





#### Founding Associations







°CLIMATE GROUP





# An alliance of stakeholders representing clean energy buyers and sellers founded in 2017.

#### Guided by a Steering Committee of Buyers and Sellers





















































JPMORGAN CHASE & CO.

























































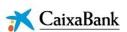




















Morgan Stanley



































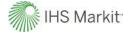






































### What we do



### 1. Open markets

**Influence** EU and national renewable energy and energy market legislation to advance corporate sourcing



### 2. Create demand

Raise awareness and educate all stakeholders on the advantages of corporate sourcing renewable energy



### 3. Facilitate business opportunities

**Connect corporate renewable energy buyers and sellers** and help make transactions faster, easier and cheaper



## **Objectives**

- Provide overview of corporate renewable energy sourcing structures available in Europe
  - PPAs
  - On-site models
- Learn the latest market trends
- Discuss specific case studies
- Share resources to learn more after this presentation



# Corporate Renewable Power Purchase Agreements

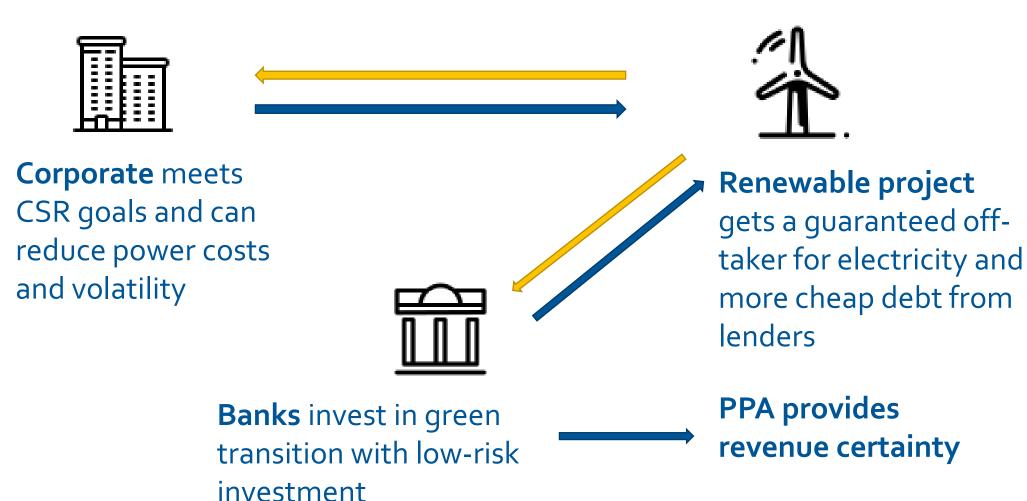


# Corporate Renewable Power Purchase Agreements



 A long-term agreement to buy power from a renewable generator

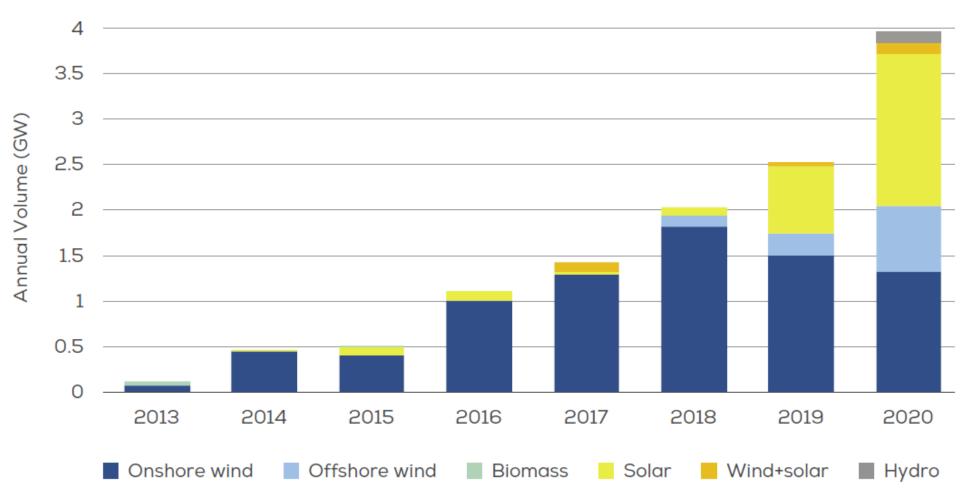
# Corporate Renewable Power Purchase Agreements



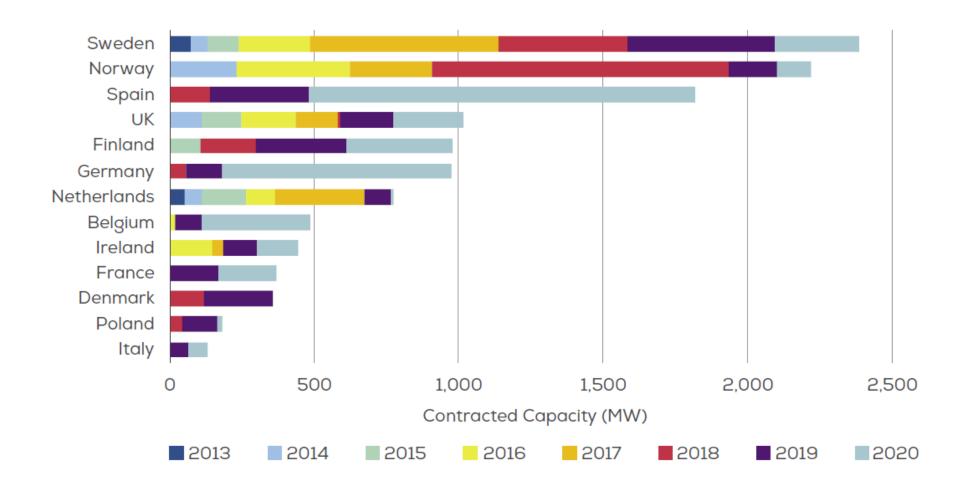
# **European PPA Trends**and Statistics



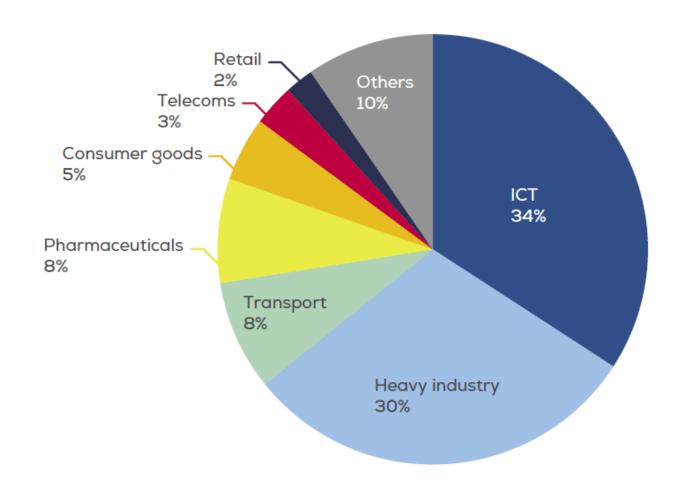
### European Corporate Renewable PPAs



## **Cumulative PPA Capacity by Country**



## **Cumulative PPA Capacity by Sector**



# Corporate Renewable Energy Sourcing: European Models

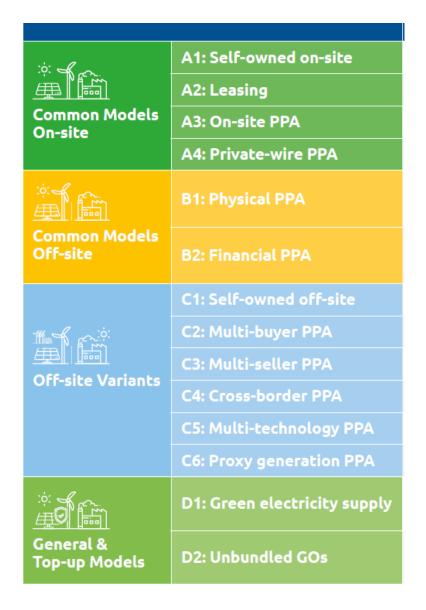


# Corporate Renewable Energy Sourcing Models in Europe

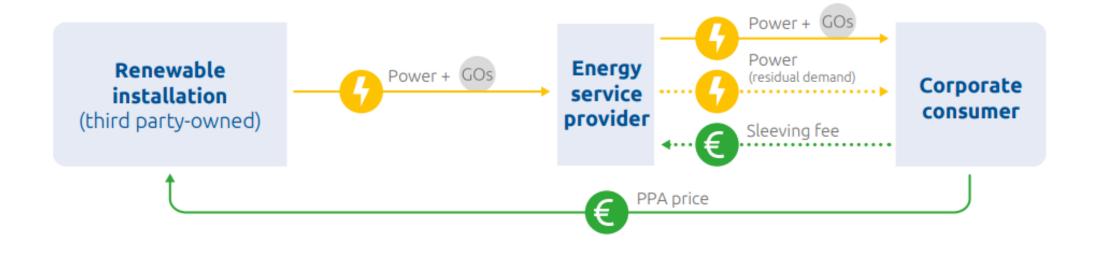
### How do companies decide?

The most suitable choice will depend on many factors

- Risk profile
- Size of electricity demand
- Physical location(s)
- On-site feasibility
- Need for physical energy link



## **Physical PPA**



- Consumer and renewable installation use the same grid
- Price agreed between renewable installation and consumer
- Renewable power enters the grid
- GOs passed to consumer
- Residual demand supplied by service provider for a fee ("sleeving fee")

## Case Study: Daimler

• Location: Germany

Buyer: Daimler

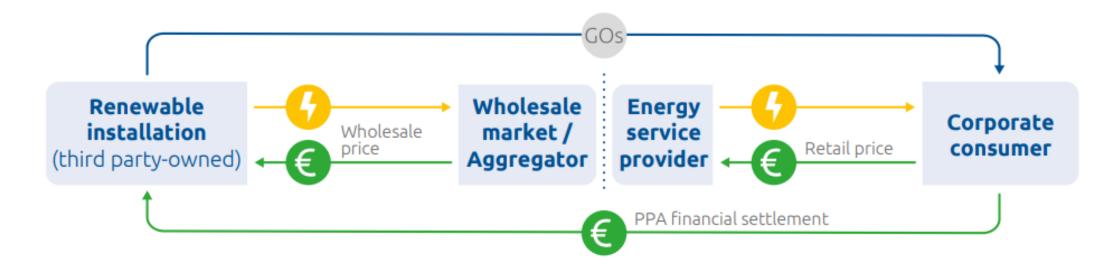
• Seller: Statkraft

 Capacity: 200 turbines across 24 wind farms in Germany no longer receiving public financial support

Variation: Multi-seller PPA



### **Financial PPA**



- No physical transmission of power between producer and consumer
- Renewable installation and consumer can be located on different grids
- Price agreed between renewable installation and consumer
- Financial settlement difference between agreed price and a market-based price
- GOs passed to consumer

### Case Study: Heineken, Philips, Signify, Nouryon

Location: Finland

Buyer: Multiple

Seller: Neoen

Capacity: 126 MW

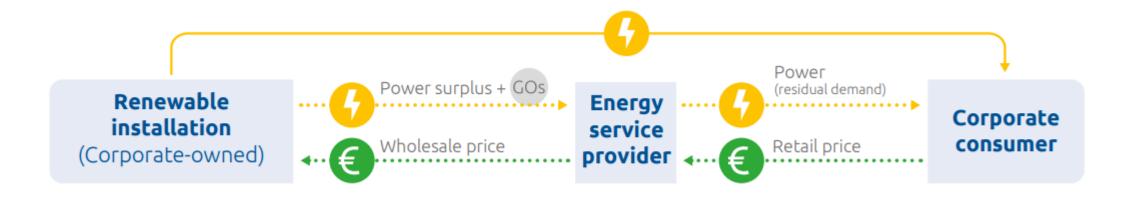
Variation: Multi-buyer PPA







### Self-owned on-site



- Consumer owns the project and consumes the electricity behind-the-meter
- Project is usually sized to achieve very high or near 100% self-consumption
- GOs may not be passed to consumer
- Project may connect to grid to export surplus power
- *Note:* Self-owned off-site also available in Europe

### Case Study: Volvo

• Location: Ghent, Belgium

Buyer: Volvo

• Seller: Eneco

• Capacity: 15,000 solar panels and three

wind turbines

Commissioned: 2018



## On-site "buyer" business models

- On-site PPAs
- Leasing
- Private-wire PPAs



# Summary and Next Steps



### Renewable Energy Buyers Toolkit



Reports and Webinars



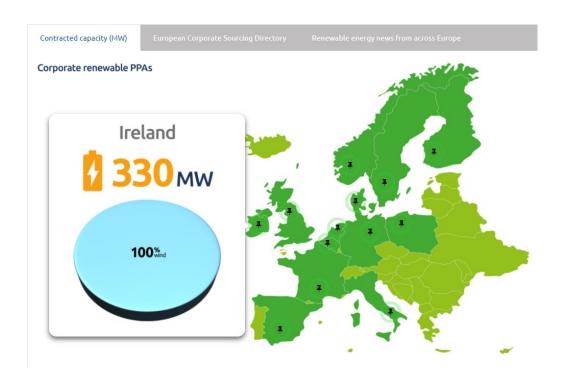
European Corporate
Sourcing Directory



Template PPA
Contract



PPA Training
Courses



# New WBCSD report: Pricing structures for corporate renewable PPAs



Download here:



https://www.wbcsd.org/xcaCr

### The RE-Source Event

The world's largest gathering of renewable energy buyers and sellers



13-15 October **Amsterdam** 

40 countries and multiple networking opportunities

