NATIONAL ENERGY AND CLIMATE PLAN FOR POLAND AND PWEA'S PROPOSALS

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Main PWEA conclusions

- Poland can go through energy transition faster and cheaper than stated in the National Energy and Climate Plan
- The potential of onshore & offshore wind supported by gas-fired capacity is enough to meet more ambitious targets without the need to develop the highly uncertain nuclear project post-2030
- 35 % of renewable electricity would allow Poland reach the 25 % RES target in the gross final renewable energy consumption due in 2030
- Industry, which is responsible for one third of the country's annual energy consumption, can be on of the key decarbonisation drivers

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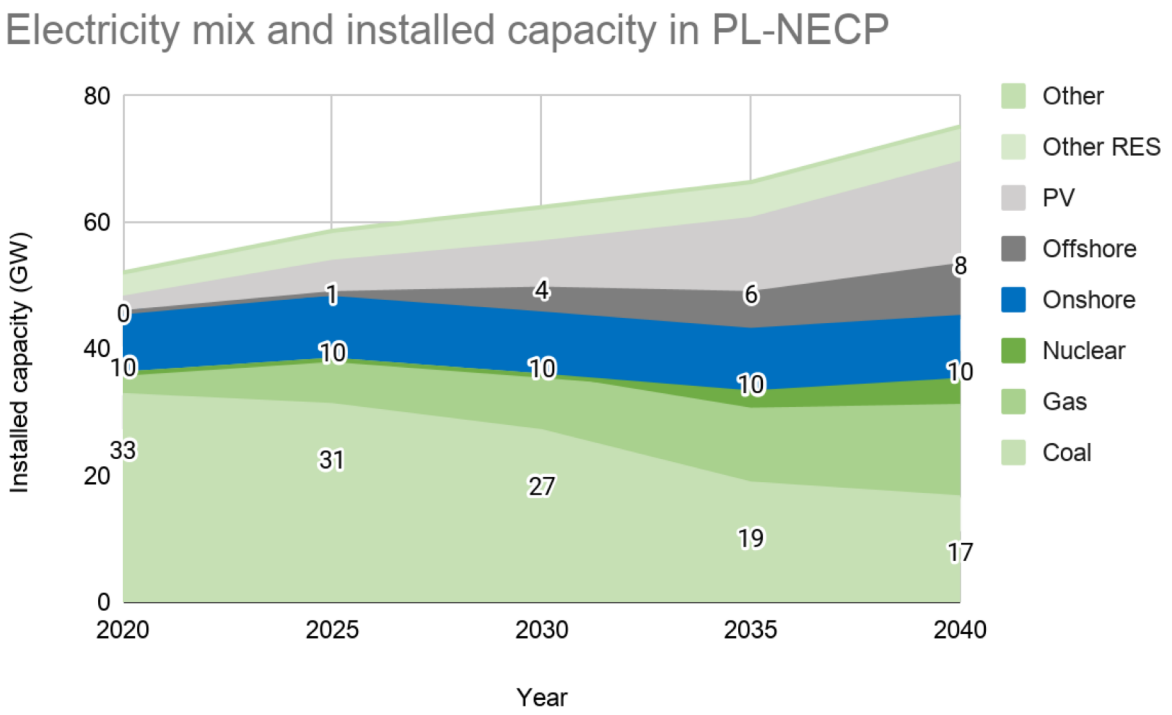
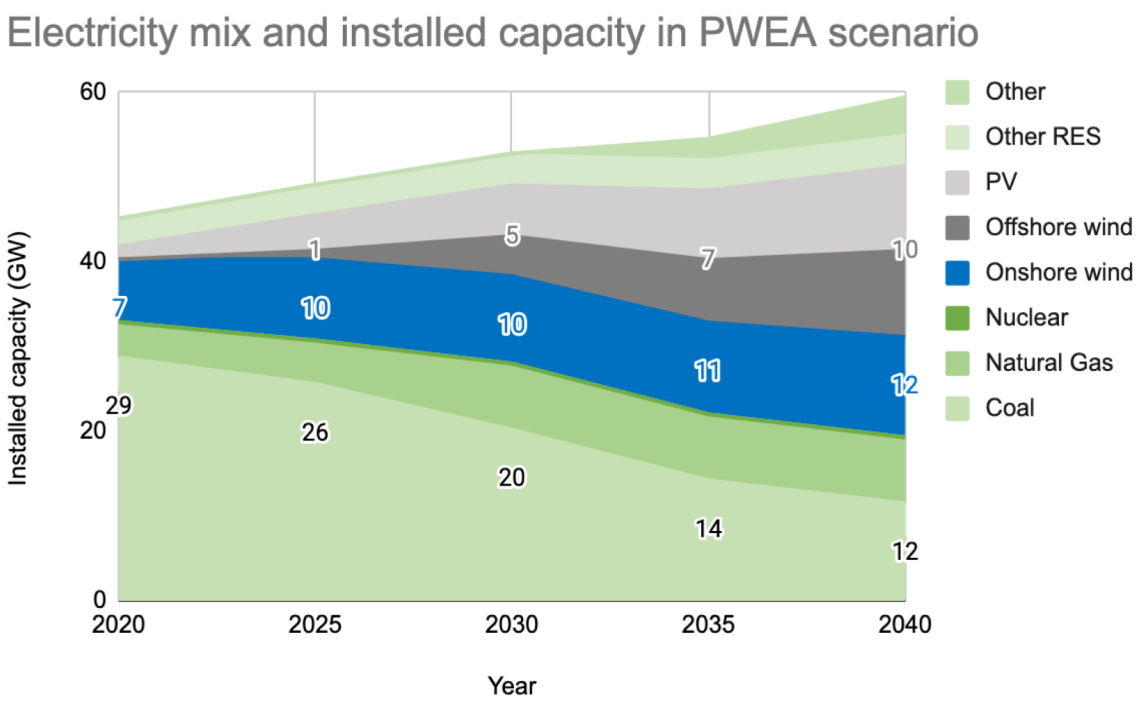
NECP vs. PWEA scenario

Electricity mix and installed capacity





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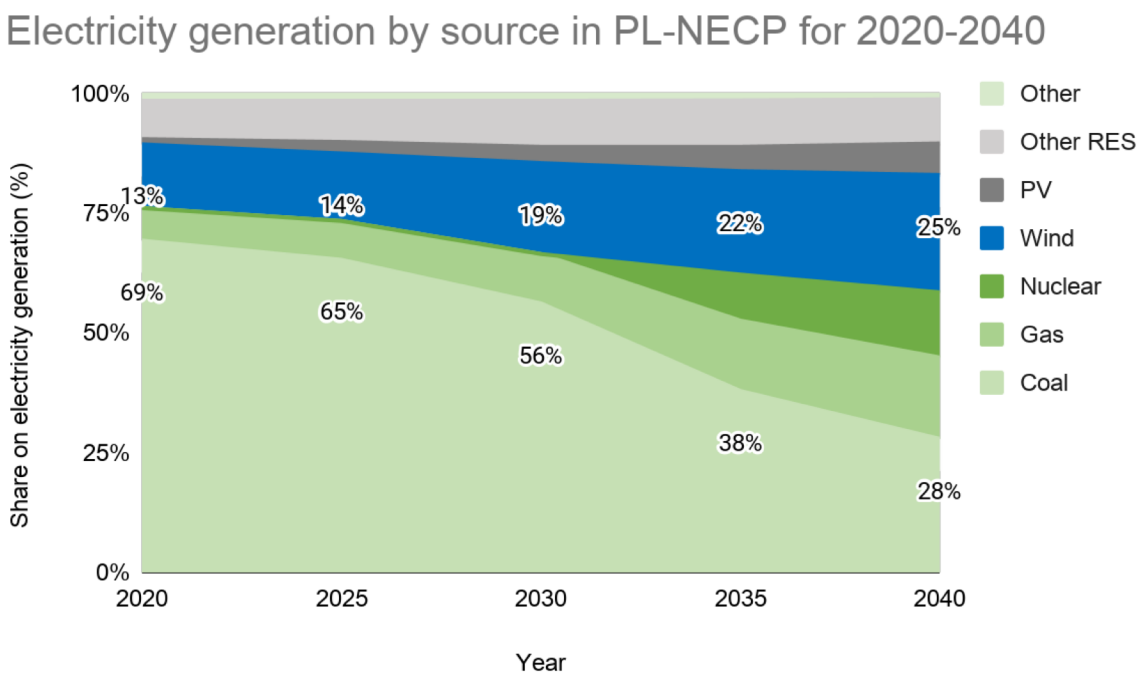
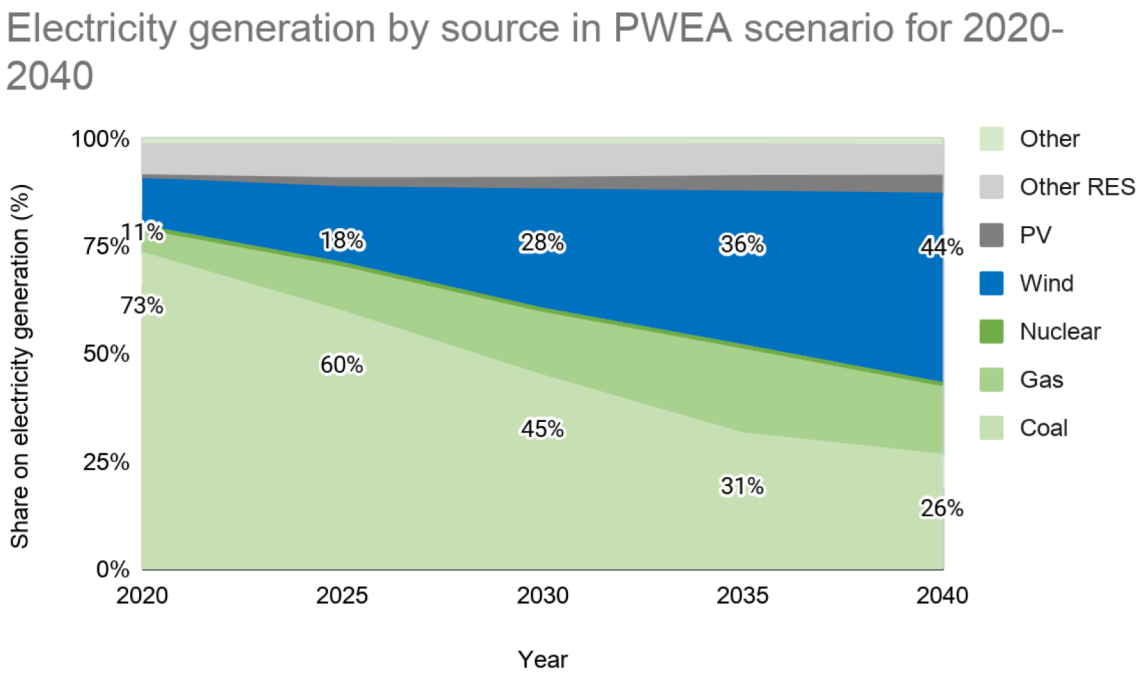
NECP vs. PWEA scenario

Electricity generation by source





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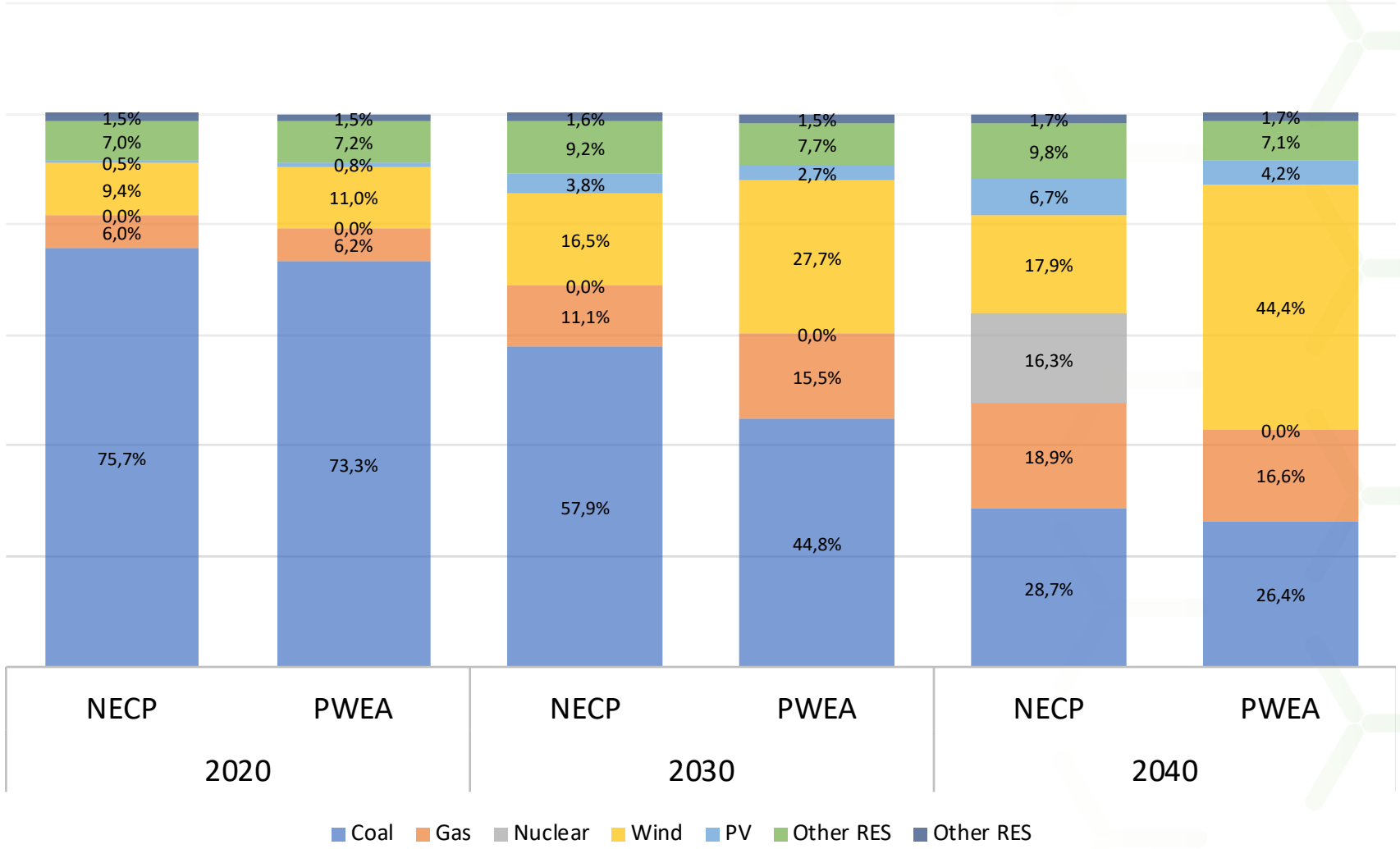
NECP vs. PWEA scenario

Generation by source



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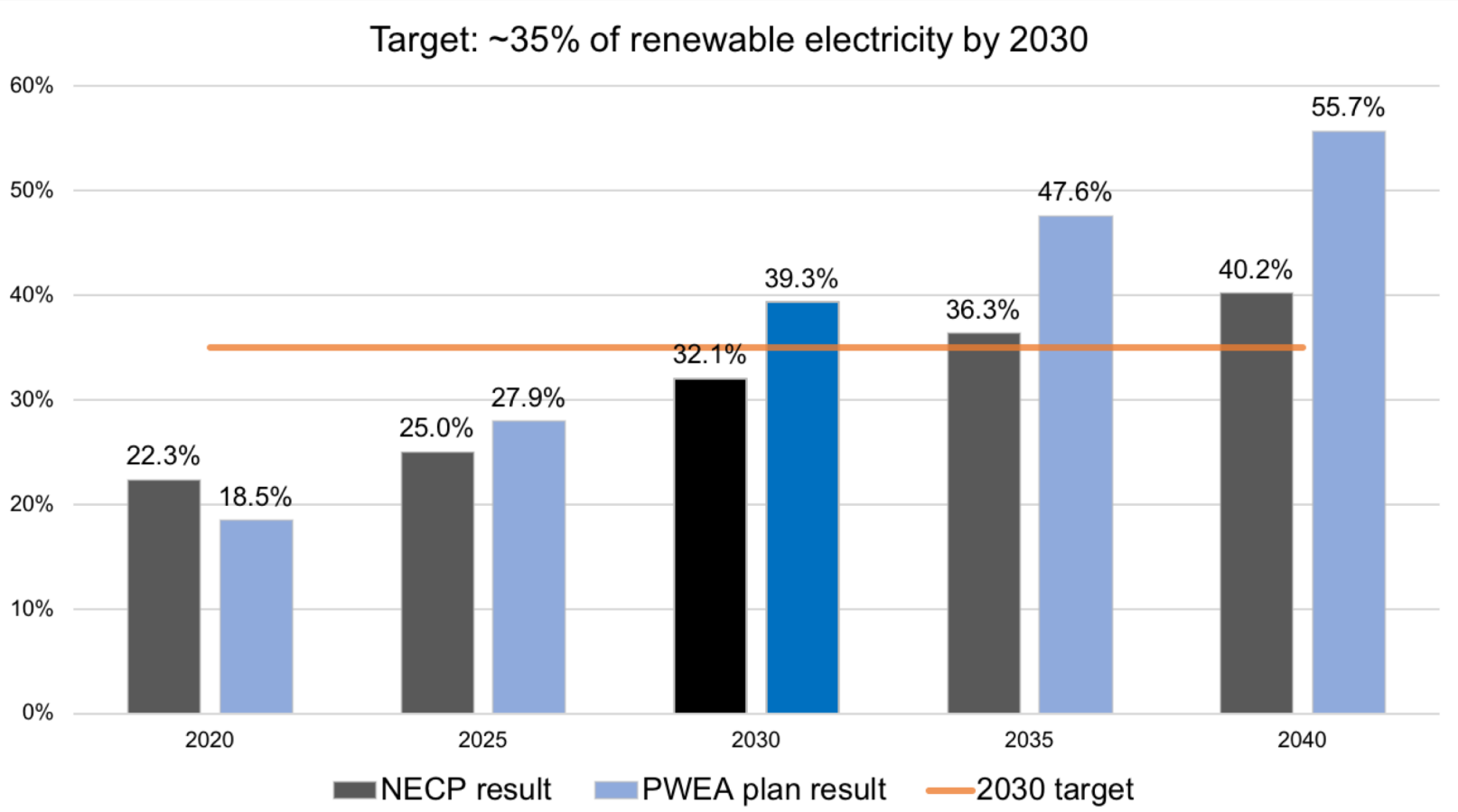
Meeting EU-wide targets for 2030 & beyond



After the revision in 2019 the EU-wide target is **32%**.

In Poland's case reaching this overall level (incl. heating/cooling and transport) would require a share of about **35% in gross electricity use**.

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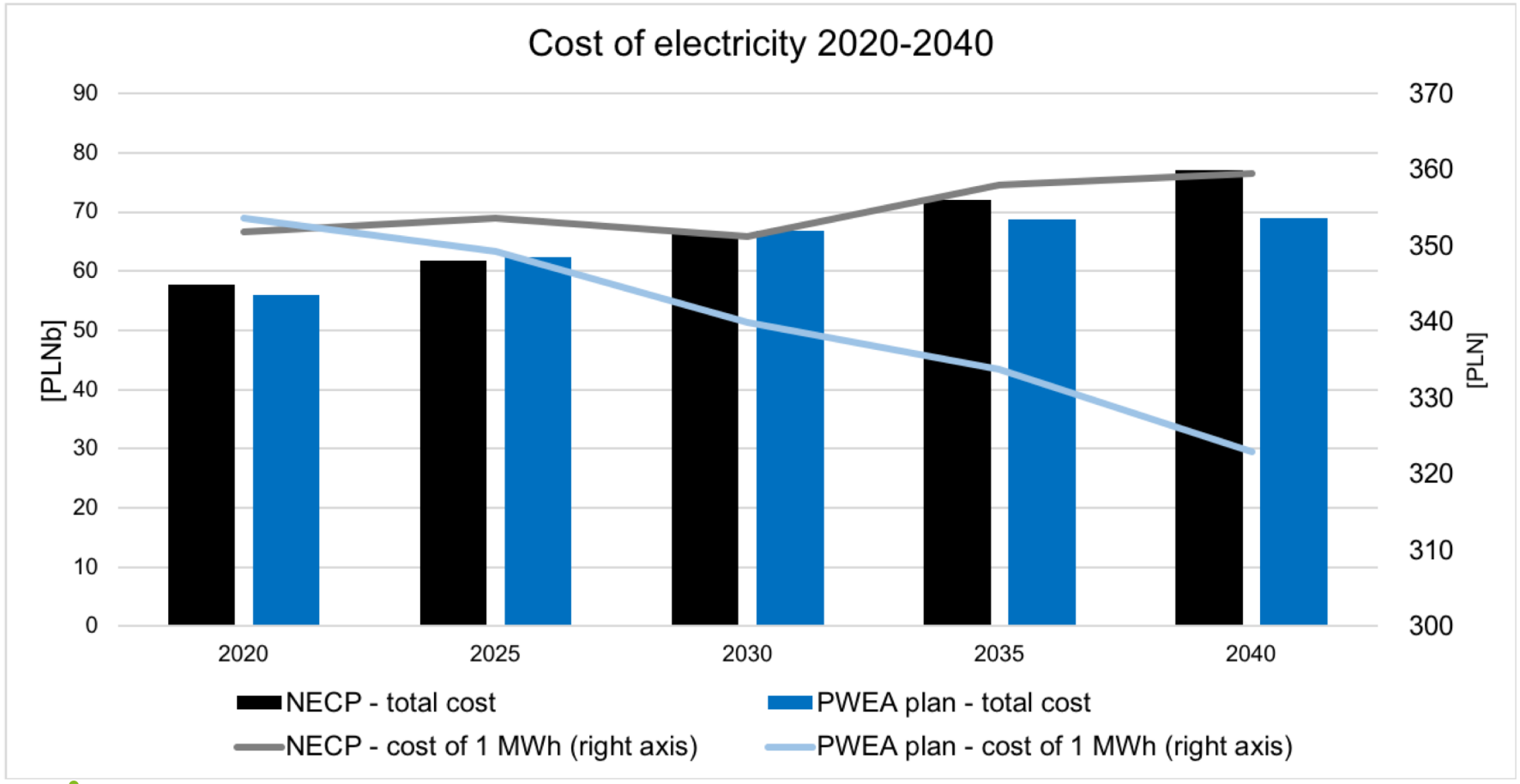
Cheaper and cheaper electricity with the greener mix



The cost of electricity (volume times LCOE) will reach around **PLN 55b** (EUR 12.3b) a year in 2020.

PWEA's plan heavily relies on cheaper sources like onshore wind.

The effect becomes most pronounced after 2034 as we avoid the expensive nuclear energy provided in the draft NECP. The difference is PLN 8b/year as at 2040.

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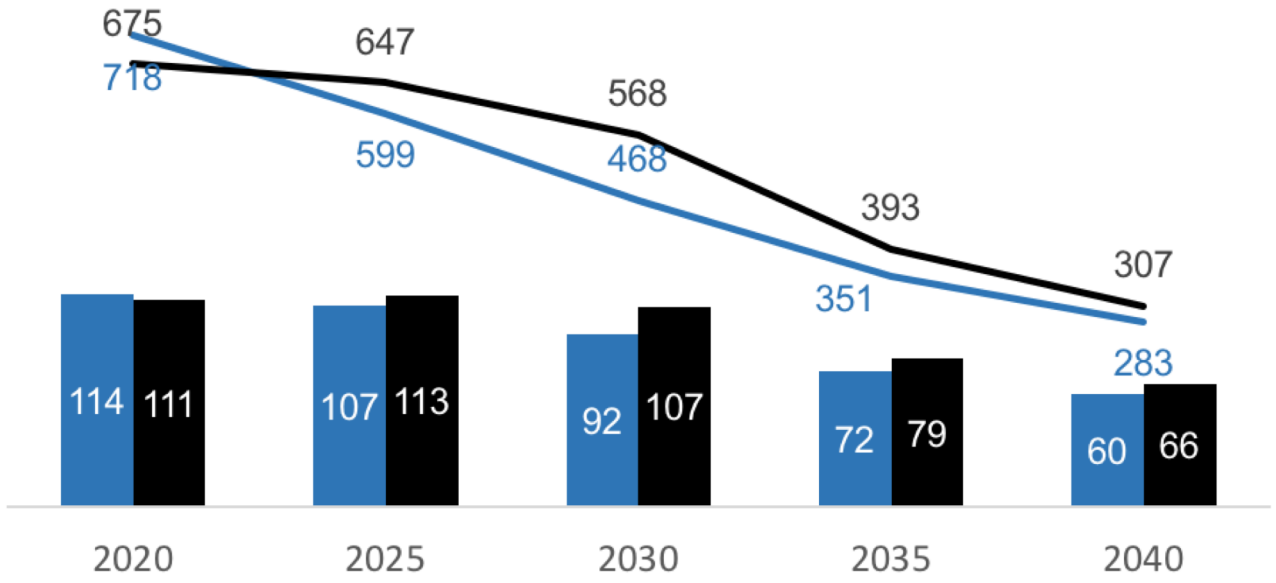
CO_2 emissions fall as fast as coal is phased out



CO_2 emissions per MWh of electricity produced [kg/MWh]

PWEA NECP

CO_2 emmissions in the generation sector [mt]

PWEA NECP

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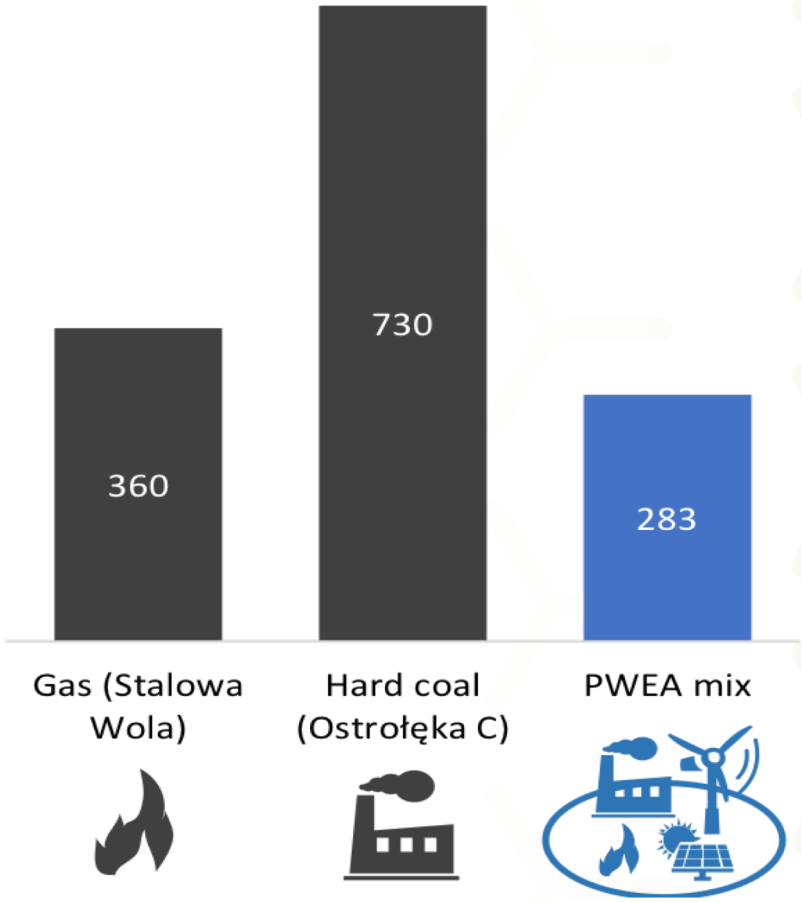
CO2 emissions fall as fast as coal is phased out

Comparing CO_2 emmissions from state-of-the-art gas-fired and coal-fired power plants with the average emissions in PWEA's scenario for 2040 [kg/MWh]



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Emissions reduction 2020-2040

2040 emissions reduction in the PWEA scenario

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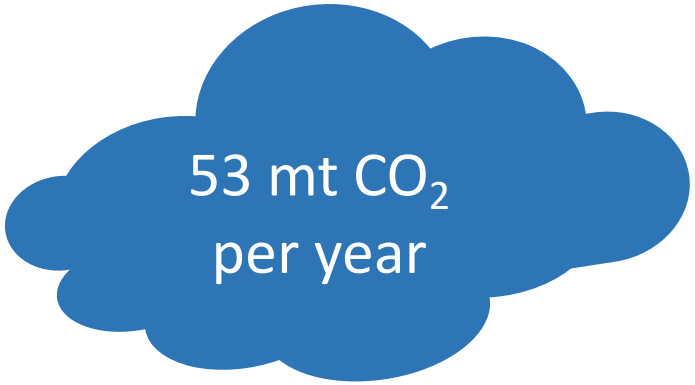
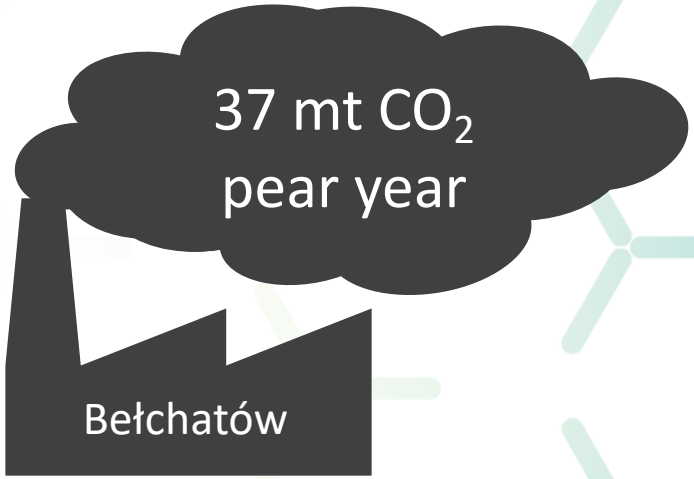


Versus:



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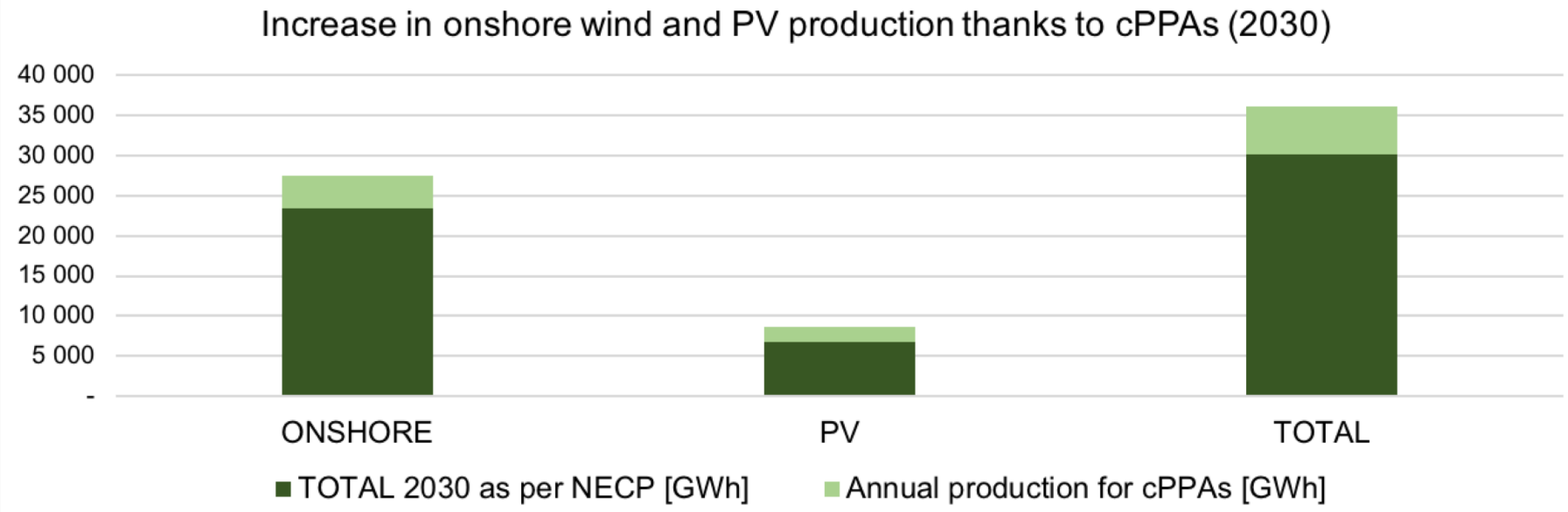
Corporate PPAs as an additional opportunity



Out of the 30 TWh of electricity per year used by energy-intensive businesses, it is assumed 20% could be balanced within their internal grids.
This would allow an extra 1.4 GW and 1.8 GW of capacity to be added to onshore wind and PV, respectively.

Compared to the 23.3 TWh of onshore wind and 6.7 TWh of PV planned in the NECP, this would result in a 20% increase in renewable production for 2030

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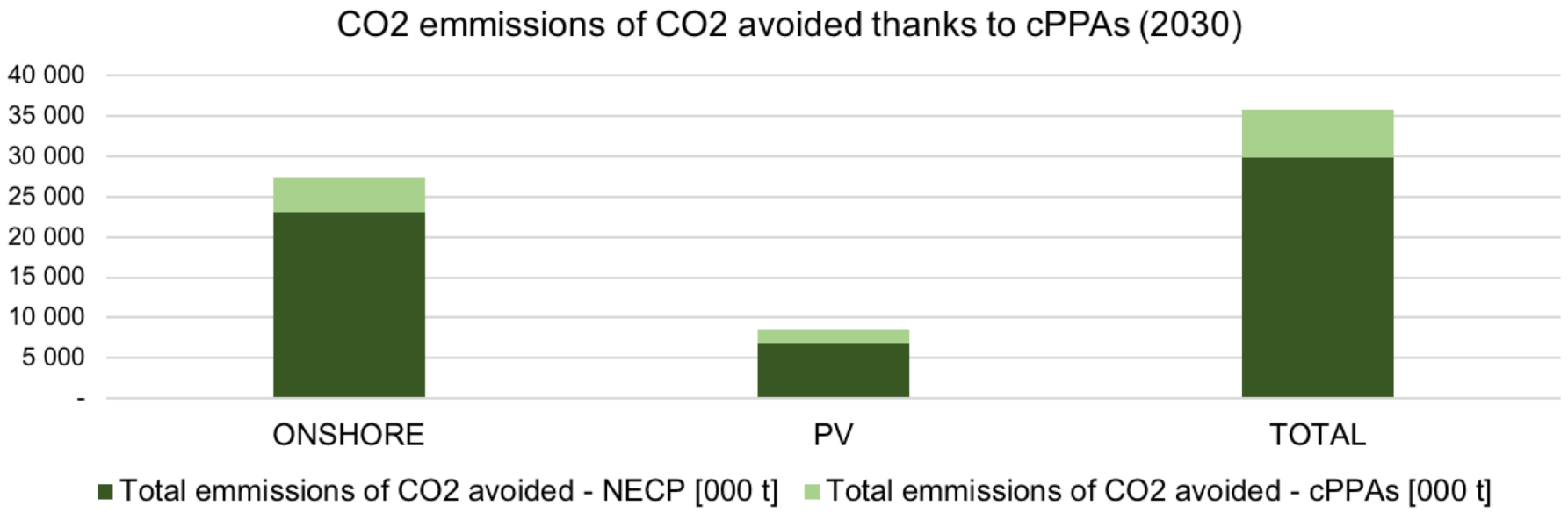
Corporate PPAs as an additional opportunity



Out of the 30 TWh of electricity per year used by energy-intensive businesses, it is assumed 20% could be balanced within their internal grids.
This would allow an extra 1.4 GW and 1.8 GW of capacity to be added to onshore wind and PV, respectively.

Similarly, the additional production from cPPA-backed onshore wind and PV will result in additional CO2 emmissions avoided of nearly 6 thousand tonnes a year in excess of the 29.8 kt stemming from the NECP.

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Wind of change…

PGE GROUP – largest Polish energy concern – aims to phase out call before 2050

„Over the years we repeated to ourselves and to the world that we cannot afford to develop renewables. Now we can say, we cannot afford not to invest in RES”

Monika Morawiecka, President of the Board at PGE Baltica

Director for Strategic Development at the PGE Group 2010-2019

Source: www.biznesalert.pl 04.06.2020

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