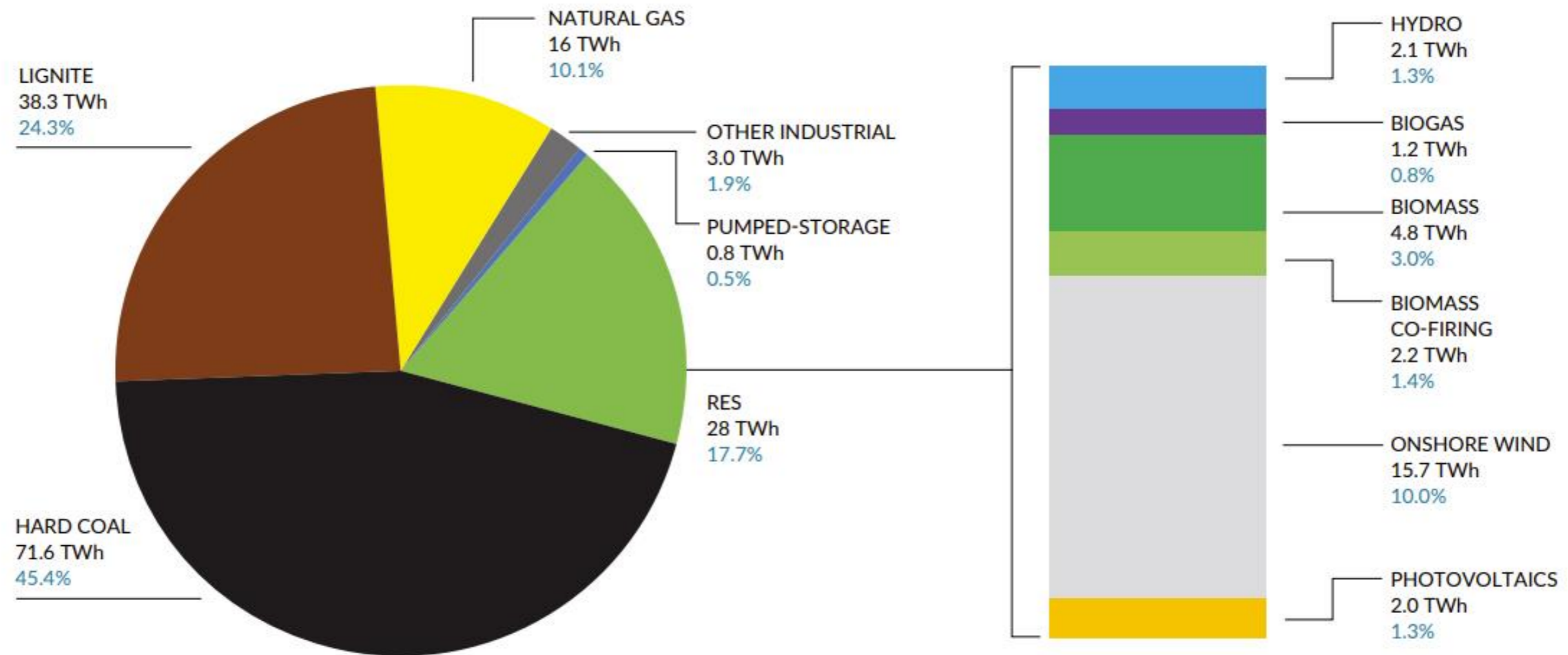




# 10 steps to recover from the crisis

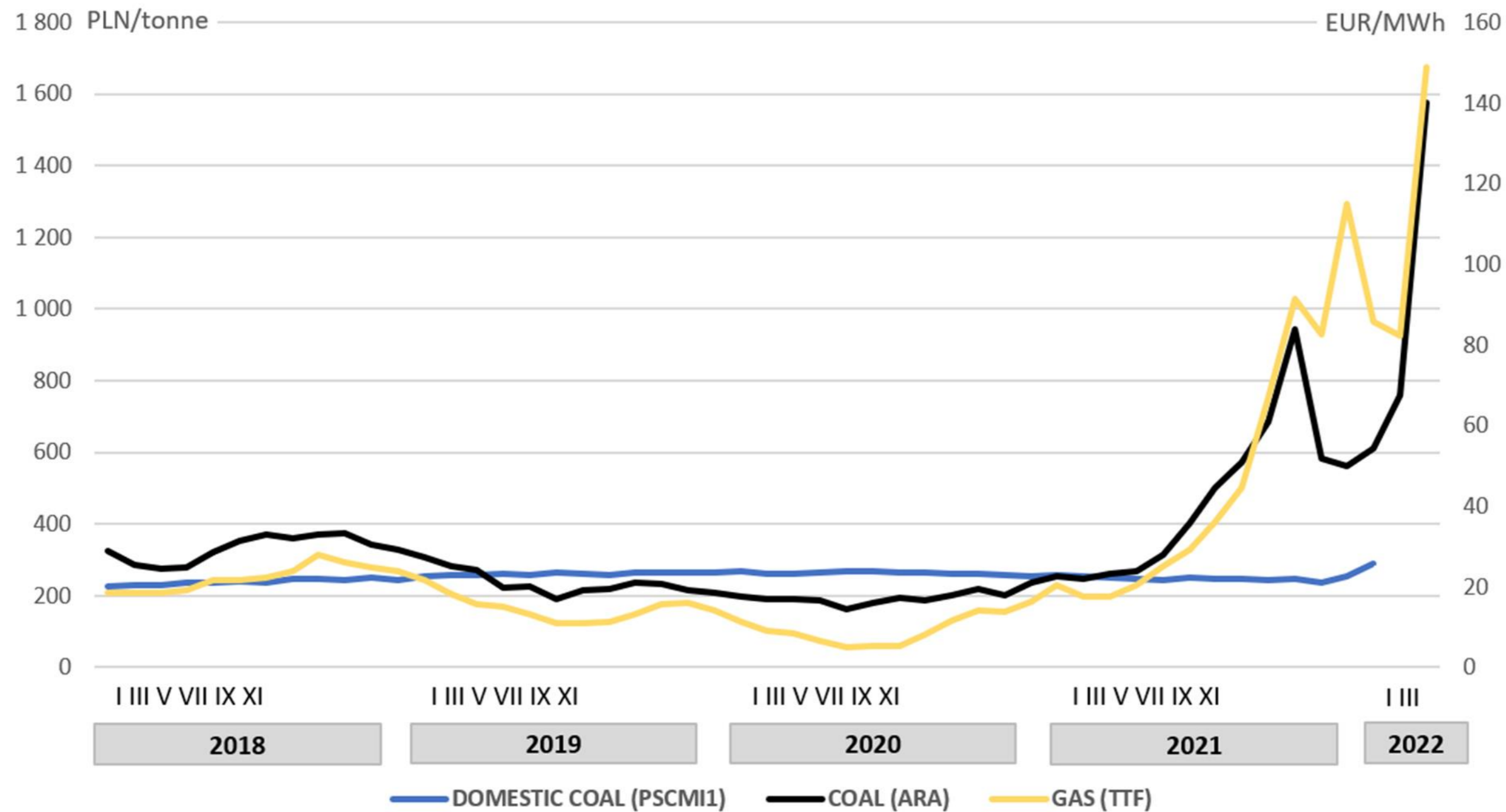
Joanna Maćkowiak Pandera PhD

# Overview - Poland



Source: based on data of ARE

# Commodity prices - global military and energy crisis

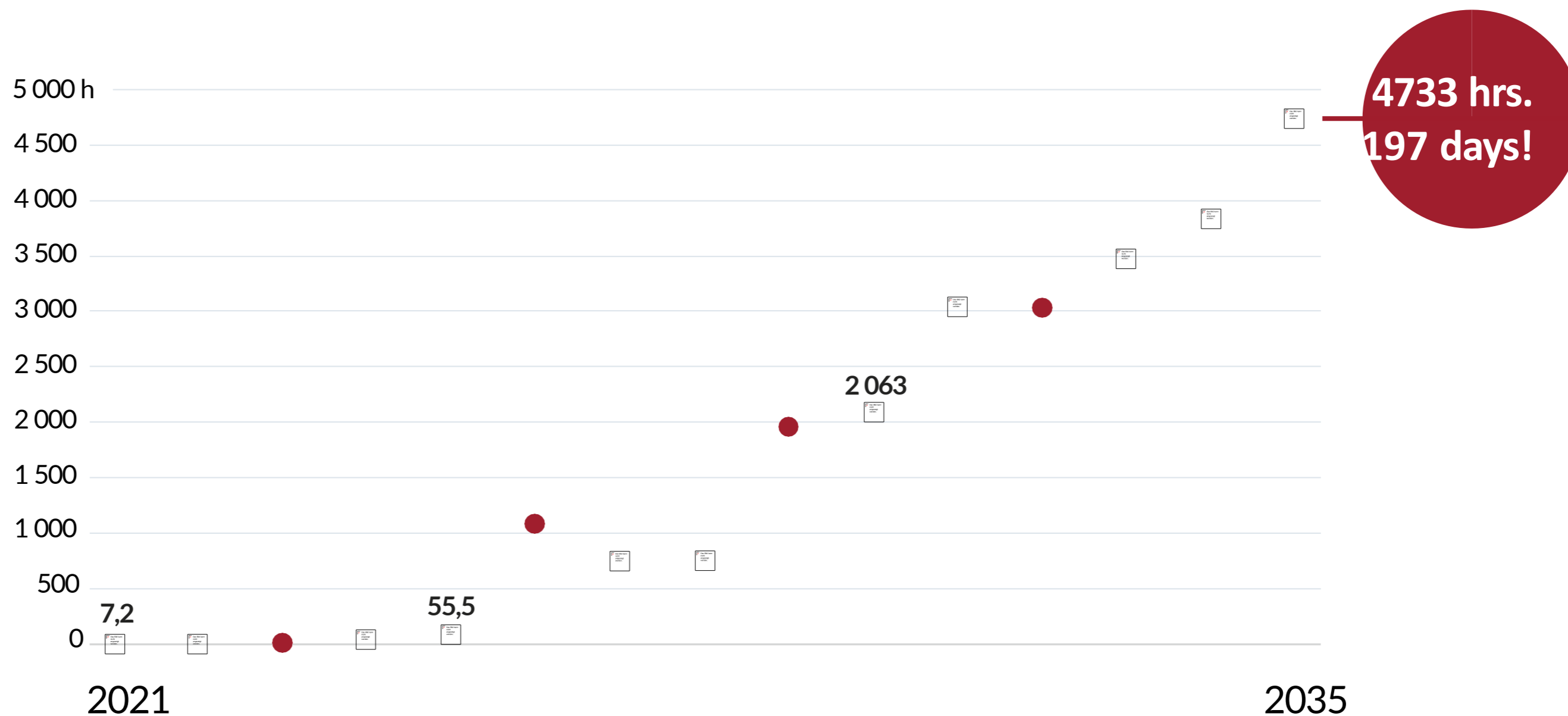




# CO2 price



# Domestic crisis - duration of power deficits



## Loss of Load Expectation (LOLE)

Note: pessimistic scenario considering no replacement of nJWCD thermal capacity, average values

Source: Ministry of Climate and Environment, Report on the results of the monitoring of the security of electricity supply, 2021

# Steps to recovering from the energy crisis

# Step 1

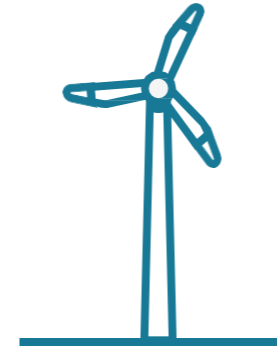
## RES strategy and grids - 2030 perspective

To achieve this we need to provide in the system:

**50%**



**6 GW**  
Offshore



**16 GW**  
Onshore



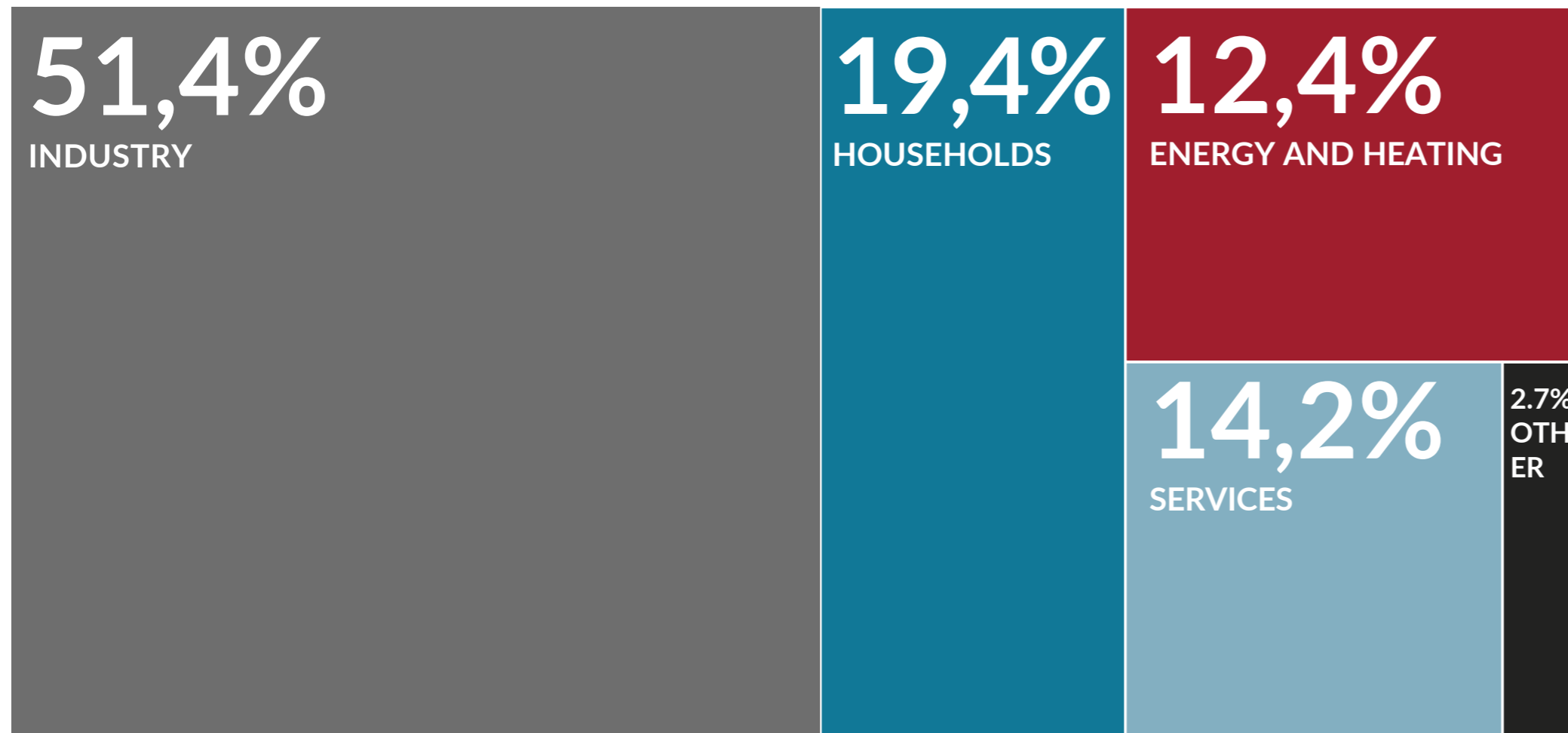
**16 GW**  
Photovoltaics



**2 GW**  
Other RES

## Step 2

# Strategy for gas



**Gas consumption in 2020.**

Note: the OTHER category includes transportation and agriculture, among others. Source: Aurora Energy Research

- With the attack of Russia on Ukraine - gas has lost the status of the transition fuel.
- Poland needs to phase out both: coal and gas
- Various sectors of the Polish economy compete for gas.
- Directing gas where there are currently no alternatives.
- In parallel, support the development of green hydrogen, biomethane.
- Transmission Infrastructure Planning.



## Step 3

### A plan to move away from coal

The plan should include:

- Striving for climate neutrality.
- Support for residents of mining regions.
- Energy Pricing.
- The costs of various scenarios and the feasibility of pursuing them given the increasing pressures.

**2035**

**latest**



## Step 5

# Modifications to the power market

- Capacity market should become the clean capacity mechanism
- Improving flexibility to allow for higher share of RES



## Step 5

Plans to build a nuclear power plant within a realistic time frame and financial framework

- It takes at least 15 years to build.
- Unrealistic plans are a threat to Poland's energy security.
- Costs versus other technologies
- Ability of the technology provider to deliver project on time and within budget

