

# The EU policy framework for energy efficient buildings

- The EPBD recast and beyond

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# What happened in Brussels since June 2010?

## ● New European strategy “Energy 2020”

- Published on **10 November 2010**, strategy for a competitive, sustainable and secure energy
- Energy efficiency as the first out of five priorities
- Other priorities: Pan-European integrated energy market with infrastructures; one EU voice on energy in the world; Safe, secure and affordable energy through active consumers
- Key messages relevant for buildings
  - Focus on the two sectors with the biggest energy saving potential: transport and buildings.
  - Assist house owners and local entities to finance renovation and energy saving measures, through investment incentives and innovative financial instruments by mid 2011.
  - The public sector to take energy efficiency into consideration when buying works, services or products.

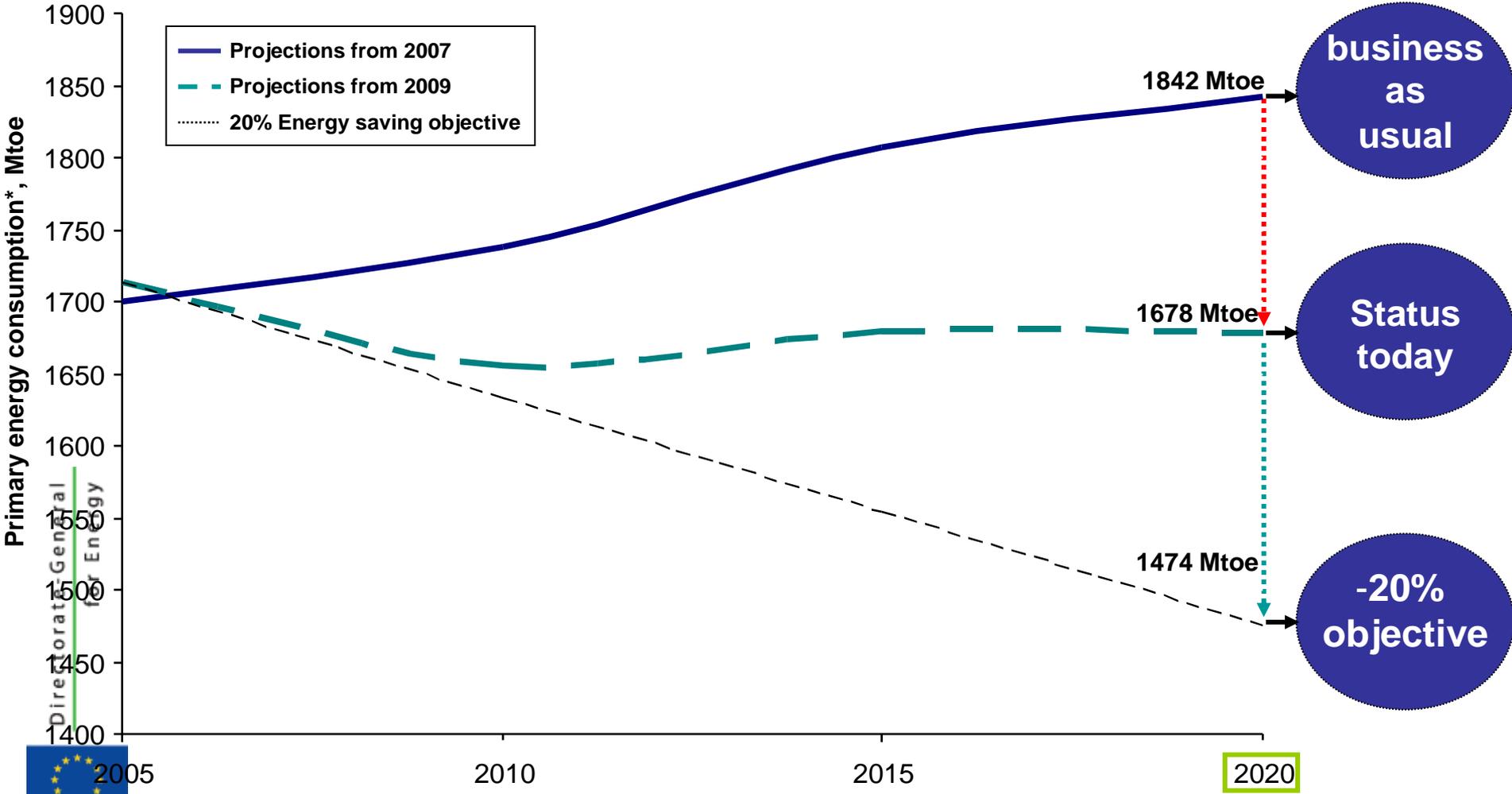
# ● Special EU energy summit

- **4 February 2011** in Brussels. Key conclusions for buildings:
  - The 2020 20% energy efficiency target, which is presently not on track, must be delivered.
  - This requires determined action to tap the considerable potential for higher energy savings of buildings, transport and products and processes.
  - As of 1 January 2012, all Member States should include energy efficiency standards in public procurement for relevant public buildings and services.
  - Review of the implementation of the EU energy efficiency target by 2013 and consider further measures if necessary.

# ● The new European Energy Efficiency Plan

- Adopted on **8 March 2011**, (COM 2011 (109) final),
- Provides strategic framework for EE policy in Europe up to 2020 and beyond
- To be followed up by legislative proposals e.g. recast of Energy Services Directive in June 2011
- Messages include:
  - Conditionality on the spending of public funds
  - Innovative financial instruments
  - Energy service companies
  - Increased role of energy companies

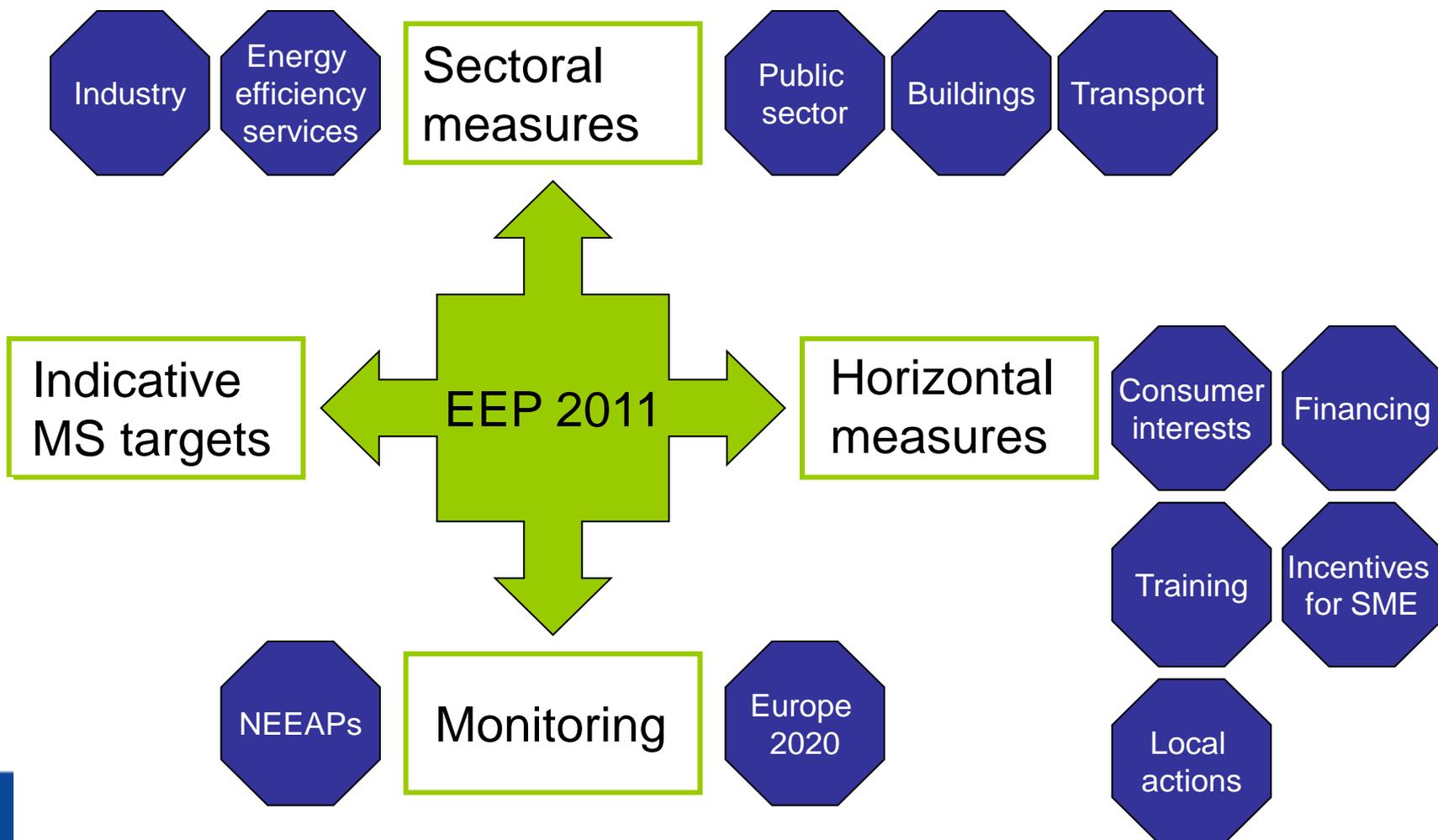
# The EU falls short of reaching its 20% energy saving target as endorsed in 2007



\* Gross inland consumption minus non-energy uses

# A NEW ENERGY EFFICIENCY PLAN TO PUT THE EU BACK ON TRACK: INDICATIVE

## TARGETS & STRINGENT BINDING MEASURES



# The new European Energy Efficiency Plan and the building sector

*In going **beyond** the requirements of the EPBD recast it underlines:*

- Need for more stringent EE criteria in **public spending** in buildings
- Suggests **3 % (of floor area) annual refurbishment target** for **public authorities buildings** = doubling of current rate in EU!
- Announces new legislative initiative on **energy performance contracting** (including contracting in buildings sector) for 2011
- Highlights need for **training of the workforce**

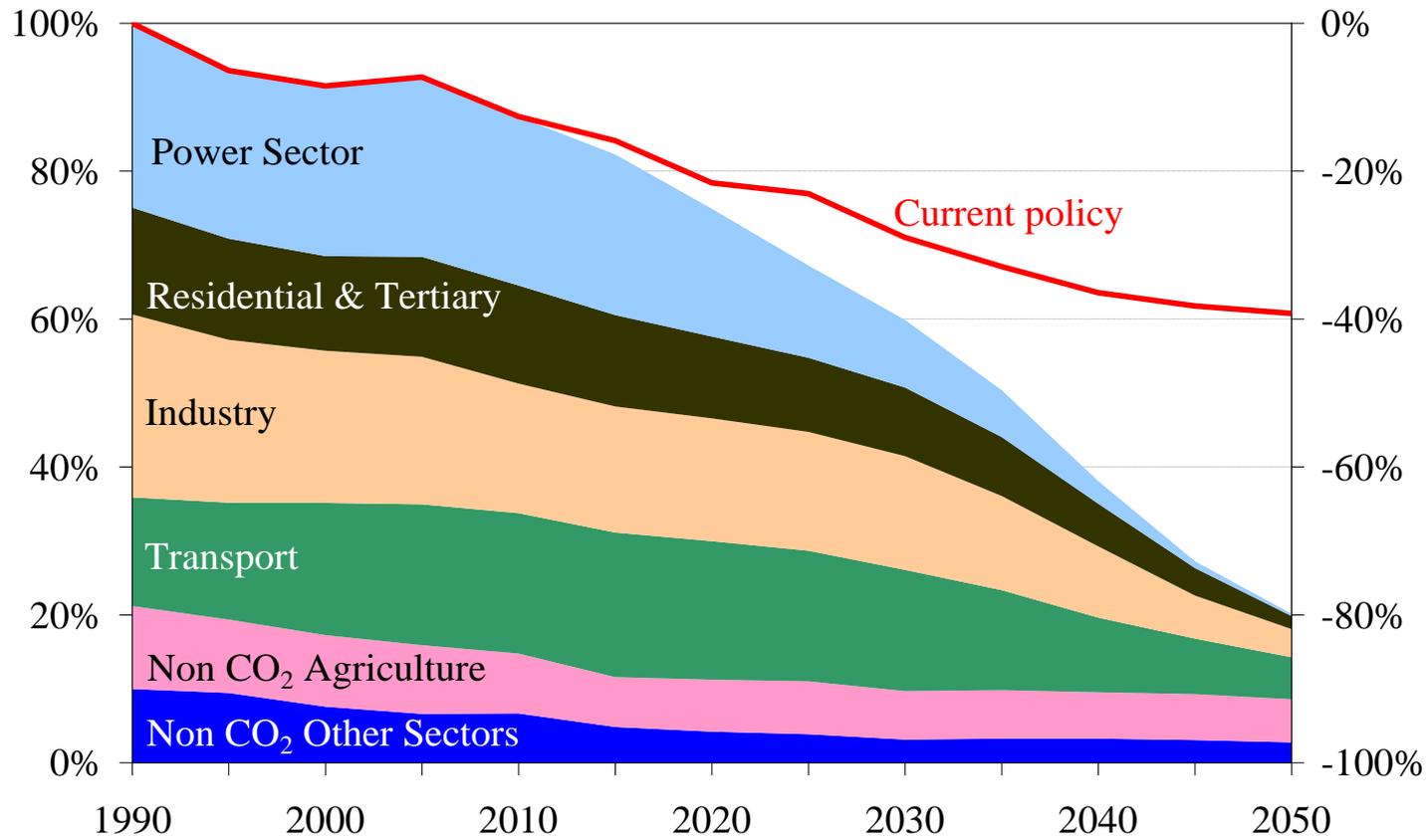
## NEXT STEPS FOR 2011: PUTTING THE PLAN INTO PRACTICE

- **Council conclusions** on the EE Action Plan **June 2011**
- **New legislative proposal** on Energy Savings (most probably encompassing revision of the existing Energy Services and Combined Heat and Power Directives) **including more details on the 3 % refurbishment target for the public sector**
- Adoption of a communication on **smart grids and metering**
- Adoption of **new ecodesign** and **energy labelling measures**
- Reinforcing the **Covenant of Mayors** and launching of the **Smart Cities and Communities initiative**
- **Proposals on financing tools** which will be brought forward during the budgetary discussions of 2011

# ● The 2050 roadmap for low-carbon economy

- Adopted also on **8 March 2011** (2011 (112) final)
- 20 % reduction in EE = 25 % reduction in CO<sub>2</sub> by 2020
- Additional investment: € 270 billion annually 2010-2050, or 1.5% of GDP on top of current 19%
- Crucial role of building sector: Emissions here could be reduced by 90 % by 2050

# The 2050 roadmap for low-carbon economy



# ● Financial instruments

- Currently being set up: **new facility with the European Investment bank** of 146 million Euro (leftover from European Economic Recovery Programme).
- Beneficiaries: Public authorities, but PPPs are possible
- *More info:*

What are the latest developments with regard to the EPBD?

# ● The recast EPBD

- **Published in OJ: June 2010, Transposition July 2012; Application by Jan/July 2013**
- **EPBD recast will also be transposed in EFTA and Energy Community countries!**
- **Continuity with 2002 Directive: Main principles are kept, but made more effective (certificates, inspections)**
- **Elimination of the 1000 m<sup>2</sup> threshold for existing buildings, minimum requirements also at component level**
  - **Obligatory use of the performance indicator given in the certificate in all advertisements for sale or rent**
  - **Member States introduce random checks on a certain number of inspection reports and certificates**



# The recast EPBD

- **Introduces for the first time cost effectiveness into the development of building codes in the EU**
- **Commission will present a regulation on a framework methodology for cost optimal requirements by June 2011**
- **Initiates transformation of the building sector towards „nearly zero energy buildings“ (which includes RES)**

# The cost optimal framework methodology

# ● Cost optimal methodology framework

- Based on Article 5 and Annex III of the recast EPBD
  - To be adopted as a delegated act by June 2011
  - Delegated Act procedure Art 290 TFEU:
    - no role for the Comitology committee, EP and Council on the same level
    - Commission acts autonomously, but “ensures appropriate consultations, including at expert level”
  - Act will be a Commission regulation accompanied by guidance document
- *A new procedure for everyone for which we do not even have agreed rules of procedure!*

# ● Cost optimal methodology framework

- Underlying rationale: encourage all MS to ensure that minimum requirements are set optimally, but avoid setting one requirement for all of EU. Commission's work well advanced
- Introduces life cycle thinking – shift away from only upfront investment costs to considering lifetime running costs plus if appropriate disposal costs
- Public expert and stakeholder meetings on 16 March 2011 and 6 May 2011

*More info:* [http://ec.europa.eu/energy/efficiency/buildings/buildings\\_en.htm](http://ec.europa.eu/energy/efficiency/buildings/buildings_en.htm)

- Adoption foreseen on or close to 30 June 2011

# ● Cost optimal methodology framework

- Current draft:
  - leaves energy performance calculation to a large extent up to MS, but gives more guidance on the cost calculation part.
  - Requirements at component level are to be set taking into account the entire building and interaction with other systems
  - Sets common calculation period of 30 years for residential and public, 20 years for commercial buildings, 3 % discount rate, common cost categories.
  - On reference buildings, freedom for MS to decide how many RBs, but need for reporting to the Commission on how these have been established. All MS have to use a common obligatory reporting sheet
  - Measures based on renewables are included in the framework methodology

# ● EPBD recast 2010/31/EU and nearly zero energy policy

- All new buildings in the EU by 31 December 2020 will have to be **nearly zero energy buildings** (before that: cost optimal requirements)
- **Public authorities** have to be nearly zero by 31 December 2018
- MS have to establish a national definition based on Directive “Art 2(2): *“a building that has a very high energy performance (...) nearly zero or very low amount of energy required should be covered to a significant extent by RES, including onsite and nearby”*”
- To be set at MS level: maximum energy use and CO<sub>2</sub> emissions, rules and definition for on and offsite RES, green electricity, minimum share of Res vs fossil etc...
- Intermediate targets to be set by 2015, MS to adopt policy plans for nearly zero energy
- For existing buildings: MS shall take measures towards nearly zero energy buildings, can also include targets

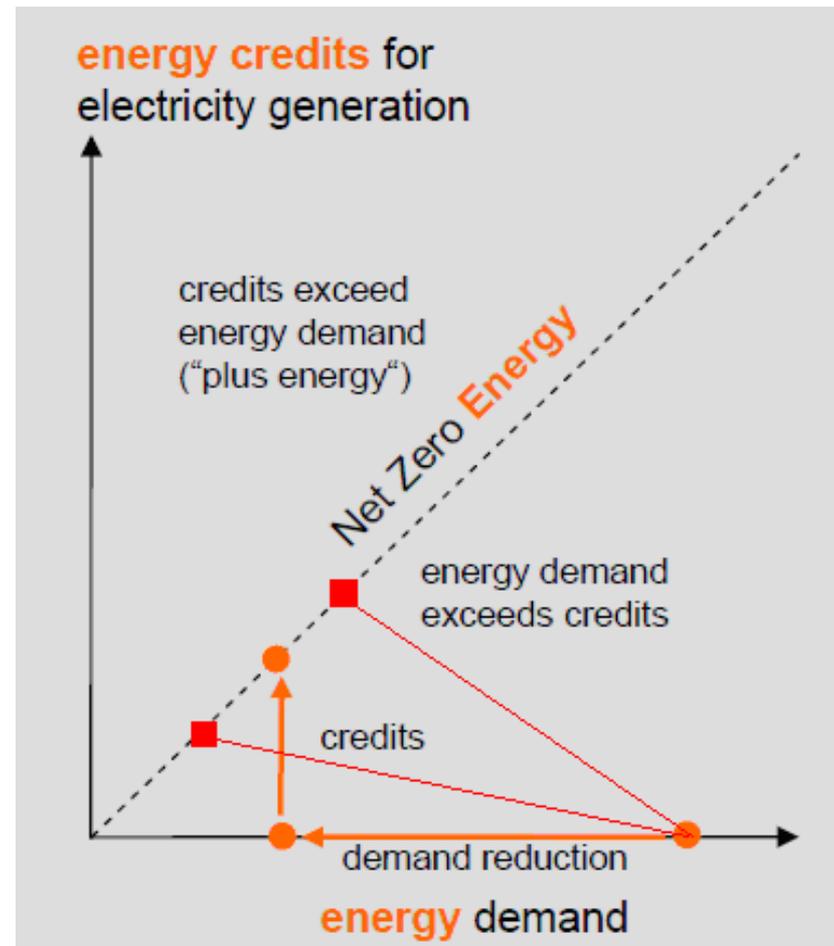
# ● Buildings policy in the RES Directive

- Member States shall recommend the use of renewable energy sources and district heating (Art. 13.3)
- Minimum RES levels by 2014 in new buildings and major renovations where appropriate: So far done by 7 MS for new buildings
- Exemplary role of public buildings by 2012



# Recast EPBD and NZEB

- EE first, then RES (Recital 15: *“alternative supply systems should be considered for new buildings (...) first ensuring that energy needs for heating and cooling are reduced”* )
- **At national level (example DK):** building requirements at the moment include only EE options, standards for 2015 phase in solar thermal, long term objectives for 2020 add PV.
- **Note: Assessment might be slightly different for a southern climate!**



## ● Also ongoing: Voluntary certification scheme

- Based on article 11 (9) of the recast EPBD
- Focused on non-residential buildings
- ‘Normal’ advisory comitology procedure applies
- Commission to adopt legislative act by the end of 2011
- First discussion took place with Member States based on an “options” paper
- Current thinking is to go for a ‘best in class’ label (paving way towards nearly zero)
- Also being prepared: voluntary Eco label for office buildings by DG ENV

## ● Recent developments in EU support tools

- First public event ever bringing together **Concerted Action for EPBD** and other stakeholders, Brussels April 2011, panel discussions on certification and nearly zero energy buildings  
*The recently published Concerted Action country reports can be found on: [www.epbd-ca.eu](http://www.epbd-ca.eu)*
- **Intelligent Energy Europe 2011** – Call for proposals 2011 closed 12 May,
  - 60 proposals on NZEB
  - Depending on available budget 6-10 proposals expected to be funded
  - Outcome of evaluations November 2011
  - Projects to run from 2012-2015 assisting market transformation to NZEB

## ● Recent developments in EU support tools

- ***New IEE Project i-SERV: "Inspection of Air-Conditioning through continuous monitoring and benchmarking"***
  - *Launched May 2011*
  - *Builds on the successful IEE HarmonAC and AuditAC projects*
  - *Monitoring and benchmarking in 1600-2000 buildings in pilot projects to prepare a web-based tool and approach to compare, evaluate performance and automatically detect inefficiencies of HVAC systems, reducing the need for on-site visits.*
- **Concerted Action/EU Commission workshop in Beijing, March 2011, on certificates as part of the EU-China cooperation on energy efficient buildings, very high interest 160 participants.**

*More info:*

[http://www.euctp.org/media/docs/presentations/certification\\_schemes\\_for\\_energy\\_performance.pdf](http://www.euctp.org/media/docs/presentations/certification_schemes_for_energy_performance.pdf)

# Thank your for attention.

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DG Energy information on energy efficiency policies:

[http://ec.europa.eu/energy/efficiency/index\\_en.htm](http://ec.europa.eu/energy/efficiency/index_en.htm)