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Luxembourg

Partenaire pour une transition énergétique durable

Nearly Zero Energy Buildings in the residential sector - Luxembourg

Fabrice Conrod

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Odysee-Mure workshop, Vienna

Nearly Zero Energy Buildings in the residential sector - Luxembourg

1 Getting acquainted with Luxembourg

- 2,586 km²
- Attractive :
160,000 cross-border workers
- Economical sectors :
 - Banks, insurance, accounting
 - Commerce
 - IT
 - Industry
 - Construction
- Business friendly



5.7%
UNEMPLOYMENT

(Statec, 2017)



1.1%
INFLATION

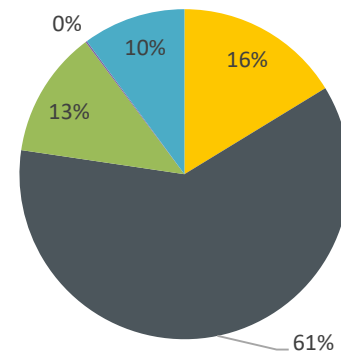


590 667
POPULATION



2.3%
GDP GROWTH

Energy consumption, incl. cross-border traffic
(Odyssee, 2015)



■ Industry ■ Transport ■ Households ■ Agriculture ■ Tertiary & others

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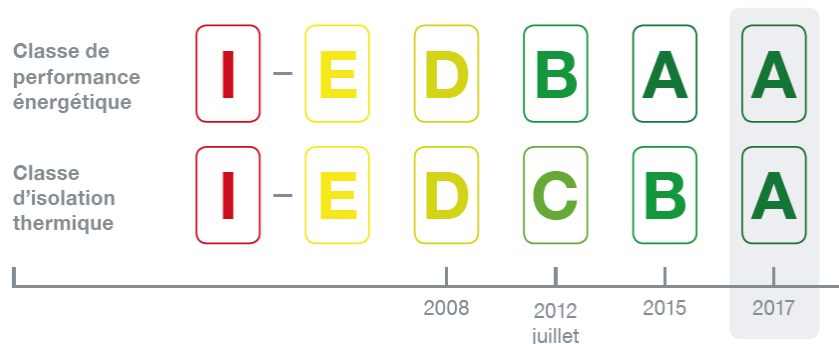
2 Importance of the residential sector

- Growing sector (population + 2,5%/a)
- High savings per unit
- Lifetime: savings secured for 30 years
- Win-Win (cost-effective, increase of living quality)
- Challenge but opportunity for the construction sector



3 The measure

From 01/01/2017 : All new residential buildings are « NZEB »



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4 Elements of policy evaluation

1. Means and outputs

- Public budget : 0 EUR (cost-effective measure for the end user)
- 229,161 dwellings (stock in 2015)
- Approx. 8,600 new dwellings/year expected (2020)

2. Energy savings

- 355 GWh expected (2020)

3. Sources of uncertainties

- Buildings built vs. modelled

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4 Elements of policy evaluation

4. Evaluation of energy savings

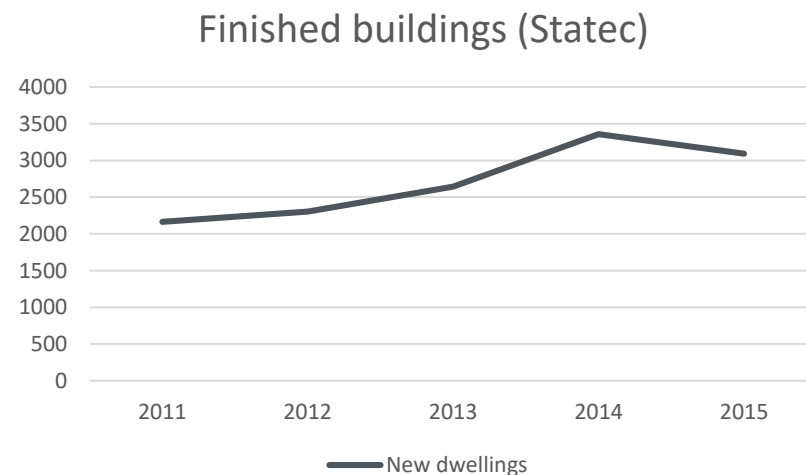
Evaluation method : Mixed TD / BU methods

Baseline : stock average

- 9 types of dwellings modelled (per type and age)
- Net dwelling area
- Specific consumption (before / NZEB standard)
- New buildings / year (projections by Statec)

Adjustments, corrections

- Progressive rebound effect (+20% in 2020)
- No free-rider





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Fabrice Conrod

T+352 40 66 58

fabrice.conrod@myenergy.lu

My Energy G.I.E.
R.C.S. Luxembourg C84



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DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Économie



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