

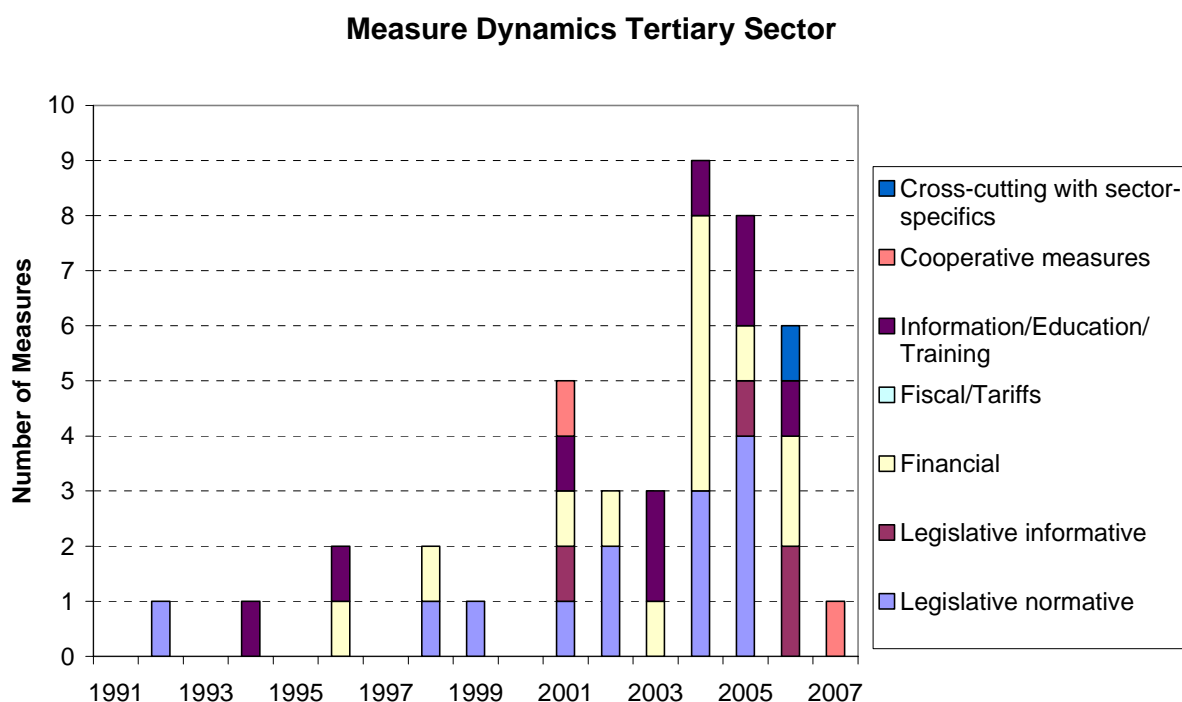
10. Energy Efficiency Policies in the Service Sector

10.1. Measure dynamics in the tertiary sector

Similar dominance of legislative-normative measures as in the residential sector but also of subsidies

Figure 10-1 shows the dynamics of the introduction of different types of measures over time in the tertiary sector. The observations are rather similar to those made for the residential sector with the dominance of legislative-normative measures. This is not surprising, given the fact that building regulations are frequently tightened in parallel in the tertiary and the residential sector. Nevertheless, subsidies and information measures are also important elements in the mix for this sector.

Figure 10-1: Dynamics of measure types in the tertiary sector (NMCs)



10.2. High impact energy efficiency measures

High impact measures in the tertiary sector are frequently of the legislative-normative type and audits accompanied by subsidies for the implementation⁷²

About 15 % of all measures introduced in the tertiary sector in the NMCs are considered to be high impact measures. This share is lower than for the EU-15 (around

⁷² High impact measures are measures with energy savings >0.5% of the total consumption in the sector.

30%). **Table 10-1** shows a list of these measures. High impact measures in the tertiary sector are typically building regulations or energy audits coupled with subsidy programmes for the implementation.

Table 10-1: High impact measures in the NMCs tertiary sector

| Country | Measure title | Measure type |
|----------|---|-----------------------|
| Cyprus | Governmental financial support schemes for RES/RUE/EE | Subsidies |
| | Energy performance buildings regulations | Legislative-Normative |
| | Information, awareness, training campaigns for energy saving technologies, practices, methods and policies/incentives of government | IET |
| Poland | Technical Requirements for Buildings and their Location | Legislative-Normative |
| Slovakia | Thermal Insulation Standards in Buildings | Legislative-Normative |
| | Energy Audit Training Programme | IET/Subsidies |
| Slovenia | Energy audits and feasibility studies subsidies | IET/Subsidies |

IET=information/education/training

10.3. Innovative energy efficiency measures

Examples of particularly innovative measures in the tertiary sector include:

- ***Programme for the energy efficient modernisation of public educational institutions:*** Promotion of an ESCO market for the energetic modernisation of educational buildings (Hungary, **Box 10-1**).
- ***Regional councils on Energy Efficiency*** (RCEE) were established in Bulgaria by the order of governors in the 28 regional councils in Bulgaria. These councils include experts and representatives from the regional and municipal administrations, local business, civil organizations and associations etc. RCEE co-operate for preparing end adoption of programs on energy efficiency (Bulgaria)
- ***Charges on emission of pollutants into air*** (Estonia, see Industrial Sector)

Box 10-1: Hungary - “Apple of Our Eyes” programme for the energy efficient modernisation of public educational institutions

The “Apple of Our Eyes” programme intends to modernise public educational buildings through Energy Service Companies ESCOs. ESCOs as the professional body in charge of the programme shall create the financial background of the Apple of Our Eyes-programme and continuously ensure the outstanding quality of heating and lighting all through the programme. They shall be selected through public procurement. The maintainers of the institutions of public education may enter into an agreement with these ESCOs. The Ministry of Education elaborated a financing system, in which non-creditable school maintainers may also participate and investments can be implemented in which the financing may not be covered fully by the saving following the investment. Energy saving is achieved by heating and lighting modernisation. In case of the “Apple of Our Eyes” programme excess savings in one school may be used to improve conditions in other schools where the savings may not provide enough payback for the investment. This procedure is called cross-financing. It is possible to have periods when even the total gained saving will not be sufficient for the costs of services in connection with heating and lighting modernisation, thus the winning bidder of the public procurement procedure is obliged to form a provision from the previous savings which make the fulfilment of his payment obligation possible. The publication of the Programme was preceded by a preparatory work of more than a year. During this period Ernst&Young Consulting Ltd audited the economic feasibility of the “Apple of Our Eyes” Programme. They audited the data of almost 200 implemented investments of similar objective and verified the technical data of institutions of public education with representative sampling. According to the audits it can be ascertained that the “Apple of Our Eyes” Programme can be implemented without the involvement of the state budget, and what is more, the saved energy can increase the scope of the maintainers for financial actions after the planned cycle of 15 years.

The following table provides an ex-ante estimate of the expected savings.

Table 10-2: Estimated ex-ante savings of the “Apple of Our Eyes” programme

| Projects | Σ estimated investment | Σ estimated savings in the 1 st year | Σ estimated savings during the term of the programme | Remaining cash flow of the Min. of Education during programme | Average savings |
|------------------------------------|------------------------|---|--|---|-----------------|
| | billion HUF | | | | % |
| Lighting modernisation | 15.5 | 3.1 | 61.3 | 34.8 | 23.5 |
| Heating modernisation | 55.4 | 7.1 | 139.0 | 26.3 | 39.0 |
| Heating and lighting modernisation | 70.8 | 10.1 | 196.9 | 59.8 | 34.6 |

(1 Euro is around 250 HUF)

- ***Mandatory elaboration of energy audits according to energy consumption:***
The Energy Management Act in the Czech Republic required energy facilities or buildings to undergo an energy audit if a state subsidy within the National Programme is obtained. Energy audits was also obligatory under the Act if the facilities were owned by the state, regions or municipalities, or owned by natural or legal persons with total consumption higher than that stated in the relevant legal regulations. In the public sector, audits were obligatory if energy consumption was above 1,500 GJ per year. For private facilities, audits were mandatory if energy consumption is above 35,000 GJ per year. It was mandatory to the end of the year 2005. (Czech Republic)
- An obligation for the development of ***Mandatory Energy Action Plans for Municipalities*** in Bulgaria was introduced in the Energy Efficiency Act, adopted by Bulgarian National Assembly on 19.02.2004. Article 8 from the Act foresees that the regional governors shall organize the development and implementation of regional programs of energy efficiency and shall carry out interaction with the bodies of the local independent governments and local administrations. Article 9 describes types of the energy efficiency programs which shall be adopted by the municipal councils (rehabilitation of housing, administrative and utility buildings, introduction of energy saving street-lighting and lighting in public buildings and other measures). The mayors shall develop and implement the measures foreseen by the municipal programs for energy efficiency, providing into their budgets objective-oriented resources for their implementation. Article 11 orders that the central bodies of the executive authority, the regional governors and the other state bodies shall annually draw up expedient programs for implementing measures for energy efficiency and submit them to the Executive Director of the Bulgarian Energy Efficiency Agency.

10.4. Conclusions

The main conclusions for the service sector are:

- In the service sector there is a similar dominance of legislative-normative measures as in the residential sector but also of subsidies. The same remark with respect to the accounting of building regulations in tertiary sector buildings as in the residential hold for this sector, and similarly also for the existing buildings.
- Audit programmes are important measures in the mix of some countries. There are countries such as Bulgaria or the Czech Republic imposing mandatory audits. In has to be emphasised, however, that in the frame of the EU-wide required introduction of building certificates, an audit process is anyhow required although only in special context such as selling or renting out a building.

- A particularly interesting measure example is the programme for the energy efficient modernisation of public educational institutions which tries to promote a market for Energy Service Companies ESCOs for the energetic modernisation of educational buildings. Other innovative measures concern charges on CO₂ emissions in parallel to the industrial sector.