



# Strategy Directions



**ZE PAK SA**

Poland's Clean Energy

# MAIN REASONS OF ZE PAK TRANSFORMATION



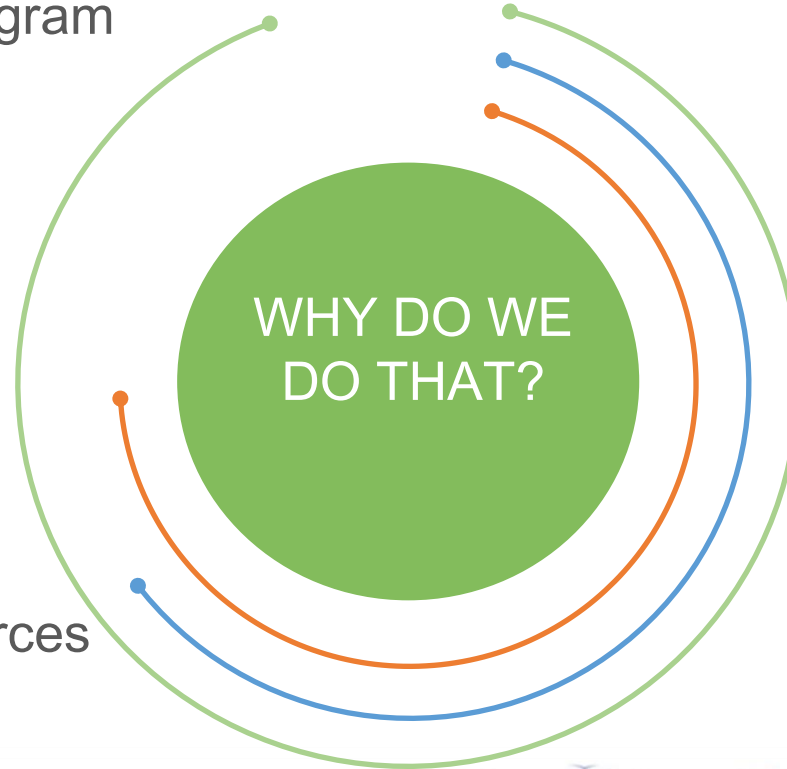
„CLEAN POLAND” program



possibility to support transformation with funds from the Just Transition Fund



running out of coal resources



world trends



image



innovative technologies





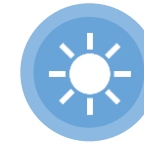
own, well located land



existing infrastructure



competent resources



good insolation



good wind conditions



## The need of energy transformation in Poland

- Full determination to implement the EU climate policy
- ZE PAK is ready for a quick transformation towards green energy, the need for financial support
- ZE PAK wants to use the support under the Just Transition Mechanism



## An investment in green hydrogen as the fuel of the future

- Green hydrogen offers the potential to decarbonise a number of industries where it is difficult to significantly reduce CO<sub>2</sub> emissions
- As renewable energy production costs decrease, the potential for green hydrogen production will increase
- Hydrogen may contribute to building the energy independence of Poland and Europe, independence from the import of fossil fuels

## STRATEGIC GOAL 1

Energy transformation from coal to RES – from black to green energy.

## STRATEGIC GOAL 2

Europe's first nationwide **full value chain for building a green hydrogen economy** - an investment in the future, CO<sub>2</sub> reduction, clean air and zero-emission fuel of the future..

With the support of EU funds, in particular the Just Transition Mechanism, ZE PAK is prepared for the fast transformation path from coal to renewable energy.

The strategic goals will be realized on the foundation of just transition, decarbonisation and advanced technologies.



„An important element of the Green Deal is the commitment *to make the transition socially fair and that no region is left behind. (...)*  
*Such a transformation cannot take place if it is not approved by the inhabitants*”

*Frans Timmermans - Vice-President of the European Commission*

## ZE PAK IN NUMBERS (2019)



EMPLOYMENT: **4 611** employees



ANNUAL TAXES: PLN **597.5** m



ADDED VALUE (≈GDP): PLN **887.7** m



ELECTRICITY PRODUCTION: **5.7** TWh net

## SOCIAL IMPACT

**23**  
communes  
in the Greater  
Poland  
voivodship

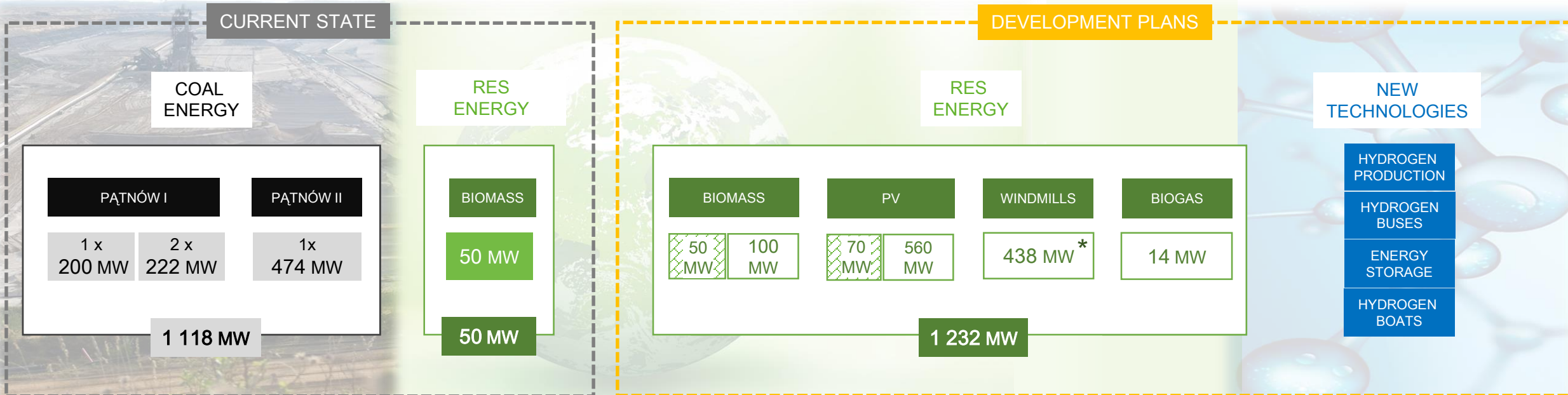
nearly  
**300 thousand**  
inhabitants



Source: [gminy.pl](http://gminy.pl)

**ZE PAK GROUP KEY PARTICIPANT OF THE TRANSFORMATION OF THE EASTERN  
WIELKOPOLSKA REGION TOWARDS EMISSION NEUTRALITY**

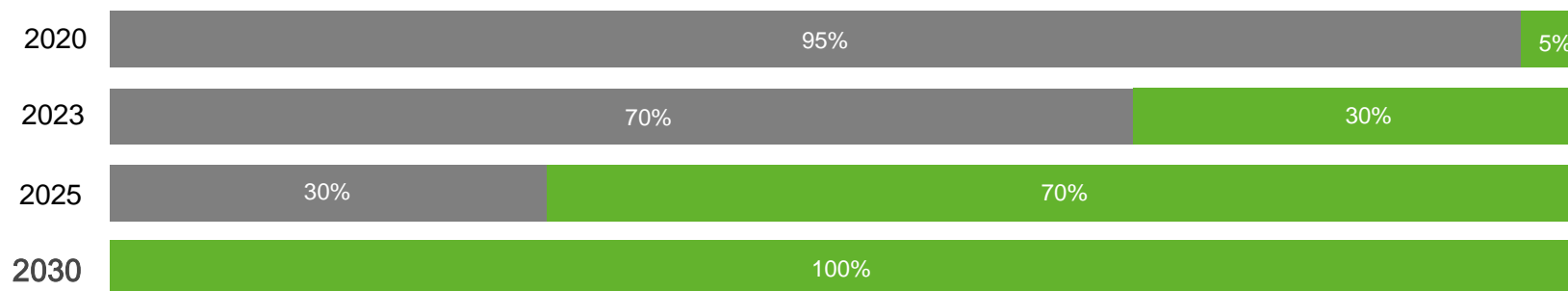
# WHAT DO WE WANT TO ACHIEVE?



\* Assuming regulatory changes (a.k.a 10H)

structure of installed capacity by fuel type

COAL



RES



# TRANSFORMATION TOWARDS CLEAN POLAND

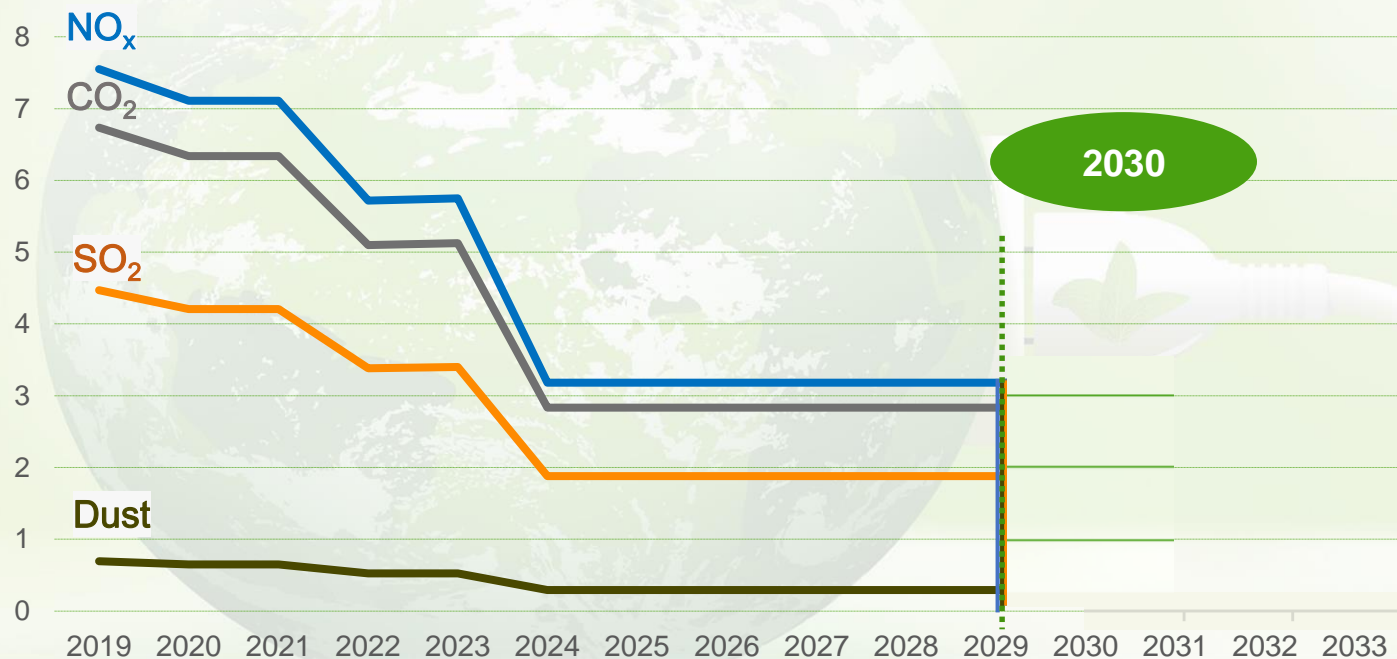


\* assuming the economic efficiency of exploitation of these assets

# EMISSION NEUTRALITY AFTER 2029



### Total emission related to electricity production in ZE PAK



— CO2 emission (m tons)    — SO2 emission (thousand tons)    — NOx emission (thousand tons)    — Dust emission (thousand tons)

from 2030 r.

0 emission



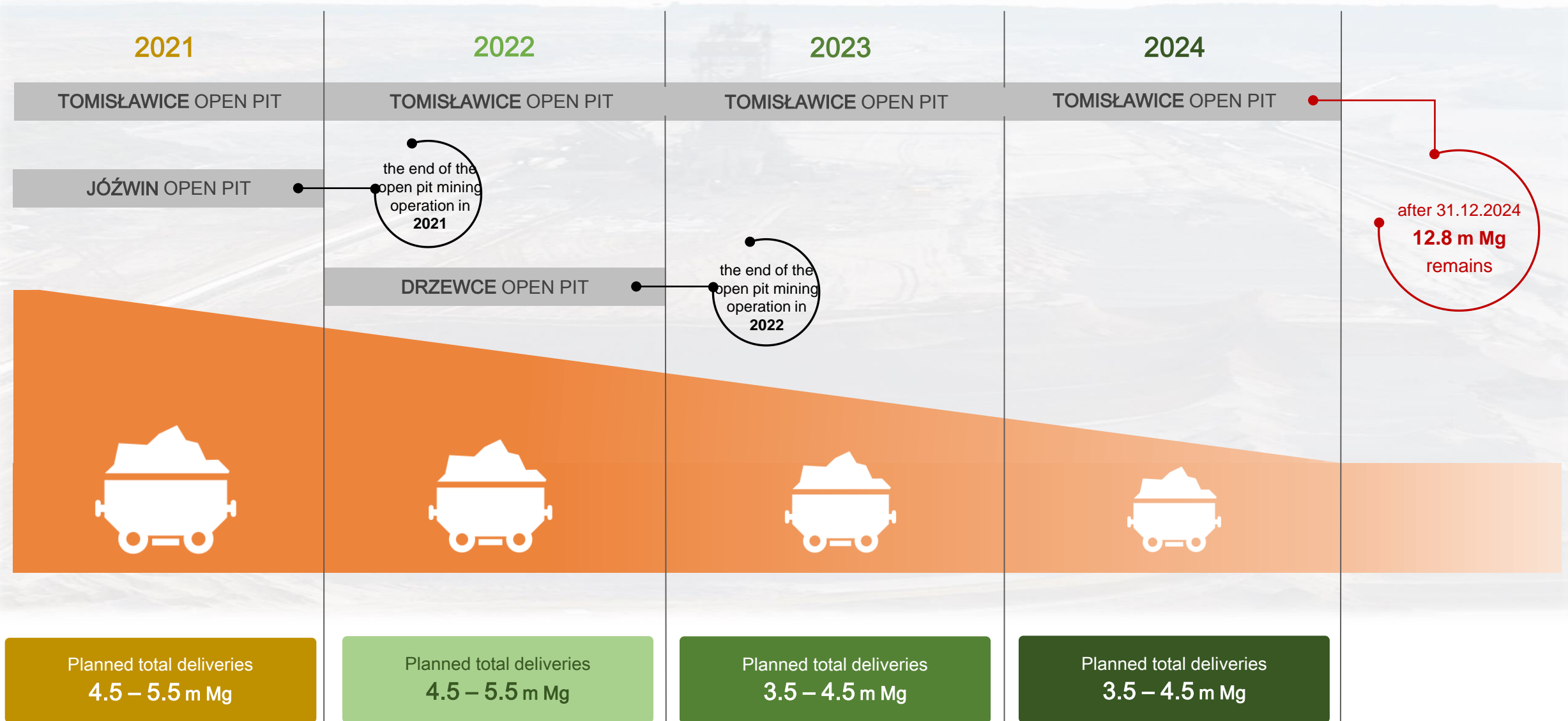
Related to  
Electricity production

We are ahead of the  
goal of European Union  
climate neutrality (2050)

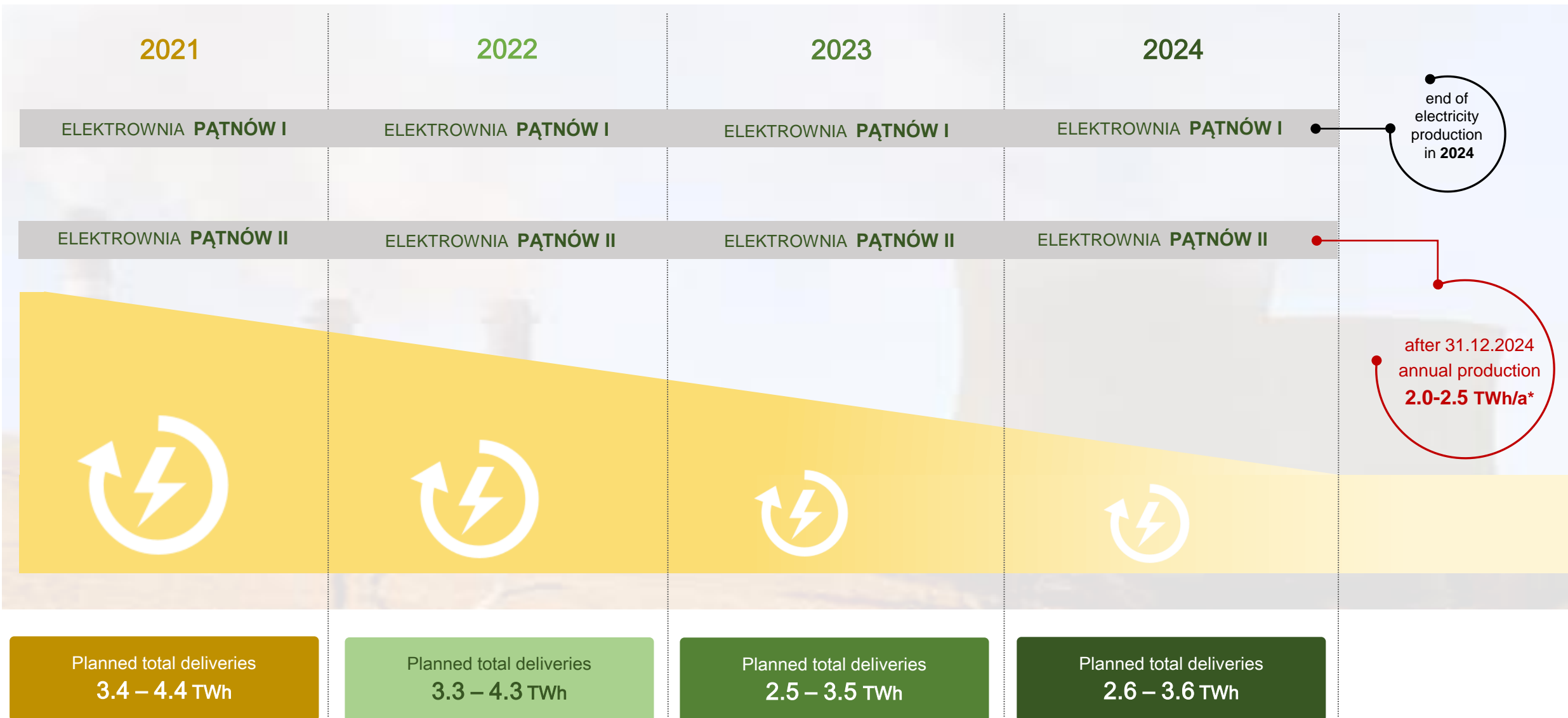
by 20 years



# COAL MINING SEGMENT IN THE PERSPECTIVE OF 2024



# COAL ENERGY GENERATION SEGMENT IN THE PERSPECTIVE OF 2024

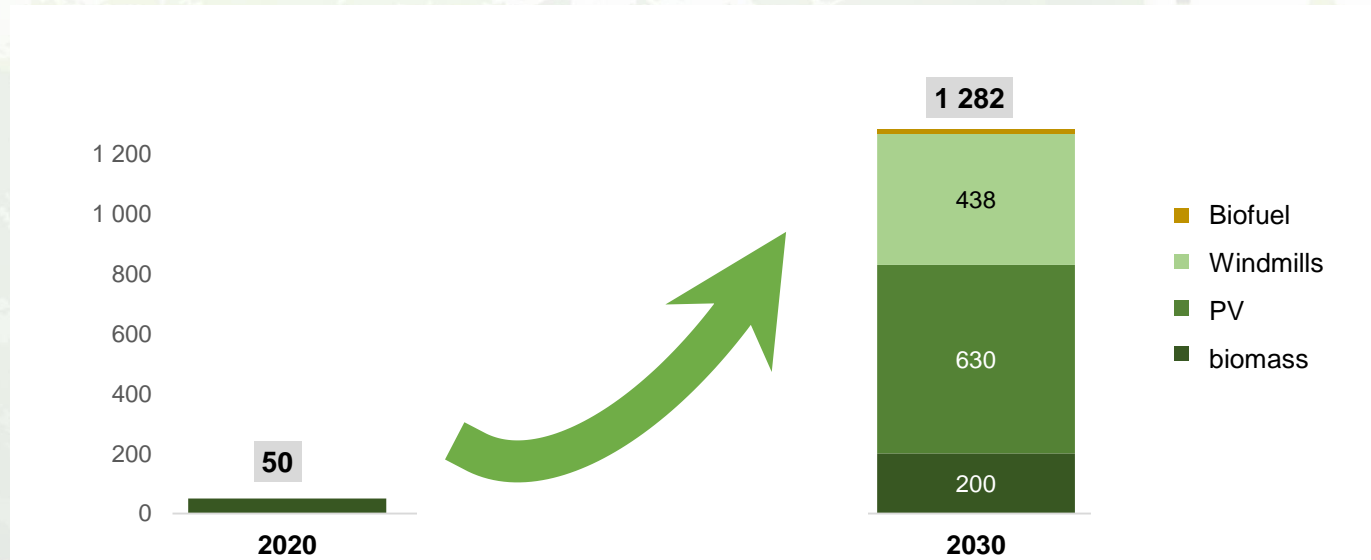
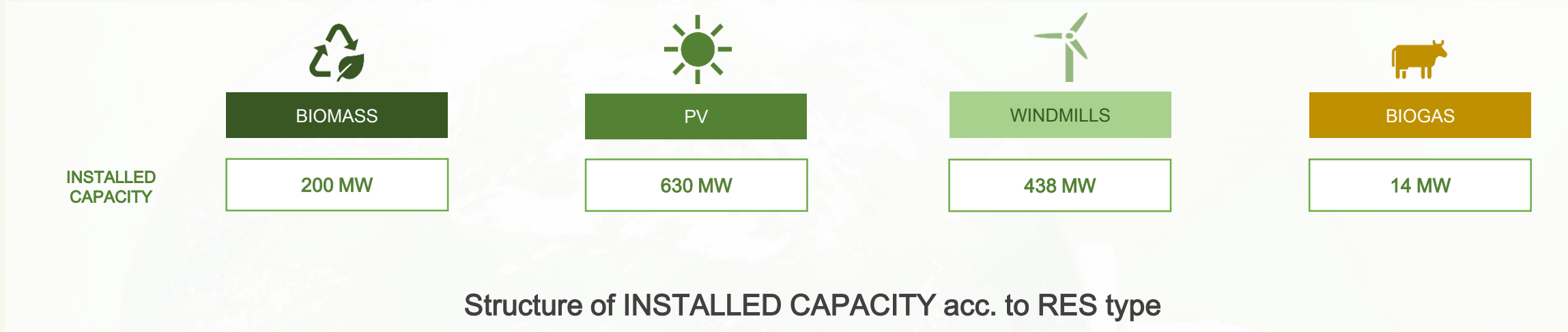


\* assuming the economic efficiency of exploitation of these assets

## DEPENDENT STRUCTURE WITHIN ZE PAK CAPITAL GROUP



# GREEN ENERGY DEVELOPMENT PLANS







**Energia**  
dla Ciebie