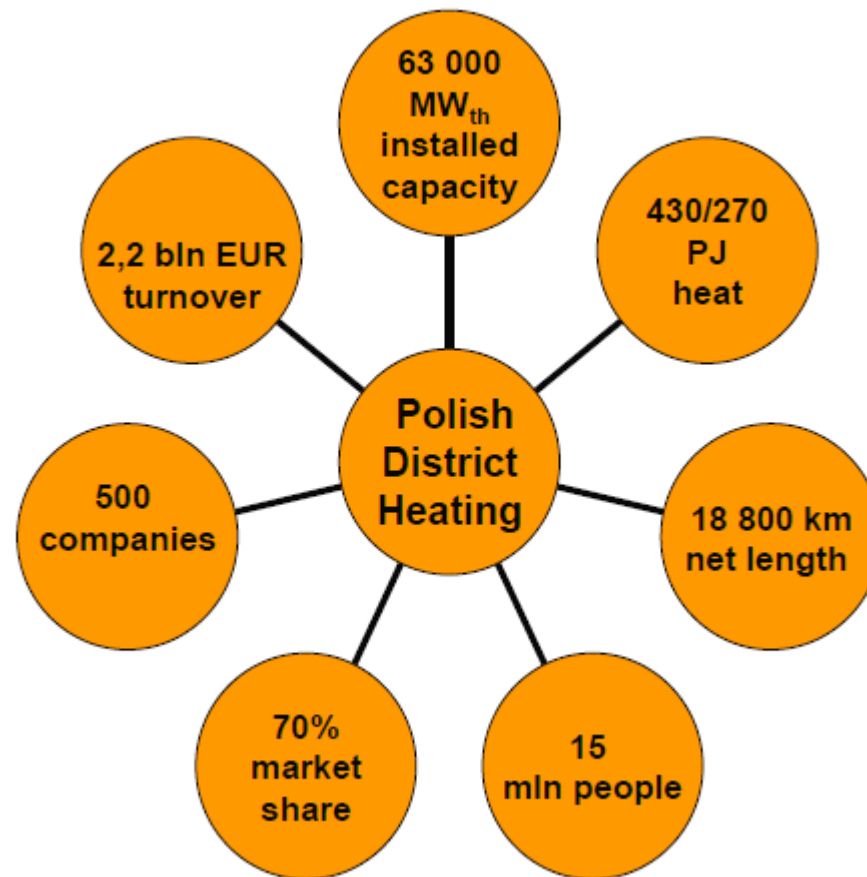


How to promote energy efficiency in DH sector in Poland

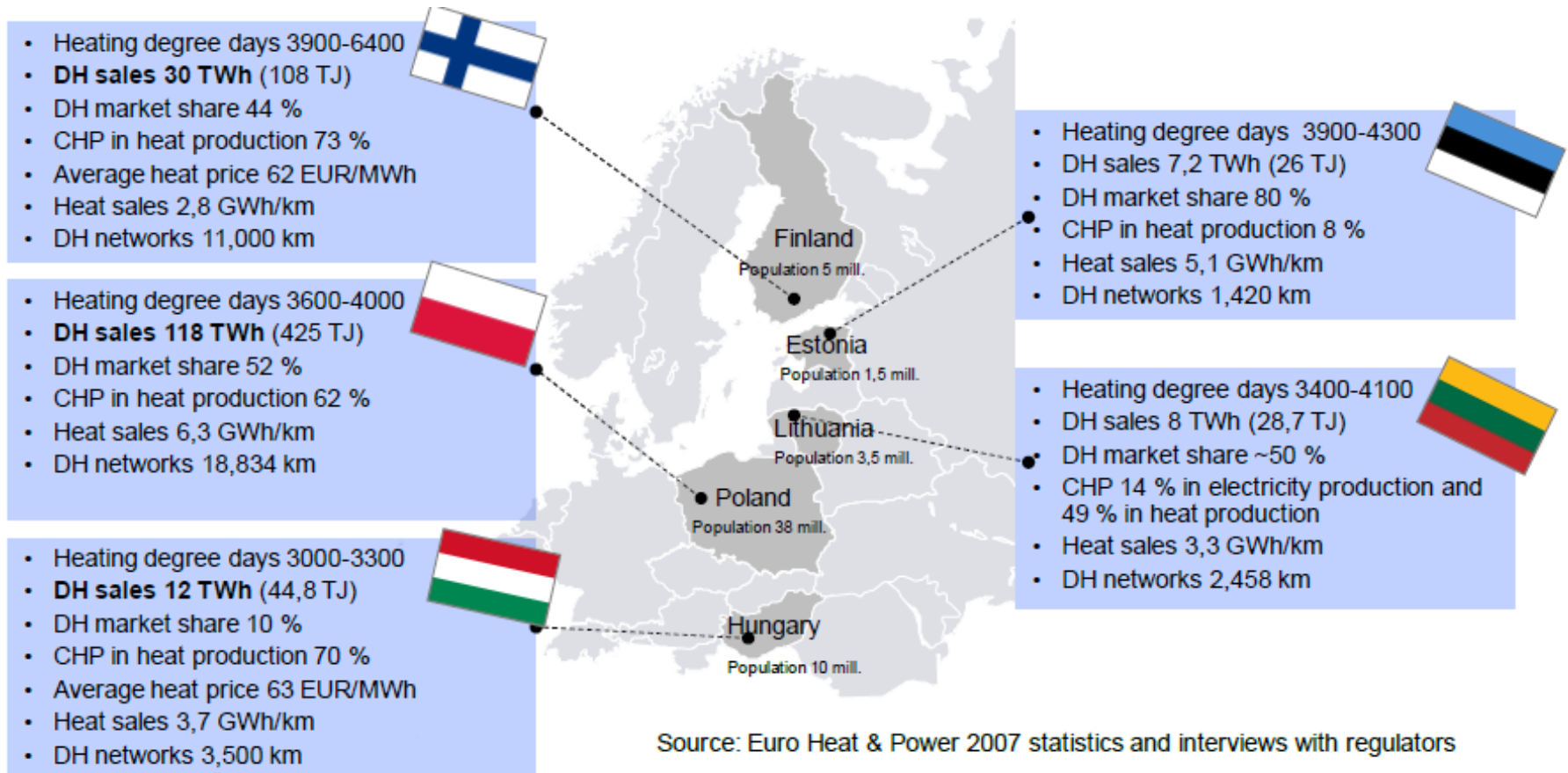
dr. Dariusz Gulczynski
Polish District Heating Chamber of Commerce (IGCP)

Rīga, December, 4th 2012

District Heating in Poland



District Heating in 5 countries

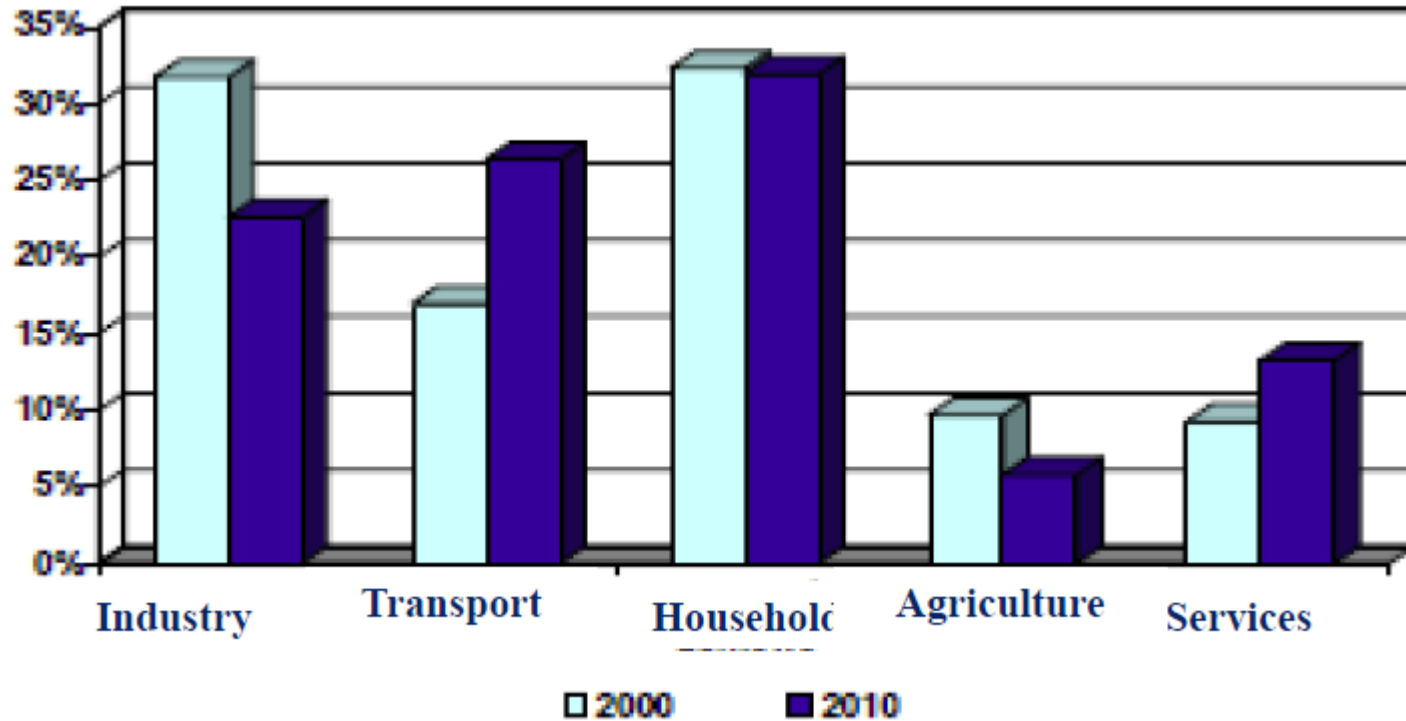


WHAT TO PROMOTE ?

District Heating potential.

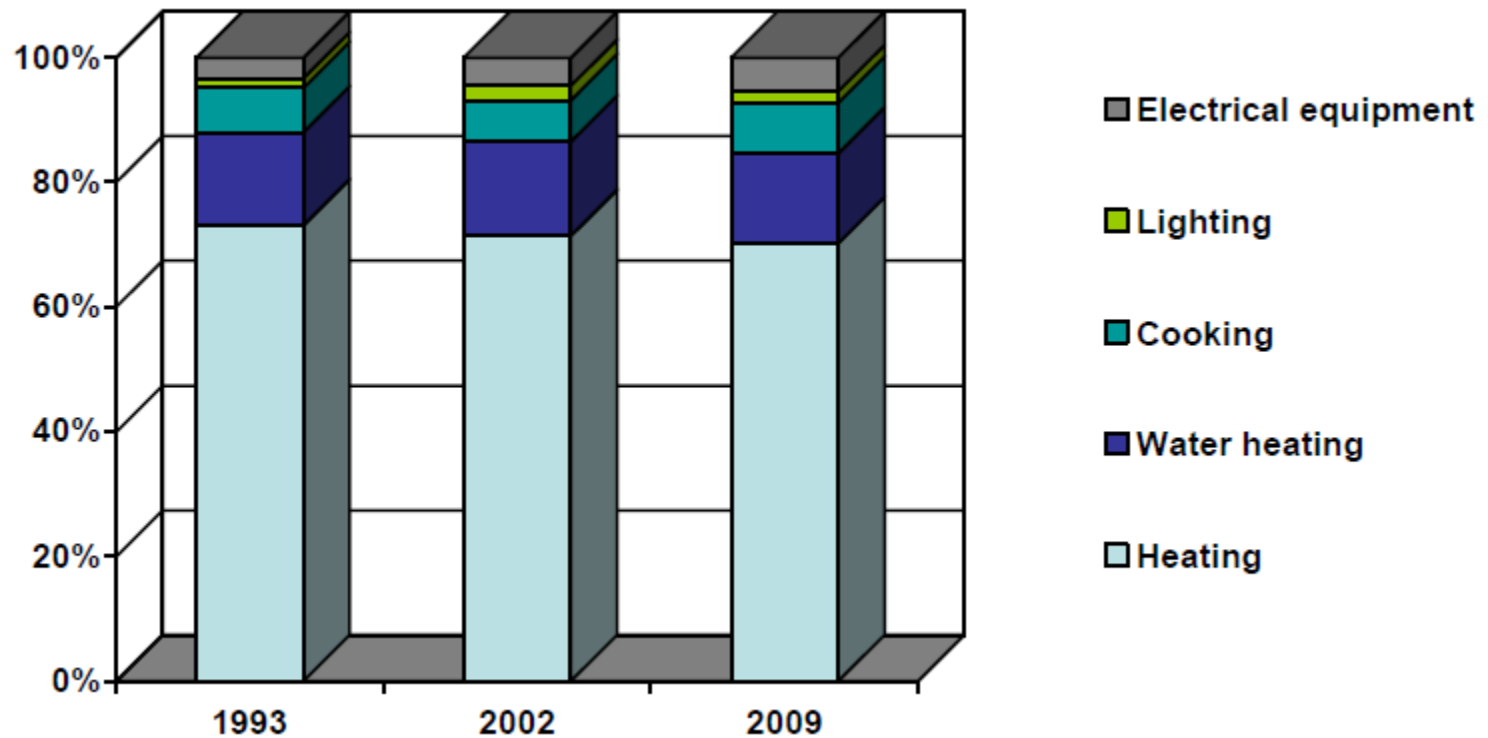
- European Construction Sector eats up around 40% of the whole of final energy and is responsible for 36 % of CO₂ emission;
- Reduction of energy consumption in building sector is marked by high cost efficiency;
- DH in Europe covers 10% of heating market needs (including 16 % of household needs);
- DH helps in effective reduction of CO₂ emissions in the heat and cooling market.

Structure of energy consumption in Poland



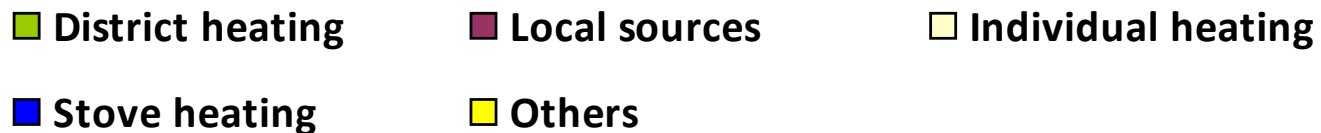
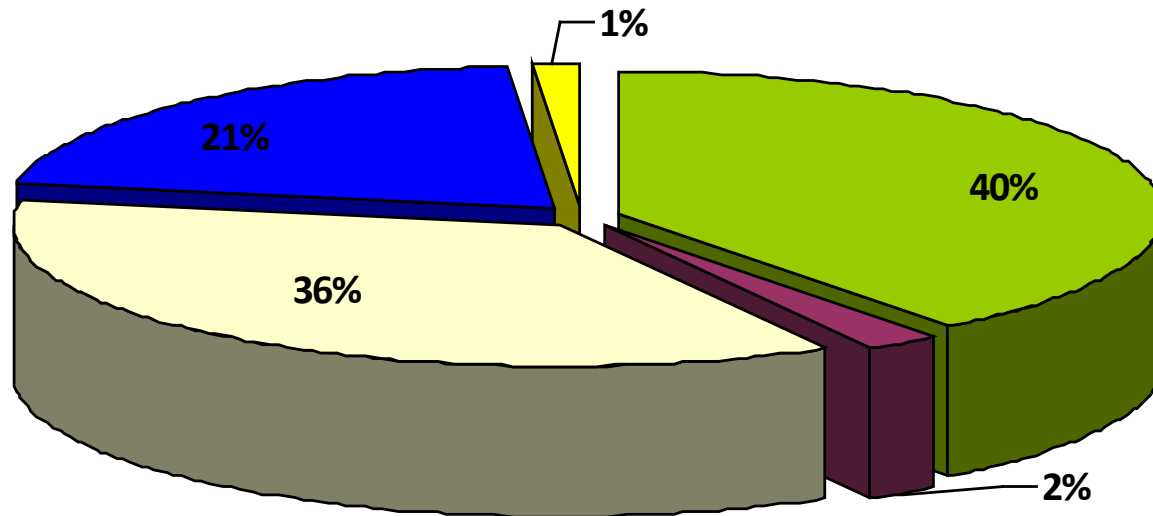
Source: GUS 2012

Structure of energy consumption in households by end use



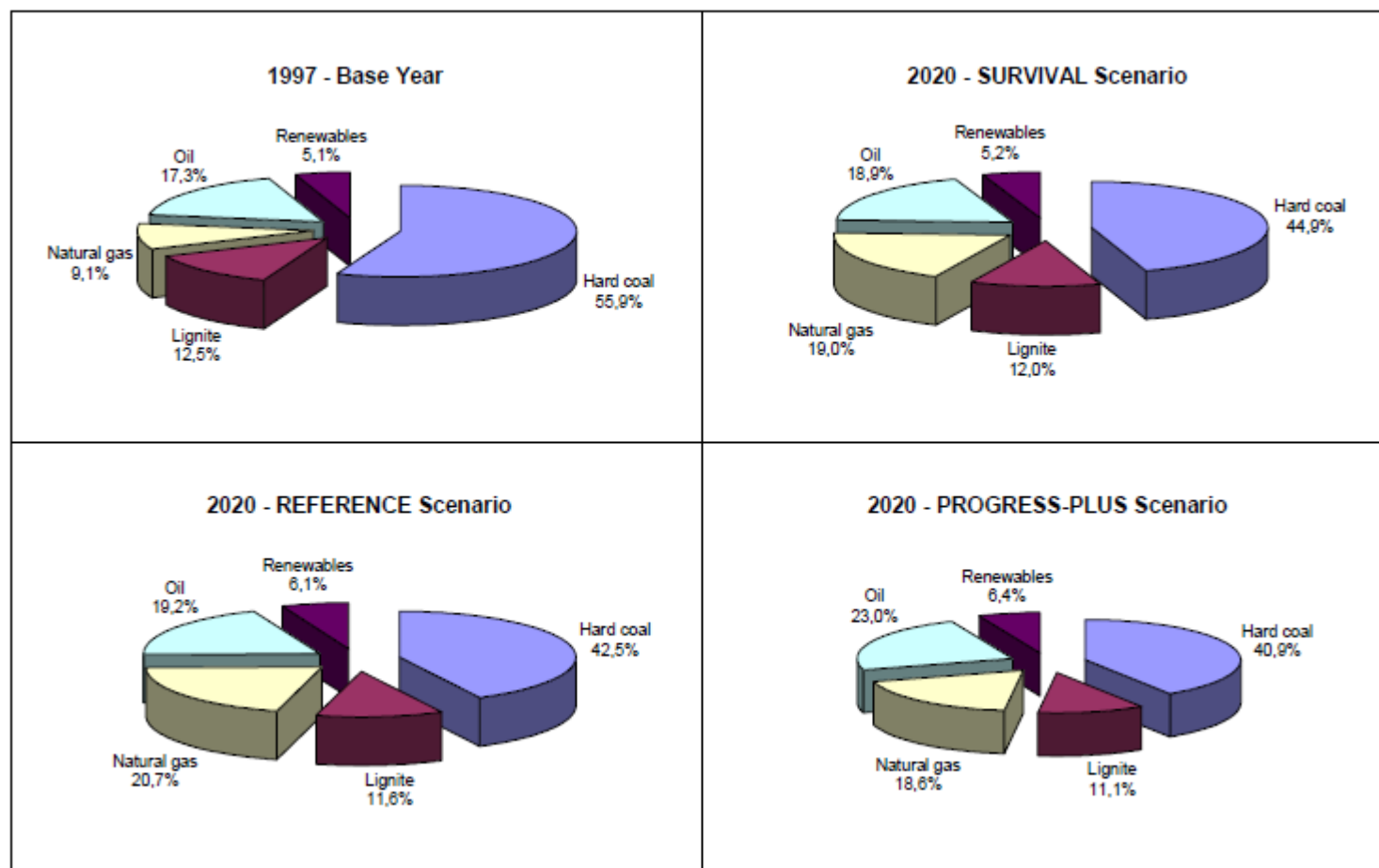
Source: GUS 2012

Structure of supply forms for households in total with heat



Source: Households 2002 – Narodowy Spis Powszechny (General National Census), GUS, 2003

Structure of primary energy demand – Scenarios '97

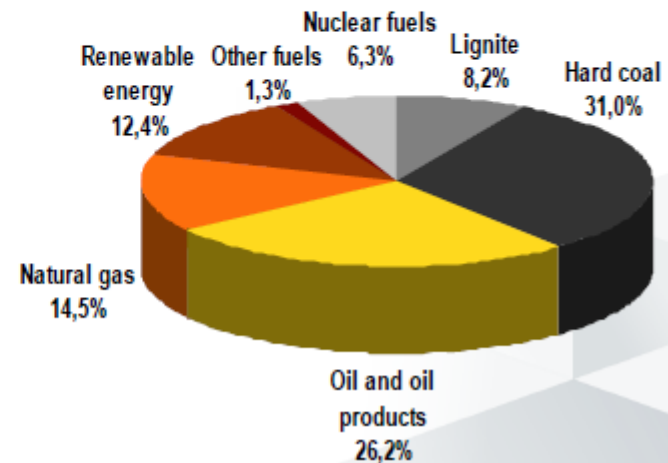
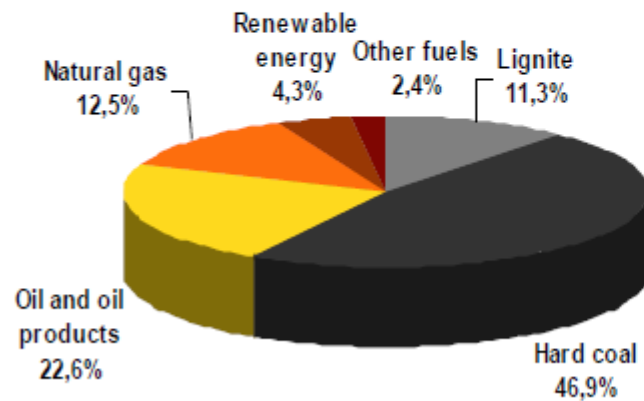


Source: GUS 2012

Structure of primary energy demand by Ministry of Economy

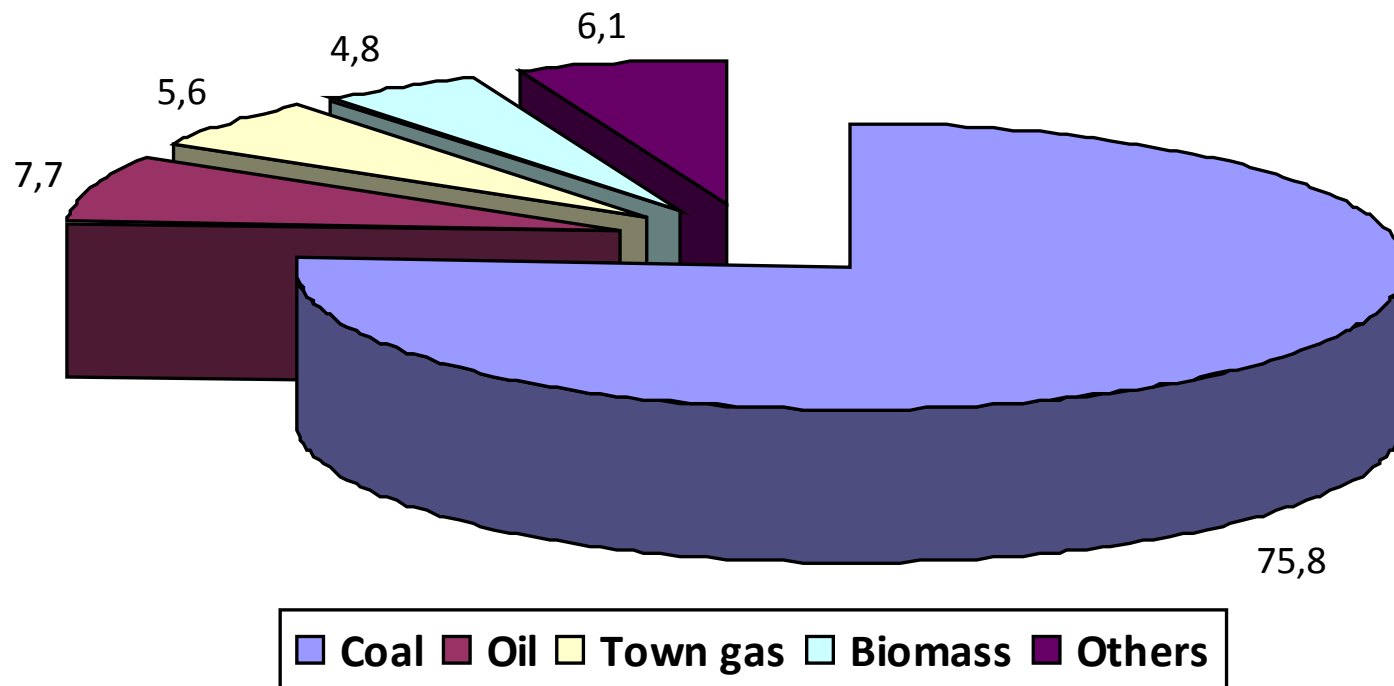
2010 ~ 100 Mtoe

2030* ~ 118 Mtoe



Source: Ministry of Economy, 2012

Structure of fuel consumption in DH



Source: Heat and power sector in numbers, URE 2009

Energy efficiency – basic documents

- Policy documents
 - ✓ Energy Policy for Poland until 2030
- Bills
 - ✓ Energy Law Act – 1997 (e.g. obligation for CHP, technical documentation for energy using products);
 - ✓ Energy Efficiency Law – 2011
 - ✓ Energy Labelling Law – 2012 (now in Parliament)
- Other
 - ✓ First and Second National Energy Efficiency Action Plan

WHERE AND HOW TO PROMOTE?

Energy Policy until 2030 – basic directions

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

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

Energy efficiency – main targets and activities

The main targets:

- ✓ 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, support investments in energy saving and scientific research.

White certificates – tender procedure

Basic rules of the WC scheme:

- ❑ Investors prepare investments and take part in a tender.
- ❑ The tender is organized by Energy Regulator Office 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 (project must be realized).
- ❑ Investors obtain the white certificates for themselves or may sell them.
- ❑ Energy companies buy the certificates and can present them to the Energy Regulator Office to fulfill efficiency obligation.

White certificates – milestones

- **2012**
 - ordinances of Minister of Economy (on scope and types of audits, on tendering procedure and amount of white certificates for redemption and substitute fee)

- **2013**
 - imposing the obligation
 - preparation of a tender and call for tender for e.e. undertakings

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

Other actions aimed at energy efficiency increasing (1)

□ Households

- Thermomodernisation Fund – expected savings of 8,121 GWh

□ 1999 – 2012

25,000 approved applications for thermomodernisation premium;

The total amount of subsidies granted from the state budget amounted to **PLN 1,42 bln** with total volume of investments of **PLN 7,4 bln**.

Other actions aimed at energy efficiency increasing (2)

Public sector

- National Fund for Environment Protection and Water Management: Green Investment Scheme – Energy Management in public buildings – 1,950 GWh;
- Projects financed from Norwegian Financial Mechanism (2012-2017). 75mln EUR.

Industry and SMEs

- National Fund for Environment Protection and Water Management: Efficient use of energy – part 1 and 2 - grants for drawing up the energy audits in enterprises (consuming over 50 GWh/year) and co-financing of investments leading to energy efficiency improvement - expected savings of 2,900 GWh
- Financial instruments for SMEs – EBRD loan – Polseff - credit line to help invest in new, sustainable energy technologies.

Cogeneration – the source of „precious” heating

CHP goals

- Achieving a twofold increase (as compared to 2006) in power generation with the use of highly efficient cogeneration technology by 2020.
- The continuation of the CHP Progress Process (2011 – progress in sharing of produced electricity in CHP from the level 15,6 % in 2007 to the level 17 % in 2010).
- Development a new support scheme for CHP producers (by Ministry of Economy).

Intelligent cities

Smart grids and smart meters

- Smart meters in every household until 2020.
- Priority programme for co-financing the energy smart grids available for investment and non-investment projects (including information and education campaigns) in pilot areas for the years 2013- 2018 (National Fund for Environment Protection and Water Management).
- Budget PLN 340 mln.

National Energy Efficiency Action Plan

1st NEEAP approved in June 2007

- Two energy savings targets:
 - ✓ National indicative energy saving target set on the level of 9% for the year 2016;
 - ✓ Intermediate national energy saving target for the year 2010 at 2%.

2nd NEEAP approved in April 2012

- ✓ Includes measures based on market mechanisms and with limited funding from the public budget

Thank you

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