



GridBeyond™

# Corporate PPAs Within a Wider Net Zero Context

15<sup>th</sup> April 2024



Crown  
Commercial  
Service  
Supplier



# Agenda

2007

2007

Global

Offices in the US, Canada,  
Ireland, UK, Australia, Japan

- Introduction to GridBeyond
  - What is Net Zero?
  - How the SBTI's 'Renewable Electricity' Target Can Help Businesses
  - Using On-site Solar, BESS and CPPAs as a Hedge
  - 24/7 Power-matching
- 

- What is a CPPA?
- Main Types of CPPA
- Truly Green and Auditable Power
- Do CPPAs Currently Provide Good Value?
- Key Considerations When Securing CPPAs

# About GridBeyond We Are

**We Transform Energy Into Opportunity For The Entire Ecosystem**

## Where We Operate



Operating across 4 continents, we empower energy users, generators, fleet operators, and renewable owners/developers to uncover additional **revenue** streams, lower **energy cost**, and drive **sustainability**.

Founded in  
**2010**

## Global

Offices in the US, Canada, Ireland, UK, Australia, Japan

**160+**  
Employees

**900+**  
Customers and partners

**2.3GW** total load & **500MW+**  
Of batteries under contract

## Our services include:

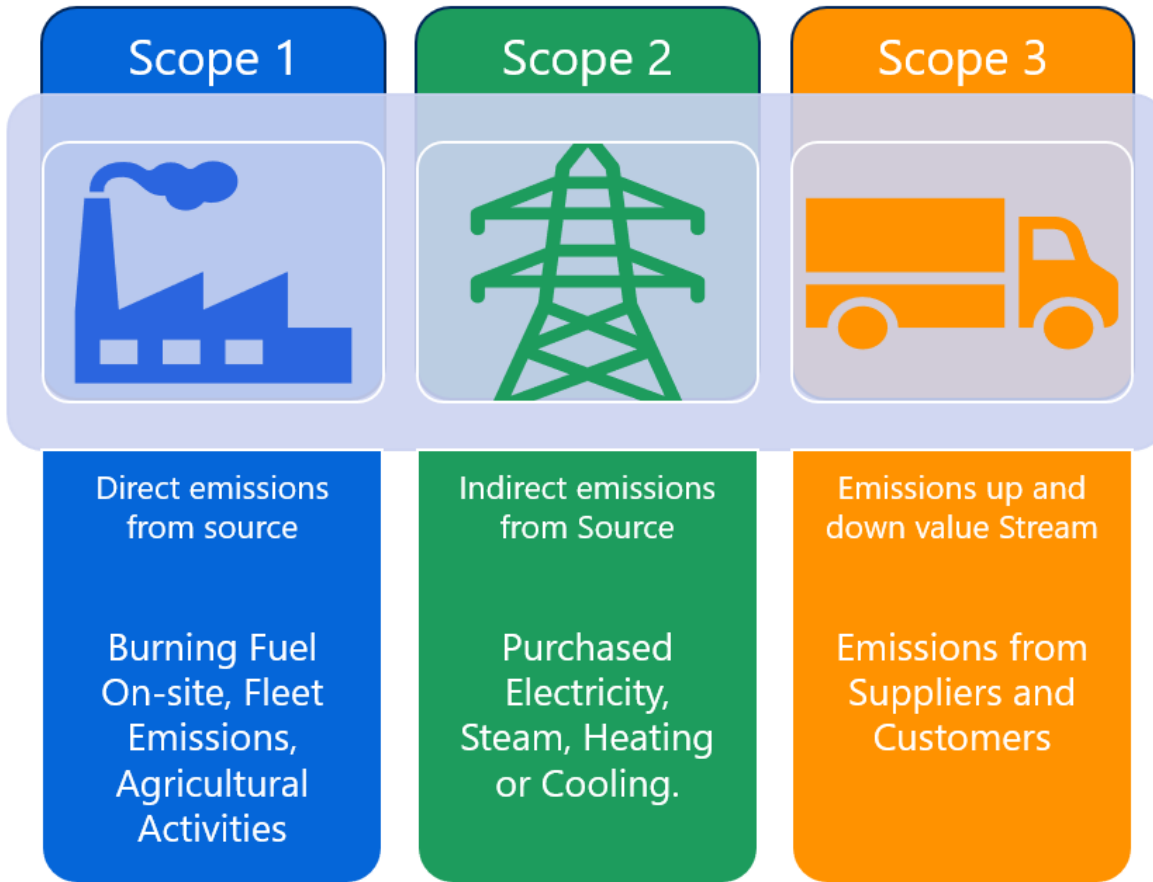
- Onsite Battery Storage & Solar
- Intelligent Demand-side Response
- CPPAs & Certificate Trading
- Renewable Asset Optimisation
- EV Fleet Management

### Partners:



# What Is Net Zero?

Net zero signifies achieving equilibrium between the production and removal of greenhouse gases (GHGs) in the atmosphere. This balance is attained by employing a mix of emission reduction and removal strategies.



## Scope 2 Emissions

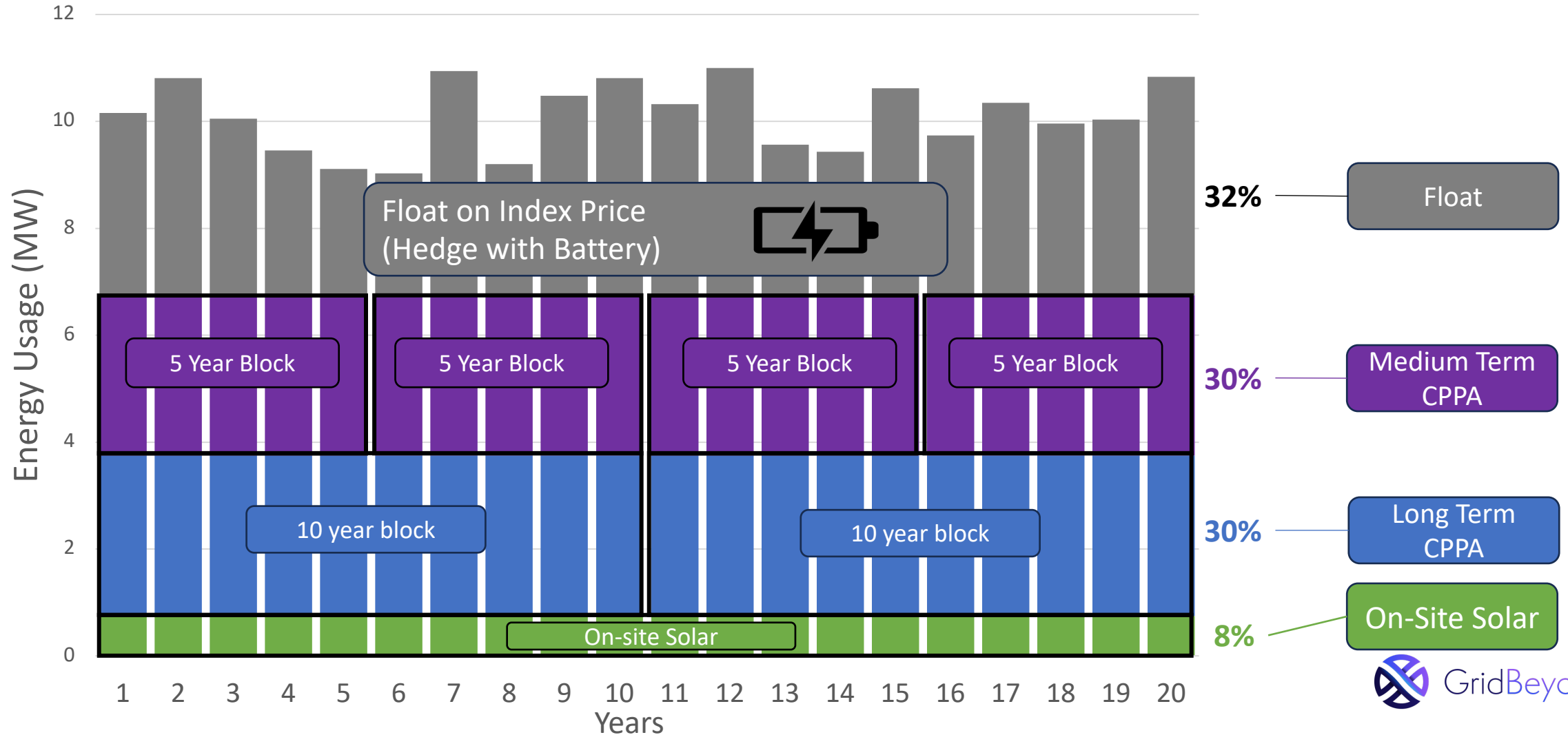
- **Definition:** Indirect emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the organization.
- **Examples:** Emissions associated with purchased electricity from the grid, district heating, or steam.
- **Significance:** Scope 2 emissions are considered indirect but are still influenced by the organization's energy consumption decisions.

# Using SBTi & CPPAs to Realise Your Net Zero Goals

		Scope 1 and 2			Scope 3				
Near-term science-based targets	Target boundary	95% coverage of scopes 1 & 2			If scope 3 represents more than 40% of total emissions: target boundary must cover minimum 67% of scope 3 emissions				
	Target year	5-10 years from date of submission			5 - 10 years from date of submission				
	Method eligibility and minimum ambition	Method	Cross-sector absolute reduction (i.e., ACA)	Sector-specific intensity convergence (i.e., SDA)	Renewable electricity (scope 2 only)	Cross-sector absolute reduction (i.e. ACA)	Sector-specific intensity convergence (i.e. SDA)	Supplier or customer engagement	Scope 3 physical and economic intensity reduction
		Eligibility and minimum ambition	<ul style="list-style-type: none"> <li>Minimum of 4.2% linear annual reduction (LAR) dependant on base year</li> <li>Exception: FLAG pathway is 3.03% LAR</li> </ul>	<ul style="list-style-type: none"> <li>Depends on sector and company inputs</li> </ul>	<ul style="list-style-type: none"> <li>80% RE by 2025</li> <li>100% RE by 2030 and thereafter a maintenance target</li> </ul>	<ul style="list-style-type: none"> <li>2.5% LAR</li> </ul>	<ul style="list-style-type: none"> <li>Depends on sector and company inputs (SDA)</li> </ul>	<ul style="list-style-type: none"> <li>Suppliers/c customers have science-based targets in line with the latest Corporate Near-Term Criteria</li> </ul>	<ul style="list-style-type: none"> <li>7% year-on-year physical/economic intensity reduction in annual compounded terms</li> </ul>
Long-term and net-zero science-based targets	Target boundary	95% coverage of scopes 1 & 2			90% coverage of scope 3				
	Target year	2050 or sooner (2040 for companies using the power and maritime SDAs)			2050 or sooner				
	Method eligibility and minimum ambition	Method	Cross-sector absolute reduction (i.e., ACA)	Sector-specific intensity convergence (i.e., SDA)	Renewable electricity (scope 2 only)	Cross-sector absolute reduction (i.e., ACA)	Sector-specific intensity convergence (i.e., SDA)	Supplier or customer engagement	Scope 3 physical and economic intensity reduction
		Eligibility and minimum ambition	<ul style="list-style-type: none"> <li>90% reduction (cross-sector pathway)</li> <li>72% reduction for FLAG</li> <li>Other sector pathways vary</li> </ul>	<ul style="list-style-type: none"> <li>Sector/commodity pathways vary</li> </ul>	<ul style="list-style-type: none"> <li>100% RE by 2030 and thereafter a maintenance target</li> </ul>	<ul style="list-style-type: none"> <li>90% reduction (cross-sector pathway)</li> <li>72% reduction for FLAG</li> <li>Other sector pathways vary</li> </ul>	<ul style="list-style-type: none"> <li>Sector/commodity pathways vary</li> </ul>	<ul style="list-style-type: none"> <li>Not eligible for long-term science-based targets</li> </ul>	<ul style="list-style-type: none"> <li>97% overall reduction for both physical and economic intensity</li> </ul>
					Not eligible	1.5°C ambition	Well-below 2°C ambition		

# Using On-site Solar, BESS and CPPAs to Hedge Volumes

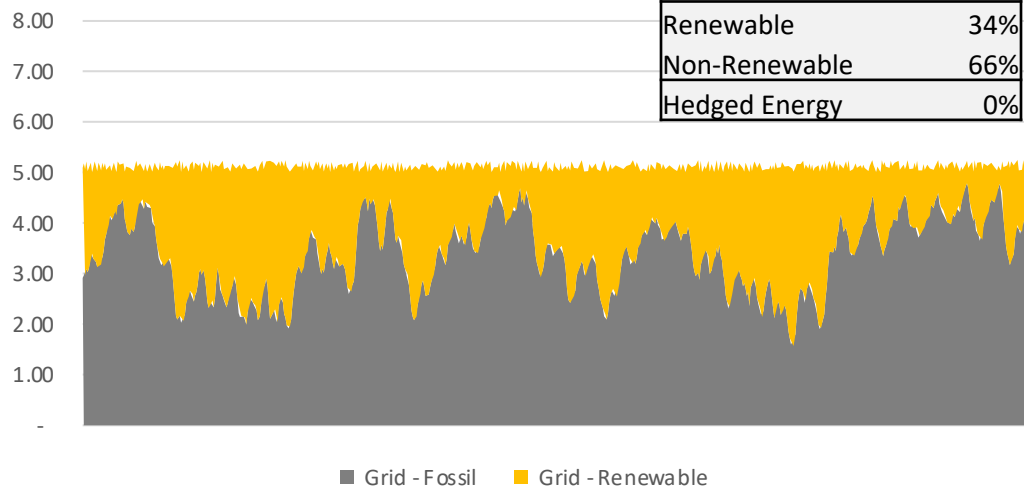
## Customer Energy Load Profile



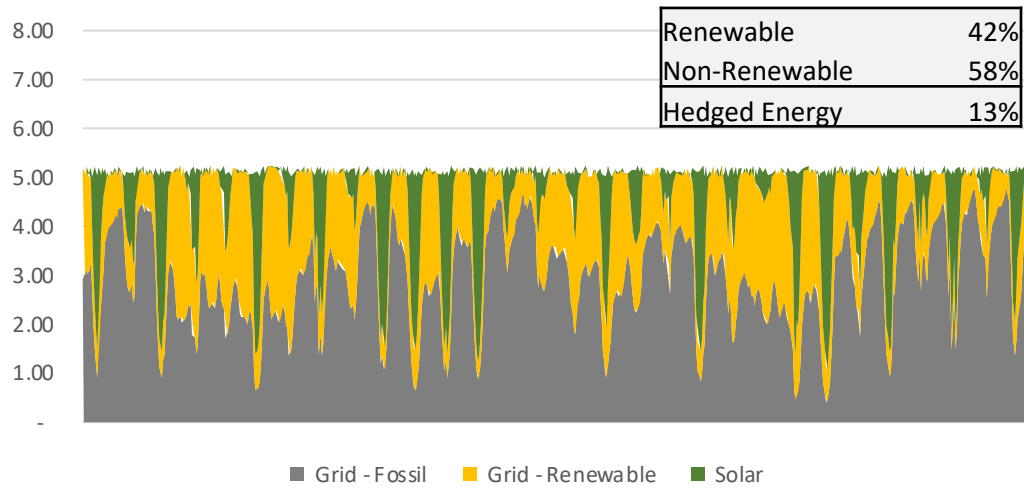
Site load: 5MW  
 Solar: 5MW  
 CPPA: 3MW  
 Battery: 5MW

# 24/7 Power-matching in Practice - 1 Month

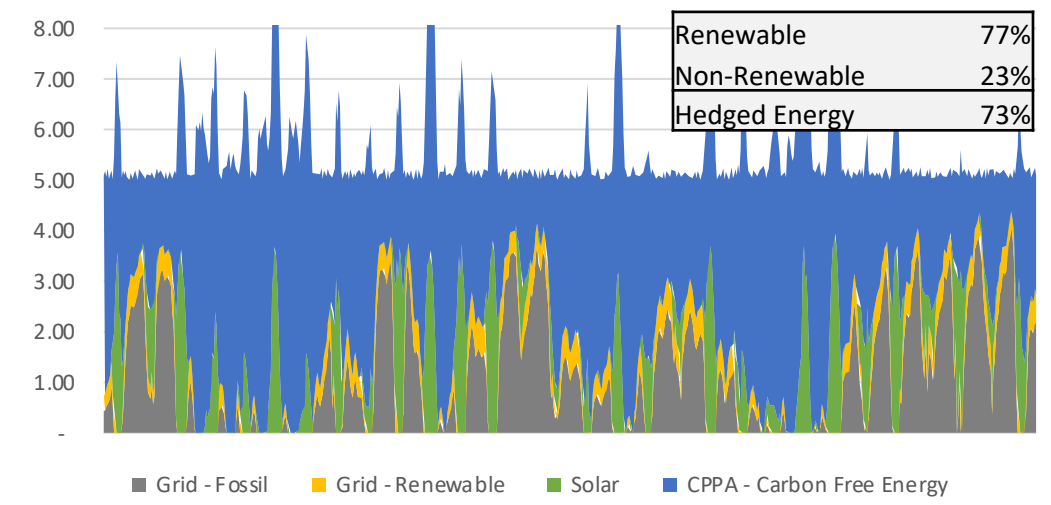
## 1. Grid Energy



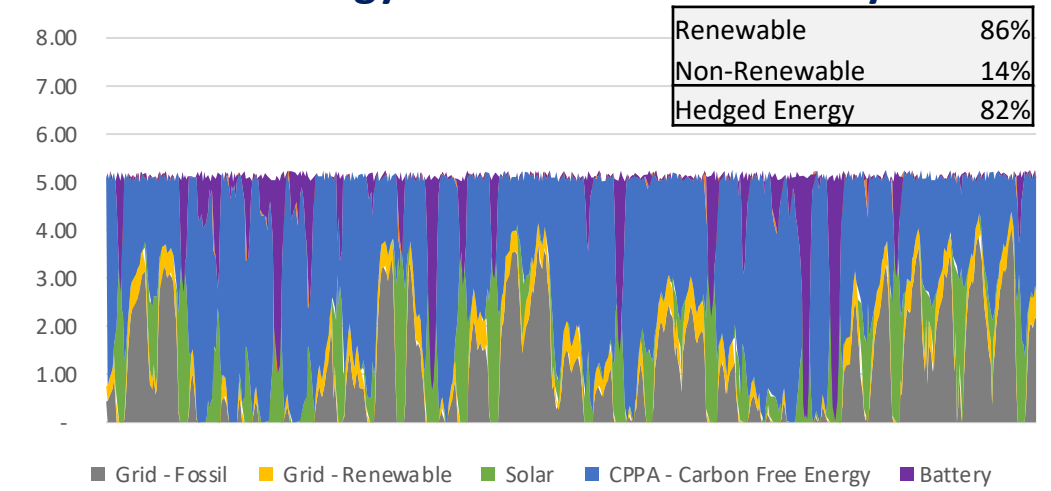
## 2. Grid Energy + Solar



## 3. Grid Energy + Solar + CPPA



## 4. Grid Energy + Solar + CPPA + Battery



# What is a CPPA?

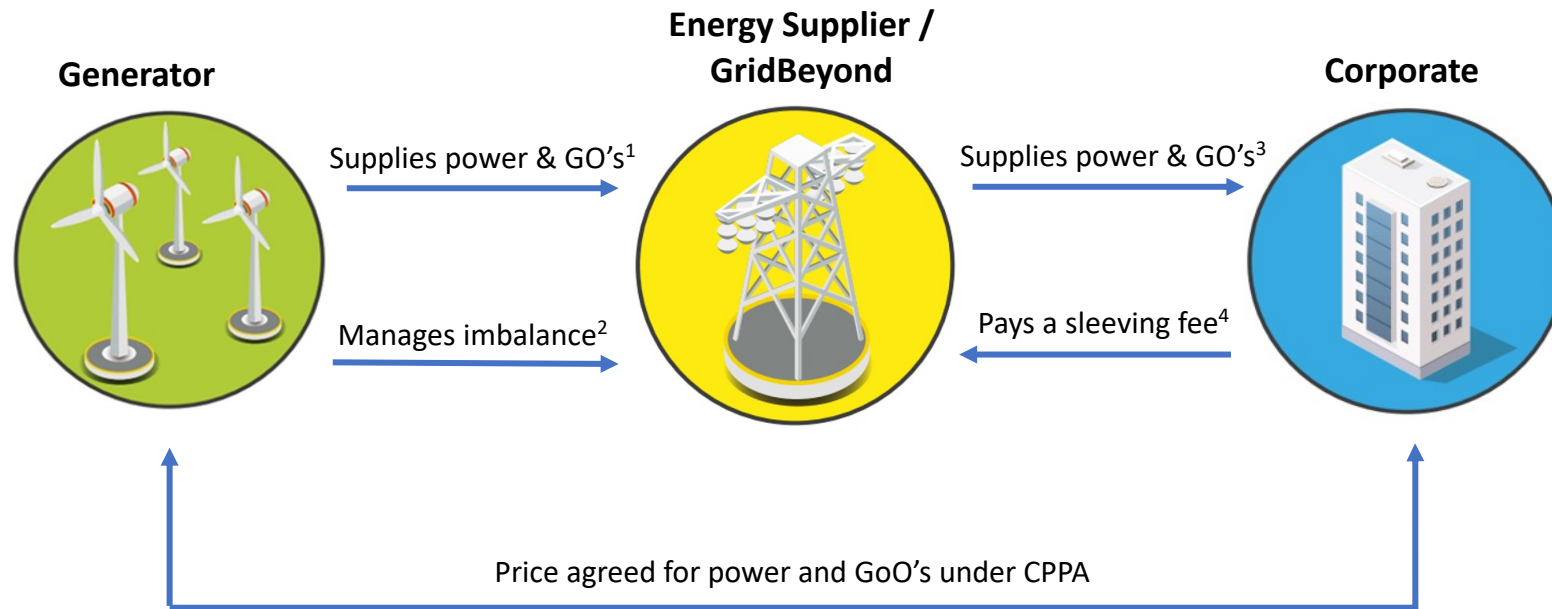
## Neil's Definition:

*"A CPPA is a bi-laterally negotiated contract between a renewable electricity producer and a corporate buyer, usually for a long-term and at fixed price."*

The key is a **Corporate** is directly involved and they receive the **REGOs**.



# Sleeved Physical CPPA



1. Supplier enters into commercial arrangement with generator to purchase volume at price agreed under customer's CPPA.
2. Profile imbalance is managed/traded between forecast and output.
3. Customer is supplied volume and price (power and GO's) according to CPPA
4. Customer pays supplier a sleeving fee on top of the CPPA price for supplier to manage volume under agreement

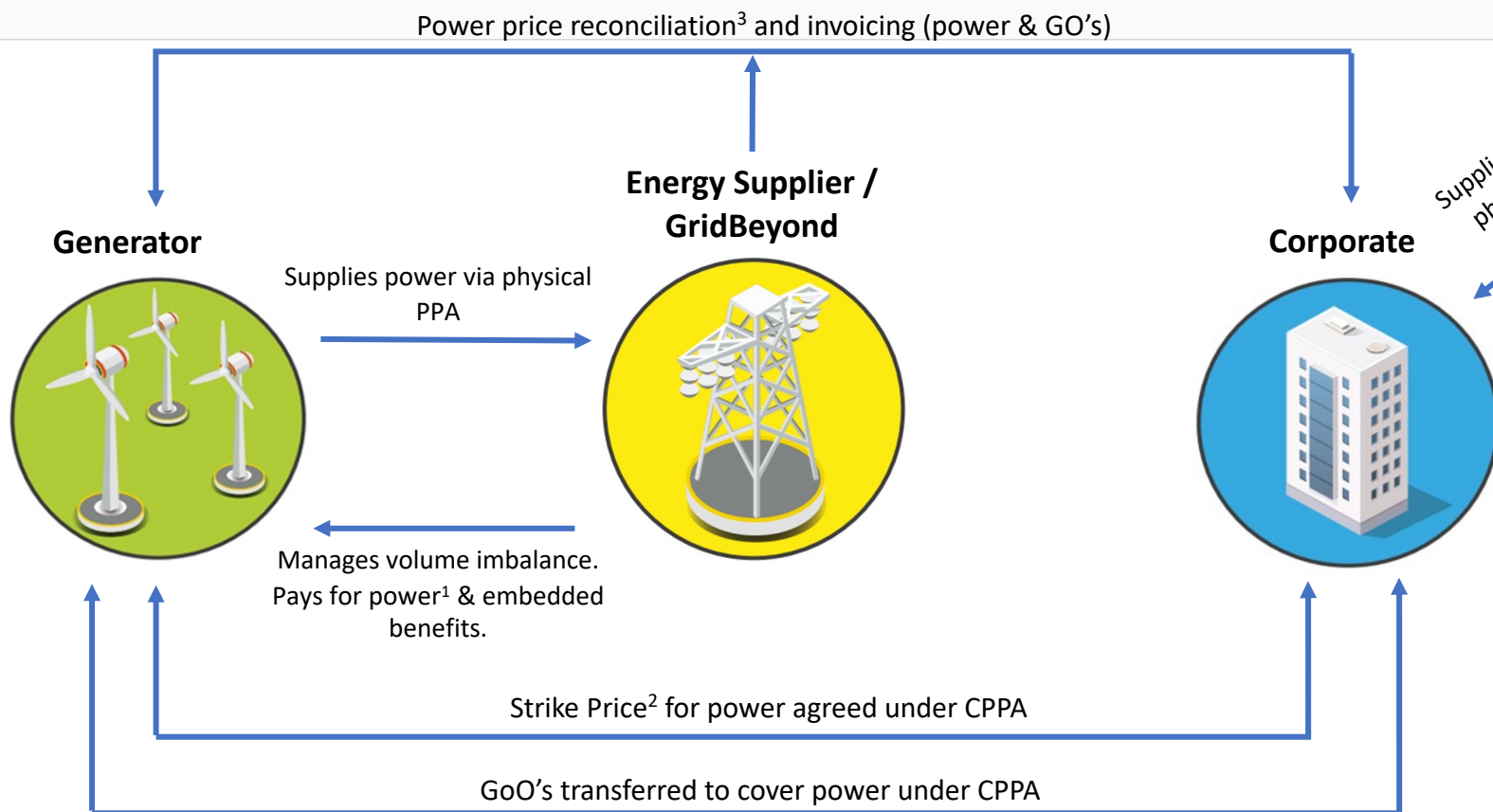
## Pros

- Most common/established in Great Britain.
- Allows PPA price and volume to be incorporated into off-takers' import supply contract/trading position.
- Electricity and REGO billing/transfer handled by import supplier.
- Portable; can be moved between import suppliers

## Cons

- Requires sufficient volume open in corporate's import supply contract.
- Corporate pays initially unknown sleeving fee to supplier
- Supplier may require own credit requirements to allow process to occur.

# Virtual CPPA



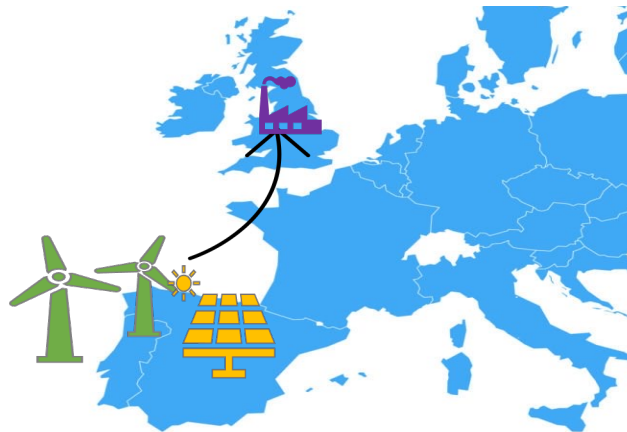
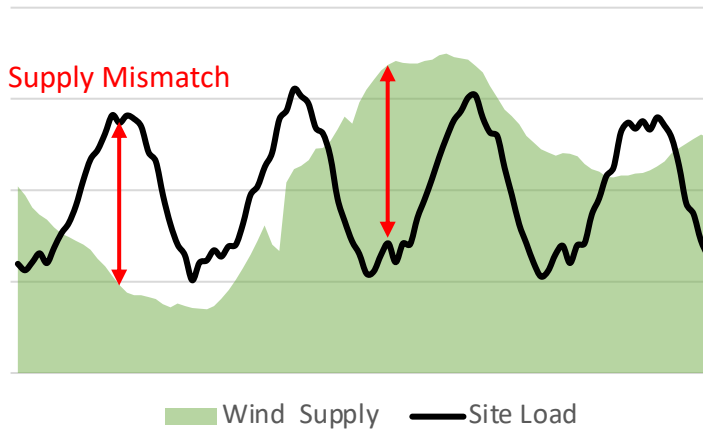
- Pros**
- Independent of physical supply deals
  - No unknown imbalance/sleeving fee requirement
  - Does not require sleeving provision in import supply deal

- Cons**
- Less common/established in UK & ROI market vs. sleeved PPA
  - Financial derivative accounting implications
  - Monthly cashflow variances (according to strike price reconciliation)
  - Concern that it doesn't represent true additionality.

1. Price is linked to EPEX DA index
2. Option to apply inflation-based escalator
3. Strike price versus monthly DA average.
4. Option for GridBeyond to supply on physical basis if they are customer

# Is Your Source of Power Truly Green and Auditable?

## Outdated Solutions



### Annual Matching of Power & GoO's

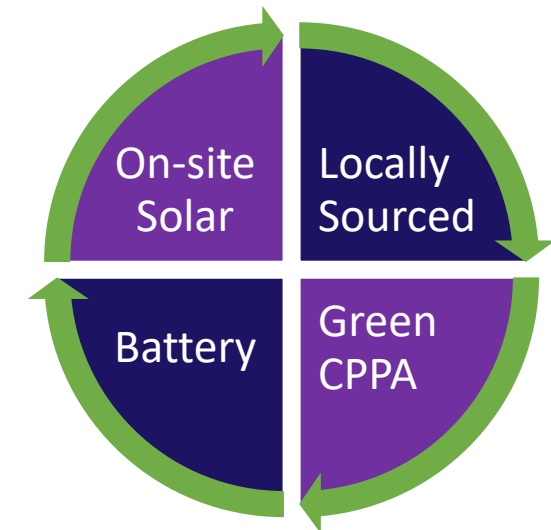
Purchasing energy in yearly blocks leads to supply mismatch when produced

### Using Off-Grid GoO's / CPPA

Power and GoO's that are not on the same local grid as user are no longer seen as green.

## A More Optimal Solution?

- ✓ 24-7 matching of supply to a combination of CPPAs, self-generation and BESS.
- ✓ Power is sourced locally (i.e. same grid) and backed-up by REGOs from same source for traceability.
- ✓ Hedged prices with CPPA, battery and on-site solar



# Does a CPPA Represent Good Value?

1

➤ Energy prices are back at pre-COVID levels.

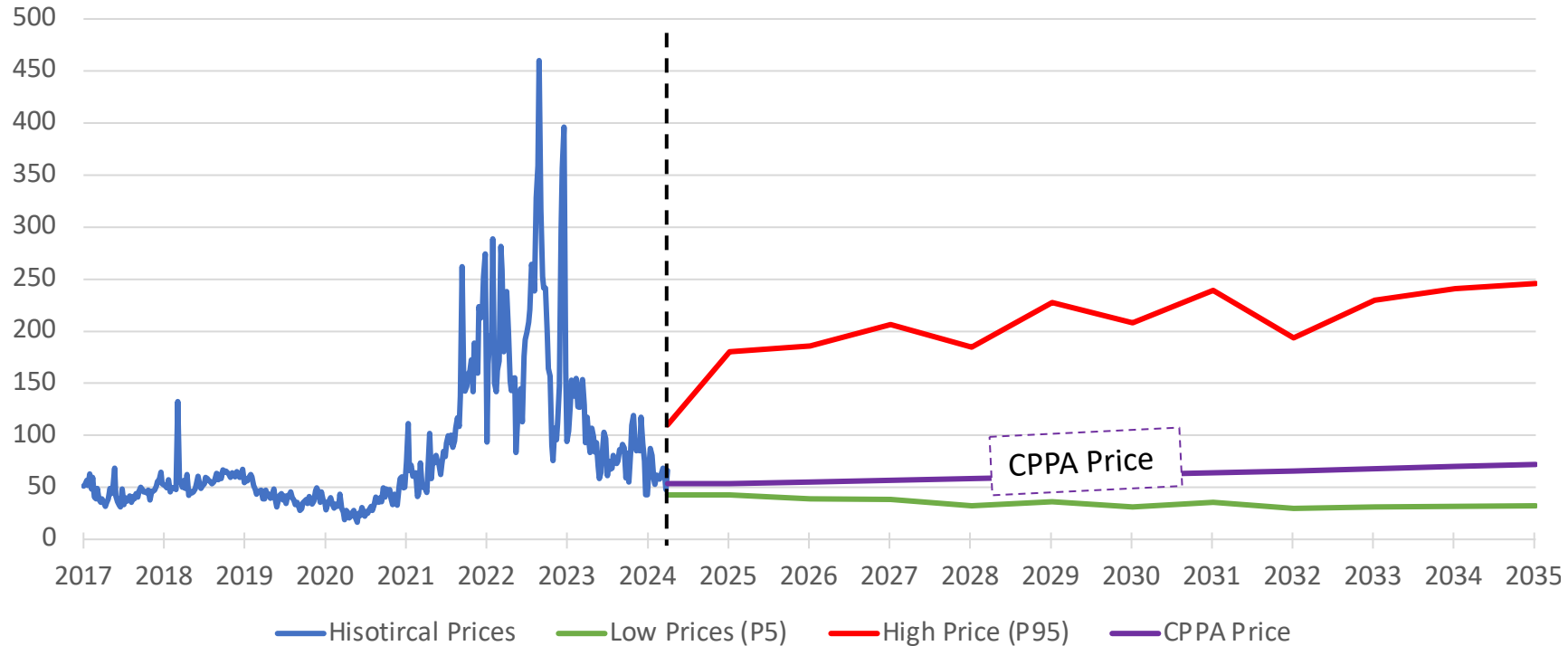
2

➤ Upside risk is greater than downside opportunity

3

➤ Unlikely to drop significantly further. Appears to be a good time to hedge.

Energy Price: Historical Vs Forecast



**Very High Energy Prices (5% probability)**  
c.£200 per MWh

**Hedge your risk with CPPA**  
c.£60 per MWh (est.)

**Very Low Energy Price (5% probability)**  
c£35 per MWh

# Key Considerations When Securing CPPAs (1/2)

- **Source**

- What generation tech. best suits my requirements?
- Do I get 100% REGO/GO coverage?
- Does layering multiple CPPAs provide a profile benefit?



- **Volume**

- What level of volume am I aiming for?
- Who manages the risk? (PAP vs. BL)
- Do I have capacity in my import agreement to sleeve volume in?



- **Term/Tenor**

- How long are you comfortable to hedge volume and price for?
- How important is additionality?



# Key Considerations When Securing CPPAs (2/2)

- **Price**

- How do I ensure my CPPA is competitively priced?
- Is a medium/long-term hedge of value?



- **Credit**

- Can I satisfy any credit requirements?
- Does targeting an existing/smaller asset reduce this burden?



- **Specialist Accounting Treatment**

- Possible P&L volatility
- Virtual PPAs are a financial derivative\*



[\\*Financial PPAs and EMIR Reporting - Blog Cappitech](#)

# CPPA Benefits Summarised



## Supports Net Zero Journey

Improved Scope 2 GHG emissions reporting

## Meet 'Additionality' Goals

Contracting with new build assets may be requirement of 'additionality' goals

## Portable Deal

Independent of energy supplier

## Direct Access to GoO's

Ability to obtain (and own) GoO's directly from the source



## Bankability

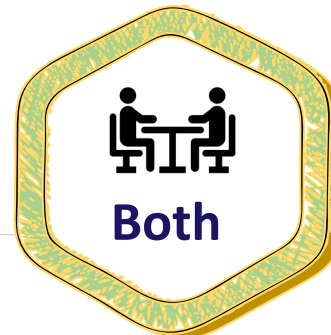
Guaranteed price and volume over credit-worthy counterparty likely to be key investment requirement

## Secure RtM for GoO's

Buyer will purchase GoO's linked to electricity volume and potentially surplus (e.g on-site usage) GoOs too.

## Medium/Long-Term Price & Vol

c.5-15 year commitment with clear price mechanism and supply volume stipulation



## Enhanced Sustainability Credentials

Enhanced brand recognition / PR / deal is marketable to customers and shareholders

**Thank you**

