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Energy efficiency in Poland - selected measures

Energy Policy of Poland until 2030



- Adopted by the Council of Ministers on 10th November 2009
- Includes:
 - a long-term strategy for energy sector,
 - forecasts for fuel and energy demand and
 - program of implementation activities until 2012.

The policy specifies six basic directions for the development of the Polish energy sector.

1. **To improve energy efficiency.**
2. **To enhance security of fuel and energy supplies.**
3. **To diversify the electricity generation structure by introducing nuclear energy.**
4. **To develop the use of renewable energy sources, including bio-fuels.**
5. **To develop competitive fuel and energy markets.**
6. **To reduce the environmental impact of the power industry.**

Energy efficiency

The main targets:

- To make efforts to achieve development of Polish economy without increase in primary energy demand
- Decreasing the energy intensity of Polish economy to the EU-15 level (in 2005).

The main activities:

- **Act on energy efficiency** implements a **system of white certificates** which is guaranteeing financial benefits for the entities achieving the highest energy savings (implementation of Energy Services Directive 2006/32/EC, (ESD)).
- Stimulation of the development of **high efficiency cogeneration**, smart metering, support investments in energy saving and scientific research.
- Financial support and programmes – e.g. **Thermomodernisation Fund, Priority programmes of National Fund for Environmental Protection and Water Management** .



Energy Efficiency Act



- adopted by the Parliament on 15 April 2011
- in force since 11 August 2011

- Defines national energy efficiency target,
- Imposes tasks on public sector,
- Introduces **white certificate** system as a market based mechanism favouring enhancement of energy efficiency measures.
- Introduces rules for drawing up the energy efficiency audit.

Energy Efficiency Act (2)



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Energy savings of 9% of the annual average amount of final energy consumption from the period 2001–2005 by 2016 is **53,452 GWh** (**4.5 Mtoe**) in the sectors not covered by the EU-ETS.

Projects in a field of energy efficiency financed by the National Fund for Environmental Protection and Water Management (NGOSiGW)	<u>~ 0,7 Mtoe</u>	Estimation by NFOSiGW
Thermo-modernisation Fund	<u>~ 0,2 Mtoe</u>	Estimation by the Polish National Energy Conservation Agency
„Soft” measures i.e. informational campaigns, information of energy bill	<u>~ 1, 5 Mtoe</u>	Estimation by Ministry of Finance
White certificate system	<u>~ 2,2 Mtoe</u>	Estimation by Ministry of Economy

White certificate system



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Energy companies selling electricity, heat or gas to the final users on the territory of the Republic of Poland from 1 January 2013 are obliged to gain a certain number of certificates in order to present them to the Energy Regulation Office and have them amortised.

Above mentioned entities are obligated to:

- Receive and present for redemption white certificates to the President of Energy Regulatory Office (ERO), or
 - Pay a substitute fee accordingly to the number of missing white certificates.
- The companies which do not receive the certificates need to pay substitute fee of PLN 1000 per toe.

white certificates obtained for:

- reduction of energy consumption by end users (at least 80%),
- reduction of energy used by generators for their own purposes (10%),
- reduction of energy transmission and distribution losses (10%).

White Certificates will be traded at Power Exchange.

MoE is responsible for monitoring level of compliance with national energy efficiency target.

Measures to improve energy efficiency

Energy efficiency improvement measures:

- 1) Heat insulation of systems;
- 2) Buildings thermomodernisation;
- 3) Modernization of:
 - a) home use devices,
 - b) lighting,
 - c) own use equipment,
 - d) facilities and systems of industrial processes,
 - e) local heating networks and local heat sources;
- 4) Energy recovery in industrial processes;
- 5) Limitation of:
 - a) reactive power flows,
 - b) network losses,
 - c) transformers losses.

Deatiled specification is published in Official Journal of the Republic of Poland, Polish Monitor (M.P. 2013, pos.15)

White certificates – tender procedure



The basic rules of the scheme are:

- Investors prepare investments and take part in a tender.
- The tender is organized by President ERO and its goal is to choose the most efficient project from the ones submitted.
- Those who apply with the lowest value of white certificates in energy savings win the tender. They are obligated to realize the project.
- Investors obtain the white certificates for themselves or may sell them.
- Energy companies buy the certificates and can present them to the ERO.

First tender announced on 31 December 2012 - value of available white certificates is 550 000 tons of oil equivalent (toe),

- 440 000 toe - reduction of energy consumption by end users,
- 55 000 toe - reduction of energy used by generators for their own purposes
- 55 000 toe - reduction of energy transmission and distribution losses (electricity, heat and natural gas).
- Entities had 30 days for preparation and sending the offers of projects aiming in improvement of energy efficiency.
- ca. 200 offers submitted
- President of ERO still awaits with the final announcement

WhC system - schedule

2012

- three ordinances of Minister of Economy were issued: on scope and types of audits, on tendering procedure and amount of white certificates for redemption and substitute fee and Promulgation of the Minister of Economy with the detailed list of projects to improve energy efficiency
- call for tender was announced by President of ERO

2013

- imposing the obligation
- results of the first tender for ee undertakings

2014 – settlement of the obligation (redemption or obligation to pay the substitute fee for 2013)

2015 – last year of the obligation for energy companies

Other energy efficiency measures - existing



- Termomodernisation Fund – supports refurbishment projects in buildings.

Between 1999 and 2012: 25 000 applications submitted.

- **PLN 1,42 bln - the total amount of subsidies granted from the state budget**
- **PLN 7,4 bln total volume of investments**

National Fund for Environment Protection and Water Management:

Ongoing programmes :

- Energy management in public buildings – thermal renovation of public buildings including heat insulation, replacement of windows, external doors, conversion of heating systems, energy management systems in buildings, use of technology of renewable energy sources. Budget 1 565 mln PLN (ca. 382 mln EUR). Programme runs from 01.01.2010 till 31.12.2014. Beneficiaries: local governments, volunteer fire fighter brigades, universities scientific and research institutes, independent public and non-public health care institutions.
- Efficient Use of Energy - designed for the most energy intensive companies. Programme's threshold: internal energy usage at the level of 20 GWh/a. Grants for energy audits preparation (up to 70% of audit's cost) and loans for financing investments resulting from those audits. Scope of projects: efficient power units, efficient engines, pumps, inverters, internal heat grid, RES. Budget: PLN 820 mln PLN (ca. 200 mln EUR). Conditions: repayment period: 10 years. Programme runs from 01.06.2011 till 31.12.2016.

National Fund for Environment Protection and Water Management:

New programmes from 2013 onwards:

- „The Owl” for improvement of street lighting energy efficiency. Beneficiaries: local governments - grants and loans – total budget 356 mln PLN (ca. 84,6 mln EUR), Implementation period: 2013 – 2015
- „The Gazelle” for reduction of public transportation fuel consumption. Beneficiaries: municipalities, municipal companies, companies providing local transport services based on agreement with a municipality. Grant based financing up to 100% of project eligible costs; the budget of PLN 80 million, Implementation period: 2013 – 2015.
- „The Lemur” – designing and construction of new energy efficient public buildings – grants and loans - budget 300 mln PLN (ca. 73,2 mln EUR); Programme runs from 2013 till 2020. Beneficiaries: local governments, public service utilities, universities scientific and research institutes, undependent public and non-public health care institutions.
- „The Jackdaw” - elimination of low emission sources thru support of energy efficiency and development of dispersed renewable energy sources in municipalities – 100% grants – budget 400 mln PLN (100% grants) ca. 97,5 mln EUR. Programme runs from 2013 till 2018.

New Directive 2012/27/EU on energy efficiency

The objective of the new directive 2012/27/EU on energy efficiency is to close the gap towards the European 20% energy saving target



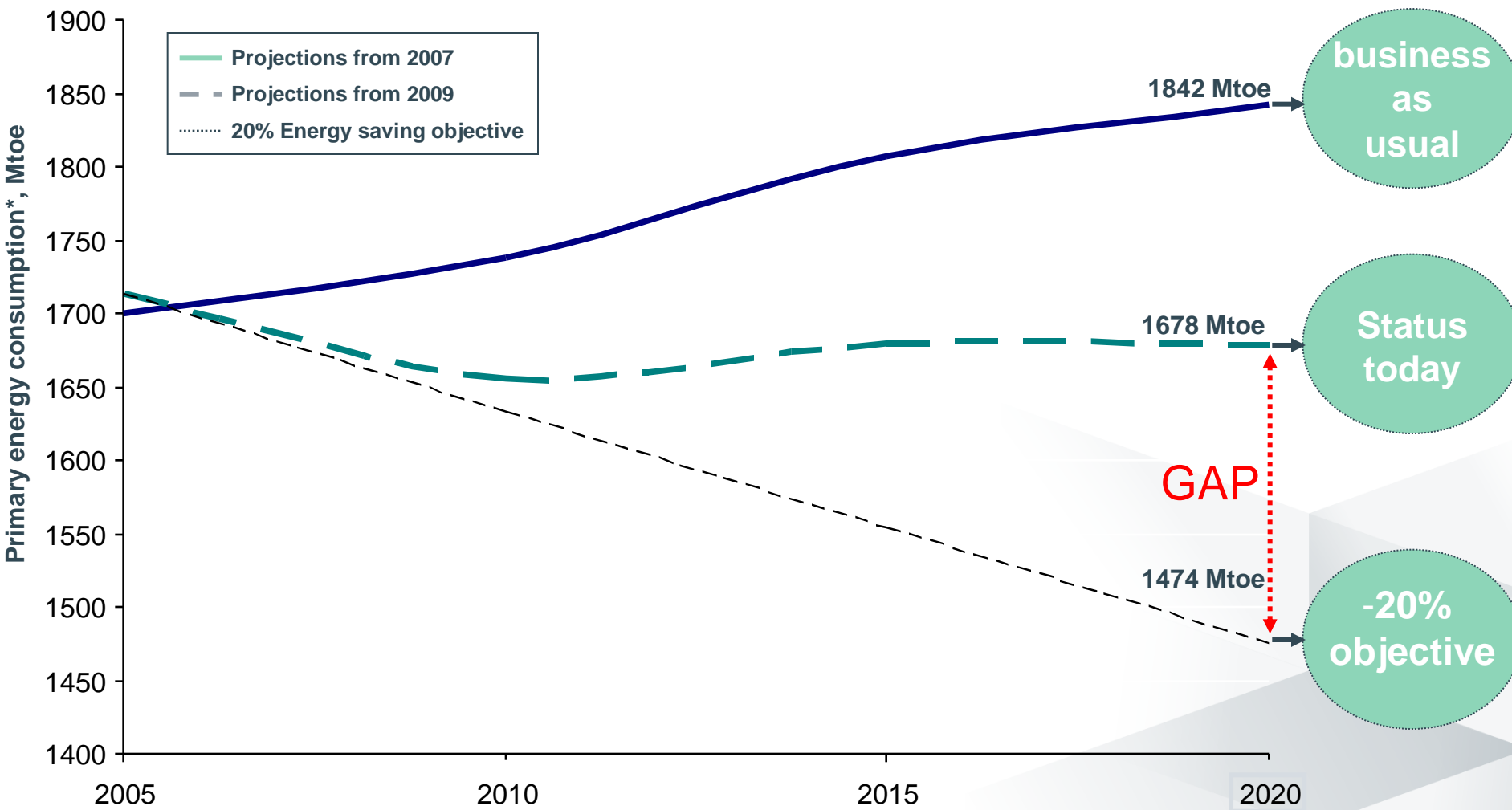
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business
as
usual

Status
today

-20%
objective



* Gross inland consumption minus non-energy uses

Timetable

December
2012

- Entering into force of Energy Efficiency Directive

30 April 2013

- Report on the progress achieved towards national energy efficiency targets

30 April 2014

- Submission of the National Energy Efficiency Action Plans (according to the new directive) to the European Commission

5 June
2014

- Implementation of the new Directive in the MS

30 June 2014

- Assessment of progress towards 20% saving objective by the EC

Thank you for your attention

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