FORRS

FORRS Consulting Services

Ost-Ausschuss der Deutschen Wirtschaft e.V: Grüner wird’s nicht

About us

Who we are and what we do

> With deep expertise and years of successful projects, FORRS accompanies its clients along the entire Trading Value Chain.

150+ successfully delivered projects

Active all over Europe & beyond

FORRS – a One-Stop-Shop for Optimization of (green) Energy Procurement Strategies and Net-Zero Strategies

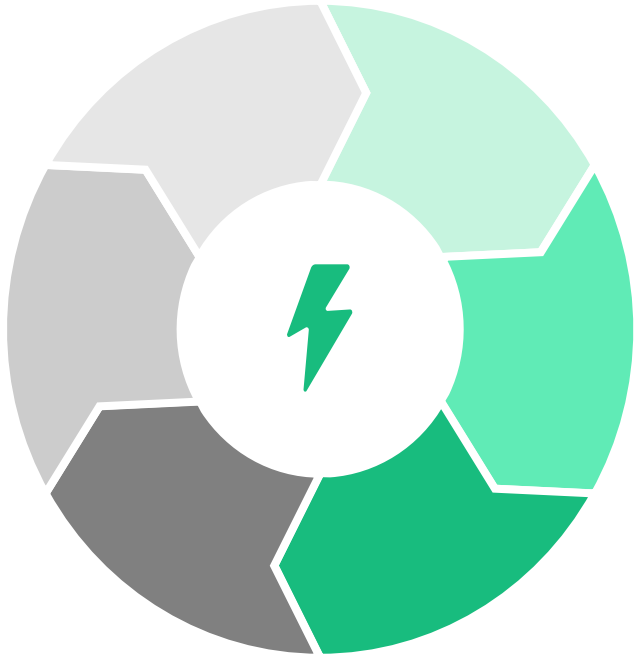
FORRS Footprint in Eastern Europe

- Estland
- Lettland
- Litauen
- Ukraine
- Georgien
- Albanien
- Kroatien
- Moldau
- Rumänien
- Bulgarien
- Slowakei
- Slowenien
- Tschechien
- Ungarn

Renewable Energy Integration & Decarbonization

Energy & Certificate Procurement Strategies

Market Data Platform & Data-driven Decisions



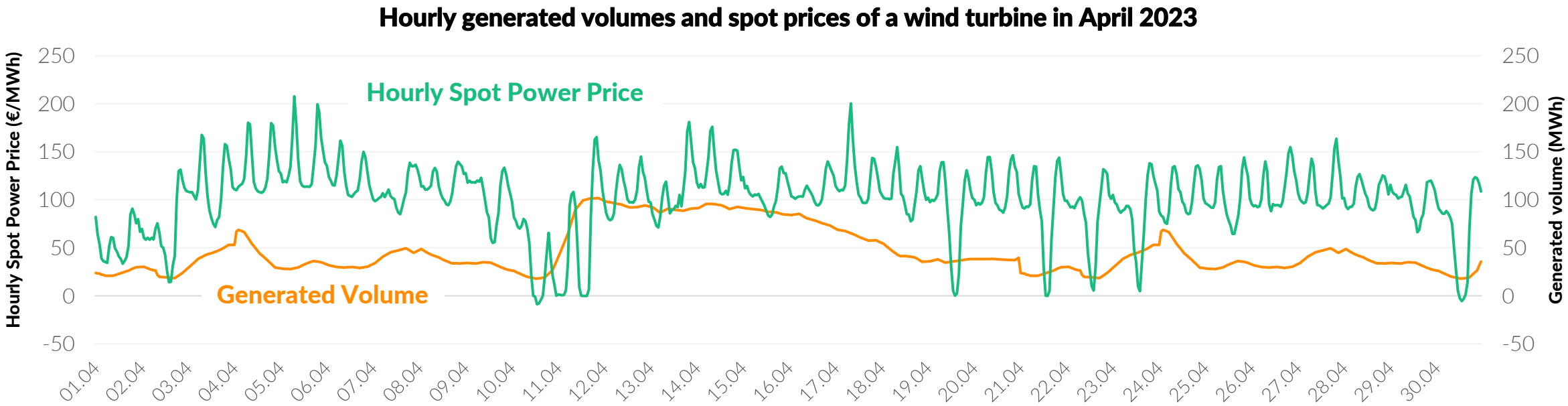
PPA Value Change for Heading or Investing

Net-Zero Strategies & Implementation

ESG Investment Strategies

PPA is an instrument to structure cash flows and returns of (long-term) energy procurement and sales

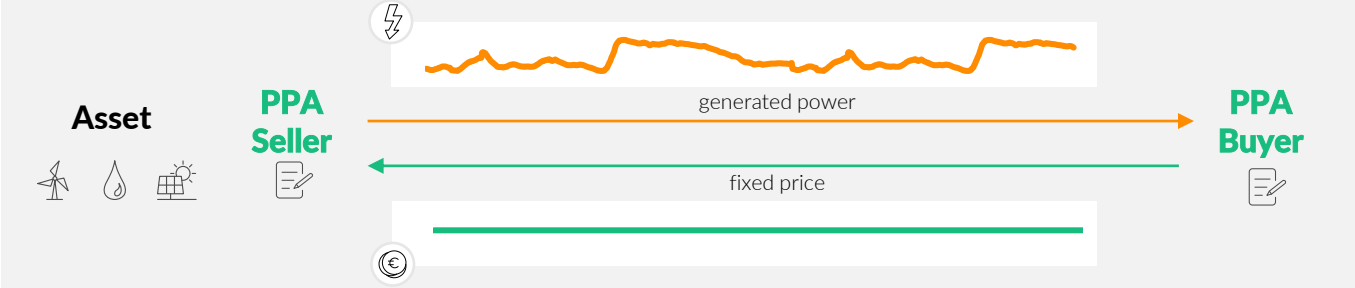
"A Power Purchase Agreement (PPA) is a **long-term electricity supply agreement** concluded directly (**bilateral**) between a **buyer** (electricity consumer) and a **seller** (electricity generator). PPAs are mostly between 2 and 20 years and the underlying price and volume structures are individually negotiated."



PPA types vary in price, volume and profile structures to create value for different participants

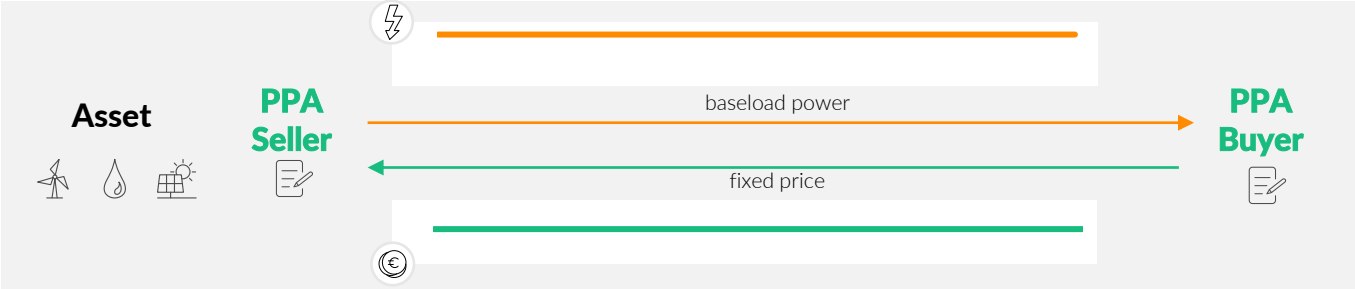
Pay-as-Produced

- Pre-agreed % of production at a pre-agreed fixed price
- No volume delivery obligation or delivery profile obligation



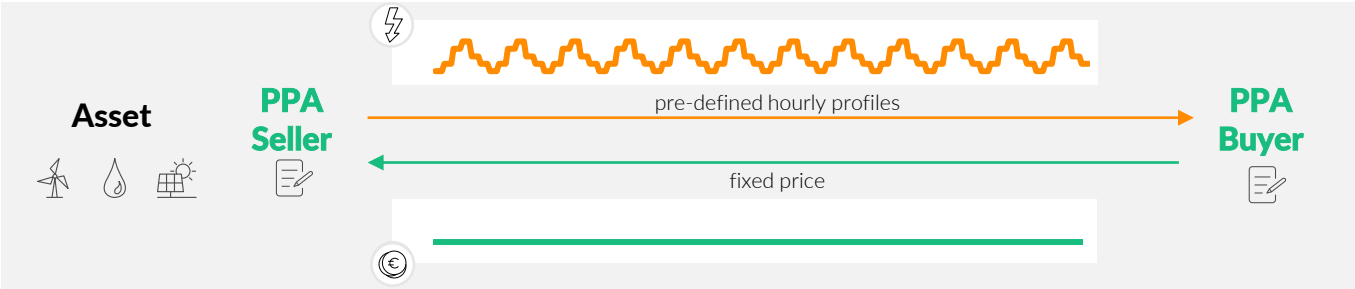
Baseload

- Pre-defined fixed volumes for every hour
- Delivery obligations for every hour
- Pre-agreed fixed price



(Hourly) Fixed Profile

- Pre-defined hourly profile
- Delivery profile obligation
- Pre-agreed fixed price



Navigating the inherent risks within PPAs is essential for ensuring successful renewable trading

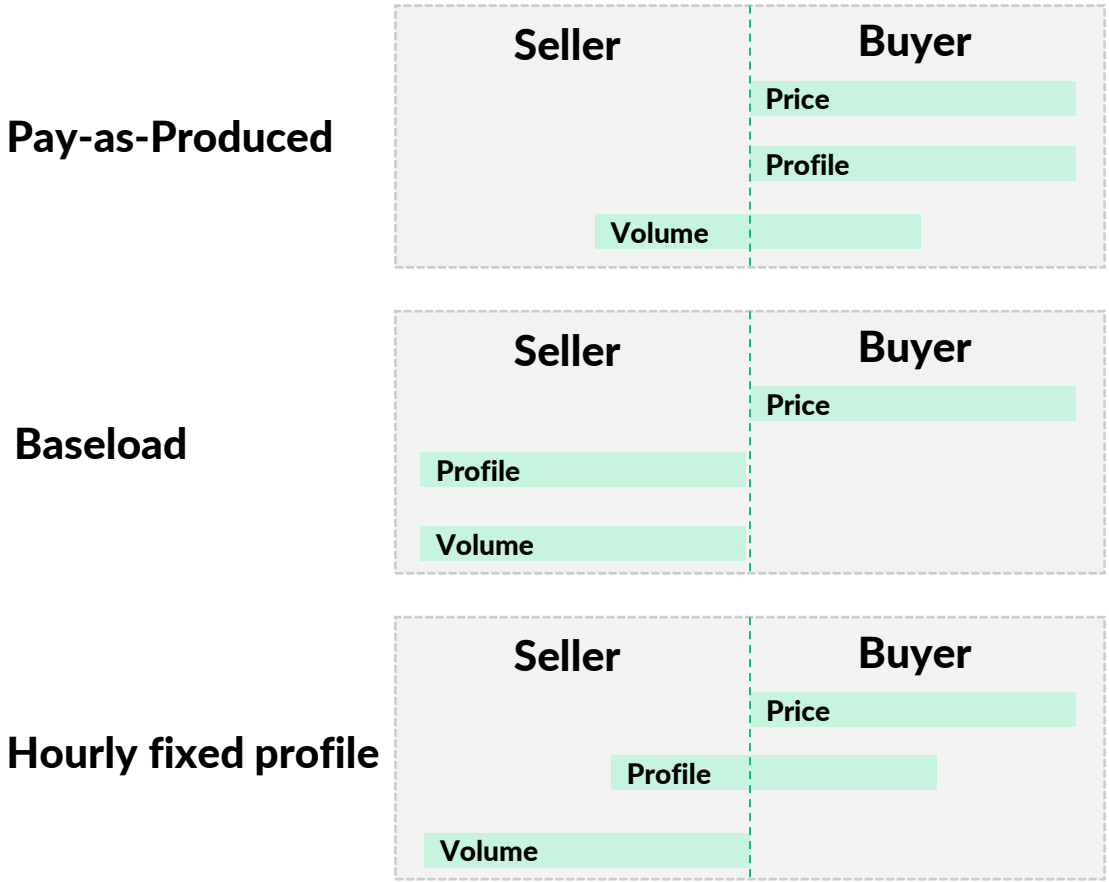
Risk Types

Price Risk
Losses from adverse movements in the market price of electricity stemming from the uncertainty associated with electricity prices.

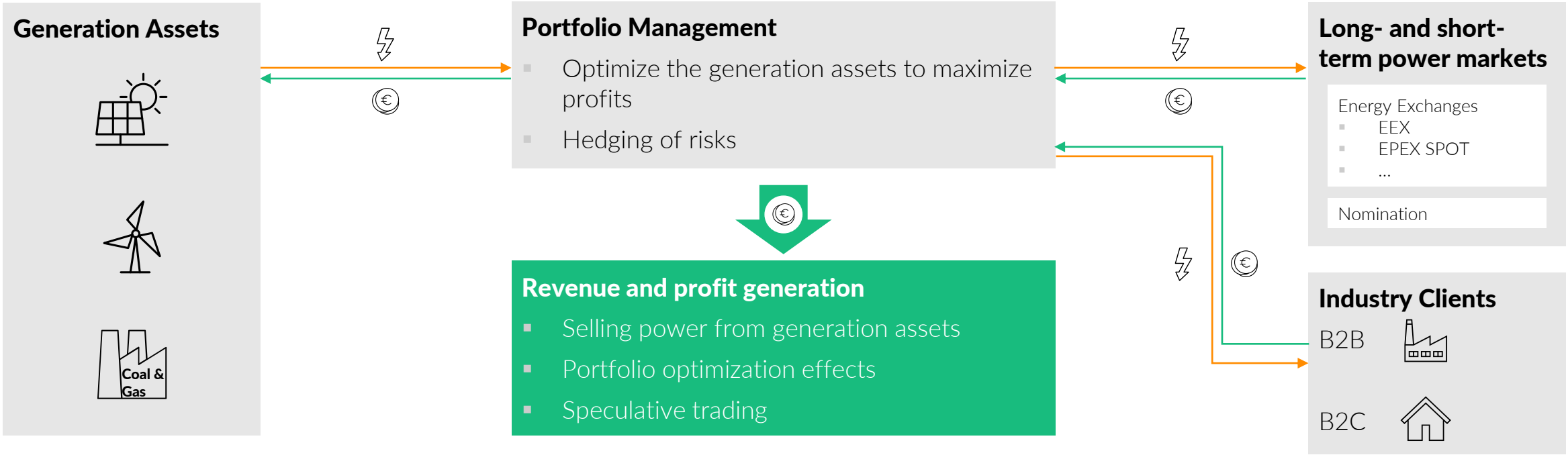
Profile Risk
Risk based on production at a specific time, or for a specific interval. Strongly dependent on the hourly generation profile.

Volume Risk
A generator does not produce the volume expected, typically over an extended period of time.

Risk Distribution for PPA Types



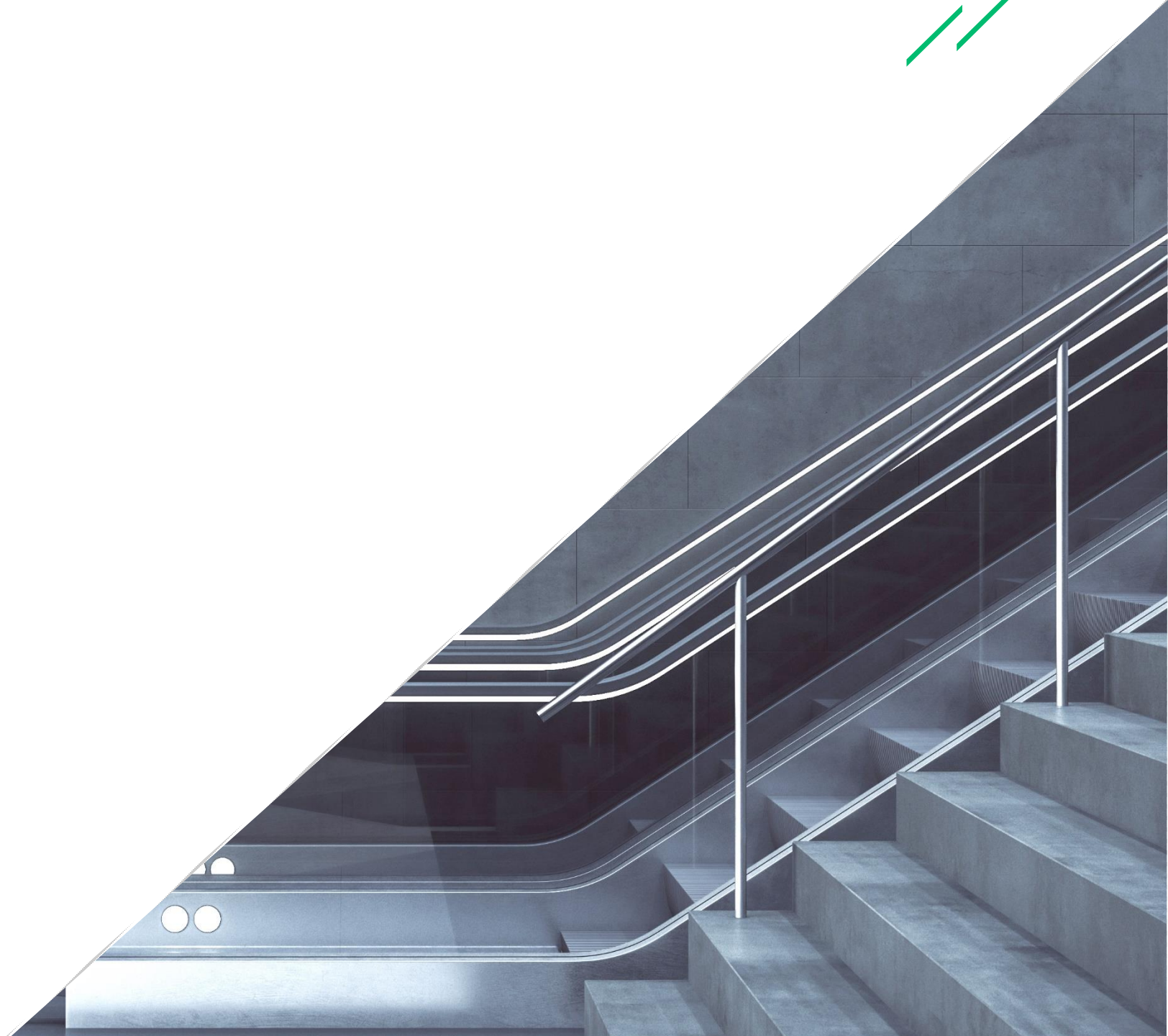
Historically most of the value chain is owned by large energy utilities, but PPAs open the market to more participants



Challenges for Industry Clients

- Participation in profit generation used to be not possible without own assets
- Physical fulfillment/delivery used to require market access

Appendix



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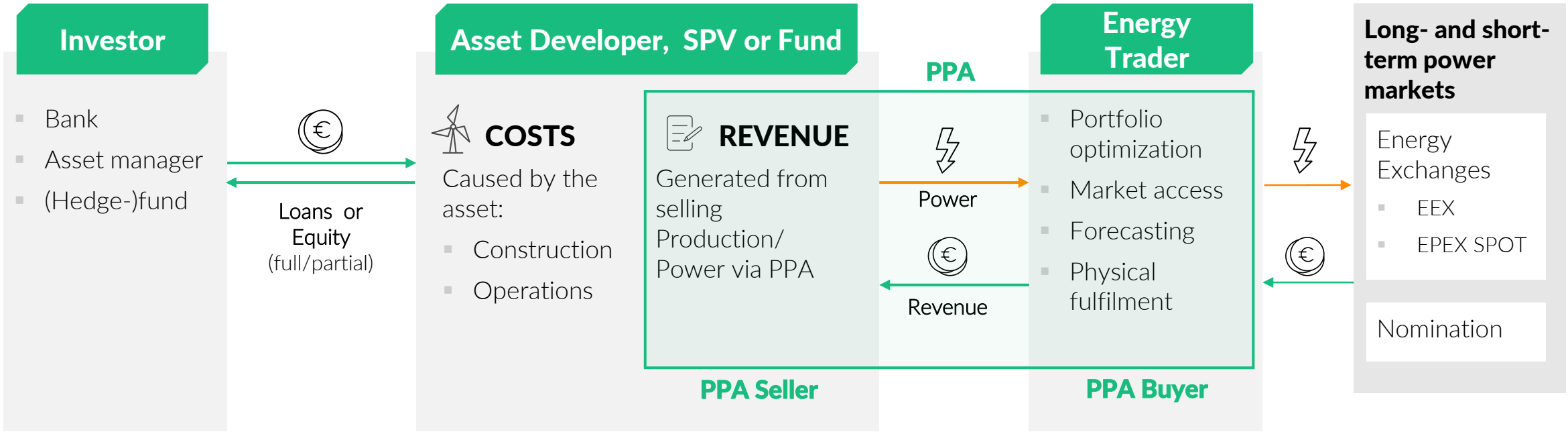
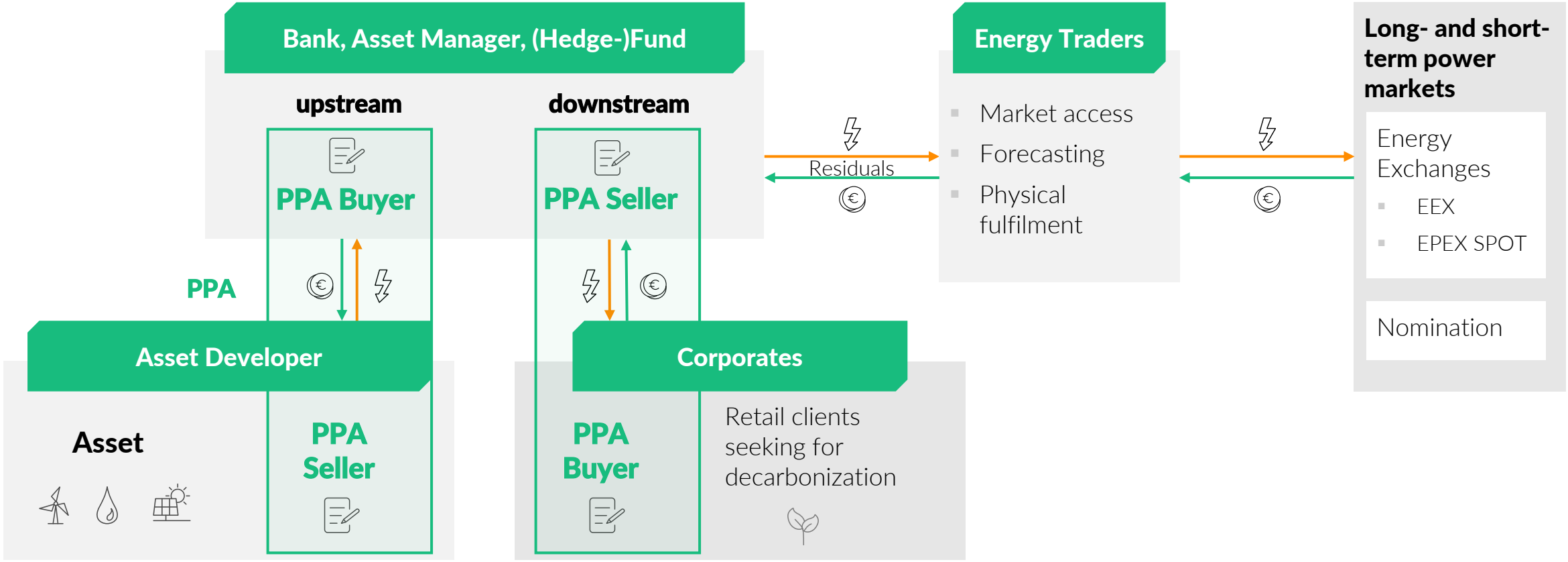
Use Case 1: PPAs can be used as vehicle to finance a renewables asset



Investments in Renewable Assets can be hedged by PPAs and generate stable returns

Use Case 2: Asset manager und hedge funds are able to build up their own renewable energy portfolios



Asset managers or hedge funds can participate in power trading and generate profits from portfolio optimization effects

Financial institutions possess a strong background in managing complex contract structures and mitigating associated risks

Challenges

Modelling and Pricing Adjustments
- Existing modelling and pricing models may need to be adjusted
- Specialized models tailored to PPA valuation may need to be introduced

Acquisition of New Market Data
- New market data specific to energy markets (e.g. generation data, price forecasts) need to be obtained and analysed
- Acquiring and integrating this data into existing systems can be complex and time-consuming

Static Data Structures
- Current static data structures need to be adapted to accommodate requirements of PPA trading.
- Need for additional data fields, contract specifications, and renewable energy attribute tracking necessitates updates to existing systems and processes.

Benefits

Utilize Mature Risk Management of Financial Institutions
- Financial Institutions have more experience with managing complex contract structures

Lower Risk Exposure to Power Prices
- Exposure to volatile power prices can be reduced effectively
- Institutions can mitigate different risk types
- Stable returns on renewables investments can be generated

Establish Green Funds
- Establish and support green funds
- Implement ESG Goals with the help of green power from PPAs

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Our Location

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