

## **POSITION PAPER**

### **10 golden ideas for energy efficiency improvement in buildings in Ukraine**

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#### **Introduction**

The improvement of energy efficiency in buildings in Ukraine should be seen as a high priority for the authorities. Indeed, the analysis of the situation in EU has shown that buildings are the main source of energy utilization, accounting for around 40% of the energy used in EU. The actions taken by the EU in order to decrease the energy “wasted” in buildings are of a very significant nature. The Energy Performance of Buildings Directive, which is the main regulatory tool of this process, is being reviewed to go even to a stricter level of requirements. Most of EU countries have set very stringent consumption targets for the coming years. Ukraine can not remain out of this long term trend. Reducing the energy used in buildings is first of all an economy for a nation where tariffs are subsidized, a direct economy for households which pay the energy consumption and who will pay more as energy prices go up, a source of technological progress and employment by the use of new technologies, a source of stability for the energy infrastructure by reducing its current load, an environmental gain by reduction of gas emissions and an issue of energy security for the country, who will decrease dependency on imported sources of energy.

But increasing the level of the requirements in terms of reduction of energy consumption and implement this requirement, which should be the target of the authorities, is only the final stages of a long process. In order to achieve results, a certain number of tools and mechanisms have to be implemented in Ukraine. This paper gives our view of the list of these different tools/mechanisms that we should work quickly in establishing.

#### **A. Prerequisites**

- 1-** Create a constructor’s 10 years guarantee for the benefit of end users
  - Positive circle quality/cost/image/durability/performance/confidence
  - Reinsurance guaranteed by the State (at the beginning)
  - Keeping the data on heat losses for the next 5-10 years (by Ministry of Regional Development and Construction)
  
- 2-** Create and implement an effective technical control/inspection

From design (approval at building permit stage) through construction (approval of technical drawings, installation methods and physical control on site) up to commissioning (technical commission for commissioning acceptance)

Should be compulsory. Without technical control, no construction permit issuing and insurance possible

Bureau of authorized installers, product designers and energy auditors

**3-** enhance/support innovation in the field of energy efficiency

Network of experts on energy efficiency: universities, technical labs, industry representatives: for generation of ideas, promotion of innovative concepts

Education of technical specialists

Financial support for public/semi-public research projects

**B. Diagnosis & target definition**

**4-** to have a reasonable knowledge of the actual consumption of housing park and fixing targets

- For new construction

- For existing (multistory, single family house, etc...)

Only one KPI = Kwh/m<sup>2</sup>/year for regulated uses (heating, hot water, air conditioning, ventilation, auxiliary equipments for lighting and heating)

Creation of energy passport + a Label for buildings

Can/must include commercial segment

**5-** define the targets for short term improvements & for long term ambition

Per region

Per segment (new/reno multi-story/single)

Up to positive energy buildings (!)

**C. Execution**

**6-** modernize technical norms

Civil works

insulation & ventilation

equipments

Introduce energy passports for equipments

**7-** Accompany the structuring of the offer

Today :

few big multinational groups (such as Saint-Gobain)

hundreds of suppliers (windows, tiles, equipments, lighting, etc...)

thousands of installers/craftsmen

=> Adapting the competencies of the "Offer" sector is Key factor of success:

Training for future workers (universities, technical schools, mandatory trainings during the career, etc...)

Development of a Label for installers/craftsmen

Providing information about "simple" and "affordable" technical solutions, which would include technology, materials and energy efficiency measures

## 8- Develop support for the industry / create obligations

### For new construction

Push at the beginning: direct financial support from the State to developers during x years so as to create the dynamics

Tax benefits for high performance in energy consumption buildings

Soil occupation ratio premium for high performance in energy consumption buildings

### For renovation

Tax benefits for investors (insulation of envelope, windows, ventilation)

Lower interest rates loans from banks (eco-loans) to support small renovation projects

### Definition of obligations by the State for energy savings put on energy suppliers.

Energy suppliers have to deliver savings otherwise they pay penalties to the State

They can develop projects with their customers and therefore obtain certificates of energy savings. They can also trade their CES together with other actors (public authorities, cp big companies) who would have also the possibility to obtain CES

-> it creates a very positive circle : mechanism based on market logic, with very limited/no financial impact for the State. It is in place in UK, France, Italy. A lot of other countries are joining (Netherland, Denmark, Ireland, Japan, etc....)

## 9- communicate

### “Walk the talk”:

Demonstrate with few big public projects every year, in every region

For public projects: contracts of energy performance (commitment to deliver savings as a counterpart of (if needed) higher construction costs) – same than Germany

Targets fixed for energy consumption reduction in public buildings (per region, periods to be defined, etc..)

### Public communication campaign

Show good examples

Benchmark with other countries

Explanation of Russian strategy for energy efficiency in housing sector

1 yearly national conference

Etc...

### Educate end users about the interest to go for energy efficiency projects:

#### Key messages

Take care of the planet (conscience)

Improvement of life (air quality, water quality, biodiversity, heavy metals, etc...)

Save resources (for longer use of available energy + less energy dependency)

Save money (pay-back for investors)

#### Free info office network

through ministry of regional development and construction

provide info & advices to end users/investors

## 10- Monitor & adjust

Develop reporting

Check KPIs + analyze deviations

Adjust when needed

A commission for energy efficiency should be charged of it

A transparent and clear system of control and monitoring should be created