

Energy policy of Poland...


- ... is consistent with the energy policy of the European Union and its objectives.
- ... answers on the main challenges facing the Polish energy sector.





Survey of energy scenarios




- Updated forecast for energy and fuel demand until 2030 [for the purpose of National Atomic Energy Program]
 - Poland: Reference Scenario 2013, National Technical University of Athens for European Commission
 - Poland economy's demand forecast for hard coal and lignite as resource for heat and power sector by 2050
 - Forecast for energy and fuel demand until 2050 – impact assessment for based on goal of draft energy policy
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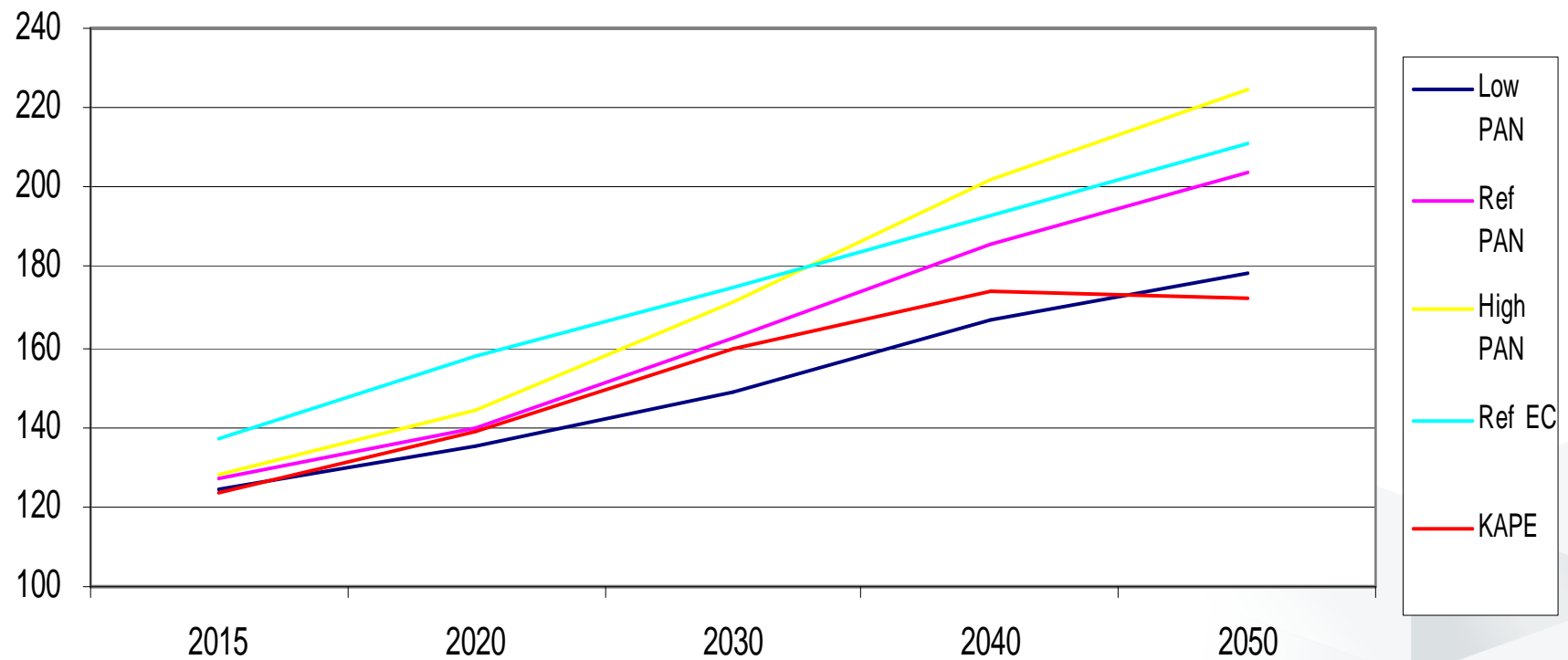
Main Goal of the Energy Policy



Creation of conditions for consistency and sustainability of the energy sector, contributing to development of national economy, assuring energy security of the state and fulfilment of energy needs of enterprises and households.



Electricity demand (TWh)* according to various scenarios



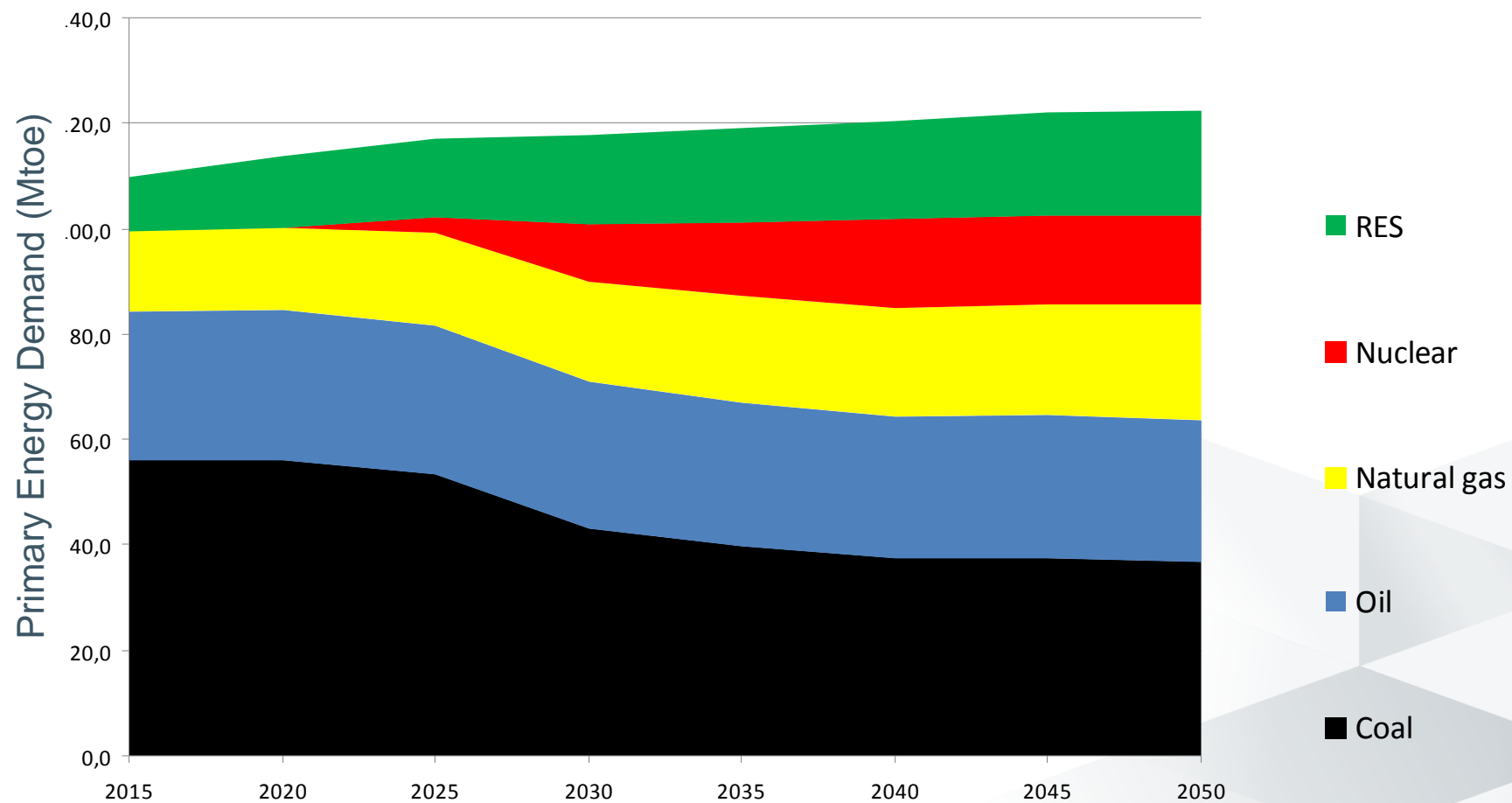
* Based on internal calculations.

Prices for CO₂ emissions allowances (EUR/t) according to various scenarios

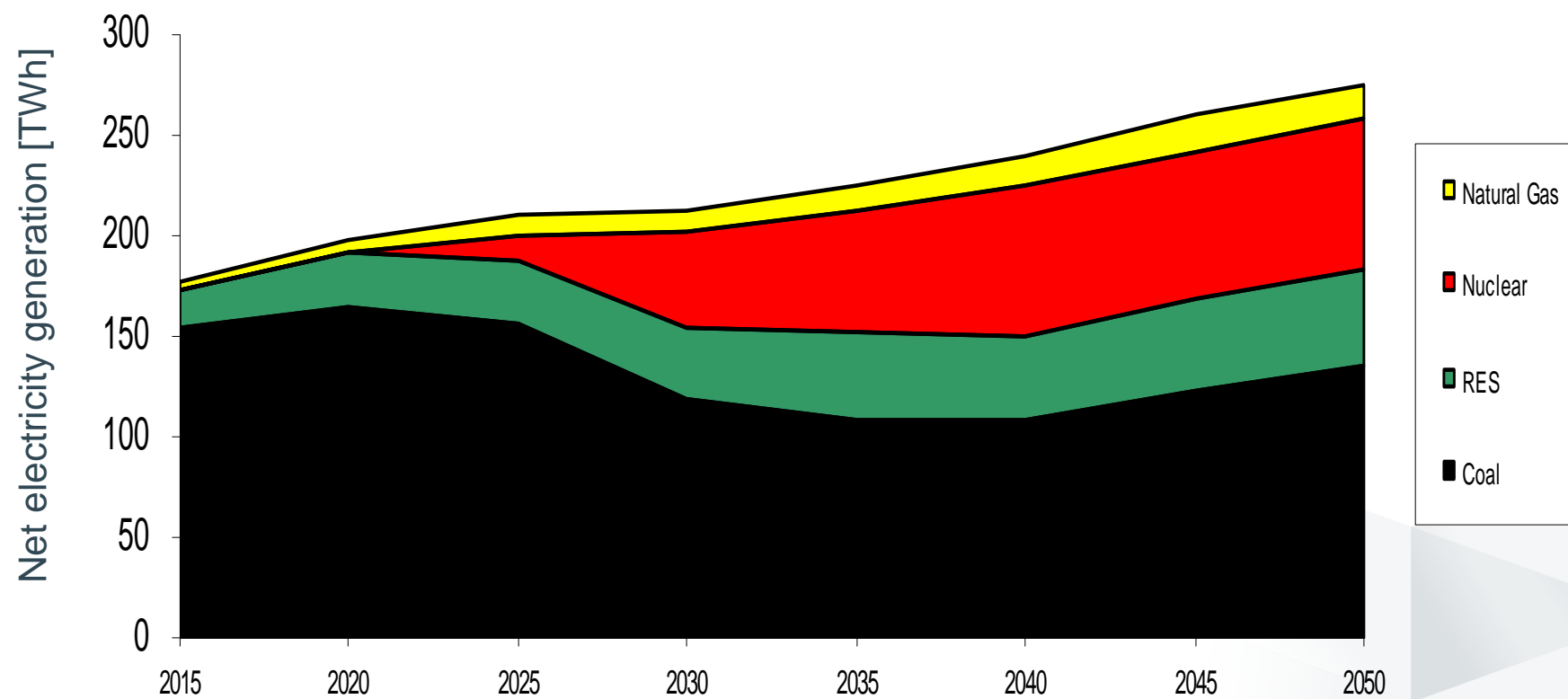
Scenario /year	2015	2020	2025	2030	2035	2040	2045	2050
Ref PAN	10,25	15,5	15,5	17,5	18,5	19,5	20,5	21,75
High PAN	10,25	15,5	23,75	33	41,25	50,5	51,5	52,5
Reference Scenario KE	5,0	10,0	14,0	35,0	57,0	78,0	90,0	100,0
KAPE S.A.	7,5	13	20	25	30	35	40	45

* Internal calculations.

Primary Energy Demand (Mtoe) EC Reference Scenario for Poland

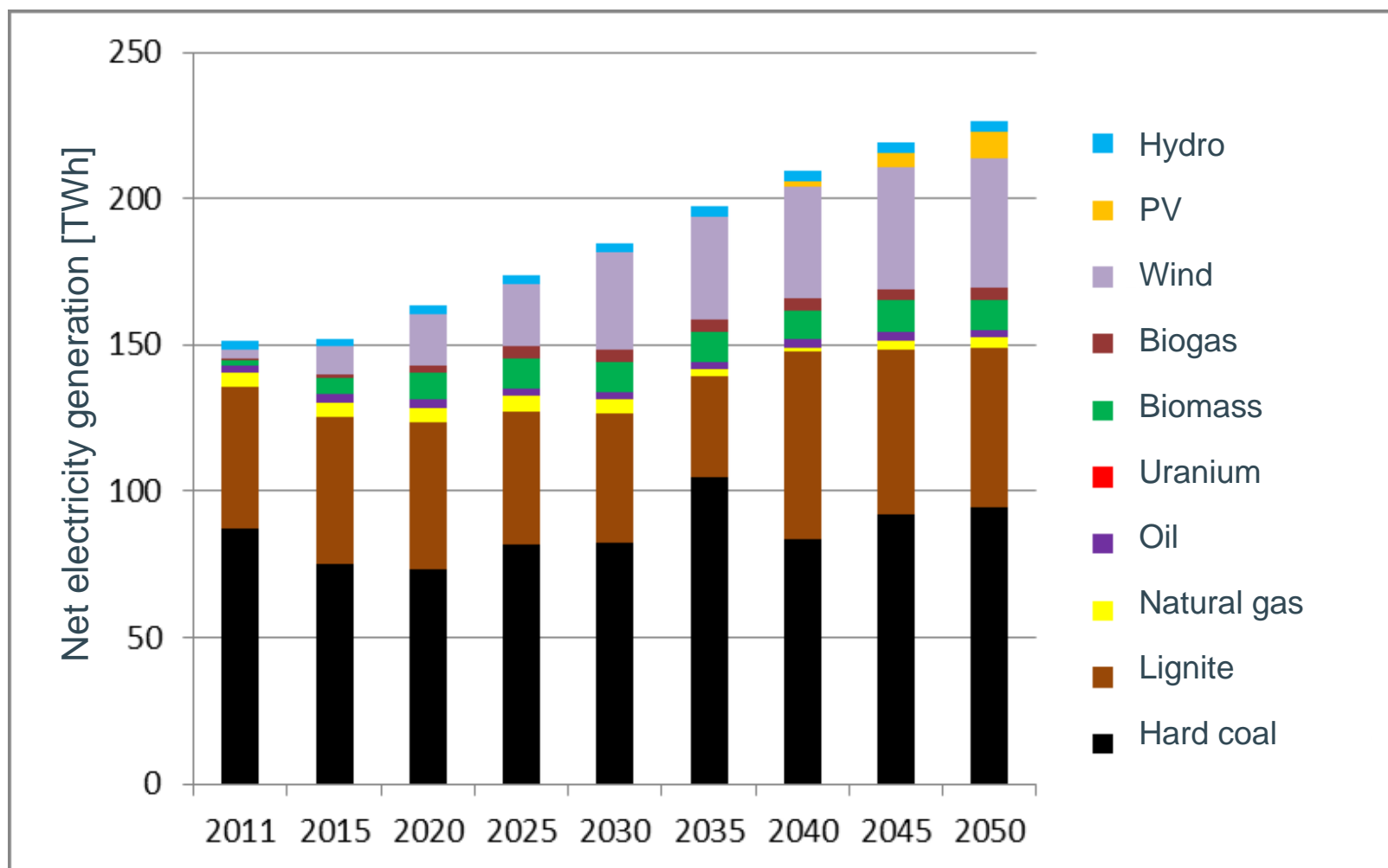


Electricity Generation (TWh) EC Reference Scenario for Poland



Electricity Generation (TWh), Reference Scenario

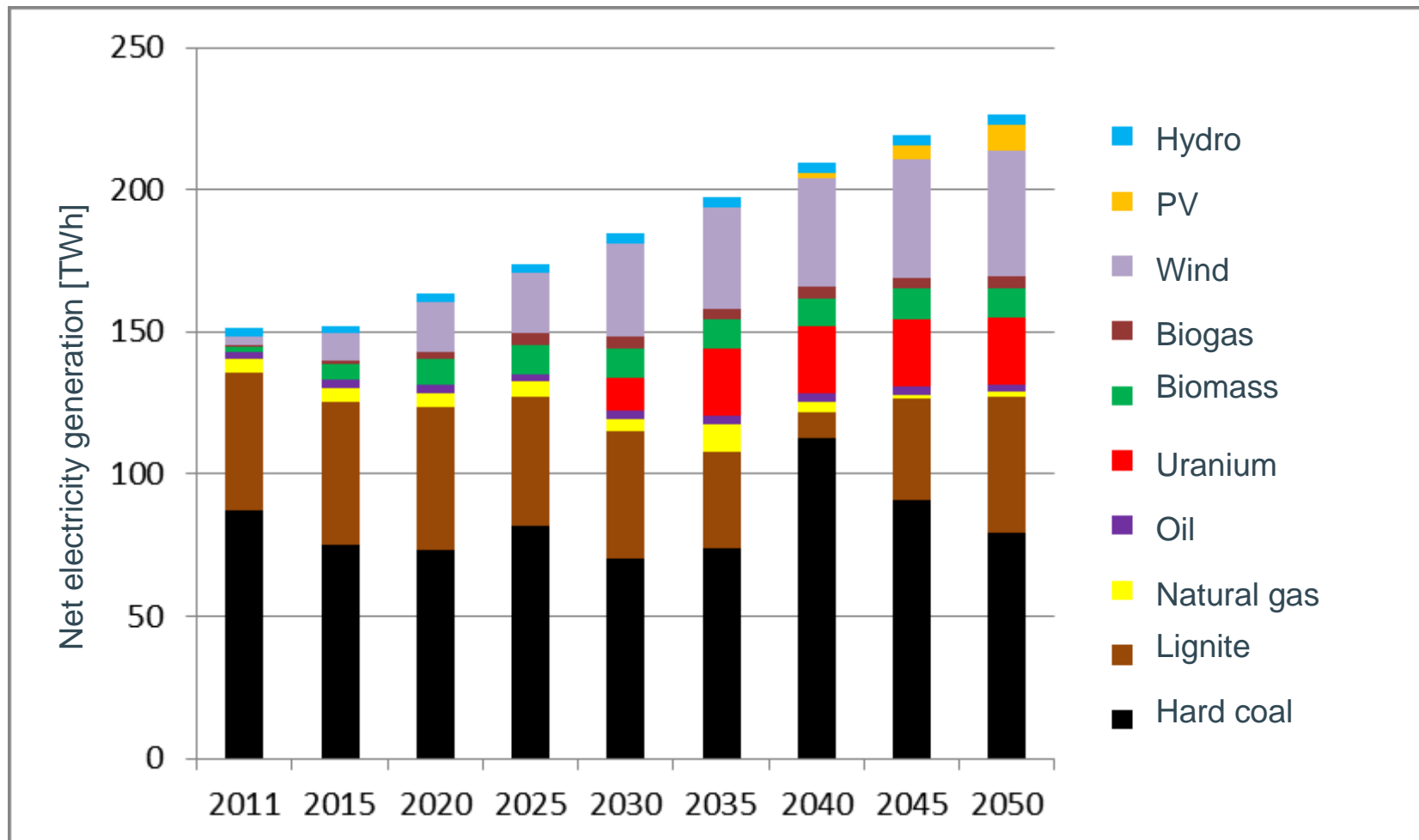
Poland economy's demand forecast... by 2050



Electricity Generation (TWh)

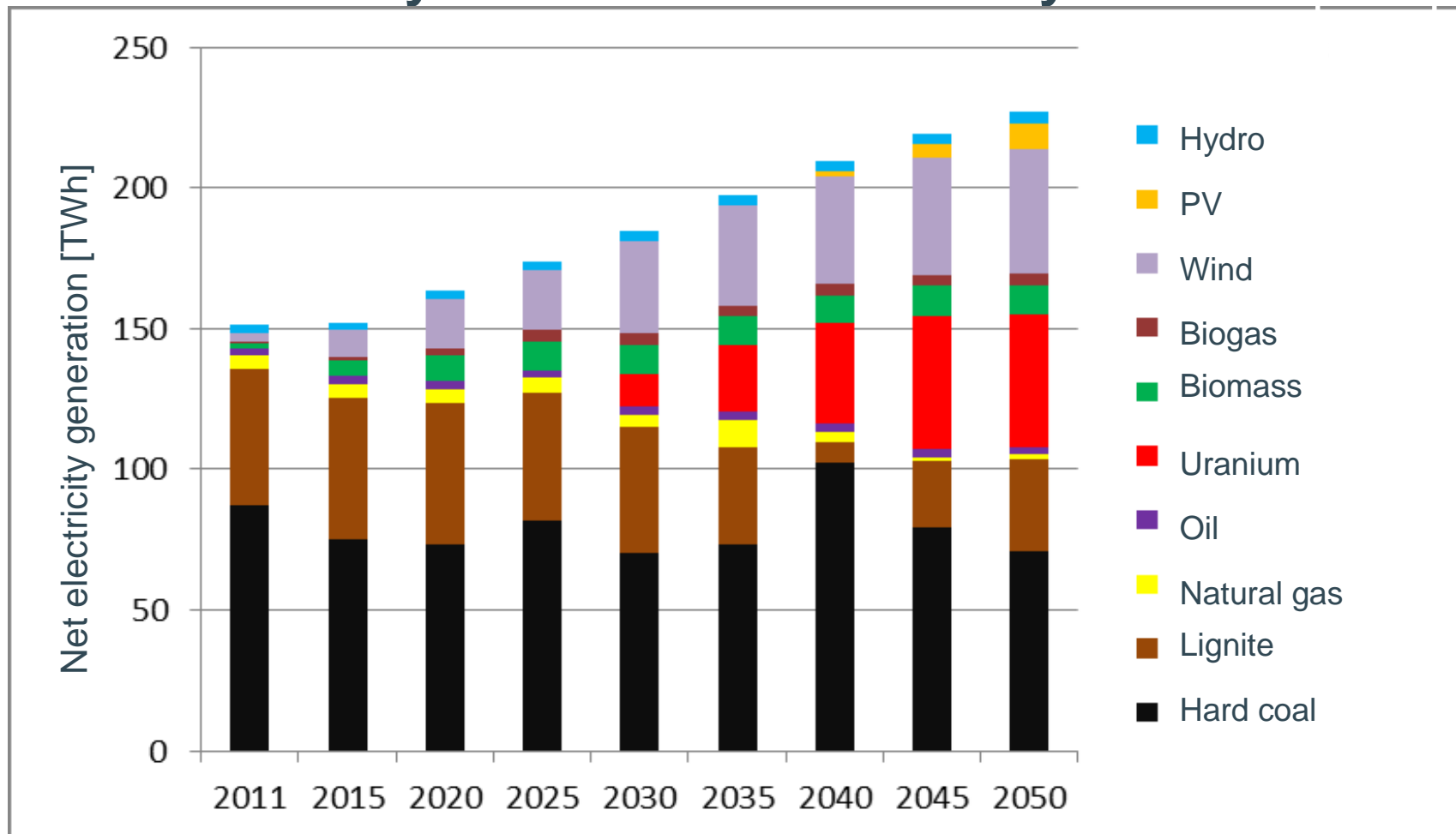
High CO₂ emission allowances prices scenario

Poland economy's demand forecast... by 2050



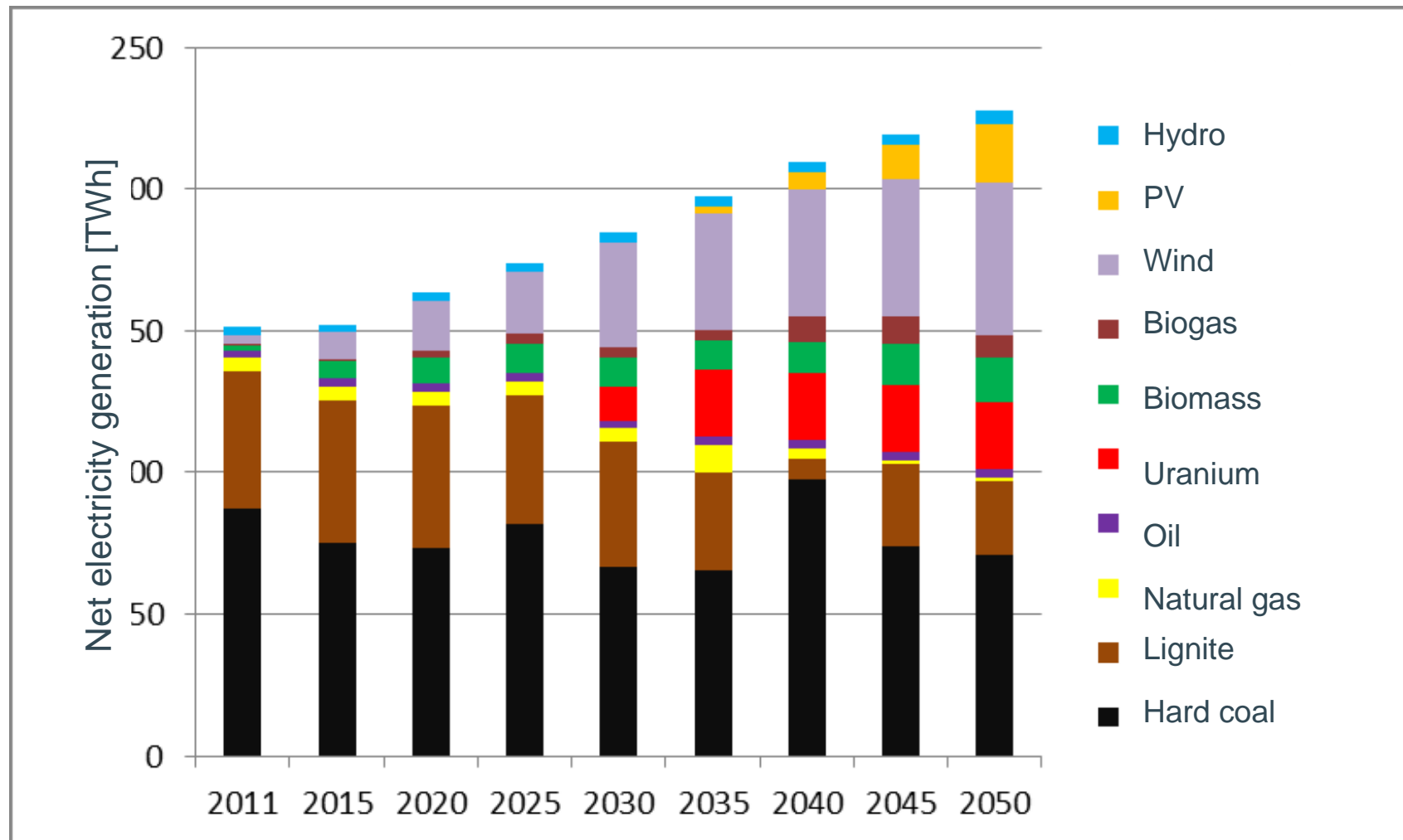
Electricity Generation (TWh), Atomic Scenario (max. capacity)

Pol economy's demand forecast... by 2050



Electricity generation (TWh), RES scenario

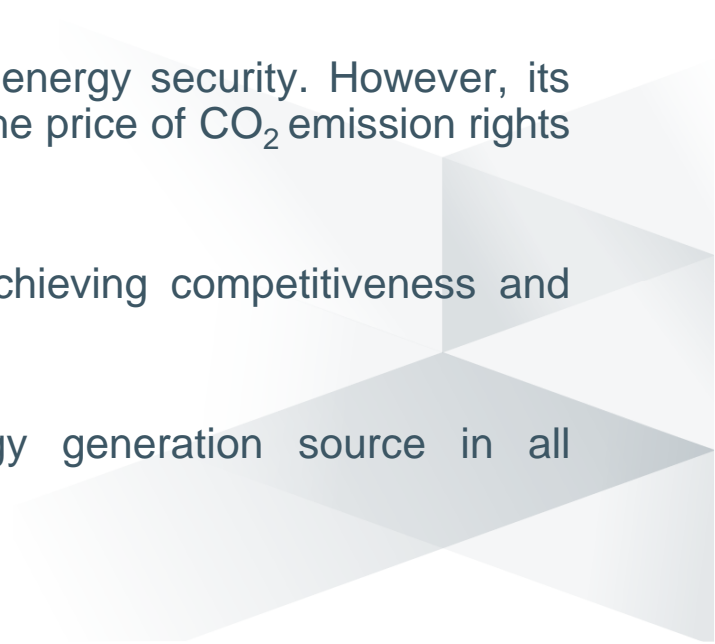
Poland economy's demand forecast... by 2050





Conclusions on survey of energy scenarios




- Increasing demand for primary energy and for electricity
 - Main factor shaping the energy mix will be the price of CO₂ emission rights
 - Price levels of CO₂ emission rights will define in particular:
 - cost effectiveness of replacement of generation capacity for new highly-efficient units
 - percentage of participation of gas and RES in the energy mix
 - competitiveness of nuclear energy
 - Coal will remain the key component of Poland's energy security. However, its share of energy mix will decrease in relation with the price of CO₂ emission rights and global fuel prices
 - The role of RES will depend in particular on achieving competitiveness and economic maturity
 - Nuclear energy is economically proven energy generation source in all considered scenarios
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Policy directions




- Energy efficiency will remain the priority of the energy policy;
 - Hard coal and lignite will remain basic fuels for power generation sector;
 - Natural gas will play its role as a fuel for industry and resource for peak demand generation capacity, also as reserve capacity for RES;
 - Its role will be determined in particular by the level of CO₂ emission rights' prices and conditions and costs of extraction of unconventional deposits;
 - The role of RES will increase with implementation of respective EU policy but further development of RES will depend on achieving economic and technological maturity;
 - National Atomic Energy Program will be implemented to already envisaged extent
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Policy Dilemmas



1. Position on EU Climate and Energy Policy Goals until 2030
 2. Consistent implementation of the National Atomic Energy Program
 3. Mechanism aiming at decreasing investment risks for new generation capacity
 4. Restructurisation processes in the coal mining sector
 5. Assuring access to lignite coal deposits
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Thank you for your attention.

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