Denmark and Indonesia – Energy transition and climate targets

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Climate Ambassador

Denmark's energy system and climate targets

50%
Wind and solar share in the electricity production in 2019

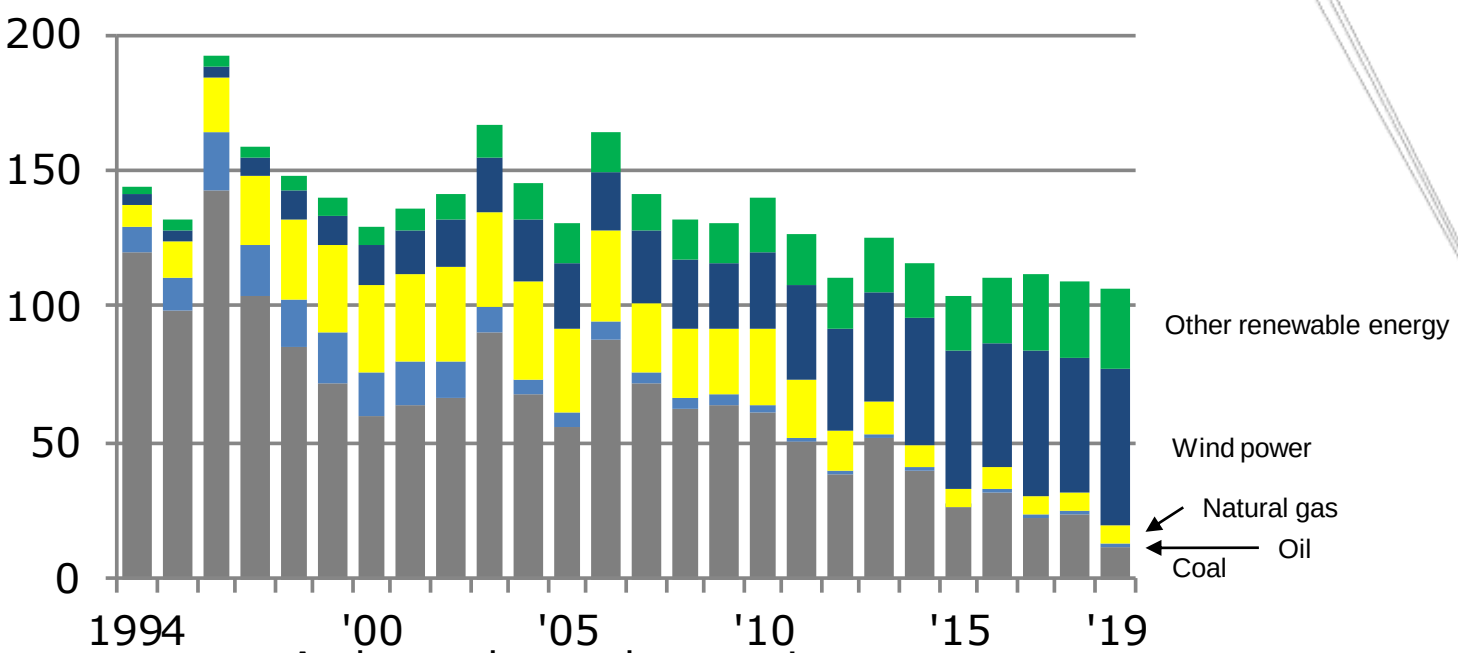
70%
CO_2 reduction in 2030 compared to 1990

99.996%
Security of supply

100%
Green electricity by 2030

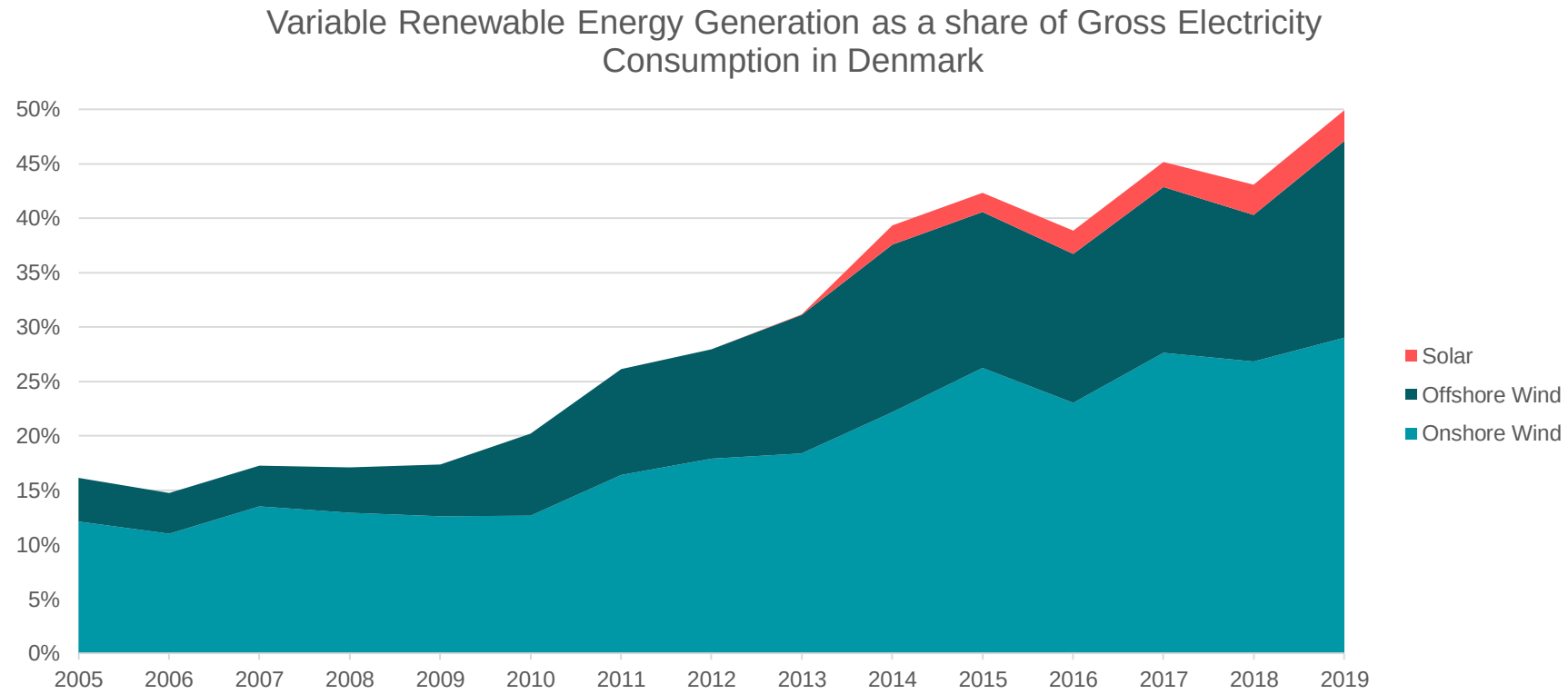
100%
Independence from fossil fuels by 2050

"Fuels" in Danish electricity mix goes from Coal to Wind



Variable RE reached 50 pct. of Danish electricity mix in 2019

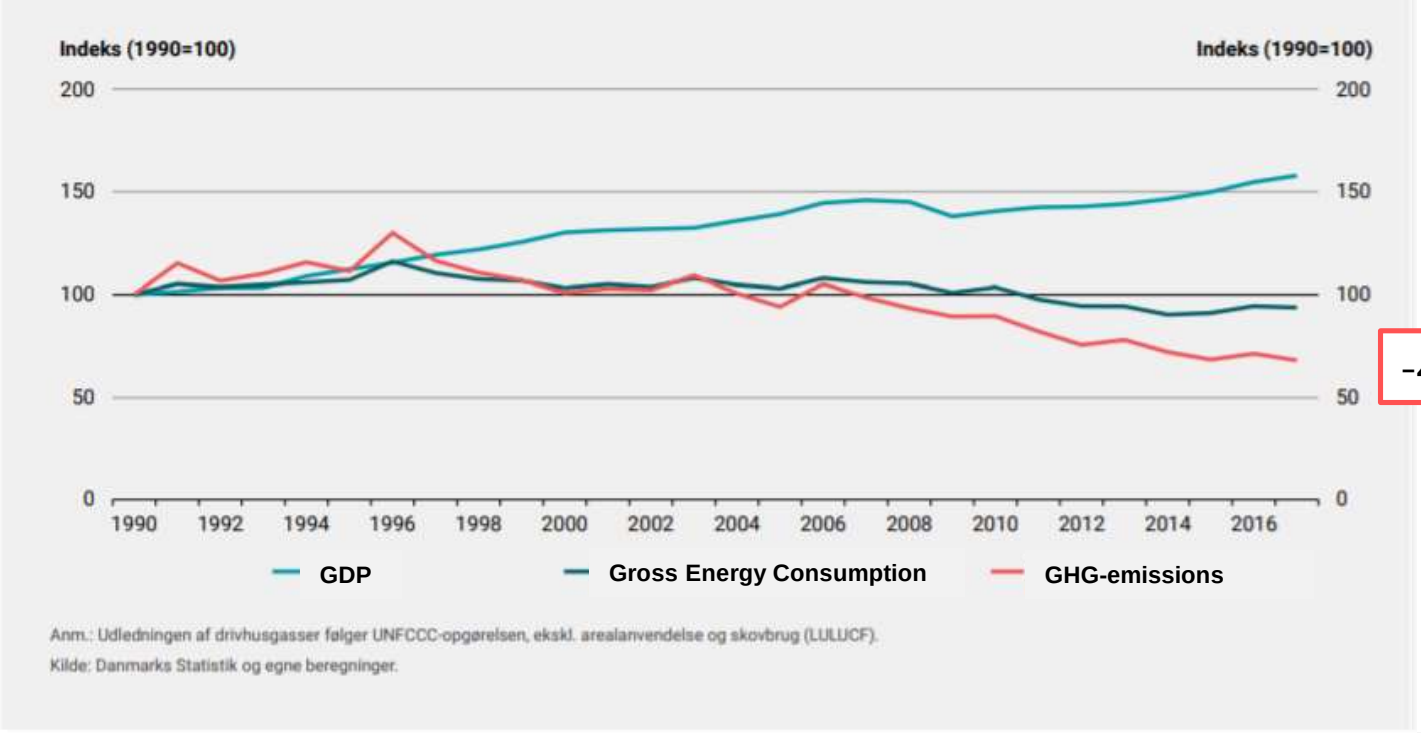
Non-fluctuating biogas and biomass on top of that



Source: Energinet, 2020

Denmark's example of economic growth and emission reductions

Economic growth, stable energy consumption and emission reductions last 30 years



+60 pct. GDP

-40 pct. emissions

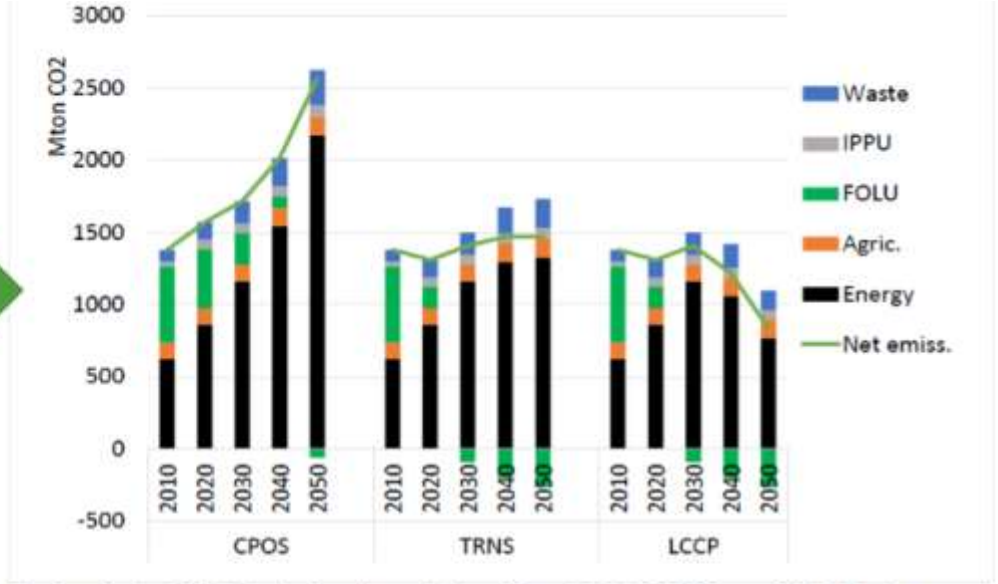
GoI predict forestry and land-use as a sink about 250 Mton CO_2 in 2050

Basis for the 2070 net-zero statement

LCCP

Peaking @ 2030, with net sink at FOLU sector.

Net zero @ 2070.



Projected GHG Emission Levels for the CPOS, TRNS and LCCP Scenarios

Note:

LTS – LCCR 2050: Long Term Strategy on Low Carbon and Climate Resilience 2050

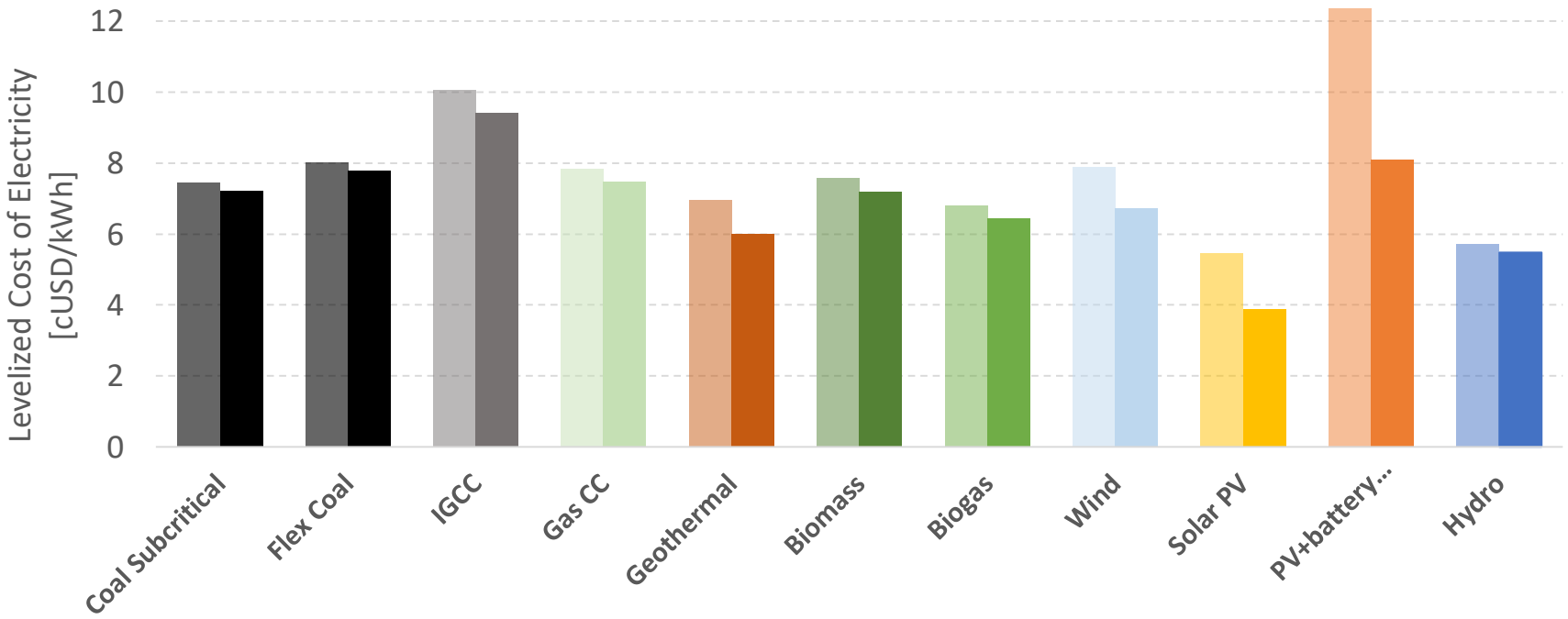
CPOS: Current Policy Scenario /Extended NDC

TRNS: Transition Scenario

LCCP: Low Carbon Scenario Compatible with Paris Agreement Target

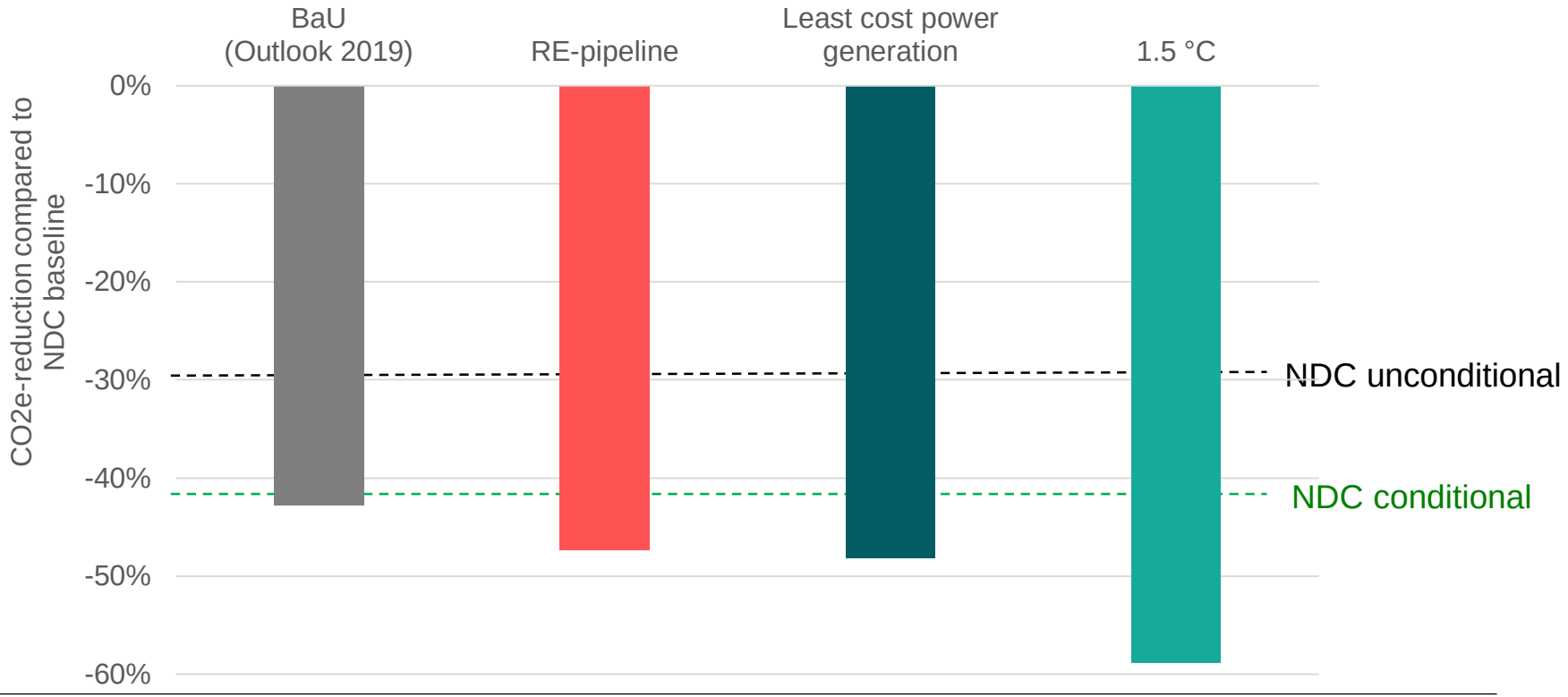
Renewables become far the cheapest in Indonesia between 2020 and 2030

Solar PV, battery storage and wind power are expected to significantly drop further

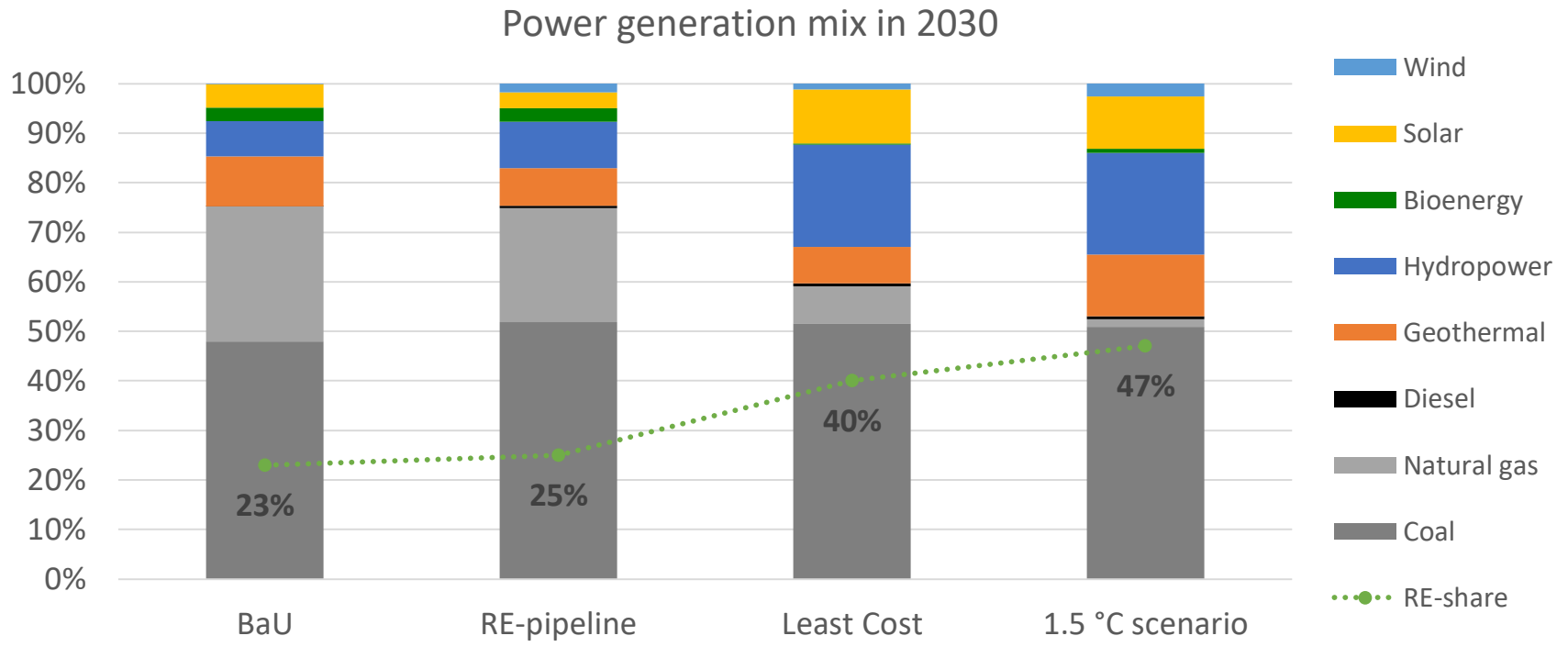


NDC targets 2030 will be reached – potentials to go beyond

Energy sector alone can fulfill the total NDC targets in 2030

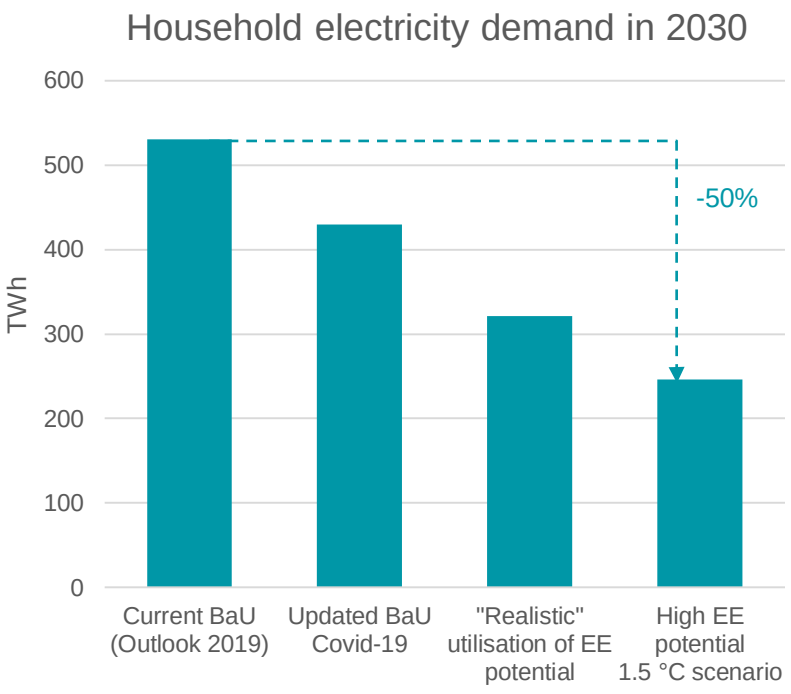


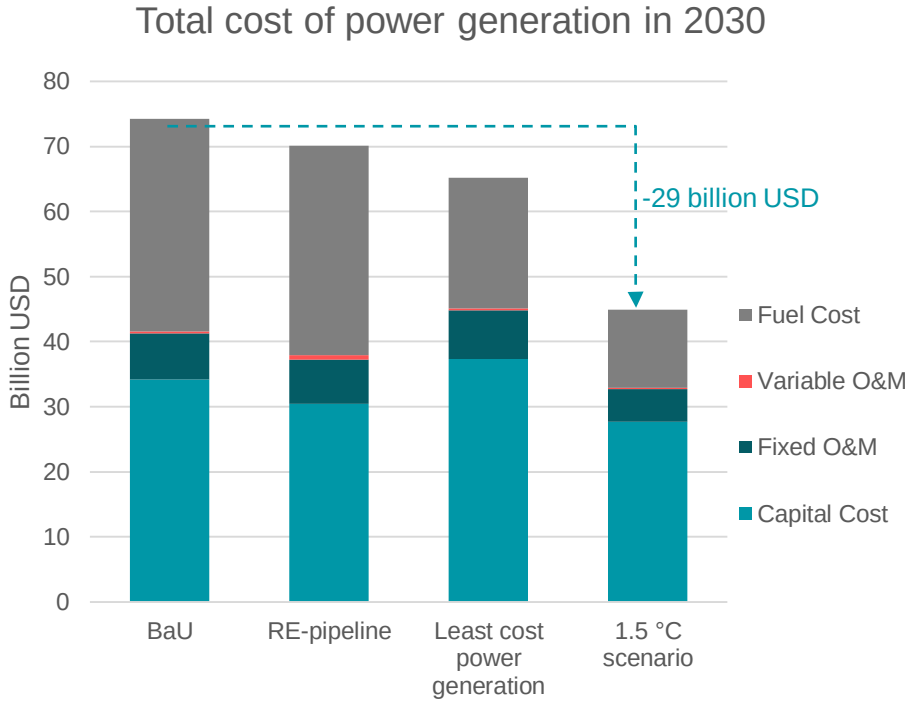
Increase in RE-share of power mix is possible without higher costs



Demand reductions are important for lower cost power generation

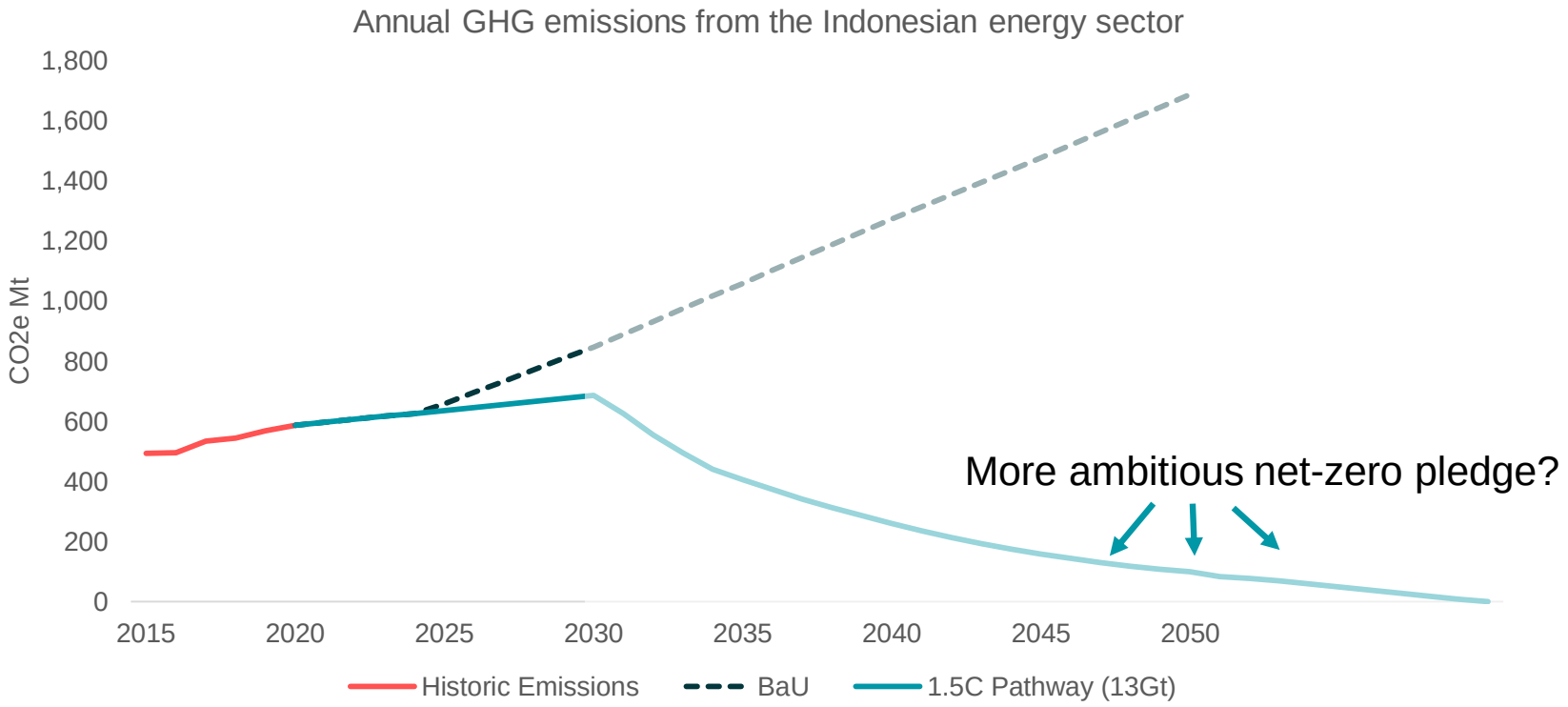
2030





A 1.5 degree-scenario for the energy sector shows around 100 Mton CO2 in 2050

A 60% NDC target for the energy sector 2030 aligns closely with a 1.5 °C pathway



Conclusions

- Reduction of GhG emissions is possible to combine with strong economic development
- By combining RE, EE and electrification it is possible to
  - Reach national + international targets
  - Lower the costs for power generation
  - Reduce oil import and improve trade balance
  - Achieve additional benefits such as energy security, job creation, mitigation of other environmental hazards
- Indonesia can increase the NDC targets ahead of COP26 and has the potential to be a leading example
- Denmark is proud to support with our experiences and lessons learned from combining climate mitigation and increased economic growth