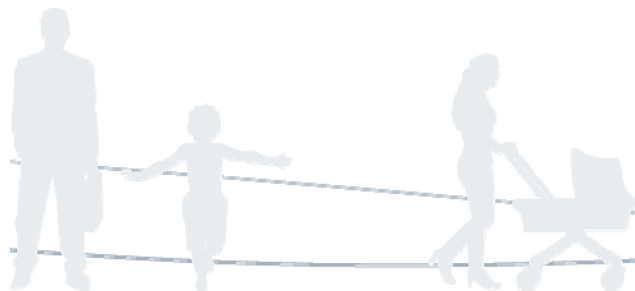


Habitat & Territoires Conseil

Pauline GRAVOILLE
Energy Department

Nearly Zero Energy Buildings Update of the French situation

4th December, 2013- Wiesbaden



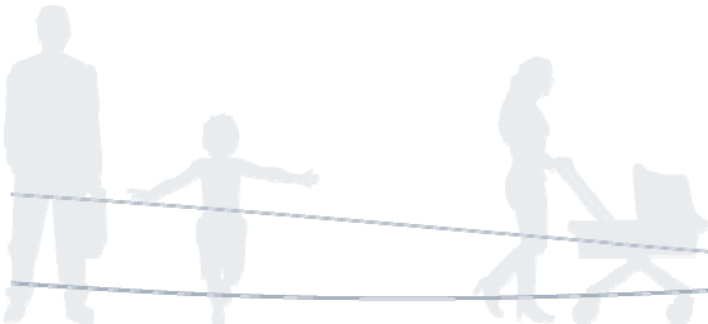
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»» Action plan for the spread of nearly zero energy buildings - 16/01/2013

In France, NZEB = BBC

BBC new < 50kWh/m².yr (primary energy) for the 5 uses* & renewable energy for individual houses

BBC refurbishment < 80kWh (primary energy) /m².yr (5 uses*)

The levels are adapted according to the altitude, the climatic area, the type of the building and the greenhouse gas emissions of the building.

*heating, cooling, lighting, auxiliary needs (ventilation, pumps), hot water

Actions for the standardization of NZEB -New construction-

New thermal regulation RT2012 (see slides below)

- A will to integrate renewable energies
- Use of labels involving financial support dedicated to individual owners
 - Labels related to the RT2005: HPE/HPE ENR/THPE/THPE ENR/BBC



»» Action plan for the spread of nearly zero energy buildings - 16/01/2013

Actions for the standardization of NZEB -New construction-

Labels related to the thermal regulation 2005: HPE/HPE ENR/THPE/THPE ENR/BBC

Label	National Target
HPE 2005	< 10% requirements RT2005
HPE EnR 2005	HPE 2005 + EnR
THPE 2005	< 20% requirements RT2005
THPE EnR 2005	THPE 2005 + EnR
BBC 2005	50 kWh _{pe} /m ² .yr

Labels re

Aims: Anticipate the energy positive buildings (2020 target), introduce a requirement in terms of CO₂, Use the life cycle concept

➔ Simulations are needed to set these levels



»» Action plan for the spread of nearly zero energy buildings - 16/01/2013

Actions for the standardization of NZEB -Existing buildings-

Refurbishment project → the global objective of the regulation is to ensure an improvement of the energy performance of the existing building

- For buildings > 1000m² built after 1948 whose refurbishment costs reach 25% of the global cost of the building, the level to reach is set according to a reference consumption of the building calculated considering a required level of performance (depending on the cases, the maximum consumption varies between 80 and 195 kWh/m².yr)
- For other refurbishment projects, only high energy performance equipments have to be used, which directly impacts this market

- Labels

Label	National Target
HPE 2009 Refurbishment	150 kWh _{pe} /m ² .yr
BBC 2009 Refurbishment	80 kWh _{pe} /m ² .yr



»» Action plan for the spread of nearly zero energy buildings - 16/01/2013

Energy performance audit: an effective communication tool

Financial tools

- New buildings: Zero interest eco-loan dedicated to investments related to energy savings, Social Housing Eco-Loan proposed by La Caisse des Dépôts et Consignations (Eco-PLS inf French), Tax Credits in favor of Sustainable Development, White Certificates, Scellier measure...
- Existing buildings: Zero interest eco-loan dedicated to investments related to energy savings (éco-prêt à taux zéro or éco-PTZ in French) , Social Housing Eco-Loan proposed by La Caisse des Dépôts et Consignations (Eco-PLS inf French), Tax Credits in favor of Sustainable Development, White Certificates (in French, Certificat d'Economies d'Energie or CEE)...

Research programmes

Prebat 1 2007 – 2012

Prebat 2 2011 – 2015 (ex: Energissime Programme ...)



»» Measures and existing instruments for the promotion of the EPBD directive

- Labels associés à la RT2005 (p.128)
- Obligation de travaux dans les bâtiments tertiaires existants (p.134)
- Évaluation de la performance énergétique des copropriétés (p.135)
- Crédit d'impôt Développement Durable (p.140)
- Eco-prêt à taux zéro (p.141)
- Exonération de la taxe foncière bâtie pour les logements BBC (p.142)
- Orientation de l'aide à l'investissement locatif Scellier en faveur des logements BBC (p.143)
- Orientation des aides à l'acquisition de logement en faveur des logements BBC (p.144)
- Dégrèvement de la taxe foncière sur les propriétés bâties (p.146)
- Livret Développement Durable (p.147)
- Évolution des règles de décision en copropriété (p.148)
- Individualisation des frais de chauffage (p.149)
- Répartition des économies d'énergie entre propriétaire-bailleur et locataire (p.150)
- Possibilité de dépassement de coefficient d'occupation des sols (p.151)
- Éco-prêt logement social (p.152)
- FEDER (p.153)
- Signes de qualité dans le bâtiment (p.155)
- Plateforme de formation e-nergieBat (p.156)
- Aides de l'ANAH pour la lutte contre la précarité énergétique (p.157)
- Observatoire de la précarité énergétique (p.158)
- Programme de rénovation thermique des logements « Habiter mieux » (p.160)

Pour mémoire, les mesures suivantes présentées dans le deuxième plan d'action en matière d'efficacité énergétique sont exigées par la directive 2010/31/UE :

- Réglementations thermiques dans les bâtiments neufs (p.126)
- Étude de faisabilité des approvisionnements en énergie (p.130)
- Réglementation thermique pour les bâtiments existants (p.130)
- Diagnostic de performance énergétique (p.132)
- Entretien et contrôle périodique des chaudières (p.136)
- Rendements énergétiques minimaux des chaudières (p.137)
- Inspections des systèmes de climatisation et de PAC réversibles (p.138)

- Thermal regulations (new and existing buildings)
- Labels
- Energy performance audit
- Zero interest eco-loan dedicated to investments related to energy savings (éco-prêt à taux zéro or éco-PTZ in French)
- Social Housing Eco-Loan proposed by La Caisse des Dépôts et Consignations (Eco-PLS inf French)
- Tax Credits in favor of Sustainable Development
- White Certificates (in French, Certificat d'Économies d'Énergie or CEE)
- ERDF
-



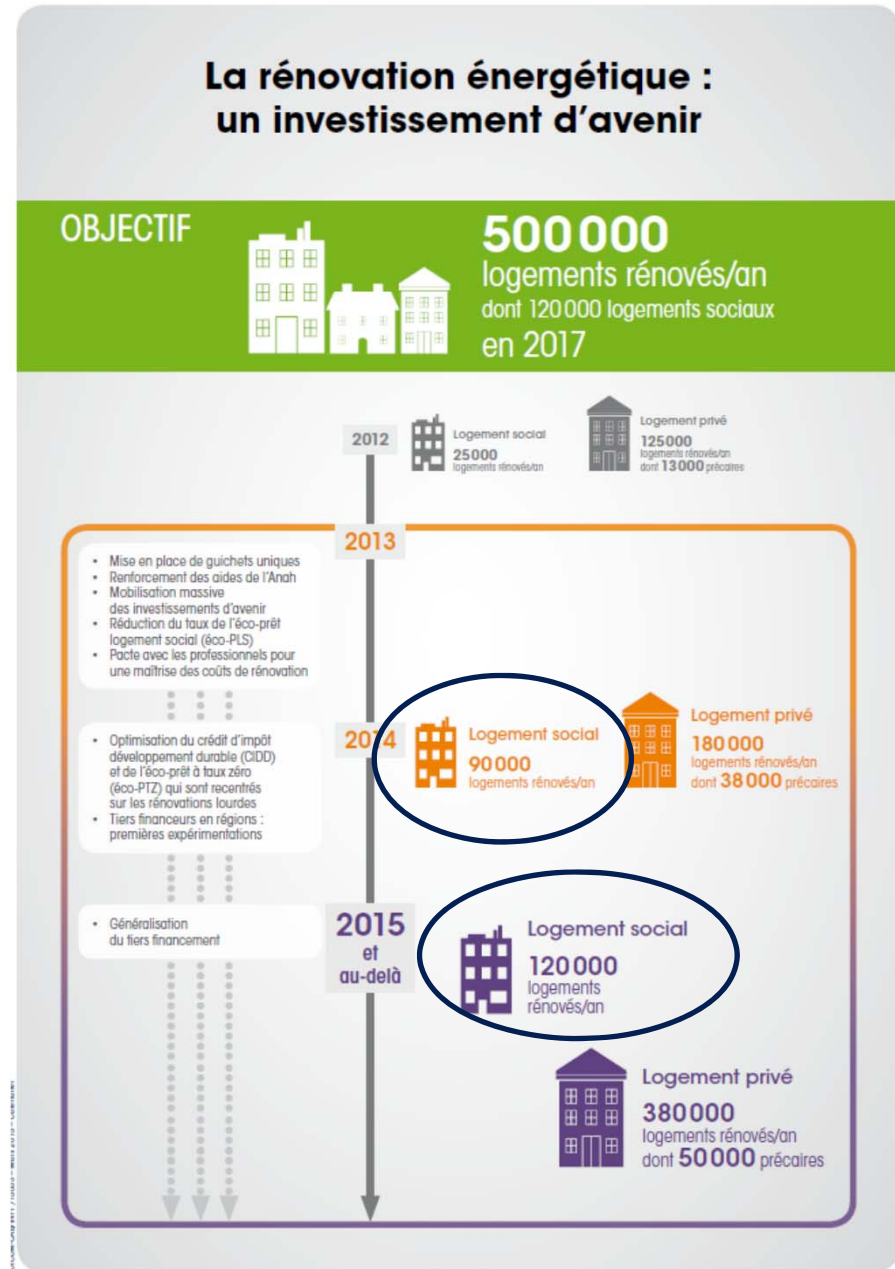
»» Energy Refurbishment - French plan -

Objectives for social housing in France
for the period 2013-2015

+120 000 refurbished buildings/year

(+150 000 new buildings/year)

Until now: 130 000 refurbished buildings





»» Energy performance observatory – USH – 2011-2105

- Instrumentation programme
- Learnings from technical solutions used in NZEB buildings in social housing

Aim: To constitute a database of new operations (certified NZEB – BBC Effinergie) of the social housing stock

First data collected at the end of April 2013 (Size of the sample group in dwellings)

- Average consumption in primary energy: 51,21 kWhep/m².yr (24 044 dwellings)
- Increasing importance of DHW in the consumptions
- External insulation used in 83% of the cases (10 130 dwellings)
- Low use of triple glazed windows (19 203 dwellings)
- Condensing boiler used in 82% of the cases (24 044 dwellings)
- Among 1145 buildings, 72% have collective heating
- DHW: important use of gas (65%) (24 044 dwellings)
- Thermal solar production in 27% of the dwellings (24 044 dwellings)
- 30% of the dwellings have DHW produced by renewable energies (24 044 dwellings)
- Ventilation with heat recovery: used in 5% of the dwellings (24 044 dwellings)
- Increase of the fixed costs (because of maintenance contracts, expensive new technologies)
- LINK: ressouceshlm.union-habitat.org



»» New buildings - Thermal regulation 2012

- Requirement in terms of minimal energy efficiency
- Requirement in terms of maximal consumption
 - Mean value 50kWh/m².yr for the 5 usages (heating, cooling, lighting, aux (ventilation, pumps), DHW)
- Requirement in terms of summer comfort

Some requirements in terms of method

- Quality in terms of implementation (thermal bridges and airtightness tests)
 - Living comfort (minimal surface of windows)
 - Development of renewable energies
 - Measurement or estimation of energy consumptions, information provided to the tenant
 - Global energy quality (local energy production)
-
- From 28/10/11 for public buildings, tertiary buildings and some urban programmes
 - From 01/01/13 for all residential buildings



Nous contacter

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