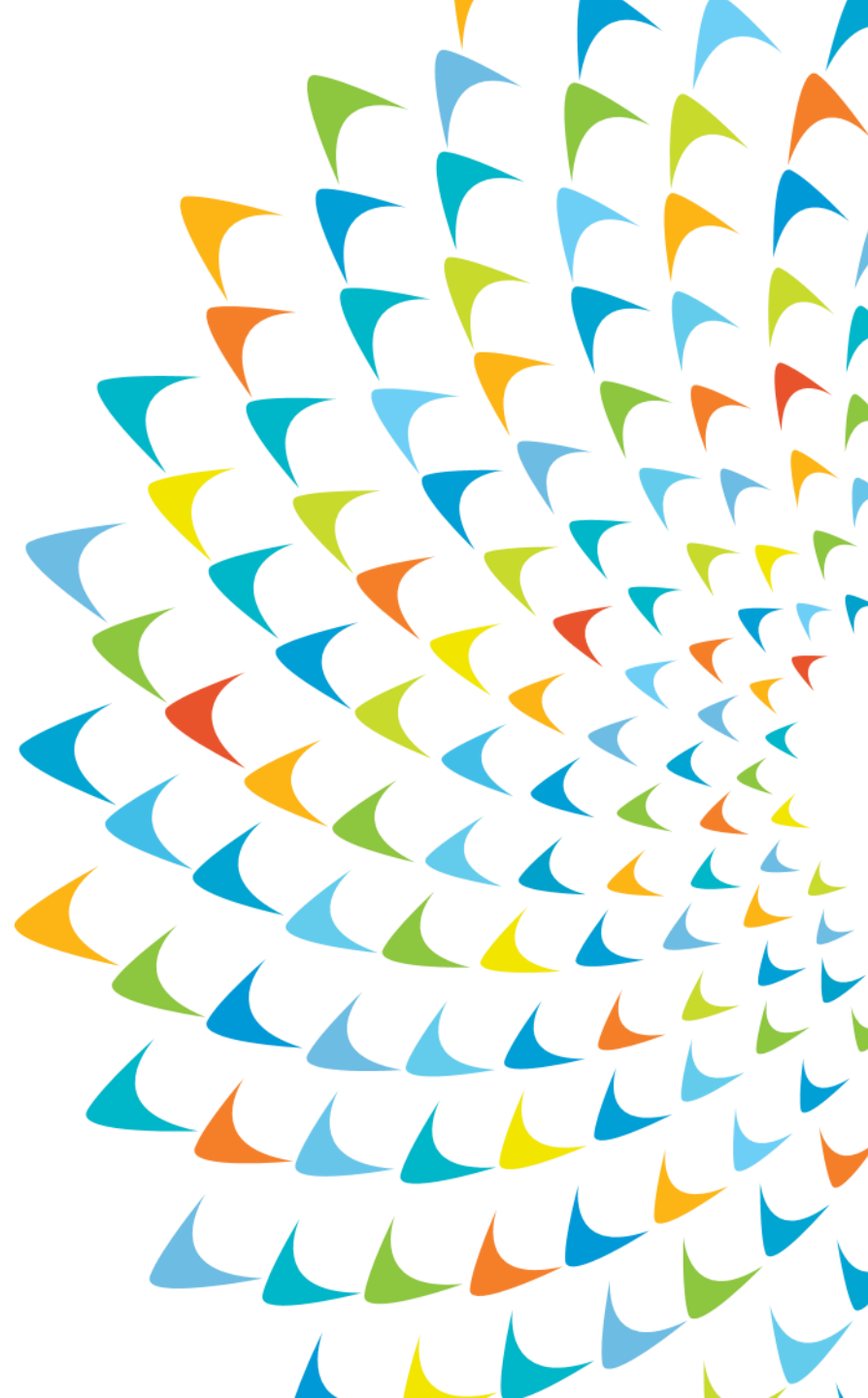




# The current energy landscape of the CAREC region

CAREC Energy Investment Forum  
November 28, Tbilisi, Georgia

Martin Sommereth Jaer, ADB





# Why are we here?





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SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all.





# Why are we here?

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

SDG 13: Climate action





# Why are we here?

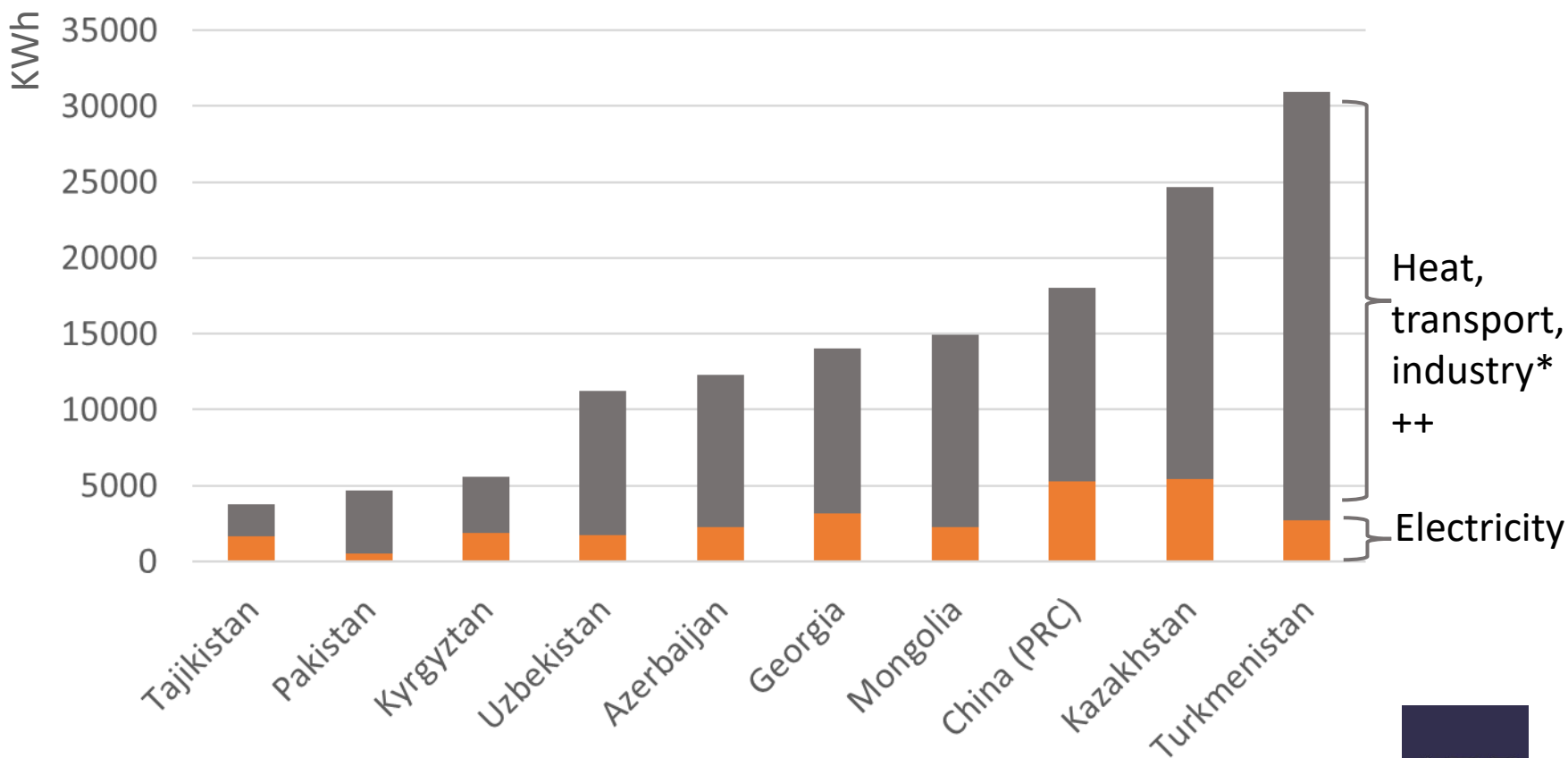
Ensure access to

energy for all.



# How is the region doing in ensuring energy for all?

Total final energy consumption per capita in the CAREC region

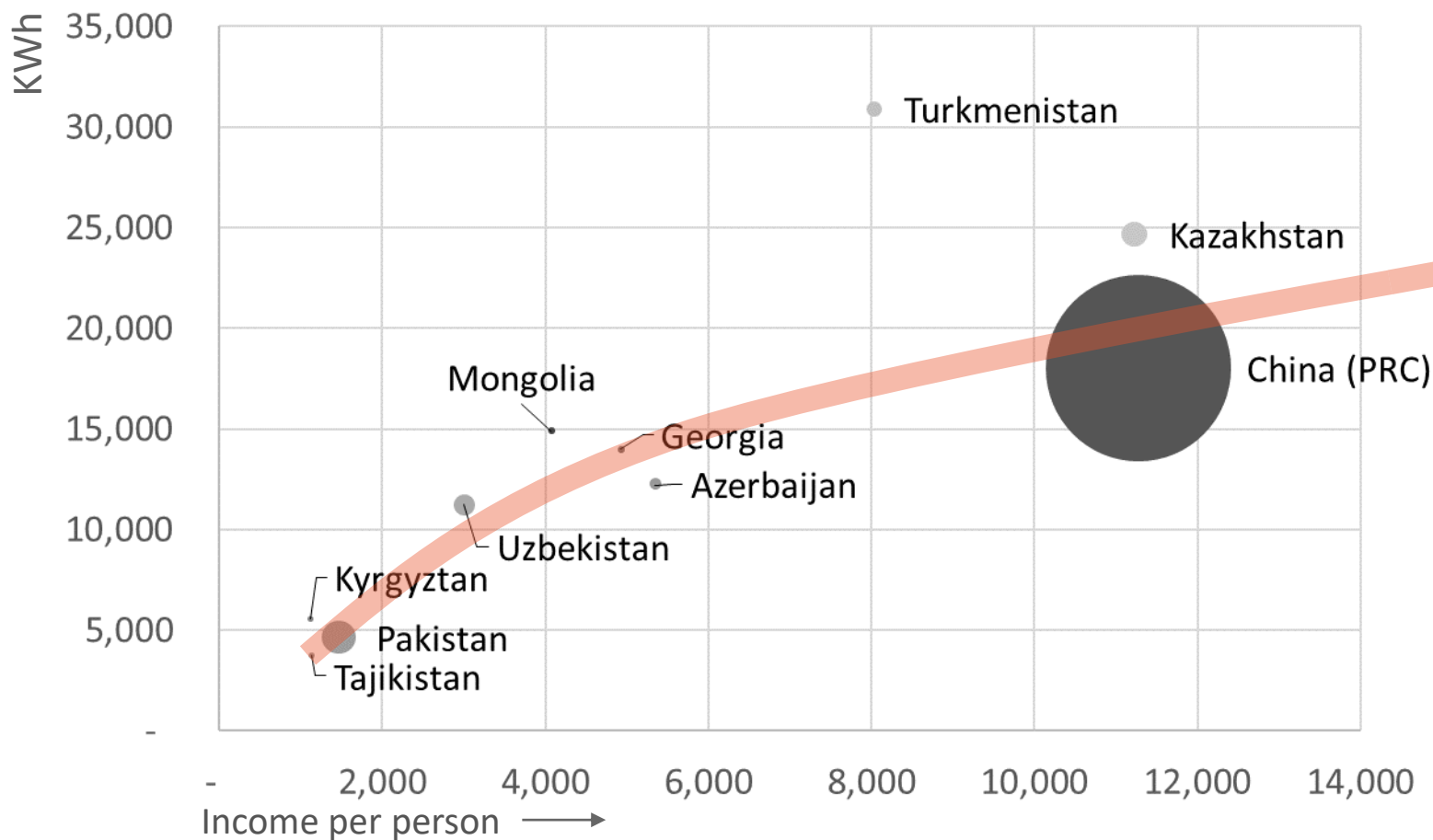


Source: [www.iea.org](http://www.iea.org) \* 1 GJ=277kwh



# Energy vs economic development

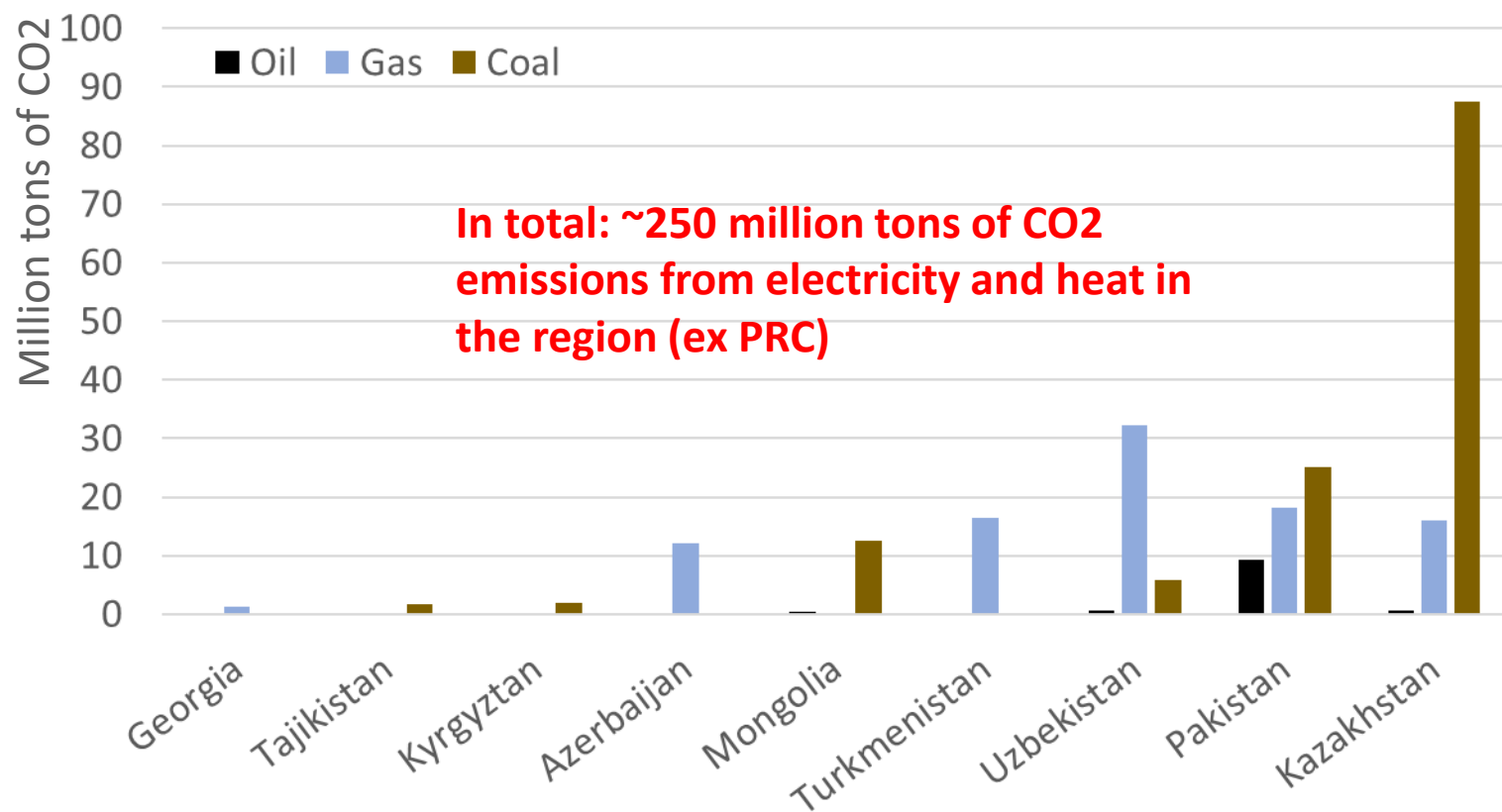
Energy consumption per person vs income in the CAREC region





# How sustainable is the energy in the region?

## Annual CO2 emissions from electricity and heat production in CAREC






# The value proposition from sustainable energy?

(Below, AI generated picture using the prompt "Fossil fueled energy future in the CAREC region" ©Dall-E)



# The value proposition from sustainable energy?

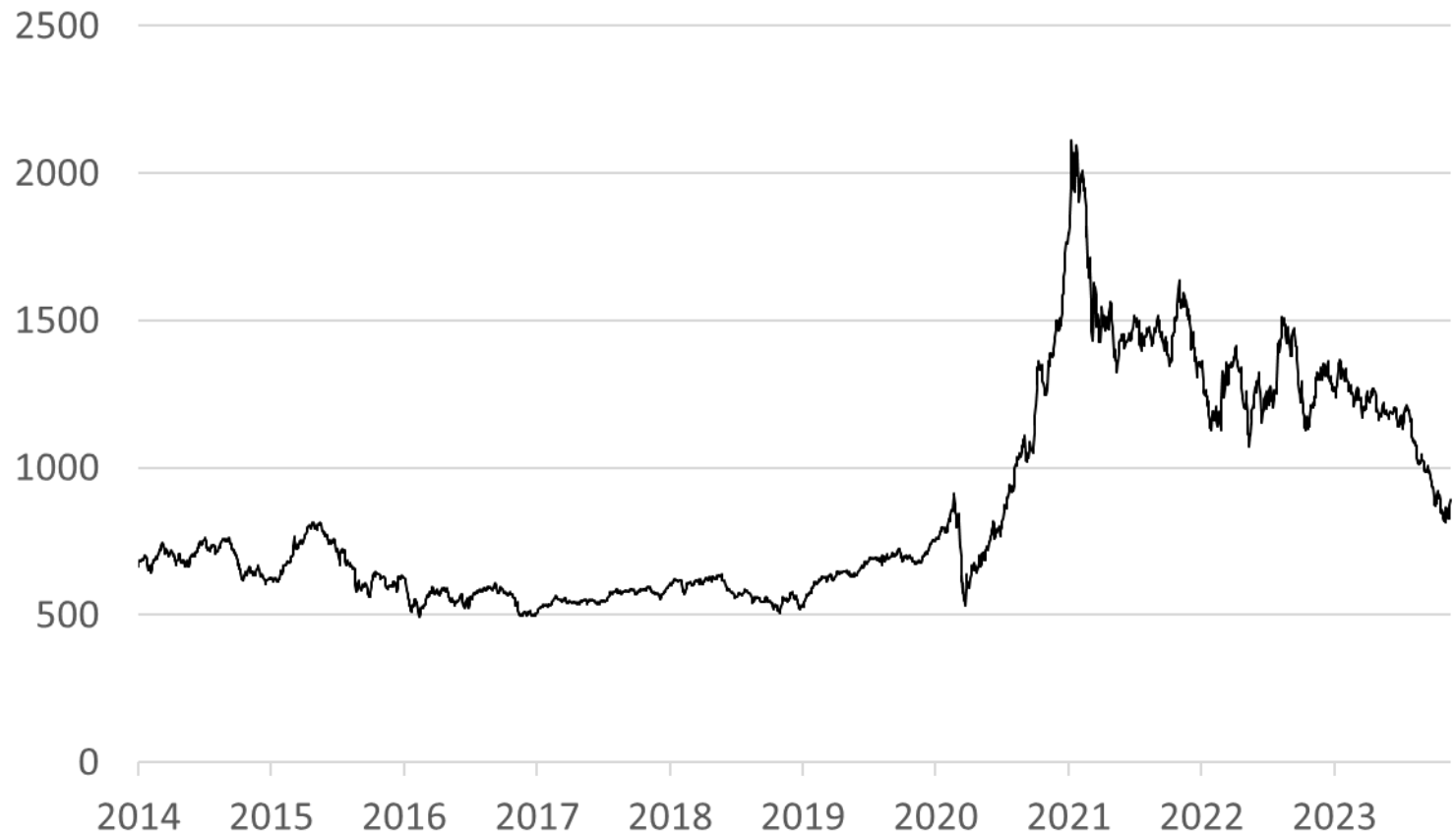
(Below, AI generated picture using the prompt "Fossil fueled energy future in the CAREC region" ©Dall-E)

- 
1. Fast deployment
  2. Enhanced energy security
  3. Long term cost savings
  4. Health benefits+climate



# Market realities: Impact of global shifts on Renewable Energy

**Global clean energy stock market index**





# Market realities: Impact of global shifts on Renewable Energy

Global clean energy stock market index





# Market realities: Impact of global shifts on Renewable Energy

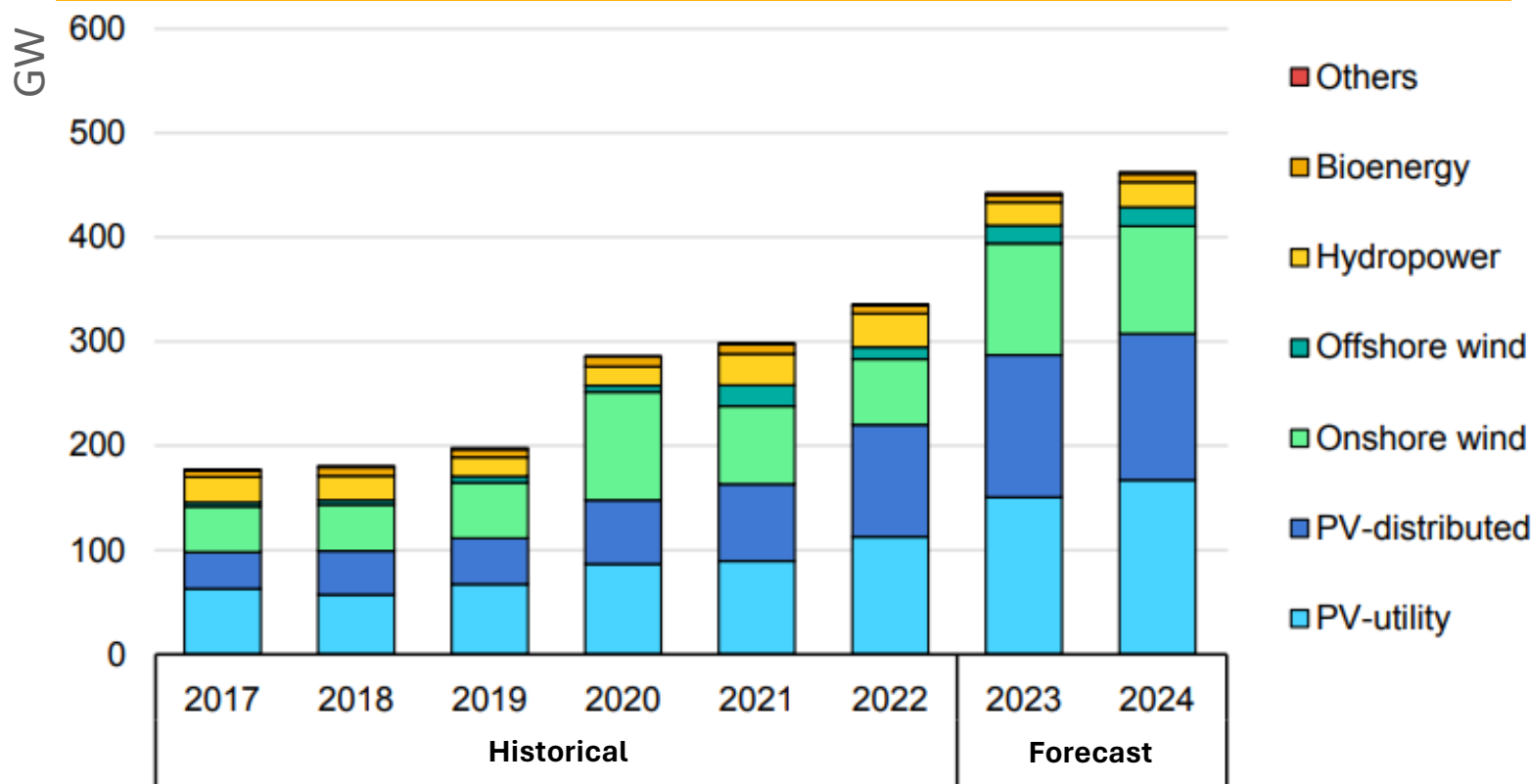
Global clean energy stock market index





# Euphoria: Record high deployment of renewable energy globally

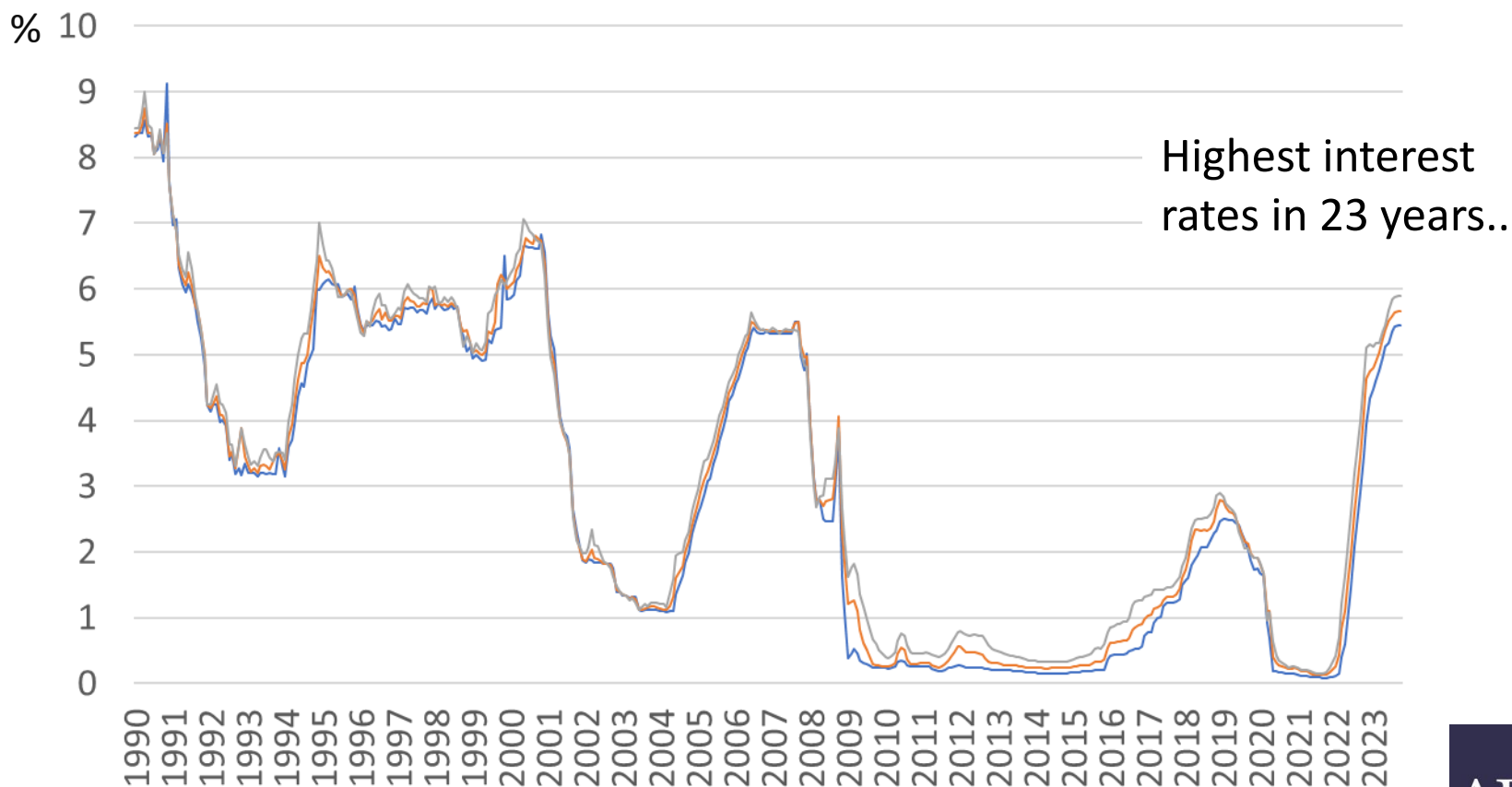
Net renewable electricity capacity additions by technology, globally





# Reality check: Interest rates and cost inflation

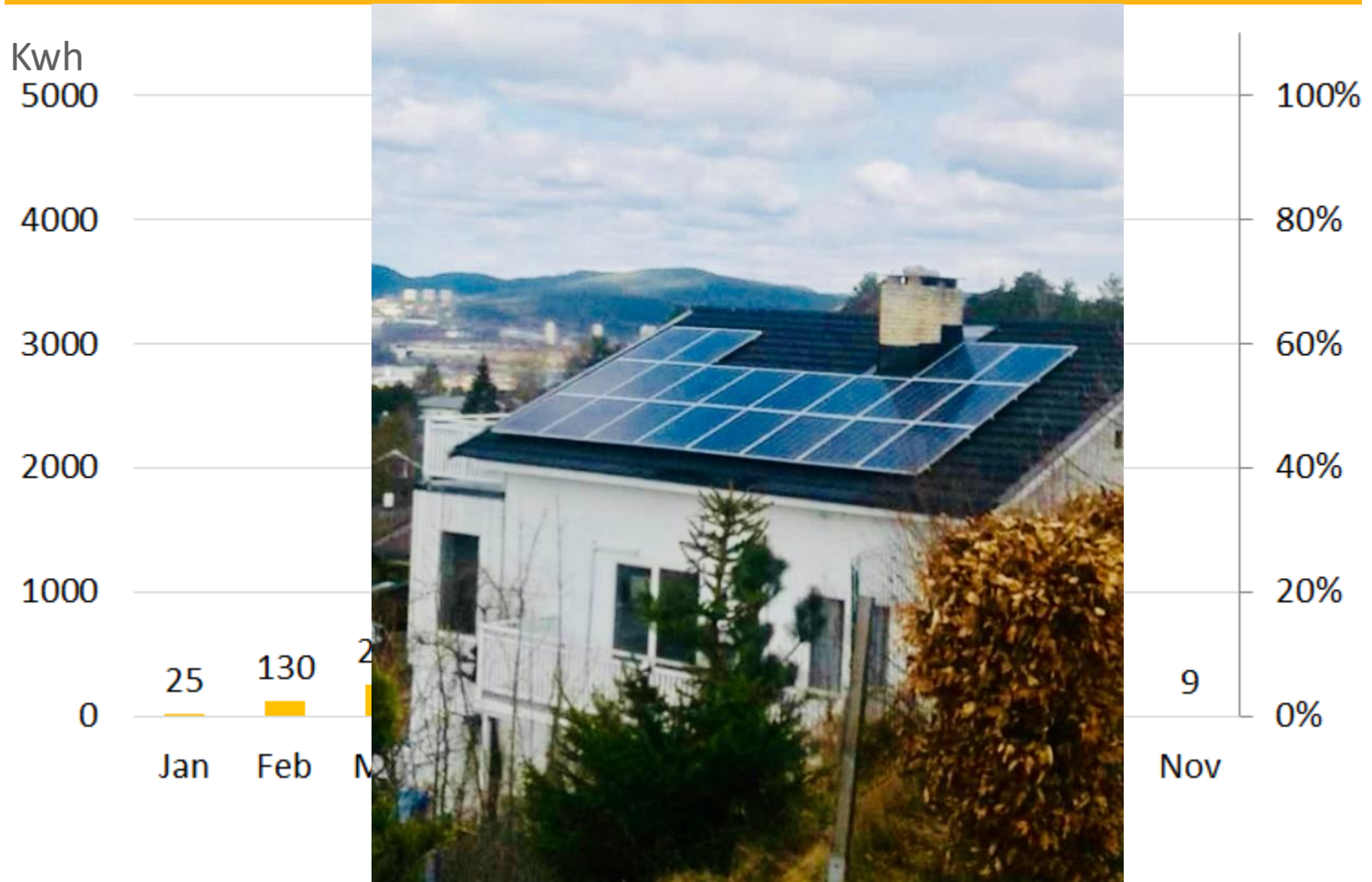
## USD interest rates (LIBOR and SOFR)





# Reality check: The variability of renewable energy generation

**5.3KW solar rooftop in a temperate climate. Production vs consumption**

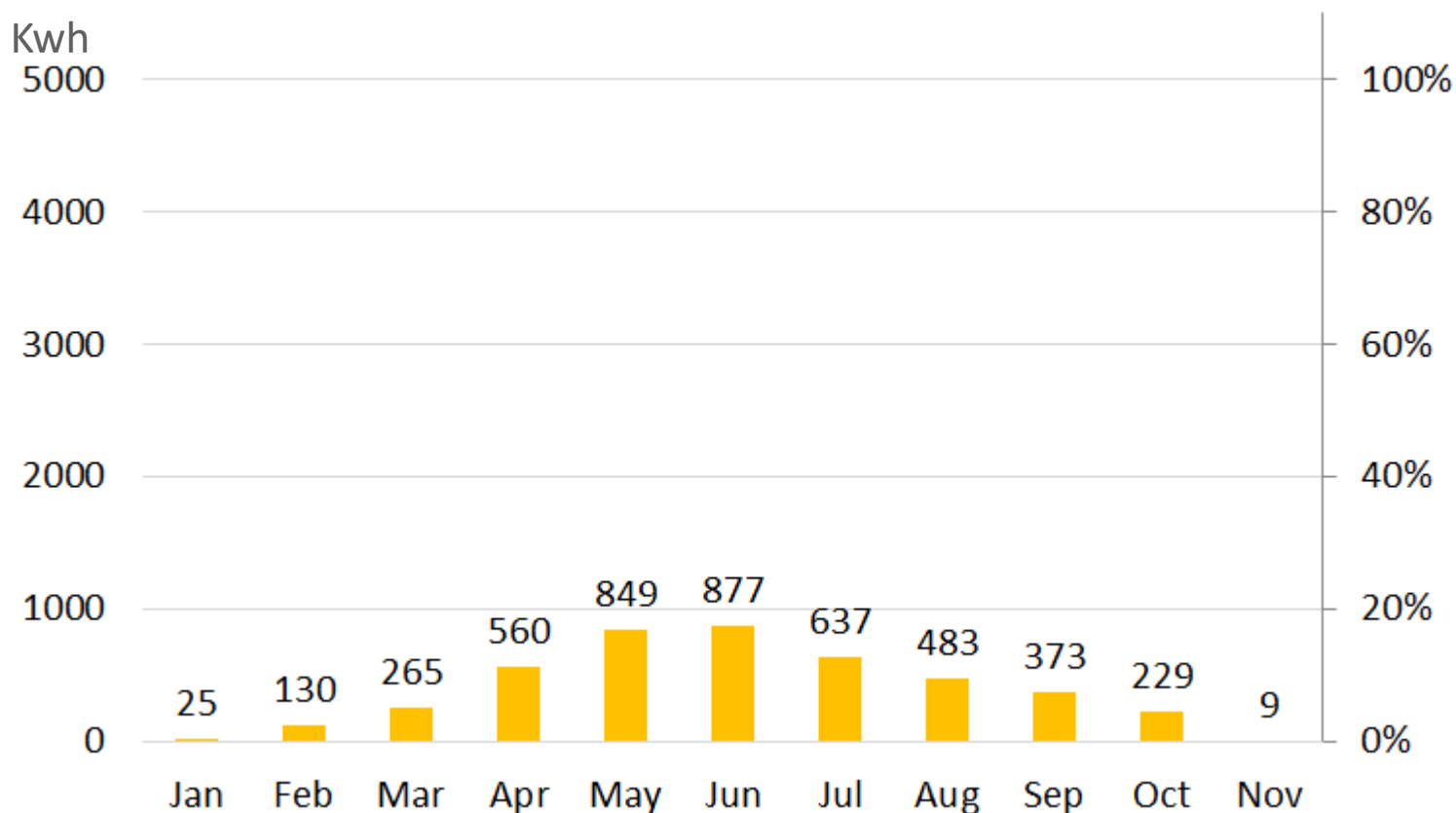






# Reality check: The variability of renewable energy generation

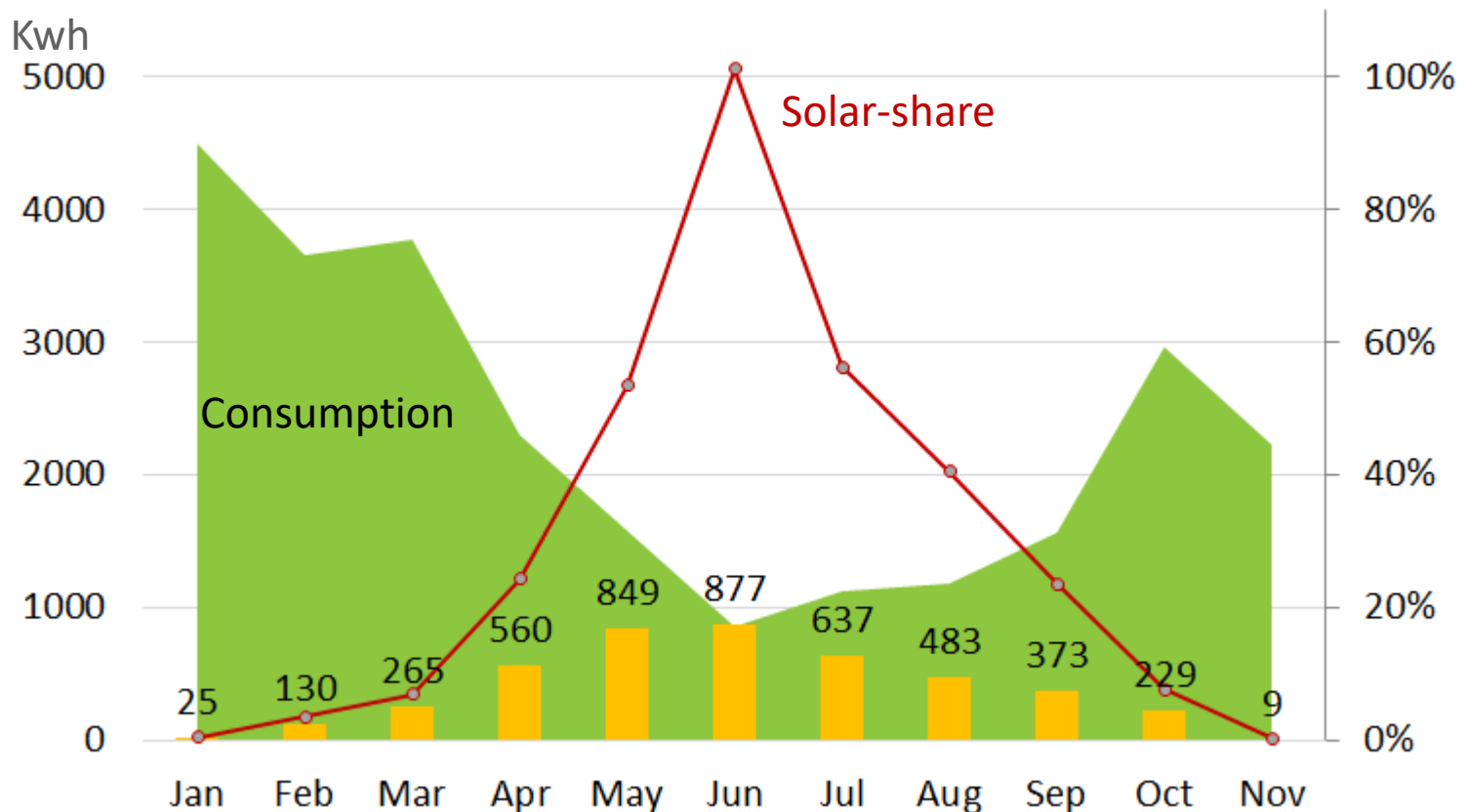
**5.3KW solar rooftop in a temperate climate. Production vs consumption**





# Reality check: The variability of renewable energy generation

**5.3KW solar rooftop in a temperate climate. Production vs consumption**



# Looking ahead:

(Below, AI generated picture using the prompt “sustainable energy future in the CAREC region” ©Dall-E)



# Looking ahead:

(Below, AI generated picture using the prompt “sustainable energy future in the CAREC region” ©Dall-E)



1. Load balancing/storage
2. Demand response
3. Regional interconnectivity