

PPA markets: Industrial user case

Knauf Group

Building Materials Company with:

about
42.500
employees

production
split into
4
divisions

present in
90
countries

more than
80
raw material processing
plants

over
320
plants worldwide



What is a PPA?

Power Purchase Agreement - a legal contract between an electricity generator and a buyer.

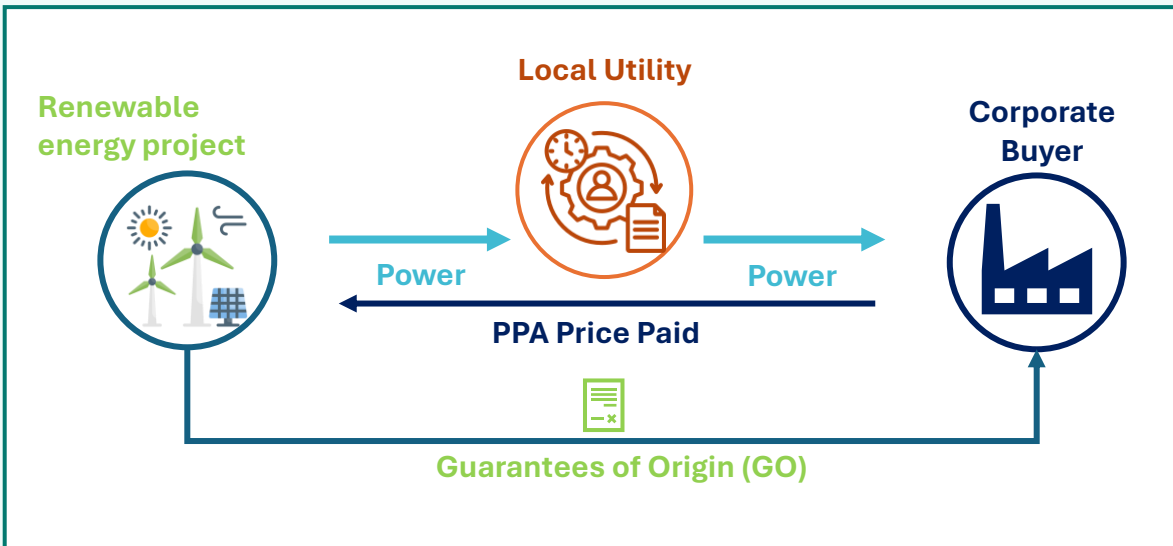
Typically, a Buyer can be a:

- Utility company (*Seller / Buyer*)
- Corporate (*On-site / Off-site*)
- Government (*Feed-in-premium / Feed-in-tariff*).

Focus for today are **Renewable Off-site Corporate PPAs**.

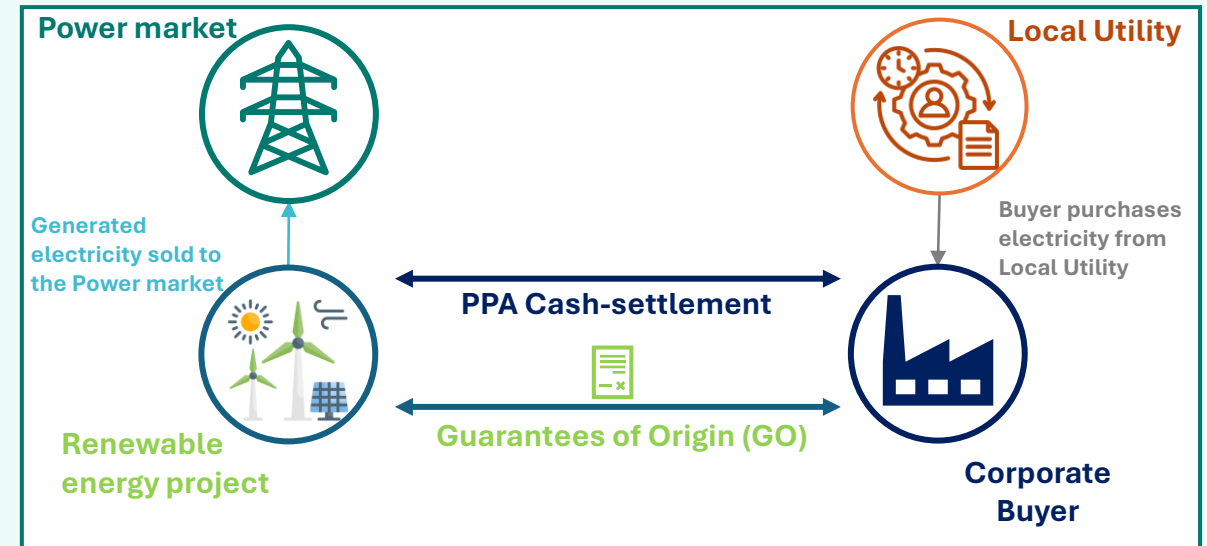
Contract Types: Physical vs. Virtual

Physical PPA (pPPA)



- Replaces conventional supply agreements
- Physical delivery of electricity is included
- Does not include cash net-settlement

Virtual PPA (vPPA)



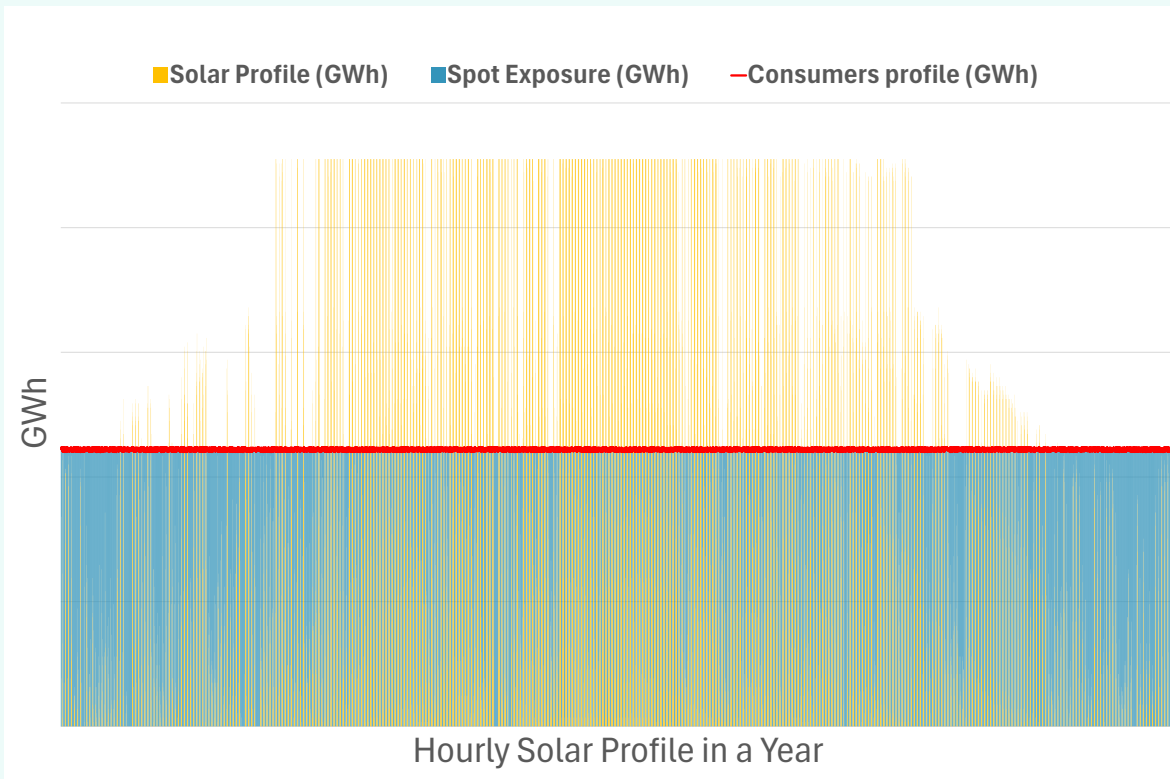
- Separate supply agreement needs to be signed
- Does not include physical delivery of electricity
- Includes cash net-settlement → Financial derivative

Common for both contracts:

- Act as a long-term price hedge
- Provide long-term supply of GOs

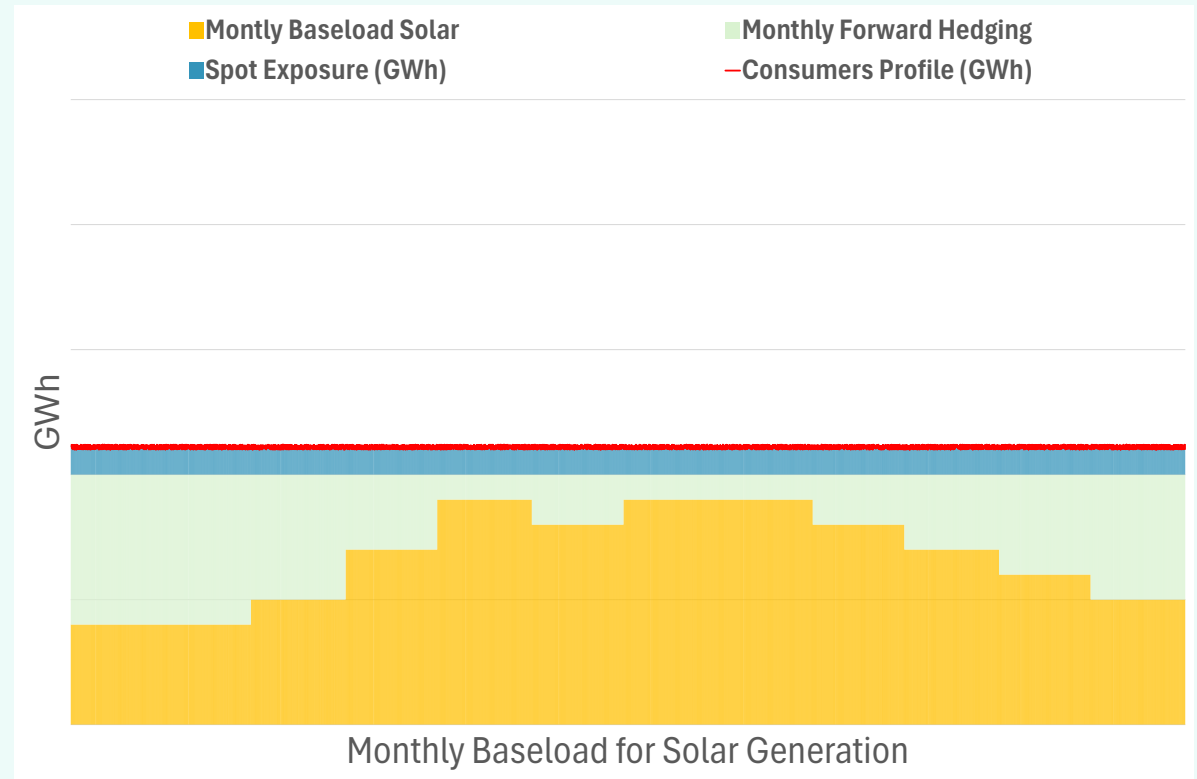
Price Hedge Considerations: PaP vs BLM

Pay-as-Produced (PaP)



- Usually requires full spot exposure of Consumers profile
- Hedge only exists during volatile asset's generation hours
- Greater exposure to profile risk and cannibalization
- Residual volumes are exposed to hourly spot market
- Electricity budget becomes extremely volatile
- Excess volumes reduce the share of the asset's production available for contracting in both vPPA and pPPA

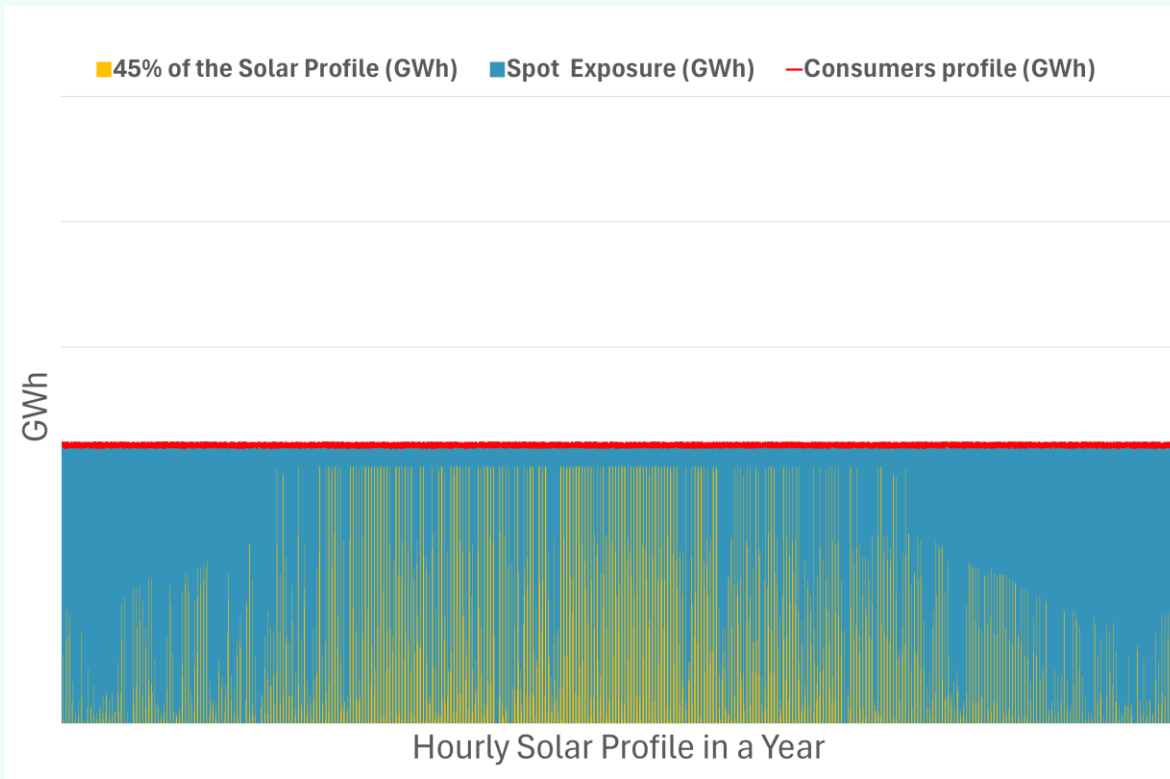
Monthly Baseload (BLM)



- Predictive BLM deliveries throughout contracted PPA term
- Residual volumes can also be hedged on the forward market
- Come at the higher price
- Limited spot exposure
- Electricity budget stabilised
- PPA volumes aligned with long term consumption forecast

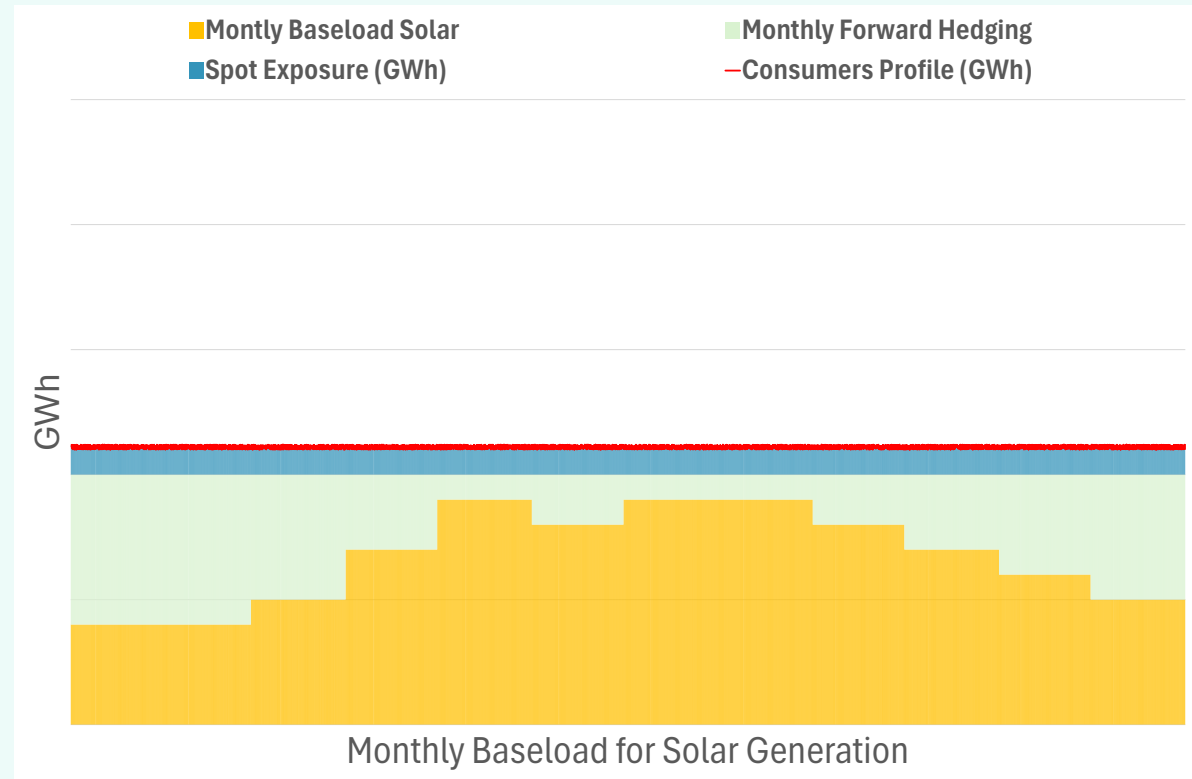
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Additional Considerations: Stakeholders



Procurement

- Structures PPA product by consolidating inputs from all departments
- RFP Management
- Qualitative and Quantitative Evaluation
- Commercial Contract Negotiations

Legal



- Drafting RFP
- Regulatory Compliance
- PPA Contract Drafting and review
- Full Contract Clause Negotiations



Finance

- Accounting treatment and reporting (!)
- Tax implications
- Credit Support
- Counterparty Risks

Sustainability



- Aligning PPA with Sustainability Goals
- Sustainability Reporting and Disclosure

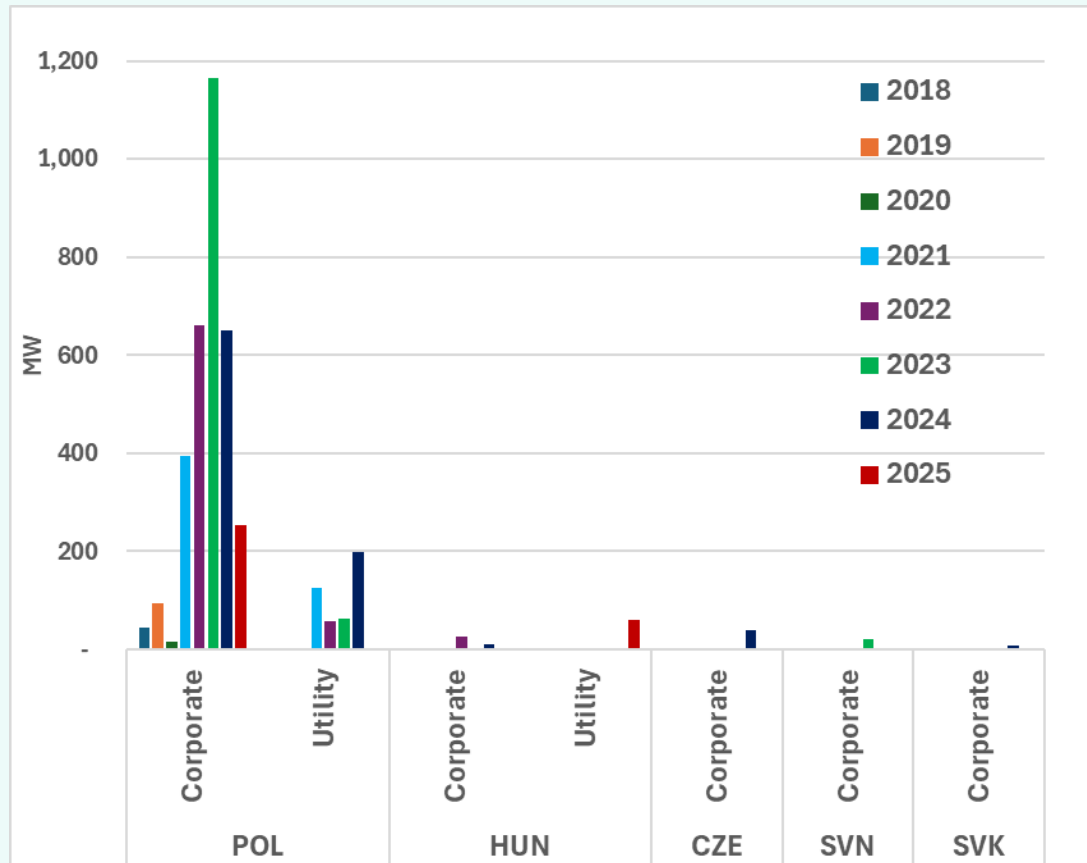
**“Don’t ask me about the PPAs I signed;
ask me about those I didn’t.”**

Anonymous Corporate Buyer

CSEE Region: PPA Volumes

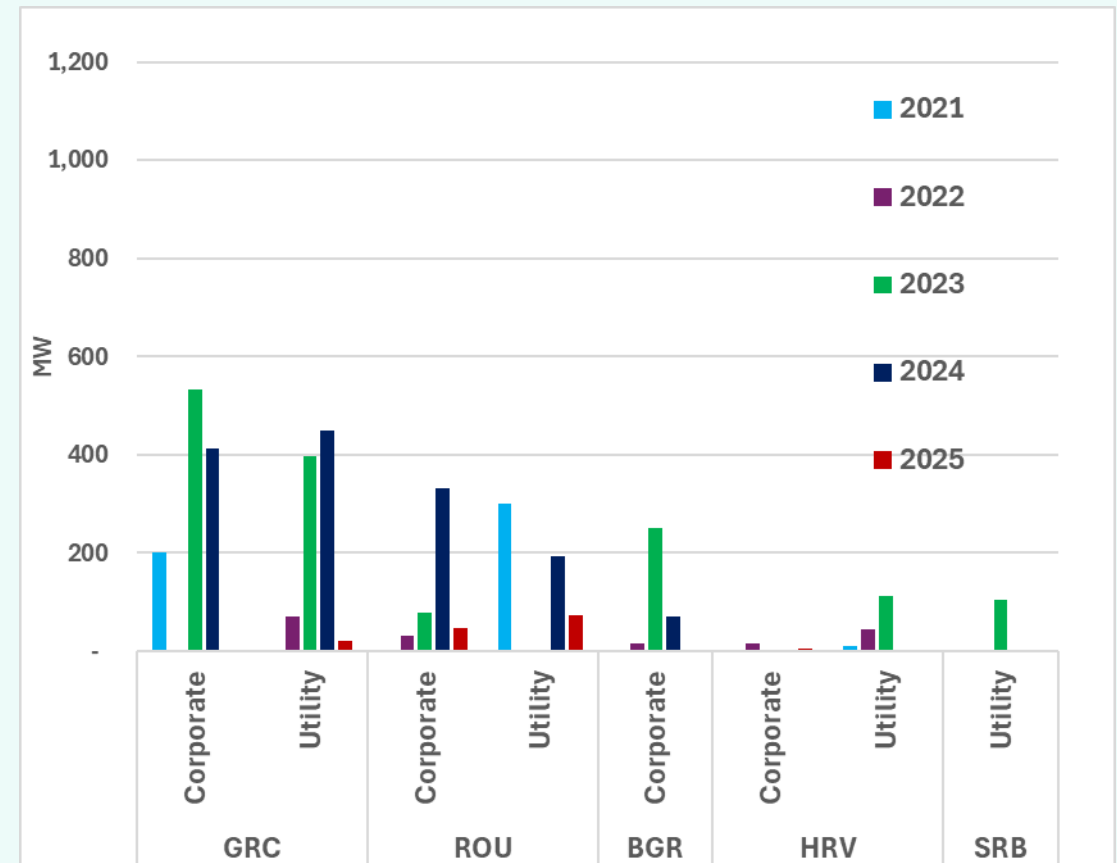
CEE

POL, CZE, HUN, SVN, SVK



SEE*

GRC, ROU, BGR, HRV, SRB



*Rest of SEE countries do not have publicly announced PPAs

Thank you for your attention!