# **Are Corporate Green PPAs the Holy Grail of Industrial Decarbonisation? A Legal Perspective**



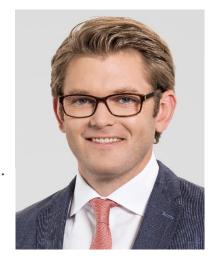
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# Your speaker today





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Daniel advices investors, operators, service providers, utilities and (corporate) offtakers mainly on commercial and regulatory matters in the field of renewable energies and energy generation, offtake and supply.

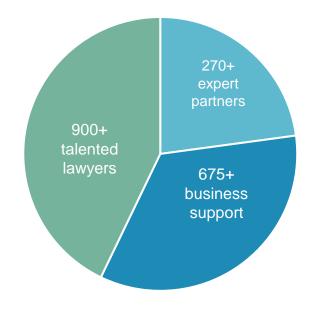
He focusses on renewable energy projects, direct marketing and PPA offtake of renewable energies, industrial decarbonisation (e.g. green hydrogen), regulatory matters and system services (e.g. control reserve markets, VPP). Daniel is regularly involved in transactions and project financings, renewable energy project contracts, tenders and energy disputes (litigation, arbitration, regulatory proceedings).

Daniel heads the Energy & Utilities sector of Osborne Clarke Germany and is a member of the legal advisory board and the direct marketing/PPA working group to the German Federal Wind Energy Association (BWE).

## **About Osborne Clarke**

1,850

employees and counting



**26** 

international locations

## **Europe**

Belgium: Brussels

France: Paris

Germany: Berlin, Cologne, Hamburg, Munich Italy: Brescia, Busto Arsizio, Milan, Rome

The Netherlands: Amsterdam

Spain: Barcelona, Madrid, Zaragoza

UK: Bristol, London, Reading

## **Asia**

China: Shanghai

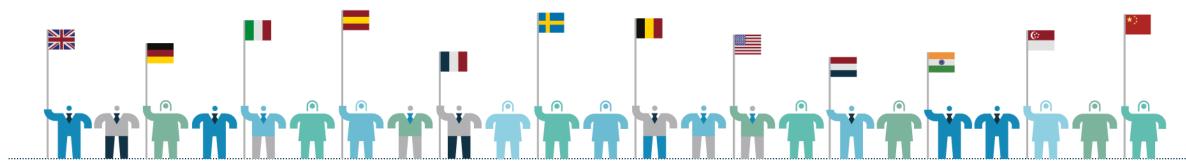
Hong Kong

India\*: Bangalore, Mumbai, New Delhi

Singapore

## **USA**

New York, San Francisco, Silicon Valley



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## How we assist our clients on Decarbonisation

### **Tackling the Carbon Challenge**

- Advising clients on their carbon reporting requirements
- Advising clients on green energy procurement (Green Corporate PPAs)
- Advising clients on greening their existing and future contracts across a range of finance, real estate, corporate and other commercial agreements

- Environment taxes, reliefs and schemes for businesses
- Electrification of heat and energy efficiency in buildings and production
- Implementation of renewable owngeneration and local supply
- Procurement contracts and greening the supply chain

# Decarbonising Transport and Low Carbon Mobility

- Regulation of new low carbon mobility solutions e.g. e-scooters, EVs, product liability for chargers
- Building in/uprating access for new last mile delivery modes
- Changing warehousing and logistics requirements due to impact of low carbon mobility

- Advise clients to cut transport-related carbon output e.g. use of alternative fuels, infra and supply chain issues including relevance of green hydrogen
- Design of new services and business models e.g. 'on-a-service' basis and lifecycle support
- Compliance and wider ramifications of data use







# **Industrial Decarbonisation**



# The Challenge of Industrial Decarbonisation

## **The Carbon Challenge**

Decarbonisation is the journey the whole world is taking towards a net zero emissions future with the goal of achieving this by 2050.

The shift to low carbon business models, are moving to the heart of business strategies. This will often mean a radical rethink of business along the entire supply chain, from direct initial use of carbon in the business all the way through to indirect emissions caused outside the businesses actual control.

## **EU Green Deal in Germany**

- ♦ 55% CO<sub>2</sub> reduction by 2030
- ♦ 65% RES capacity by 2030
- ❖ 100% CO₂ reduction by 2050



## Industry's path towards net zero

- ❖ 188m t CO₂ in 2010
- ◆ 188m t CO₂ in 2019
- **\*** ...

## How to approach it?

- Develop sustainable infrastructure
- Increase carbon direct avoidance (CDA) in production
- Apply carbon capture and usage (CCU) methods to production
- Decarbonise transport and invest in low carbon fleet mobility

#### Lawmaker's Efforts

- Directive 2014/95/EU on nonfinancial reporting (NFRD)
- Renewable Energy Directive (EU) 2018/2001 (RED II)
- Sustainable Finance Disclosure Regulation (EU) 2019/2088
- Sustainable Investment Taxonomy Regulation (EU) 2020/852
- ETS Guidelines post 2021
- ...

## What's still missing?

- Stronger CSR and ESG commitment of consumers
- Credible global sustainability competition (no greenwashing)
- Supply chain due diligence
- Stronger incentives to master the transition economically viable



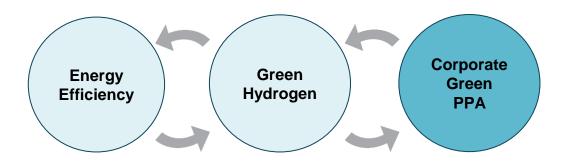
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# Industrial Decarbonisation

#### Where to start?

Decarbonisation presents the industry with a whole range of opportunities and challenges. Shifting to low carbon business models will lead to adaption and development of existing and new sustainable procedures, ESG investing, stakeholder engagement and regenerative resilience where businesses are required to balance profit with ecological care and social responsibilities.

This requires funding, innovative thinking, but foremost true commitment to a credible and sustainable decarbonised business model.





# Are CPPAs the holy grail?



# Leading by example (selected German CPPAs)

# Zero subsidy solar

- 90MW and 80GWh/a
- 30 year tenor



# Zero subsidy offshore

- 100MW tranche of Borkum Riffgrund 3
- 10 year tenor pre-FID



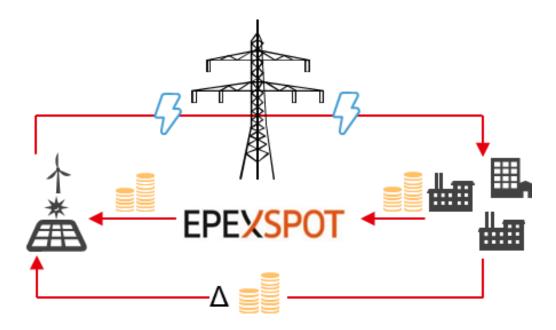
# Zero subsidy portfolio

- Renewable supply of MB Cars German EQC production
- Energy mix of subsidy free solar, wind and hydro
- Real time prod/cons certificate





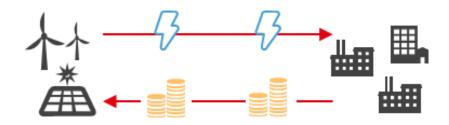
# Financial CPPA (virtual PPA)



- No physical delivery of electricity, only delivery of GoO's
- Purely financial hedge against market value and market price risk of renewable generation
- Producer secures cashflow based on strike price and contract for difference (CfD) often involving a utility as intermediary to limit financial risk
- German electricity regulation non applicable
- High dependency on monitoring and reporting
- Currently no / limited relevance in German market

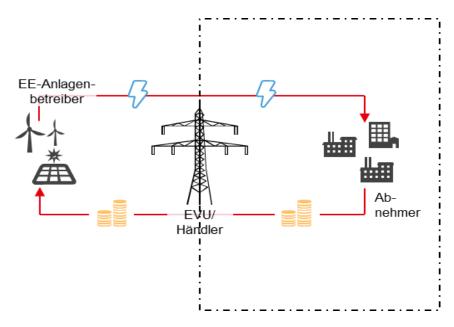
Note: Depending on content, virtual PPAs to be deemed as derivative which requires approval from German Federal Institute for Financial Services Supervision (BaFin)

# Physical CPPA



## **Corporate Green PPA (on-site)**

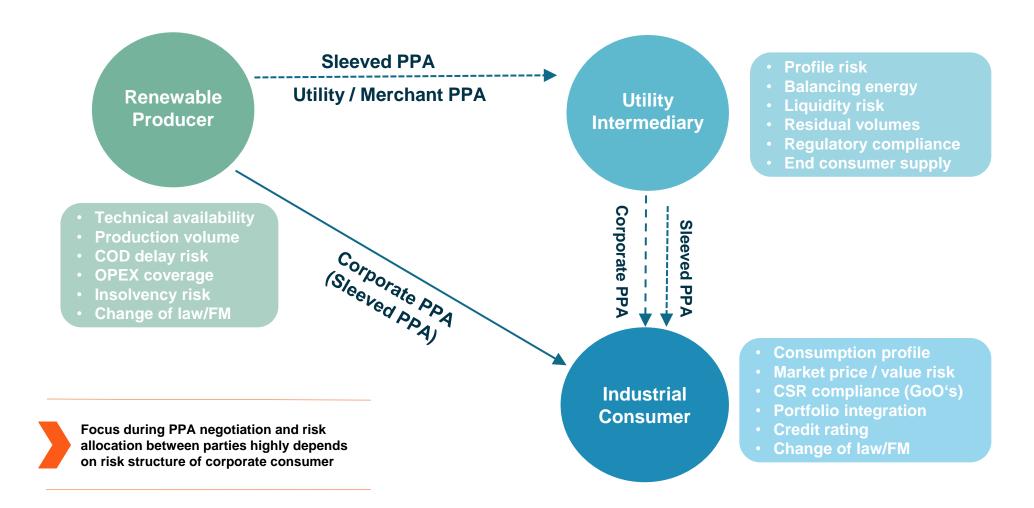
- Physical delivery of electricity via direct wire (not via public grid) and delivery of GoO's
- If producer is third party, delivery is regulated electricity supply with several exemptions possible on taxes and levies
- German electricity regulation applicable for residual consumption and excessive production (via grid)
- Independence of grid (congestion) ensures high availability, but site-dependence often less ideal for renewable source, but additional value in regionality
- High credibility due to physical German subsidy free renewable electricity (no greenwashing)



## **Corporate Green PPA (off-site)**

- Physical delivery via public grid and delivery of GoO's
- German electricity regulation applicable for PPA delivery and residual consumption without specific exemptions
- New: ETS Guideline 2020 allows member states to grant electricity price compensation also for green PPA sourcing
- High credibility due to physical German subsidy free renewable electricity (no greenwashing)
- Dependence of grid (congestion) can impact availability, but advantage to select off-site ideal for renewable source
- Higher contractual complexity and higher dependence on utility/intermediary as service provider (Sleeved CPPA)

# Risk allocation in CPPAs – a matter of perspective



# Outlook 2021 to 2030

# dena

## **Positive Outlook**

- Relevance of Corporate Green PPAs will increase once electricity price compensation allows green sourcing
- Corporate Green PPAs can compete and Sleeved CPPAs are proven concept

## **Negative Outlook**

- Level of sustainability competition not high enough
- Market access barrier high due to complex contractual arrangements and lack of market price risk experience



dena-MARKTMONITOR 2030

## Corporate Green PPAs: Ökonomische Analyse

Perspektiven langfristiger grüner Stromlieferverträge aus Sicht von Nachfragern



# If CPPA are not the holy grail, is green hydrogen?



# Thank you!

