

Energy Certification on it's way - the European strategy

Clean Energy Power 2006 Berlin 18.01.06, Gerhard BUCAR

Intelligent Energy  Europe

Mission of Graz Energy Agency

Increasing **Energy Efficiency** and the use of **Renewable Energy** sources through innovative organisation and financing models - in order to **stimulate the economy** and the labour market in the region and to implement **energy and environmental policies**.

Our roles:

- Initiation and implementation of innovative energy projects
- Competence centre for the market development of innovative services and technologies
- Agency for the implementation of the energy and environment policy of the City of Graz and other public bodies

Core Competences

- Performance Contracting, Third Party Financing
- Building renovation
- Energy Efficiency (small CHP, lighting, appliances etc.)
- Renewable energy (solar energy, biomass)
- Municipal energy management
- Project management, also of international projects
- market development (**Thermoprofit-Program**)



Energy Performance Certification of Buildings

- **Basis: EU-DIRECTIVE 2002/91/EC on the energy performance of buildings (in force since 3 January 2003)**
 - ▶ Energy performance certification of buildings:
sold/rented and new buildings/flats, public buildings
valid 10 years
 - ▶ Inspection of boilers
 - ▶ Inspection of cooling systems
 - ▶ Proofing the possibility of renewable energy
- **D-day 4 January 2006 is past – the work is still going on**
- **The only countries to have reported full or partial transposition are Germany, Italy, Portugal, Austria, Denmark, Lithuania, Belgium, Latvia, Poland and the Slovak republic.**



EPBD implementation - the goals

- 5 million inspections and assessments of heating systems
- 2 million inspections and assessments of cooling systems
- 2 million new Energy performance certifications on existing small buildings;
- 10 million residences to reduce energy consumption by 30-40% compared to actual consumption
- 100 000 Energy performance certifications for buildings over 1000 m²
- 50 000 additional buildings with 50% of delivered energy provided by renewables.
- the challenges are enormous and there is increased evidence that many countries have major difficulties to meet the timing of the directive.

EPBD implementation – the action

- The Campaign "Sustainable Energy Europe 2005-2008"
- EPBD Concerted Action
- Intelligent Energy Europe Program + Intelligent Energy Executive Agency
- IEE Projects
- CEN Standards and methods
- Scope of national/regional procedures
- Software development
- ...

EPBD Concerted Action (1)

- promoting the dialogue between the Member States is the Concerted Action (CA), funded by the 'Intelligent Energy-Europe' Program
- global objective: sharing the information and experiences between countries
- the program has the following specific objectives
 - ▶ To discuss and to prepare a structure for the energy certification of buildings to maximize similarities and reduce the range of different options selected by the Member States
 - ▶ To discuss and prepare a coherent basis for the methodologies for inspection of heating boilers and air-conditioning equipment
 - ▶ To discuss and prepare ways to implement adequate schemes for accreditation of energy audit and inspection experts in Member States
 - ▶ To discuss criteria for the implementation of common methodologies for calculation of the energy performance of buildings.
 - ▶ formal and informal contacts between the Concerted Action and all the relevant groups that are working towards the transposition of the EPBD



EPBD Concerted Action (2)

- CA is structured on 4 working groups:
 - ▶ Theme 1: Certification of buildings
 - ▶ Theme 2: Inspection of boilers and air-conditioning systems
 - ▶ Theme 3: Procedural aspects for energy performance characterisation
 - ▶ Theme 4: Specifications and training requirements for experts and inspectors
- The working plan is organized around 8 meetings (from January 2005 to June 2007),
- The CA-participants are the representatives of national governmental ministries or governmental affiliated institutions that are in charge of preparing the technical, legal and administrative framework for the transposition of the EPBD in their own country.
- The coordinator of the CA is ADENE, the Portuguese National Energy Agency
- <http://www.epbd-ca.org>



IEE projects dealing with certification (1)

- **STABLE**
Securing The Take-off of Building Energy Certification:
Improving Market Attractiveness through Building Owner
Involvement
- **TOWARDS CLASS A**
Towards Class A - Municipal Buildings As Shining Examples
- **IMPACT**
IMproving energy Performance Assessments and
Certification schemes by Tests
- **EPLABEL**
A programme to deliver energy certificates for display in
public buildings across Europe within a harmonising
framework

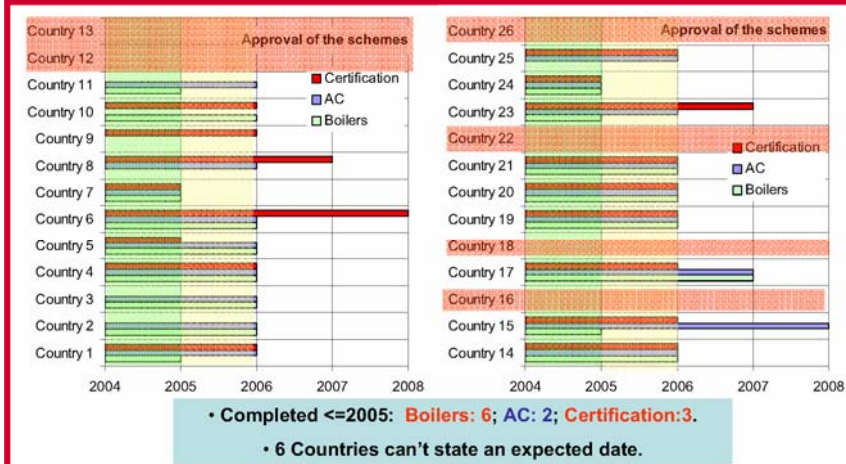


IEE projects dealing with certification (2)

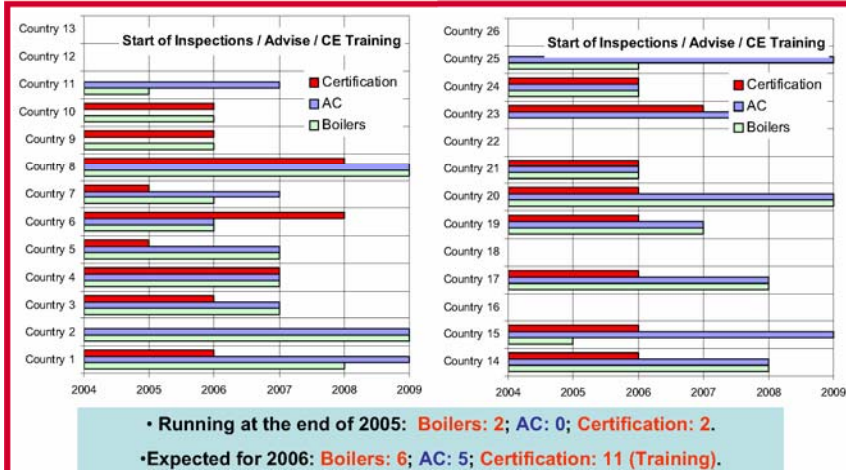
- **EPA-NR**
Energy Performance Assessment for Existing Non
Residential Buildings
- **ENPER EXIST**
Applying the EPBD to improve the Energy Performance
Requirements to existing buildings
- **E-Tool**
Energy-toolset for improving the energy performance of
existing buildings
- **BUDI**
Pilot actions to develop a functioning market for energy
performance certificates
- ...



Current status – legal approval of schemes



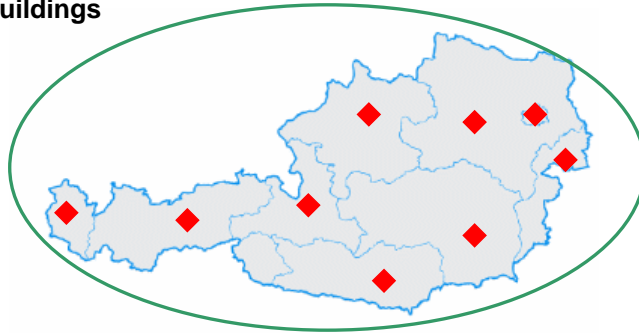
Current status – start of inspection



Austria (1)

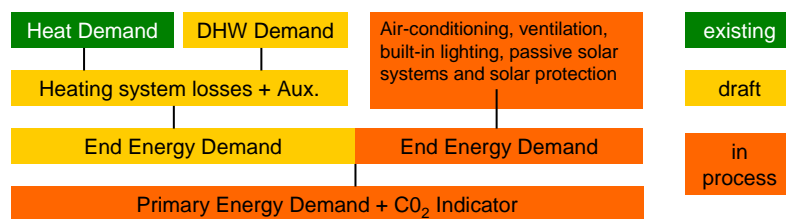
- In General: Federal Provinces („Länder“)
- Art. 7: Energy Certification - Sold and rented out buildings

(Ministry of Justice)



Austria (2)

- Based on existing calculation method for energy performance of OIB (heat demand)
- Extension of OIB calculation guideline „Energy performance of buildings“ (by means of DIN V 4701-10 and DIN V 18599)



Austria (3)

■ Current proposal

	2006				2007				2008				2009
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Transfer into national/regional law													
New residential buildings													
New non-residential buildings													
Refurbishment													
Existing building													

■ National uniform transposition expected

■ Transposition of EPBD act on national level at Jan 2009

Germany

➤ Small buildings (1-2 family houses)

14 million buildings, 80% of the building stock

predominantly private property, most owners are living in the buildings (72%)

Certification: Building is sold, own information if renovated

➤ Multi-family houses

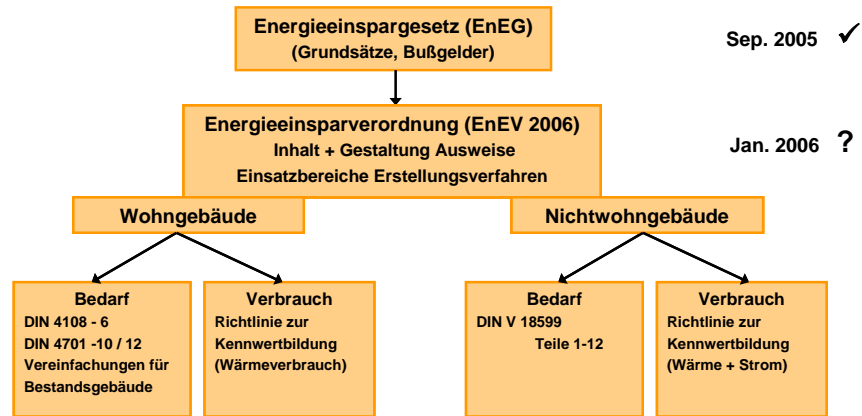
3 million buildings, 54% of all dwellings

predominantly rented, few owned (14%)

10% fluctuation -> change of tenants probable

energy is one selection criteria out of a sum, awareness is raising!

Germany



Germany

■ Timetable (estimation)

Subject specialist drafts	12/05 (3/06)
Hearings	2/06
Decision in the Upper House of the German Parliament	
Going into force of the EnEV2006	7/06 (10/06)

■ Mandatory application after transitional period

■ Best prepared, high level of experience through field-test

■ Leading nation in the implementation of energy certification of buildings

France

- Certificate will be requested for new building and sold ones on July 2006
- Certificate will be requested for rented building (and probably public buildings) on July 2007
- Certificates will be provided by accredited experts. This accreditation will be given by a national public organisation, named COFRAC (French committee for accreditation). The accreditation scheme will start by mid 2006, so for the first certificates, the experts will not have to be accredited but only qualified.
- The accreditation will be personal, not linked to the companies. It is foreseen that this experts will also be able to deliver other legal certificates, such as lead, asbestos, termites, gas security, ...



Finland

- The act is more or less drafted but attached acts (degrees) shall be also quite ready before they send that proposal to parliament. It seems that very little is left from the first draft published in June last year and not much attention should be paid to that proposal.
- The target is, that the proposal will be given to parliament late this spring 2006.
- Calculation models for testing may be available very soon



Slovenia

Ministry of environment and spatial planning (MESP);
in co-operation with Ministry of economy

- Activities on the governmental level co-ordinated by MESP:
- Directorate for EU affairs and investments –
Dept. for energy efficiency and renewable energy
- Directorate for spatial planning
- National project – Study for preparation of regulation on energy efficiency of buildings – part1 (Sept.04 – June 05) – Building and Civ.Eng. Inst. ZRMK & Univ. of Ljubljana, Faculty of Mech. Engineering
- Concerted Action EPBD
- Slovenian participation in EIE projects (BUDI, E-Tool, ENERCERT)
- Co-operation between CEN and Slovenian SIST



Slovenia - EPBD Transposition plan

Ministry of environment and spatial planning;
in co-operation with Ministry of economy

by Jan. 2006:

- Methodology of calculation of the integrated energy performance of building
- Setting minimum requirements for new buildings and large existing buildings that are subject to major renovation
- Building energy certification for new buildings (design phase)
- Included in the regulation for energy efficiency in buildings, draft finished in Dec. 2005, exp. to be promulgated in Jan. 2006



Slovenia

By Feb 2006

- Energy certification of new buildings introduced – design phase
- Above certificates will be part of design documentation
- Rating based on calculated values (calculation methodology ready for new buildings)

By Jan. 2007

- Energy certification of new buildings
- Compliance of designed and executed works controlled on the building site, if changes > new calculation!
- Definition of independent qualified experts elaborated, Beginning of training

By mid 2007

- Display of certificates obligatory in large public buildings (public ownership + high frequency of visits)

By 2008

- Energy certification for existing buildings, calculated indicators + advice – small buildings
- Experiences of energy advisory network used for quality control



Energy Certification is on it's way!

- **Experts all over Europe are busy**
- **Don't lean back – act!**
- **Be prepared – start to gather information about your buildings**
- **Keep contact to the persons informed**



THANK YOU FOR YOUR
ATTENTION!

Intelligent Energy  Europe