



ABO Wind - Your Partner for Clean Energy

Mining in the 21st Century means co-locating Renewables

Dr. Julia Badeda

Energy and Mines World Congress 2020

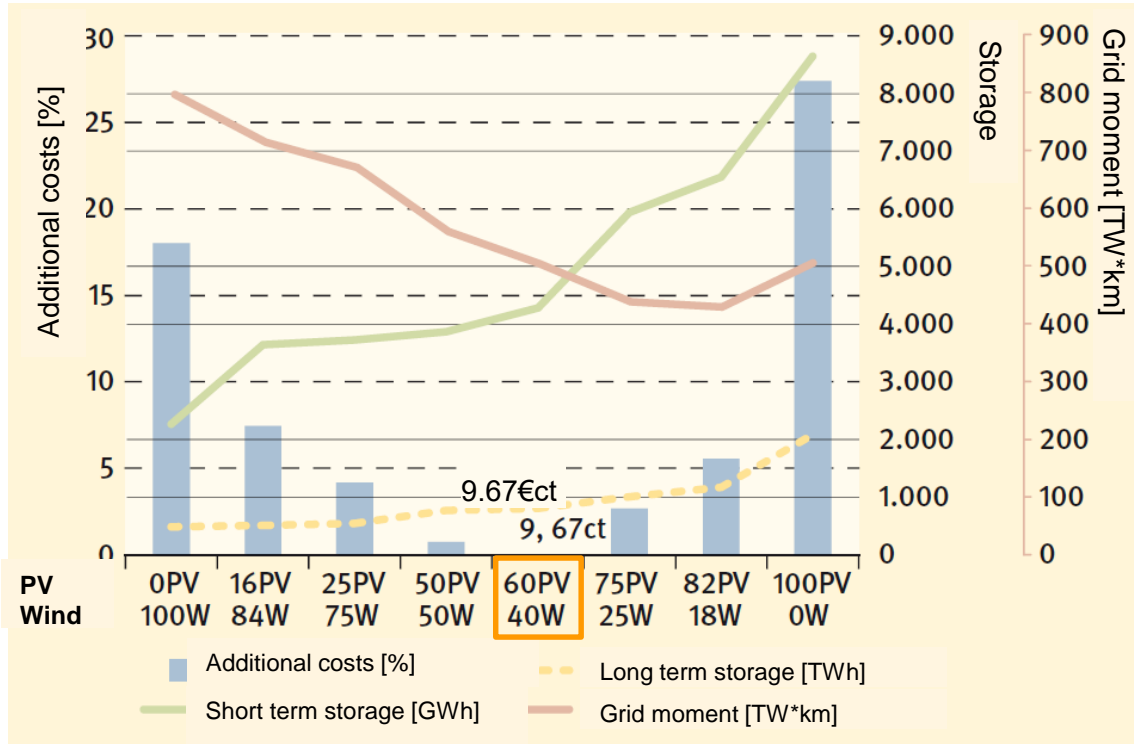
ABO
WIND

No matter what commodity... No matter what variety of mining type...
And no matter where...

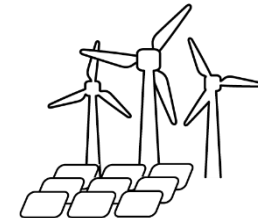


Everyone talks renewables

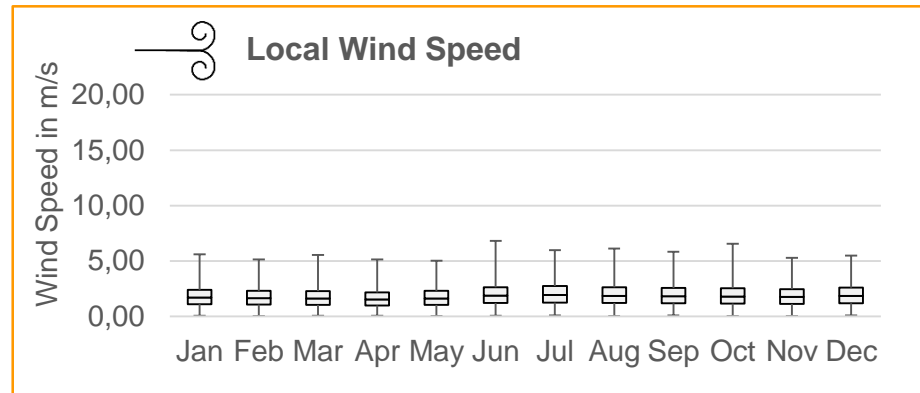
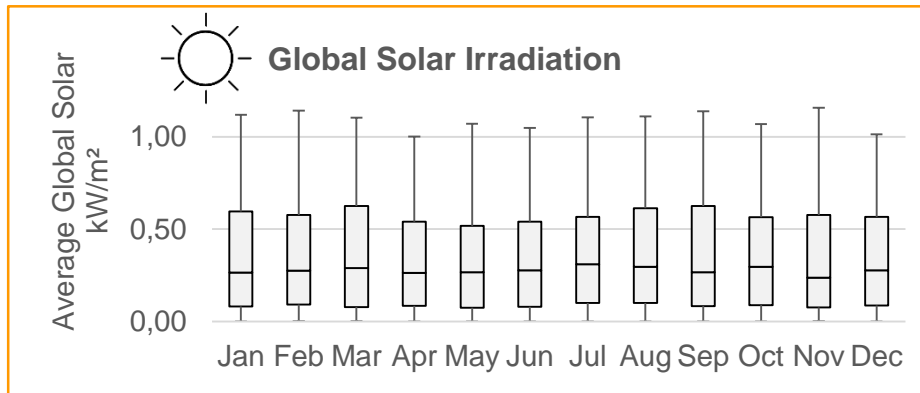
Why Co-locating Wind & Photovoltaic?



- Production mix of 60% PV + 40% Wind achieves optimal economic system layout for Germany in total.
- Sole PV or Wind projects tend to increase total costs

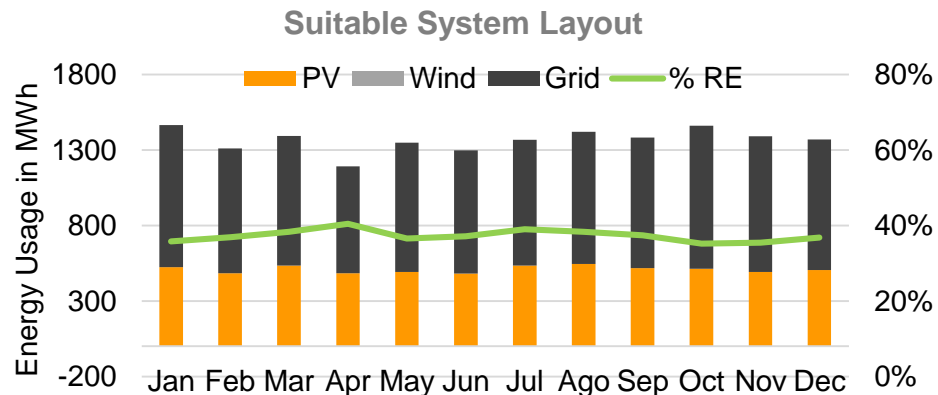


Local conditions at a mining site in Colombia

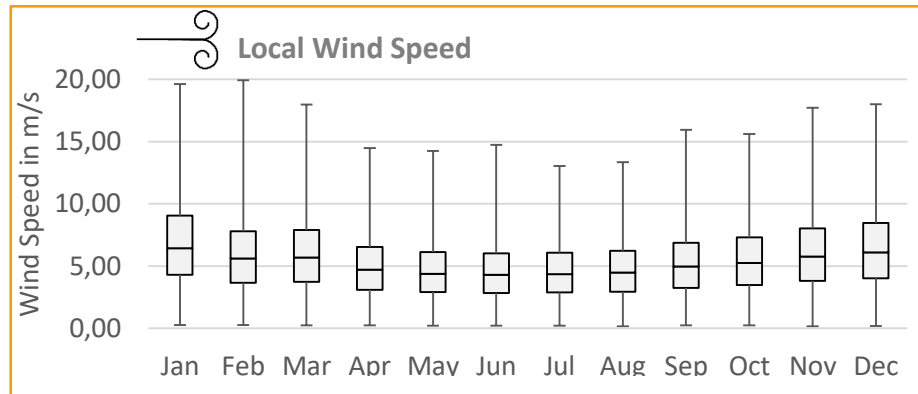
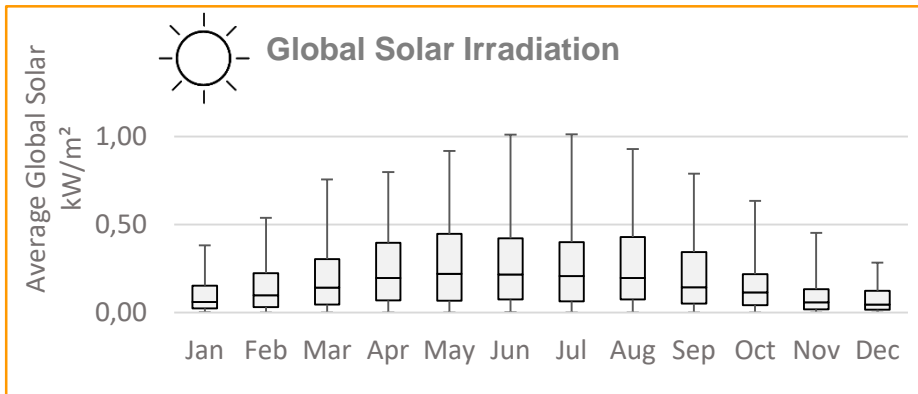


Tolima, Colombia

Current electricity price (Grid tariff) [USD/kWh]	0.16
Current demand [GWh/a]	16.5
Suitable Renewable system layout:	PV [MWp]: 4.5
Initial Capital [USD]	3.82 Million
COE [USD]	0.122
IRR [%]	17.9
ROI [%]	14.2
Payback [a]	5.5

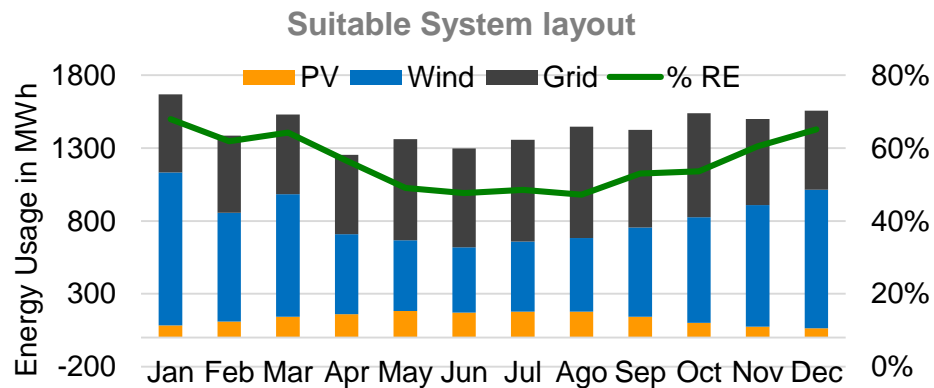


Local conditions at a mining site in Germany

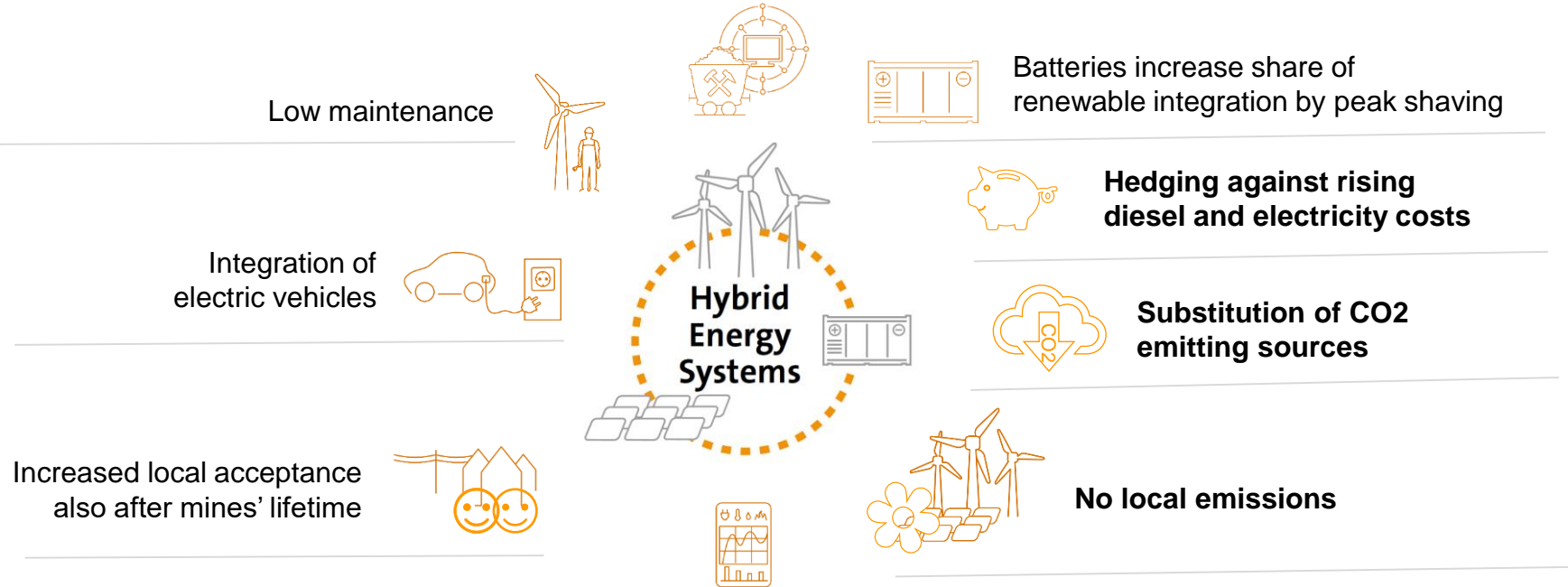


Germany

Current electricity price (Grid tariff) [USD/kWh]	0.16
Current demand [GWh/a]	16.5
Suitable Renewable system layout:	PV [MWp]: 1.7 Wind [MW]: 3.2
Initial Capital [USD]	5.33 Million
COE [USD]	0.104
IRR [%]	19.3
ROI [%]	15.1
Payback [a]	5.1



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Dr. Julia Badeda



Head of Department Hybrid Energy and Battery Storage Systems

Tel.: (+49 611) 267 65-807

julia.badede@abo-wind.de

ABO Wind AG · Unter den Eichen 7 · 65195 Wiesbaden · Germany

www.abo-wind.de

[Hybrid Department online](#)