ENERGY EFFICIENCY
Harmonization of Ukrainian standards

DIRECTIVE 2010/31/EU
ON THE ENERGY
PERFORMANCE OF BUILDINGS

LEGISLATION AND
STANDARDS IN UKRAINE

Pyrkov Viktor
Ph.D., Deputy General Manager for Science, «Danfoss TOV»
Draft law of Ukraine on Energy Efficiency
(Based on Energy Performance Directive 2010/31/EC)

Law of Ukraine on Construction Standards
Obligatory implementation of Building Standards, including those which are harmonized to European Standards, on minimal energy supply of buildings.

Building and Construction Sector Program on Energy Efficiency for years 2010-2014
CONFORMITY OF UKRAINIAN BUILDING STANDARDS TO EUROPEAN STANDARDS, IN THE PART OF ENERGY EFFICIENT EQUIPMENT IMPLEMENTATION IN THE ENGINEERING SYSTEMS OF BUILDINGS

NEW BUILDINGS

INDOOR CLIMATE

ENERGY USE FOR SPACE HEATING AND COOLING

HEATING SYSTEMS

AUTOMATION & CONTROL FOR BUILDING SYSTEMS

AUTOMATION OF HEAT SUBSTATIONS

INSTALLATION AND COMMOTIONING OF WATER BASED HEATING SYSTEMS

DETERMINATION OF ENERGY CONSUMPTION IN BUILDINGS & APPARTMENTS

ISO 7730

ISO EN 13790, EN 12831, EN 15243, EN 15241

partly adopted

not adopted

partly adopted

harmonization planned for 2011 r.

EN 15232

EN 15232

harmonization planned for 2011 r

EN 14336

Directive 2006/32/EC

not adopted

harmonized
CONFORMITY OF UKRAINIAN BUILDING STANDARDS TO EUROPEAN STANDARDS, IN THE PART OF ENERGY EFFICIENT EQUIPMENT IMPLEMENTATION IN THE ENGINEERING SYSTEMS OF BUILDINGS

EXISTING BUILDINGS

- THERMOINSULATION OF BUILDINGS
- AUTOMATION OF HEAT SUBSTATIONS
- DETERMINATION OF ENERGY CONSUMPTION OF BUILDING
- CONTROL BY THERMOSTATIC VALVE
- AUTOMATED BALANCING CONTROL OF HEATING SYSTEMS
- AUTOMATED BALANCING CONTROL OF DHW SYSTEMS
- HEAT COST ALLOCATOR

- Directive 2010/31/EC
  - EN 15232
  - adopted
  - harmonized

- Directive 2006/32/EC
  - EN 15232
  - harmonized
  - harmonization planned for 2011

- TC 164 WI 164353:2006(E)
  - EN 15316-2-1
  - adopted

- EN 834
  - adopted
  - admitted/not adopted

EXISTING BUILDINGS

- CONFORMITY OF UKRAINIAN BUILDING STANDARDS TO EUROPEAN STANDARDS, IN THE PART OF ENERGY EFFICIENT EQUIPMENT IMPLEMENTATION IN THE ENGINEERING SYSTEMS OF BUILDINGS

- THERMOINSULATION OF BUILDINGS
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- Directive 2010/31/EC
  - EN 15232
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- Directive 2006/32/EC
  - EN 15232
  - harmonized
  - harmonization planned for 2011

- TC 164 WI 164353:2006(E)
  - EN 15316-2-1
  - adopted

- EN 834
  - adopted
  - admitted/not adopted
CONFORMITY OF UKRAINIAN BUILDING STANDARDS TO EUROPEAN STANDARDS, IN THE DETERMINATION OF ENERGY EFFICIENCY OF BUILDINGS

NEW AND EXISTING BUILDINGS

- **EN 15316**: Energy Certification of Buildings - partial harmonization planned for 2011
- **EN 15217**: Energy Requirements and System Efficiency - partly adopted
- **EN 15603**: Overall Energy Use and Definition of Energy Ratings - not adopted
- **EN 15378, EN 15239, EN 15240**: Inspection of Heating & Air-Conditioning Systems - not adopted
- **EN 16001**: Energy Management System - not adopted

- **ENERGY MANAGEMENT SYSTEM**
- **OVERALL ENERGY USE AND DEFINITION OF ENERGY RATINGS**
- **ENERGY CERTIFICATION OF BUILDINGS**
- **CALCULATION OF SYSTEM AND ENERGY REQUIREMENTS AND SYSTEM EFFICIENCY**
ENERGY EFFICIENCY – BUILDING STANDARDS IMPLEMENTATION

прДБН В.2.5-ХХ-2011
Domestic Water Supply System and Sanitary Piping

СНиП 2.04.05-91
Heating, Ventilation and Air-conditioning, изм №1; №2(укр.); №2(межгосударств.)

прДСТУ Н Б ЕН 15232:2011

ДСТУ Б А.2.2-8:2010
“Energy efficiency” section as a part of design documentation of projects

ДСТУ-Н Б А.2.2-5:2007
Directions on elaboration of Energy Certificate of Buildings under new Construction and Reconstruction

ДБН В.2.6-31:2006
Thermoinsulation of Buildings

ДБН В.2.5-39-2008
District Heating

ДБН В.3.2-2:2009
Reconstruction and Capital Repairs of Residential Buildings

ДБН В.2.2-15-2005
Residential Buildings зм. № 1:2009
Conclusions:

1. Ukraine has harmonized the obligatory minimal requirements of European standards on energy efficient design of buildings in Building Standards.

2. Ukraine is on the way of harmonization of complex approaches in the determination of energy efficiency of buildings.

3. Measures on raising of buildings energy efficiency level are included in obligatory building standards.
WAYS OF TRANSFORMING TO EUROPEAN PRINCIPLES OF ENERGY EFFICIENCY OF BUILDINGS IN UKRAINE

1. To accept European standards for determination of energy efficiency - consumption of primary energy and CO₂ emission reduction.

2. To approve implementation in Ukraine of European standards on energy efficiency as recommended standards by the time when Ukrainian standards will have been harmonized.

3. To develop mechanisms of state financial support on stimulation of thermomodernization of the existing buildings.

4. To provide professional trainings to specialists.

5. To allow step-by-step implementation of building standards for thermomodernization of residential buildings on the expense of residents.

6. To provide state and independent control system of energy efficiency of engineering systems and energy consumption of building.