

Energy Policy of Poland until 2030











Energy policy of Poland...

 ... is consistent with the energy policy of the European Union and its objectives.



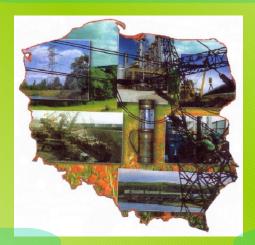
 ... answers on the main challenges facing the Polish energy sector.



Main challenges for energy policy

High demand for final energy

Inadequate generation and transmission infrastructure



Significant dependence on external supplies of natural gas

Commitments on environment and climate protection compel us to take decisive actions

Almost full dependence on external supplies of crude oil



Priorities of Polish energy policy

Reducing environmental impact of the energy sector

Development
of competitive fuel
and energy markets

Improving energy efficiency

PEP 2030

Development
of the use of renewable
energy sources (RES),
incl. bio-fuels

Enhanced security of fuel and energy supplies

Diversification
of the electricity
generation structure
by introducing
nuclear energy



Energy efficiency

The main targets:

- To achieve zero-energy economic growth, i.e. economic growth with no extra demand for primary energy
- Reducing the energy intensity of Polish economy to the EU-15 level (in 2005)

The above targets will be realized through:

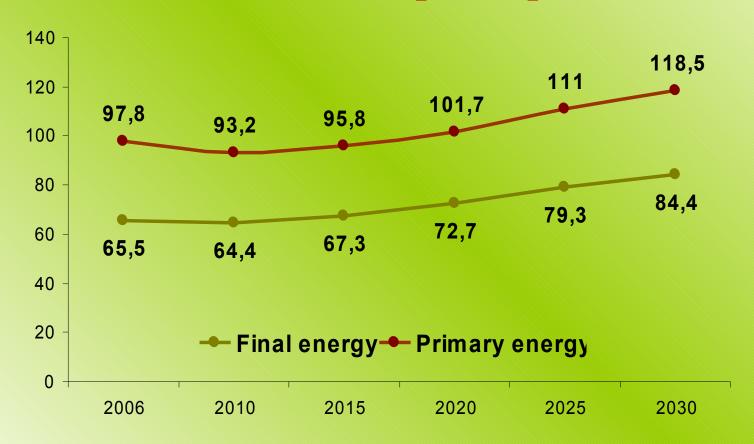
- Reducing energy consumption
- Enhancing the efficiency of generation
- Decreasing transmission losses

Main measures:

- Setting the national energy efficency action plan
- Introducing a mechanism to support for investment in energy saving (white certificates)
- Stimulating development of cogeneration through support mechanisms (yellow and red certificates)
- Introducing energy performance certificates for buildings and apartments
- Model role of public sector in energy saving activities
- Supporting investments and research in new solutions and technologies
- Informational and educational campaigns



The demand for primary and final energy until 2030 [Mtoe]





Energy security

Polish energy security should be based on:

- Domestic energy resources
- Diversification of oil and gas supplies
- Development of electricity generation capacity
- Development of transmission infrastructure



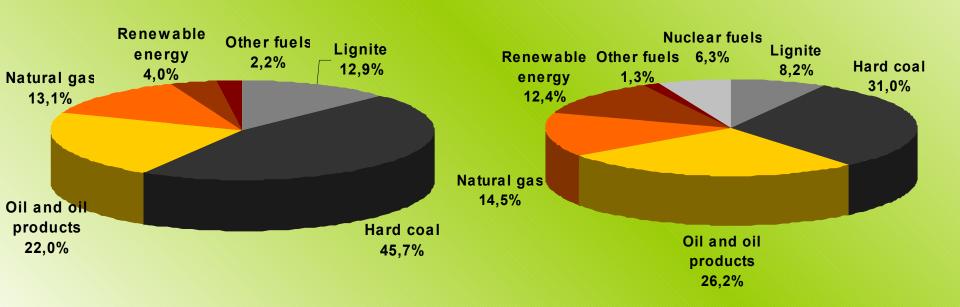
Main measures:

- Retaining sufficient level of mining capacity
- Extending the natural gas and crude oil transmission system and storage capacities
- Reconstruction and reinforcement of the existing power grids
- Construction of new power grids
- Supporting research and development of technologies providing to use coal for liquid and gas fuels production
- Support from European Funds

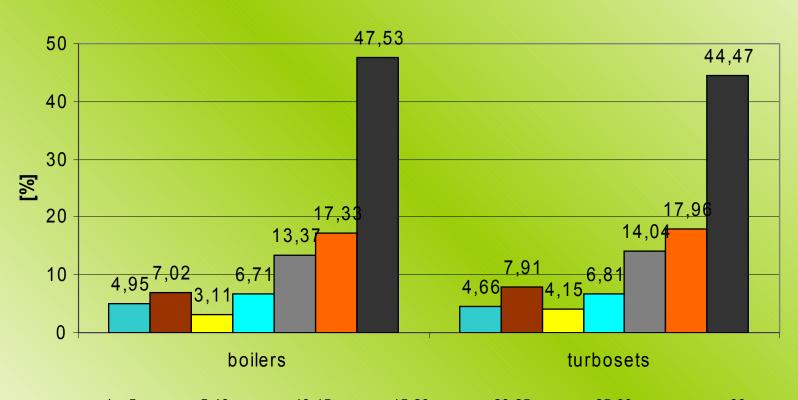


The demand for primary energy by carriers (%)

2009 2030

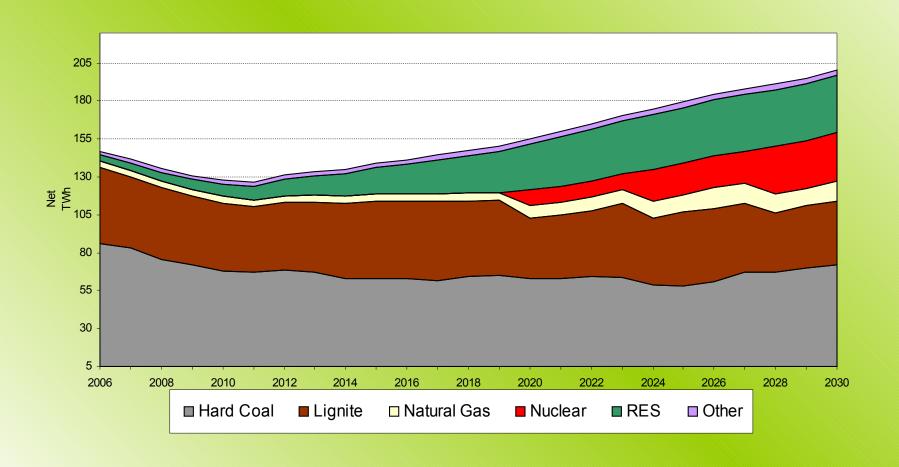


Age structure of electricity generation appliances



□ under 5 years □ 5-10 years □ 10-15 years □ 15-20 years □ 20-25 years □ 25-30 years □ over 30 years

Electricity generation by sources (TWh)





Expected capital expenditure

 Necessary capital expenditure for moderinsation and construction of new electricity sources [bln Euro].

	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2007-2030
Generation subsector*	6.2	11.0	17.3	13.9	14.5	62.9
Transmission and distribution subsector	2.9	5.4	5.7	4.1	3.8	21.9
Total	9.1	16.4	23.0	18.0	18.3	84.8

^{*} Generation subsector contains the system power plants as well as the combinated heat and power plants and local power sources, including renewables.



Nuclear energy

Energy Policy of Poland until 2030 assumes diversification of the electricity generation structure by introducing nuclear energy.

Main objectives:

- preparing infrastructure for nuclear energy,
- ensuring appropriate conditions for investors interested in building and launching nuclear power plants,
- gaining public support for nuclear energy.



Renewable Energy Sources

Main goals:

- 15% share in final energy consumption in 2020
- 10% share of bio fuels in fuel market in 2020



Main measures:

- Additional support mechanism for RES
- Effective use of biomass (agricultural biogas installations, second generation of biofuels)
- Support from European Funds



Development of competitive fuel and energy markets





Reducing the environmental impact of power industry

The main targets:

- Reducing emission of CO₂, SO₂, NO_x and dust
- Development of lowemission technologies



The main actions:

- Development of technologies which reduce the emission of pollutants, ex.: RES, high efficiency cogeneration, nuclear energy
- Development of clean coal technologies, including CCS installations and gasification of coal
 - Use all reasonable efforts to locate in Poland two CCS demonstrative power plants
 - Using the CCS technology to support crude oil and natural gas extraction
 - Intensifying research and development of the CCS technology
- Utilization of methane from mining sector for energy generation

