

Country survey - Poland

NAPE – National Energy Conservation Agency

- **Founded 10/1994**
- **Owned: 70% to Energy Conservation Foundation, 30% to employees and private persons**
- **President: Aleksander Panek, Vice-Presidents Andrzej Rajkiewicz, Andrzej Wiszniewski**
- **14 full-time employed, 20 temporary staff**
- **Revenue 2005: 700 T€**
- **Main activities: energy auditing of all types of buildings and energy sources, training, publications, software, political papers, legal issues concerning implementation of EU directives related to energy efficiency and performance in buildings, energy saving consulting for different types of clients**

NAPE – relation to housing sector

- **is backed by the Technical University of Warsaw**
- **provides expertise on energy efficient refurbishment of buildings for central and local government, housing associations and other owners of building stock**
- **develops refurbishment schemes that integrate building envelope, heating and ventilating technology and energy supply**
- **develops scheme of EPBD implementation**

NAPE – performance

- **Over 1500 energy audits of buildings different types (15% of the market)**
- **Over 2000 trained energy auditors**
- **Over 50 projects performed in international cooperation on EE refurbishment of buildings, promotion of cogeneration, RES**
- **Author of country-wide system to support energy efficient retrofitting of buildings adopted by Polish Parliament 1998**
- **Initiator and leader of preparation introduction of EU EPBD in Poland**
- **Initiator and supporting member of Energy Auditors Association - ZAE**
- **Initiator and supporting member of Association 'Energy and Environment Protection' - SAPE**

NAPE – INOFIN SURVEY

- **Facts about the (social) housing stock, including dwelling characteristics and ownership, financial situation of the tenants**
- **Regulatory framework including the implementation of the EPBD**
- **Institutional framework, organizations involved in housing policy incl. housing cooperatives etc.**
- **Financial framework, overview of government support and subsidy and grant programmes**
- **Private sector initiatives in housing refurbishment**
- **Description of specific projects (according to standard criteria)**
- **Identification of drivers and barriers to increasing energy efficiency through new financing schemes**
- **Recommendations**

Facts about the (social) housing stock, including dwelling characteristics and ownership, financial situation of the tenants

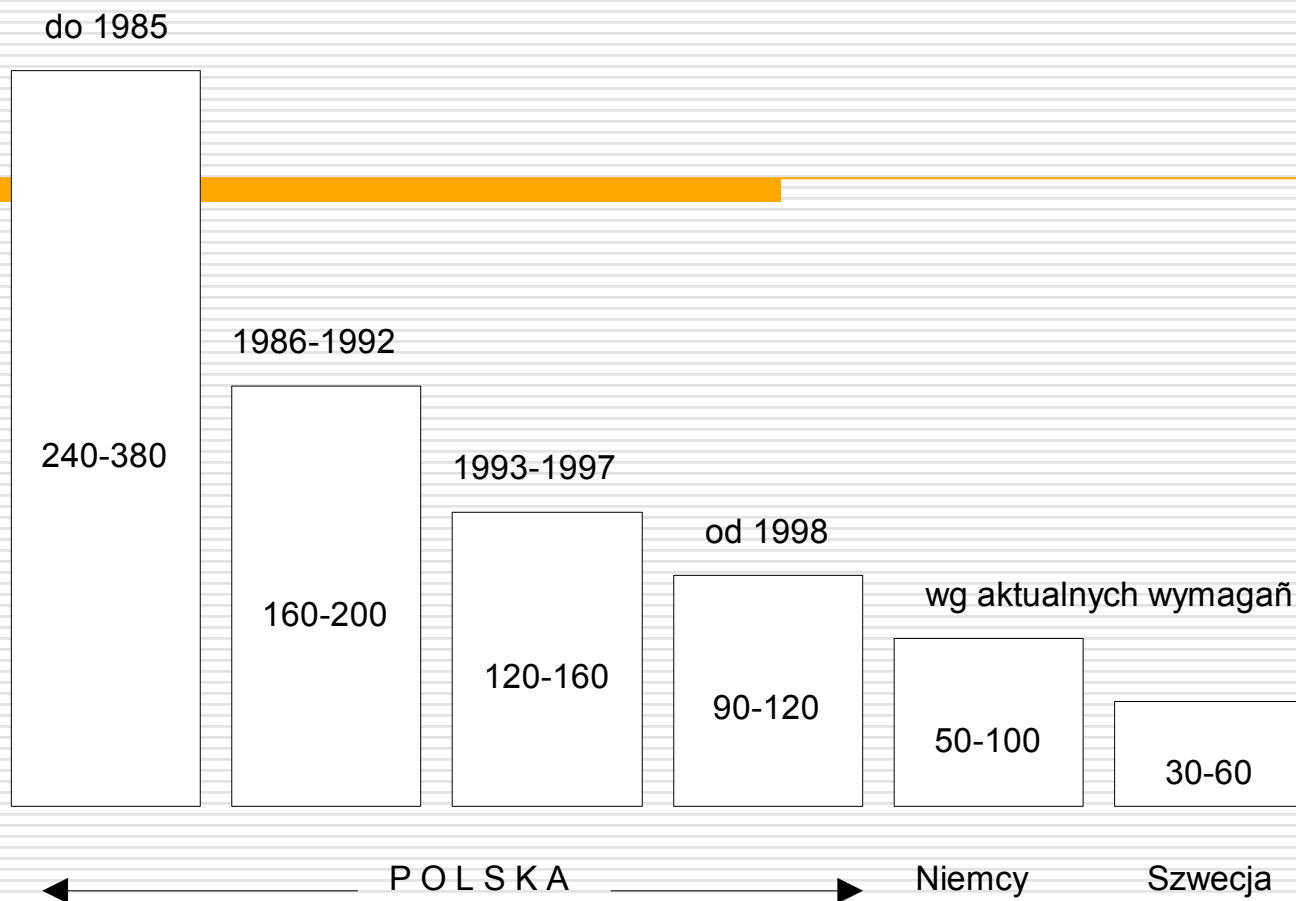
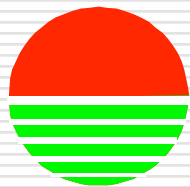
- **Number of inhabitants 38,2 million**
- **Number of dwellings 12,596 million in total**
- **Average number of inhabitants per dwelling 3,03**
- **Number of social dwellings in narrow terms (for vulnerable families) 30 000**
- **Number of social dwellings in wider terms app. 7 million in 0,6 million buildings (40% co-operatives, remaining part municipalities, private owners, enterprises, state)**
- **Disposable income 636 euro/household**
- **Total housing expenditures 18,6%, where for heat 6%**
- **Non payable bills 5-10% of tenants**



Age structure of buildings in Poland

	całość	Rok budowy						
		do 1918	1918 - 1944	1944 - 1970	1971 - 1978	1979 - 1988	1988 - 2002	po 2002
suma	4 772 728	413 255	828 167	1 367 542	676 498	763 461	618 348	105 457
miasta	1 780 594	176 411	331 041	425 199	236 578	298 650	266 202	46 513
wieś	2 992 134	236 844	497 126	942 343	439 920	464 811	352 146	58 944

85%



Average energy consumption for heating purposes in kWh/m² floor area in residential buildings depending on the construction period

Regulatory framework including the implementation of the EPBD

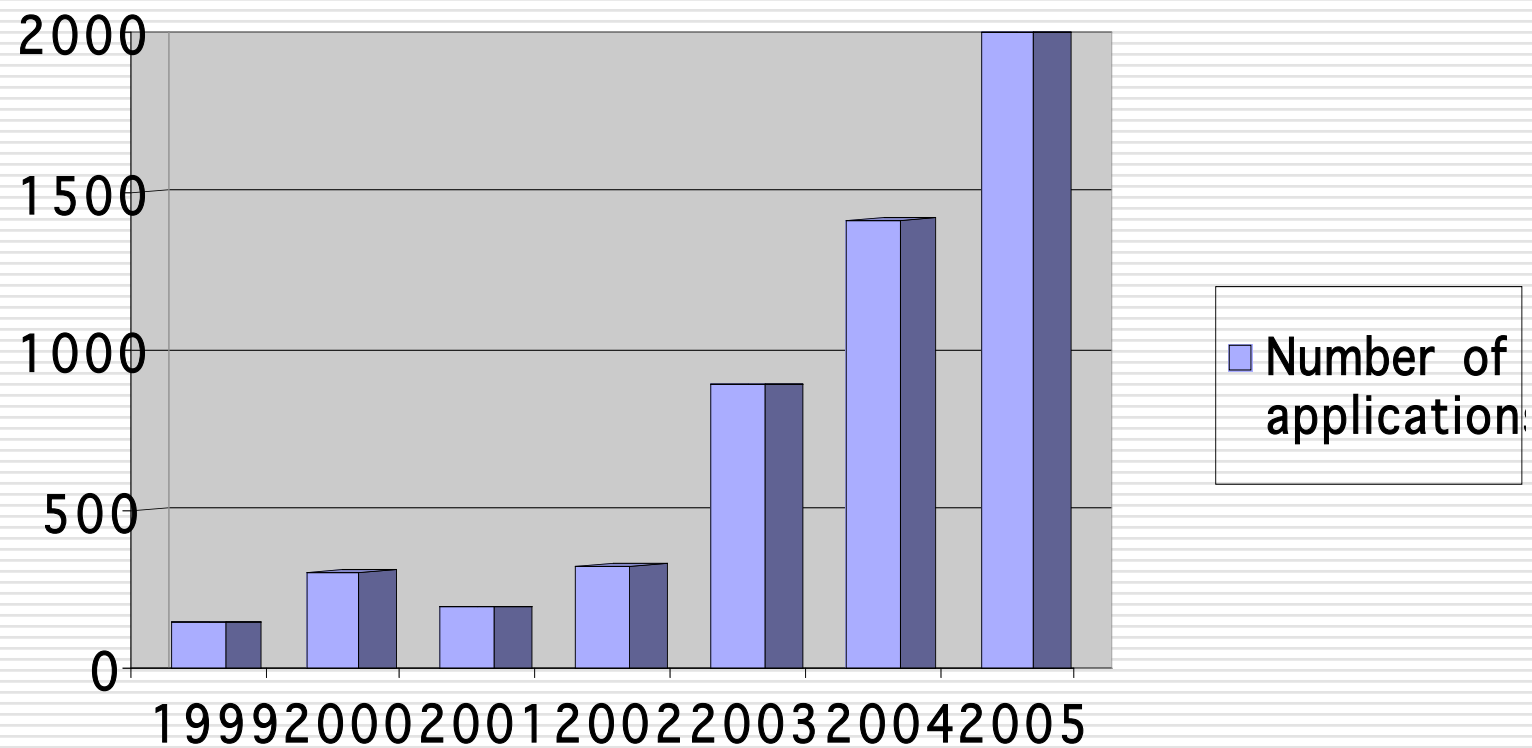
- Rents should reflect the maintenance cost and renovation needs
- The level of rents and possibility of increase are limited by law in municipal and privately owned buildings
- Rents in cooperatives and HOAs are subject of decision of members or owners of dwellings
- The energy prices are regulated by the ERA
- For low-income families there is a system of subsidies for covering the bills, which is used by app. 10% of households
- For the vulnerable families there exist the social dwelling stock
- EPBD is not implemented till now; it will be obligatory for each building: new constructed (2008) over 50 m² floor area and existing in the case of sale (for building and for individual flat) (2009) and for each building over 50 m² area under renovation with cost over 25% of the recovery value

Financial framework, overview of government support and subsidy and grant programmes

- **The state facultative programm for support of thermorenovation of buildings started 1998 (after 3 years preparation and lobbying and provides 25% subsidy to the capital of the loan**
- thermomodernisation project is primarily financed by a commercial bank loan extended on the basis of relevant loan application including results of energy audit of a given building.
- investor applies to BGK for a thermomodernisation bonus via the respective lending bank. Results of respective energy audit are obligatory attached to such application
- Till the end 2005 over 4000 multifamily buildings (0,5 of eligible buildings) have used this scheme for financing thermorenovation measures
- 2006 25 million euro have been spent till end of May
- **There are not regular subsidies to loan interest from state environmental funds**
- **The direct subsidies (facultative) are limited to comprehensive projects (heat sources + buildings) or to solar hot water – from the Foundation EcoFund**
- **Starting 2006 there is guarantee fund provided by GEF for thermorenovation of buildings**



Trend of utilization of the Thermomodernisation fund



Private sector initiatives in housing refurbishment

- **There are some 10 ESCOs (energy service companies) in Poland. They offer usually increase of boiler`s efficiency, based on suppliers loan where the repayment is calculated rather in constant rates. The calculation of rates happens at the beginning of refurbishment process. There are no limits of ownership of buildings for ESCOs.**
- **The most known project in Poland, defined as ESCO, was launched 2001 in Krakow in co-operation with World Bank. The company was founded by the DHC belonging to the city of Krakow. The ESCO has prepared over 100 project till now, where the role of company was providing of soft loan or guarantee for another loan from the World Bank.**

Description of specific projects (according to standard criteria)

- ☐ **Building constructed 1963, construction material „big plate”, number of apartments 48, 2400 sqm area**
- ☐ **List of implemented measures:**
 - **Insulation of walls 13 cm**
 - **Replacement of windows in staircase**
 - **Insulation of roof 12 cm**
 - **Modernization of heating installation**
- ☐ **Cost of measures 95 000 euro**
- ☐ **Yearly heat cost savings 9 500 euro**
- ☐ **Yearly heat consumption savings 41,7%**
- ☐ **Own sources collected 20 000 euro**
- ☐ **Loan 75 000 euro**
- ☐ **Bonus from the state 25%=18 750 euro**
- ☐ **Installment 56 250 euro + interest**

Description of specific projects (according to standard criteria)

- ☐ **Renovation charge raised to 1 euro/sqm/month e.g. 2000 euro/month during 1 year before project**
- ☐ **Monthly rate of installment and interest to be repaid 775 euro/month (during 10 years)**
- ☐ **Tenants have reduced the private income tax through renovation tax regulation**
- ☐ **The heat comfort is better**
- ☐ **The market value of the flat raised by 10%**
- ☐ **The heat cost reduced by 0,45 euro/sqm/month e.g. 25 euro/month/apartment**

Identification of drivers and barriers to increasing energy efficiency through new financing schemes

- ☐ the thermorenovation measures are not so cost effective that they can be financed totally from savings; the average SPBT is about 9 years
- ☐ the existing system to support of thermorenovation of measures stated 1998 but first successful year was 2004, when 50% of 3000 applications have been submitted
- ☐ inhabitants are generally not playing the role of real owner and manager of their flats
- ☐ the boards of housing cooperatives and home owners associations are generally not widely skilled in how to renovate buildings
- ☐ people are still looking at the state for subsidy and avoiding financing of investment from loans
- ☐ the opportunities of co financing measures by the state budget are very limited and dispersed among different financial instruments
- ☐ there was lack of promotion of the state system to support of thermorenovation measures

Recommendations

- ☐ **Since the state system is proven, affordable by tenants and transparent it is necessary to extend the budget of the Thermorenovation Fund and to combine it with the environmental funds and/or with EU structural funds 2007-2013**
- ☐ **To introduce innovative financing, which can support creation of own equity for thermorenovation measures (white certificates?)**