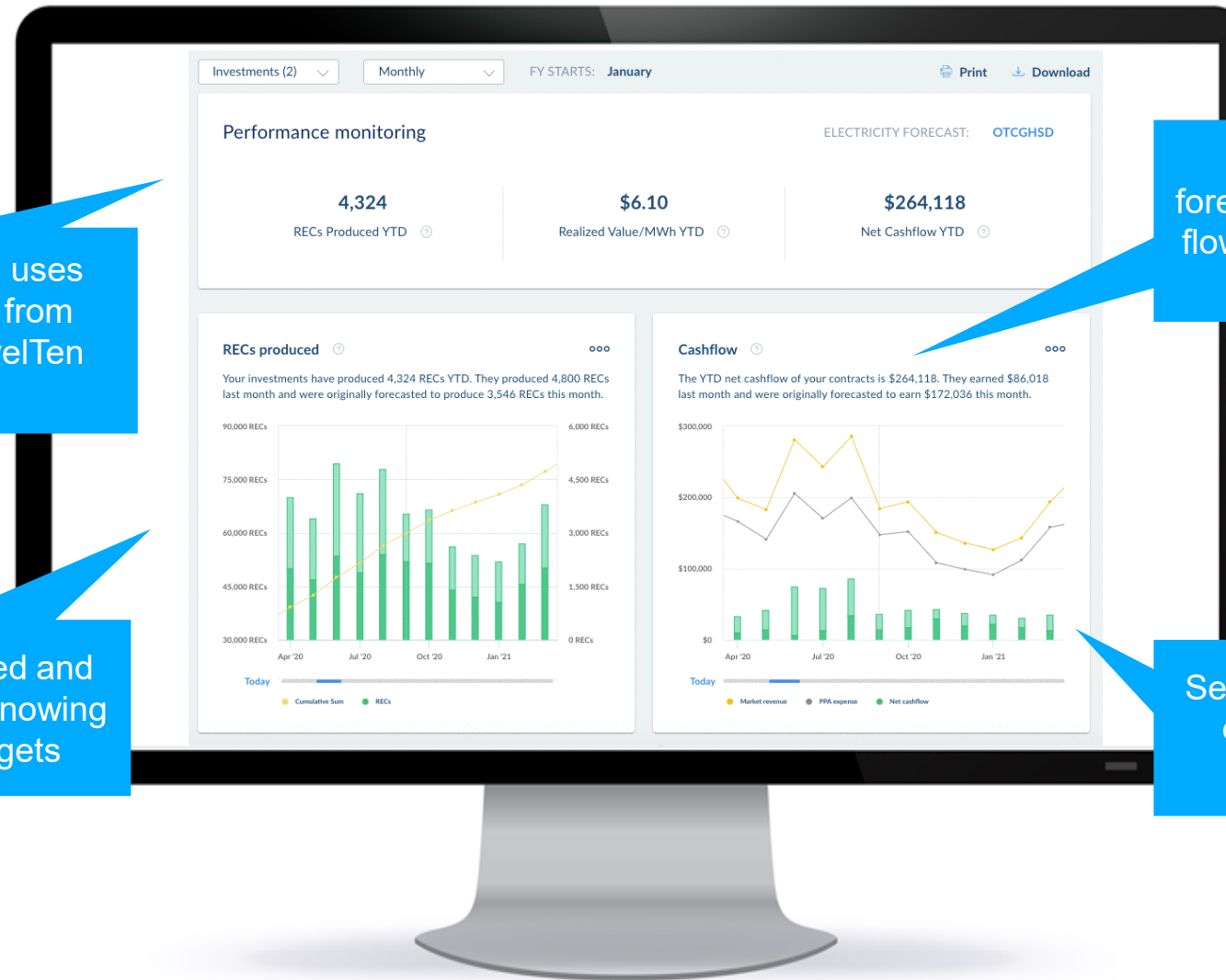
# Instantly Monitor PPA Performance

Online dashboard uses direct data feeds from projects + the LevelTen Marketplace

See RECs produced and get peace of mind knowing you'll hit your targets

View historical and forecasted NPV and cash flows using latest market information

Settlement verification ensures accurate monthly billing



The background of the slide is a composite image. The upper portion shows a dense urban skyline with several tall, modern skyscrapers under a bright, slightly hazy sky. The lower portion shows a lush green park with various trees, including some with yellow foliage, and a wooden deck area with some outdoor furniture. A large white rectangle with a blue border is centered over the image.

# Q&A



An aerial night view of a city skyline, likely New York City, featuring a river and numerous illuminated skyscrapers. A large white rectangle with a blue border is centered on the image, containing the text "Thank You" and the ENGie Impact logo.

# Thank You







# Contact Us



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