




Initiatives taken by the European Union to improve energy efficiency in the building sector

GRIHA Summit 2017

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Outline of the presentation

- 1** The European Union
- 2 EU's Energy Efficiency Framework
- 3 EU-India Clean Energy & Climate Partnership
- 4 EU's work in India towards EE measures



About the European Union



EU's energy efficiency framework

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European legislative framework in EE



- Significantly strengthened in recent years by:
 - the recast of the Energy Performance of Buildings (EPBD, 2010/31/EU),
 - the Energy Efficiency Directive (EED, 2012/27/EU),
 - and to a lesser degree, the Renewable Energy Directive (RED, 2009/28/EC)
 - Follow up to Paris Climate Agreement: 30 November 2016: Clean Energy for All Europeans – unlocking Europe's growth potential, including:

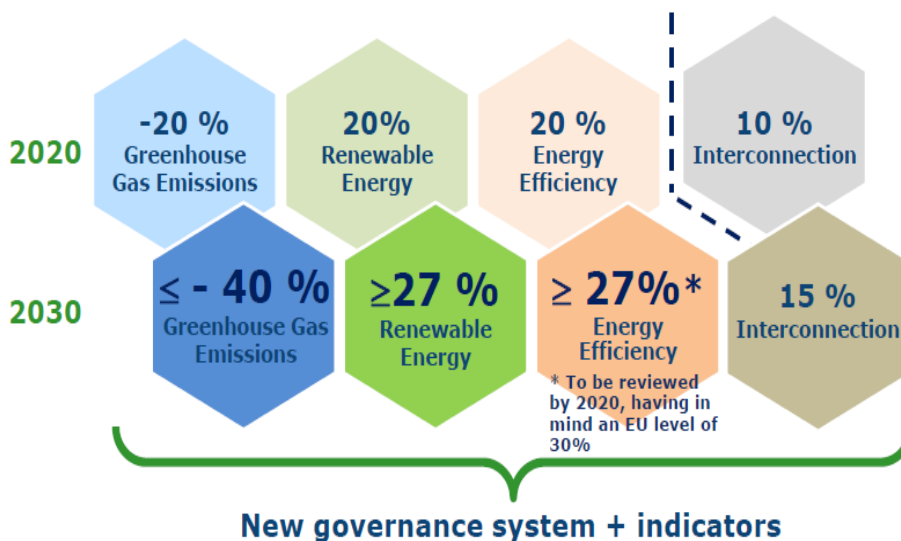
Putting energy efficiency first: consuming better, getting cleaner

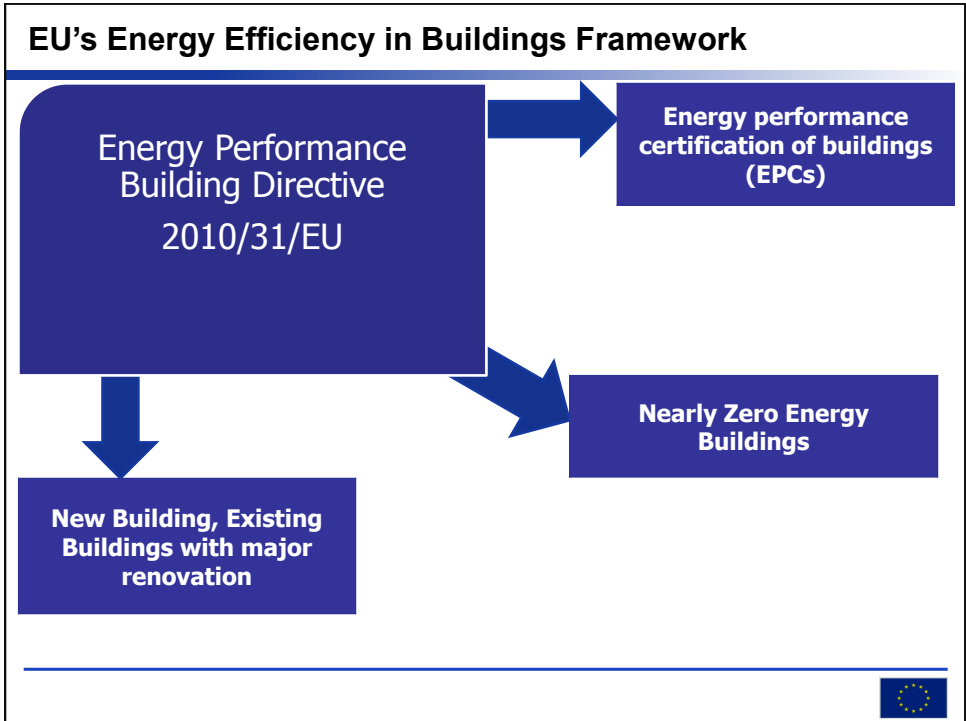
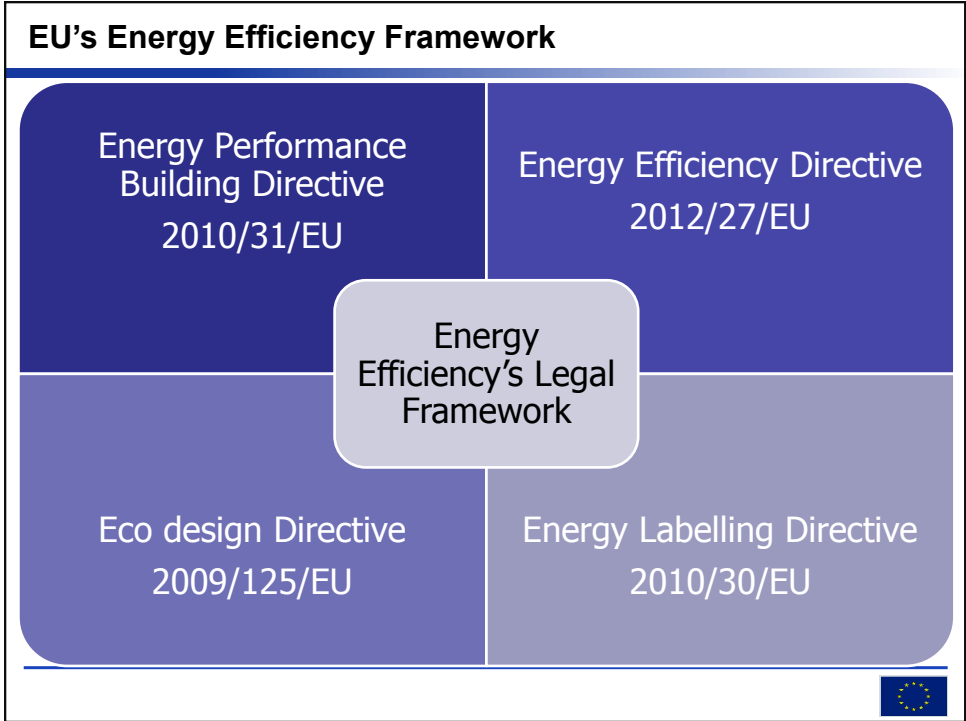
→ create the conditions for significant, long term improvements in the energy performance of Europe's building stock.

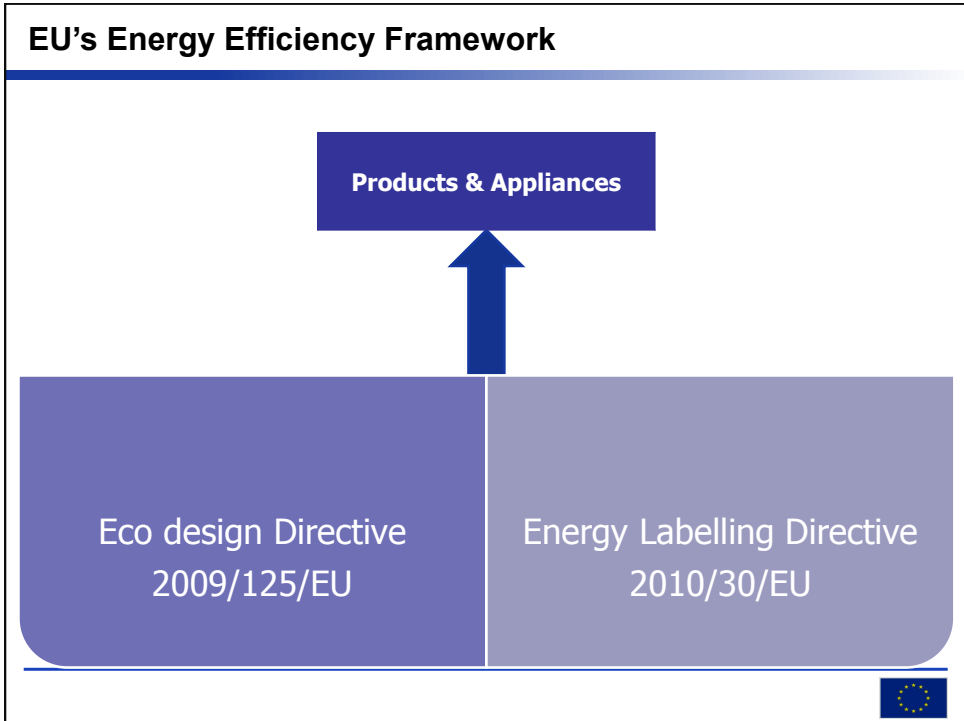
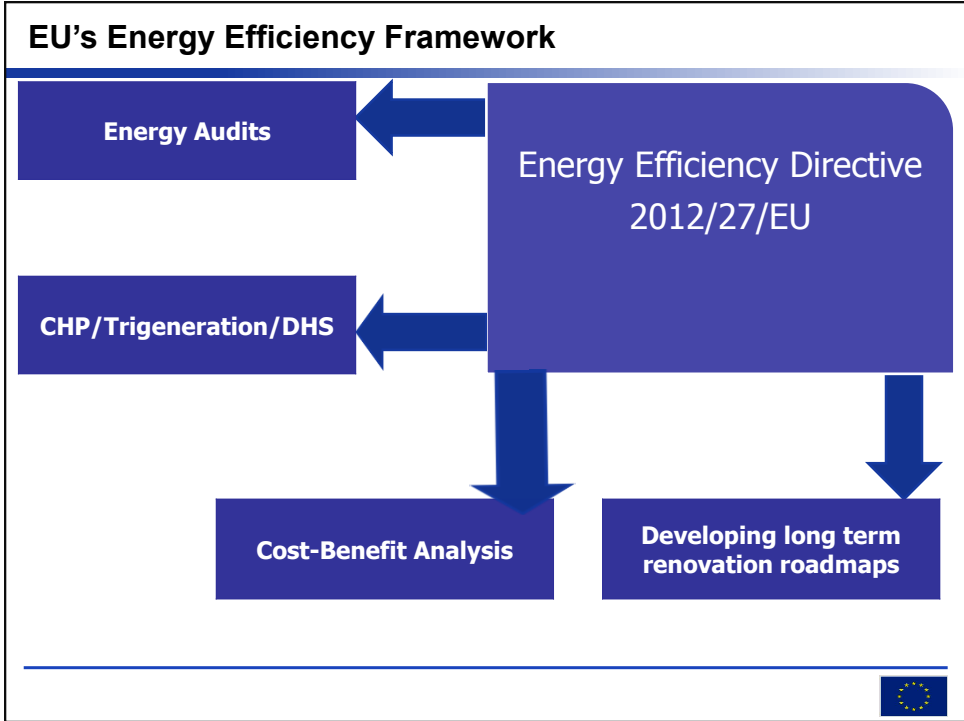
- Member States are required to draw up national plans for increasing the number of nearly Zero-Energy Buildings, plans shall include:
 - A definition of nZEB according to national/local conditions
 - Intermediate targets for new buildings by 2015
 - Information, financial or other measures adopted to promote nZEB



EU's 2030 framework for climate and energy







Clean Energy for All Europeans

Objective - Energy efficiency first: consuming better, getting cleaner

- A 30% energy efficiency target, efficient buildings, clarified ecodesign framework and measures, smarter finance to help Europe grow and meet climate goals

Why:

- Live up to Paris Commitments
- The clean energy transition lead to global investment of over 300 billion €/year
- Reduced fossil fuel import bill, translate to jobs and higher GDP
- Implementing the Sustainable Development Goals, including SDG 7 on affordable, reliable, sustainable and modern energy for all

Building renovation:

- creating market conditions for increasing the rate and level at which buildings are renovated.

Ecodesign measures

- ensure that only energy efficient appliances can be sold on the EU market.
- consumers using only energy efficient products in their homes could be saving an average of €500 annually per household by 2020.

Energy efficiency obligations schemes

- allow reducing the energy bills Utility schemes
- (Smart energy) can reduce energy bills for consumers by up to 20%, and give higher comfort level



Concrete benefits of energy efficiency

- ❑ **What will change for energy efficiency policy?**
 - extending beyond 2020 the energy saving obligation: energy suppliers and distributors to save 1.5% of energy each year from 2021 to 2030
 - improving metering and billing of energy consumption for heating and cooling consumers
- ❑ **Changes to the Energy Performance of Buildings Directive:**
 - Smart, by encouraging the use of ICT and modern technologies
 - Simple, by streamlining or deleting provisions
 - Supportive of building renovation..
 - In addition, the EU is launching a smart finance for smart buildings initiative to unlock private financing for energy efficiency and renewables in buildings at a greater scale.
- ❑ **Buildings accounts for 40% of Europe's energy consumption. Two-thirds of EU's buildings were built before energy performance standards existed, and their renovation rate is only around 1% per year.**
- ❑ The changes aim to speed up the renovation rate with a view to decarbonising the building stock by mid-century.
- ❑ This will have direct impacts on consumers and households through lower bills
- ❑ It will create a building renovation market for SMEs with a value of €80-120 billion in 2030.



EU's work in India towards EE measures

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India-EU Clean Energy & Climate Partnership

- ❑ Joint declaration agreed during EU-India Summit March 2016
- ❑ Areas of cooperation:
 - Energy efficiency
 - Solar Energy and International Solar Alliance
 - Offshore wind
 - Smart grids
 - Financing energy infrastructure, renewable energy projects and energy efficiency investments
 - Clean Coal
 - Climate Change
 - Joint Research & Innovation



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EU's initiative to implement EE in Indian building sector

Clean Energy Cooperation of EU with India (CECI):

- aims at enhancing India's capacity to **deploy low carbon energy production and improve energy efficiency**, thereby contributing to the mitigation of **global climate change**.
- supports India's efforts to **secure the supply of energy** and thus contribute to global energy security, within a well-established **framework for strategic energy EU-India cooperation**.
- facilitates the **transfer of knowledge and technological know-how** and **co-operation between EU-India businesses** in the energy technology sector



CECI: The three Specific Assignments

1st Specific Assignment

Technical assistance and advisory services to the Ministry of New and Renewable Energies (MNRE) and National Institute of Wind Energy (NIWE) for [setting up the first offshore wind-farm pilot in India.](#)



2nd Specific Assignment

Technical assistance and advisory services to the MNRE and Solar Energy Corporation of India (SECI) for the [implementation and management of identified solar parks](#), as part of the Green Energy Corridors (GEC) II project



3rd Specific Assignment

Legal and policy support to the development and implementation of [Energy Efficiency legislation for the building sector \(ECBC\)](#), in India, in collaboration with the Bureau of Energy Efficiency (BEE).



Scope of the assignment

1. Assist implementation of Energy Efficiency (EE) legislation (Energy Conservation Building Code - ECBC scheme) in 4 selected States (**Maharashtra, Madhya Pradesh, Odisha and Bihar**) and wide dissemination of results to all India.
2. Assist in the implementation of the 2012 Joint Declaration on Energy Cooperation - recently reconfirmed - and the EU-India Energy Panel.

Duration of the assignment – 42 months

Start date – January 2016

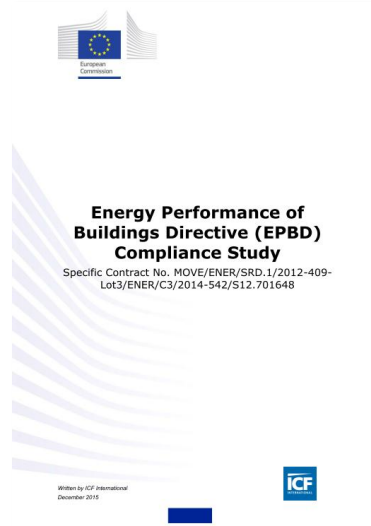
Consultants – **exergia** **pwc**



Expected results from this assignment

Result 1

Energy efficiency legislation for the building sector in India is updated and applied, using the experience of EU regulation and standards in this area. In particular, ECBC implemented in 4 States.



Expected results from this assignment

Result 2 Design studies to **retrofit/construct at least eight (8) existing/new buildings**, according to very high energy efficiency requirements.



Tool-Kit for "Passive House Retrofit" (E-RETROFIT-KIT)

Tags: [building](#)

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Social housing companies in 14 countries were given the chance to benefit from a tool kit designed to help them carry out retrofitting in such a way as to considerably reduce primary energy consumption (by up to 120 kWh/m² a year.) The tool kit includes best practices, "Passivhaus" standards and a methodology. Retrofitting methods include better insulation, air-tightness and balanced ventilation which encompass cooling in southern climates.

In this page:

- [Results](#)
- [Lesson learned](#)
- [Partners and coordinator](#)

Contact

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Budget

Overall budget 877.230,00 €
including 438.615,00 €



Expected results from this assignment

Result 3

Capacity developed at the state level to continue the implementation of the ECBC.



Expected results from this assignment

Result 4

EU – India business relations, resulting in better exposure of India to European energy efficiency technologies and practices.



Status of work done till date				
Parameters	Maharashtra	Madhya Pradesh	Odisha	Bihar
Setting up of ECBC Cell	Completed	Completed	Completed	Completed
Situation Analysis of the state	Completed	Completed	Completed	In process
Preparation of draft notification document	Completed	Near completion	Completed	In process
Stakeholder consultation to discuss the draft notification document	Completed	In process	In process	In process
Approval of draft notification document from the Central Government	In process	To be initiated	To be initiated	To be initiated
Expected month/year to get notification in the state	May 2017	September 2017	N/A	November 2017
Selection of Building (design stage) for ECBC demonstration project	One building has been identified as MEDA's new office building	To be initiated	To be initiated	To be initiated

Thank You !!

