



# *The Lift Industry and the EU Energy Efficiency legislation*

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# Agenda

- Energy Efficiency Legislation: different target groups and opportunities for the lift industry
  - Energy Efficiency Directive 2012/27/EU
  - Energy Performance of Buildings Directive 2010/31/EU (EPBD)
  - Ecodesign framework Directive 2009/125/EC
  - The Energy Labelling framework Directive 2010/30/EU
  - Ecodesign Standby Regulation 1275/2008/EC
  
- Overview and conclusions



# 1. Energy Efficiency Directive 2012/27/EU

Legislation: <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1399375464230&uri=CELEX%3A32012L0027>

European Commission website:

<https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficiency-directive>

## General Directive:

- Targets a **20% energy efficiency increase by 2020.**
- Sets requirements for Member States to take actions and reach their national energy efficiency targets.



# 1. Energy Efficiency Directive 2012/27/EU



## Proposed actions:

- Stimulate the public sector to purchase energy efficient buildings, services and products.
- Renovate a certain percentage of the stock of the public sector 3% per year and comply with the EPBD requirements.
- Stimulate energy audits for SMEs and promote the availability of energy audits in general.
- Stimulate the introduction of Energy management system certified according to ISO 50001.
- All non-SME's have to do an energy-audit by December 2015.
- Member States should adopt a long term strategy for building renovation.
  - Energy retailers and sales should have energy savings of 1,5% per year.
  - Empowering energy consumers to better manage energy consumption.
  - Promotion of energy efficiency in heating and cooling.



# 1. Energy Efficiency Directive 2012/27/EU

## Member States (or regions):

- Publish long term strategies for building renovation by 2014.
- MS must draw up national energy efficiency action plans every three years.
- MS must report the progress achieved towards their national energy efficiency targets on an annual basis.

## Belgium:

- Regional agreements with companies on energy efficiency
- Energy audits



# 2. Energy Performance of Buildings Directive 2010/31/EU

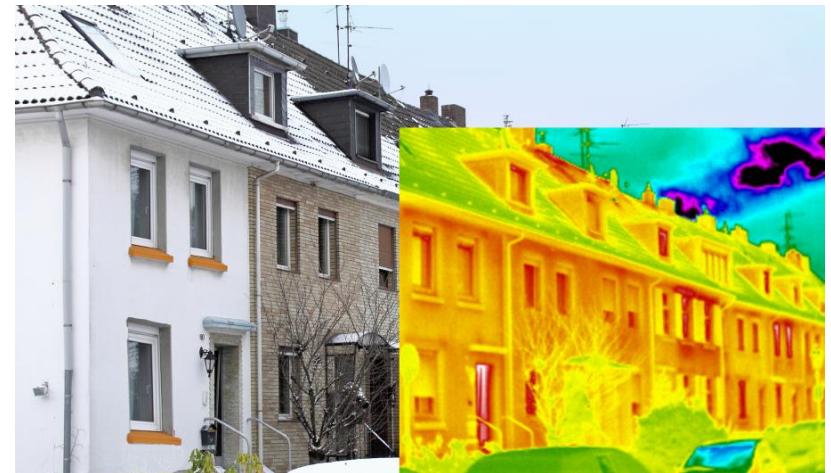
Legislation: [http://eur-lex.europa.eu/legal-content/EN/ALL/;ELX\\_SESSIONID=FZMjThLLzfxmmMCQGp2Y1s2d3Tjwtd8QS3pqdkhXZbwqGwlgY9KN!2064651424?uri=CELEX:32010L0031](http://eur-lex.europa.eu/legal-content/EN/ALL/;ELX_SESSIONID=FZMjThLLzfxmmMCQGp2Y1s2d3Tjwtd8QS3pqdkhXZbwqGwlgY9KN!2064651424?uri=CELEX:32010L0031)

European Commission website:

<https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings>

**Sets requirements for Member States to take actions and reach their national energy efficiency targets.**

**Targets the building sector.**



# 2. Energy Performance of Buildings Directive 2010/31/EU

## Five pillars:

1. Energy performance of buildings certificates.
2. Inspection schemes for heating and air conditioning systems.
3. All new public buildings (19% of market share) must be nearly zero energy buildings by 2019. And all new buildings must be nearly zero energy buildings by 2021.
4. MS must set minimum energy performance requirements for new buildings, renovation of buildings and for the replacement or retrofit of building elements.
5. MS have to draw up lists of national financial measures to improve the energy efficiency of buildings.



# 2. Energy Performance of Buildings Directive 2010/31/EU

**ELA contribution to the evaluation of the EPBD framework Directive:**

- **The EU should develop harmonized calculation tools for products like lifts.**
- **Guidance on nearly zero energy buildings should include information on lifts.**
- **Energy efficiency improvement requested when changes to the lift are made to for example improve safety.**
- **Minimum energy efficiency requirements for lifts in EU should be considered more often.**





# 2. Energy Performance of Buildings Directive 2010/31/EU

- **Current developments:**
- **EU guidance on the concept of nearly zero energy building.**
- **CEN/TC 371 "Project Committee - Energy Performance of Building project group" coordinates the elaboration of energy efficiency calculation standards in different other CEN TC's.**
  - CEN/TC 89 Thermal performance of buildings and building components.
  - CEN/TC 156 Ventilation for buildings.
  - CEN/TC 169 Light and lighting.
  - CEN/TC 228 Heating systems and water based cooling systems in buildings.
  - CEN/TC 247 Building Automation, Controls and Building Management.
- **Product Category Rules for lifts can support the EPBD process but are rather costly.**



# 2. Energy Performance of Buildings Directive 2010/31/EU

## Possibilities for lifts:

- **When minimum requirements are set for new buildings or renovated buildings these could include minimum requirements for lifts.**
- **When the energy performance of building certificates are introduced they could take into account the energy consumption of lifts. This means that certain lifts could receive a better score than others or that having a lift will reduce the score as it uses more energy than staircases.**
- **When striving for nearly zero energy buildings the lifts should be also as energy efficient as possible. This goal should increase attention for the energy consumption of lifts, but other measures might show more cost effective than lifts.**
- **Financial incentives for energy efficiency could include incentives for certain energy efficient lifts.**



# 2. Energy Performance of Building Directive 2010/31/EU

## Advantages:

- **Energy efficient lifts can be stimulated for new and renovated buildings, at least when they are taken over in the minimum requirements at national level.**
- **Possibly more attention for energy efficient lifts when they are taken into account for the certificates.**
- **Energy efficient lifts can contribute to nearly energy neutral buildings.**
- **Energy efficient lifts can be stimulated via financial incentives.**

## Disadvantages:

- **Non-harmonised requirements all over Europe.**
- **Requires changes and lobby in all different Member States.**



# 3. Ecodesign Directive 2009/125/EC

Legislation: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009L0125>

European Commission website:

[http://ec.europa.eu/growth/industry/sustainability/ecodesign/index\\_en.htm](http://ec.europa.eu/growth/industry/sustainability/ecodesign/index_en.htm) and

<http://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficient-products>



**A framework Directive which mandates the European Commission to develop specific product legislation via implementing acts.**

**Requirements for the placing on the market of products.**

**So far main focus on energy efficiency, but more attention to resource efficiency.**



# 3. Ecodesign Directive 2009/125/EC

## 3 year working plan:

- Savings potential.
- Practically possible to introduce requirements.
- Study by external consultant who has extensive experience with the ecodesign methodology, but not always with a specific sector.
- **Publication postponed.**

Voluntary agreements: not retained solution.

- > 80% market share



# 3. Ecodesign Directive 2009/125/EC

## Current developments: resource efficiency

- Ensuring products are repairable for a certain period.
- Ensuring the durability of products.
- Increase the recycled content in products.
- Improve the easiness of recycling the product.



# 3. Ecodesign Directive 2009/125/EC

## Advantages:

- **Similar requirements all over Europe for placing new lifts on the market.**
- **Clear cut-off point for less energy-efficient lifts that cannot be sold anymore.**

## Disadvantages:

- **Risk of very strict energy-efficiency or resource efficiency requirements.**
- **Cost of compliance while market surveillance is in general not sufficient.**
- **Periodic revision and developing more stringent requirements.**



# 4. Energy Labelling Directive 2010/30/EU

Legislation: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32010L0030>

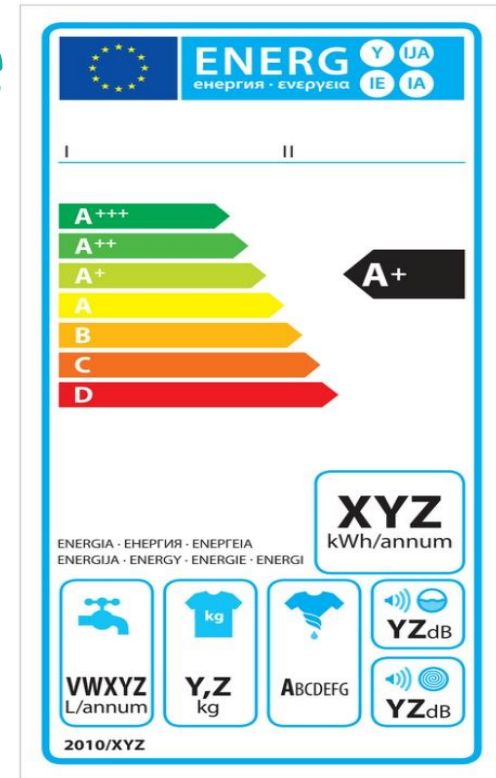
European Commission website:

<https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficient-products> and the FAQ

[https://ec.europa.eu/energy/sites/ener/files/documents/EC\\_FAQ\\_EL\\_2015-1\\_0.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/EC_FAQ_EL_2015-1_0.pdf)

Proposal for new regulation:

[http://ec.europa.eu/energy/sites/ener/files/documents/1\\_EN\\_ACT\\_part1\\_v6.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v6.pdf)



**A framework Directive with specific implementing acts for certain products.**

**Energy efficiency, noise, water, annual energy consumption.**

**Mostly used for consumer products to inform non-professional buyers.**



# 4. Energy Labelling Directive 2010/30/EU

## Current developments:

- **Regulation instead of Directive.**
- **Only scales from A to G and no A+, A++, A+++ anymore.**
- **Regular rescaling to avoid overpopulation of classes A & B.**
- **Introduction of a product database.**
- **Impact of circular economy: resource indicators.**

**A new framework regulation is under discussion and will probably become applicable in 2017.**



# 4. Energy Labelling Directive 2010/30/EU

## EN ISO 25745-2 Energy performance of lifts, escalators and moving walks – Part 2: Energy calculation and classification for lifts

Table 7 — Classification of energy efficiency

Energy efficiency class	Energy consumption per day (Wh)
<b>A</b>	$E_d \leq 0,72 \times Q \times n_d \times s_{av} / 1\,000 + 50 \times t_{nr}$
<b>B</b>	$E_d \leq 1,08 \times Q \times n_d \times s_{av} / 1\,000 + 100 \times t_{nr}$
<b>C</b>	$E_d \leq 1,62 \times Q \times n_d \times s_{av} / 1\,000 + 200 \times t_{nr}$
<b>D</b>	$E_d \leq 2,43 \times Q \times n_d \times s_{av} / 1\,000 + 400 \times t_{nr}$
<b>E</b>	$E_d \leq 3,65 \times Q \times n_d \times s_{av} / 1\,000 + 800 \times t_{nr}$
<b>F</b>	$E_d \leq 5,47 \times Q \times n_d \times s_{av} / 1\,000 + 1\,600 \times t_{nr}$
<b>G</b>	$E_d > 5,47 \times Q \times n_d \times s_{av} / 1\,000 + 1\,600 \times t_{nr}$

# 4. Energy Labelling Directive 2010/30/EU

**ELA lobby: use official label based on EN ISO 25745-2.**

**Voluntary label significantly different from the legal label.**

**Energy Labelling Regulation not for B2B products, but special case:**

**property developer:**

**cheapest possible installation**



**owner:**

**cheapest possible running cost**



# 5. Ecodesign Regulation 1275/2008/EC on standby and off-modes

Legislation: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:339:0045:0052:en:PDF>

European Commission website:

[http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/ecodesign/standbyandoffmode\\_en.htm](http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/ecodesign/standbyandoffmode_en.htm)

**Focusing on electrical and electronic household and office equipment.  
Lifts not in the scope.**



# Overview and conclusions

Energy Efficiency Directive 2012/27/EU	Energy Performance Building Directive 2010/31/EU	Ecodesign Directive 2009/125/EC	Energy Labelling Directive 2010/30/EU
	New and renovated buildings: building or component performance	Similar requirements all over Europe for placing new lifts on the market	Promotes the purchase of energy efficient lifts
	Financial incentives	Minimal energy efficiency required	Well-known and recognizable label
National implementation	National implementation	Risk of strict and evolving energy and resource efficiency requirements	Week market surveillance
Unclear impact potential	Lifts cause energy consumption Cost effectiveness of lifts	Possible future inclusion of environmental impacts	