INOGATE – ESIB presentation

DH and end users, the necessity of a global approach for actual achievement of EE goals pursued by policies and regulations

Regulatory Concepts of District Heating
Kiev, 02 December 2010
PURPOSE AND PLAN OF PRESENTATION

PURPOSE:
- Remind the end users needs and the necessity of a global balanced approach
- List relevant issues

PLAN:
- DH/vs other heating means: main stakes entailing policy/regulatory needs
- Organise a properly functioning market of heating
- General market and/or legal tools
- Specific issues in existing multifamily housing
- The ESIB project
The objectives

Tackled mainly

- at collective level:
  - **Security** of supply, national and local energy balance (efficiency, diversification, municipal waste and REs, local sources)
  - **Environment protection** (global warming, air pollution, local areas of interest, …)
  - **Social satisfaction**
  - **Public finances**

- at individual level:
  - **Economic efficiency**
  - **Quality of service**
Organising a proper functioning market of heating

An hybrid monopolist-market system

- **Disappointing results** of monopolistic DHs (low energy and economic efficiency, bad quality of service, etc.)
- Individual (or semi-individual) heating less prone to fulfil collective objectives and to benefit from cogeneration efficiency
- **Aim**: a system reacting to short term challenges, but taking account of long term forecasts: **necessity of a plan** (anticipating various evolutions, e.g. disconnections increasing unit cost and leading to a « divergent » process)

Regulation balancing the powers of the actors

- **Legal framework** (model contracts, unbundling of DH and heat distribution in buildings, …)
- **Information of customers** (on choices, on efficiency of DHs, …)
- **Organisation of customers** (HOAs, NGOs, …)
- **Favour new schemes** entering the market (central heating at building or block level, new small automated DHs, …)
Some general market and/or legal tools (1/2)

- Traditional regulatory and market tools:
  - Mandatory connection to DH (e.g. in specific areas)
  - Prohibition of individual use of coal, wood,
  - Efficiency requirements for individual boilers (condensing boilers are becoming widespread with « efficiency > 100% » calculated on Low Calorific Value)
  - Legal framing of tariffs (e.g. fixed and variable parts, billing according to metered consumption)
  - Legal model contracts for heating (limitation of duration, prohibition of clauses being disincentives to EE, …)
  - Subsidies for investments (e.g. if enough % of REs), taxes (e.g. VAT),
Tools addressing new goals:

- Energy Efficiency cap and trade tools (white certificates for EE actions targeting customers)
- Use of renewable energies (e.g. subsidies for investments of DHs using more that a given % of REs)
- Mitigation of GHGs (e.g. taking account of the CO2 content in heat of DH for calculation of EE requirements of new construction connected to the DH)
Specific issues in existing multifamily housing (1/3)

► Billing hot domestic water according to metered consumption

◆ At stake: dividing by 3 the consumption; may represent 20% saving of overall energy consumption
◆ No major technical or economic obstacle (usual pay-back less than one year)
◆ Widely practised in some countries (e.g. Belarus) with prominent results
Specific issues in existing multifamily housing (2/3)

Billing heat according to metered consumption

- A major technical obstacle: single vertical pipes; no individual action possible at reasonable cost
- If not possible at individual level, put the motivation at the building level:
  - Technical solution: clean pipes, balance the heat distribution through valves at the base of columns, regulate heat at the entrance of the building; typical pay back: 2-3 years
  - Management solution: Establish, on a competitive basis, a contract motivating for energy savings (« Energy Performance Contract ») with the company operating heating of the building
  - Billing at the building level according to above contract, based on metered consumption
  - Other possible solutions, e.g. for double vertical pipes: thermostatic valves, (evaporative) heat allocators, individual billing; may be also adapted to single pipe (not simple).
Specific issues in existing multifamily housing (3/3)

But main obstacles:

- Hostility of DH company (e.g. technical arguments against regulation, obstacles to conversion of water consumption into heat consumption)
- Lack of collective organisation of dwellers (HOAs)
- Lack of interest of municipalities, and of housing managing companies (fear complications and expect no benefit for themselves)
- Lack of technical capacity and management skills of companies operating building maintenance and heating

In public buildings (schools, hospitals, public offices, …): technical solutions with short pay back easier, but management system (budget allocation, …) provides no incentives to energy efficiency
The ESIB project (1/2)

- INOGATE 11 countries project; 01/2010 – 01/2014

- Fostering Energy Efficiency in buildings: all buildings (housing, public, commercial, etc.); existing buildings and new construction

- Dealing with all aspects: policy, awareness, laws and regulations, HOAs, financing, technical and professional

- Technical assistance: assessment and advising, dissemination of information, training, capacity building
The ESIB project (2/2)

- Work programme including regional (multi-countries) and national actions
- Next regional workshops planned:
  - Certificates of Energy Performance of buildings, and labelling of appliances (Kiev, 18-19 January 2011)
  - Methodologies for municipal heating strategies (March 2011)
  - Energy Efficiency in buildings (Almaty, June 2011)
  - Methodologies for national energy efficiency strategies (autumn 2011)

- Web site to be on line in Spring 2011
ENERGY COOPERATION BETWEEN THE EU, THE LITTORAL STATES OF THE BLACK & CASPIAN SEAS AND THEIR NEIGHBOURING COUNTRIES