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Features of standards harmonisation process in electricity and gas sectors

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**Development of Standardisation Technical Committees
in Electricity and Gas sectors**

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Stages of standards harmonisation



- The first step in the harmonisation of standards is to define the strategic objectives that the country (national approach) or countries (regional approach) want to achieve.
- The second step is to define a minimum set of standards (priority standards) to be adopted to achieve these objectives.

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Stages of standards harmonisation (2)



Third stage is familiarisation with (the study of) priority standards.

The fourth stage is the adoption of priority standards as interstate (regional) or national standards. The method of standards adoption shall be determined by the conditions of implementation of these standards.

Stages of standards harmonisation (3)



The fifth stage is the modernisation of the national standardisation system. In particular, it means ensuring access to the international standards, the acquisition (activation) of membership in the international (regional) standardisation organisations, the establishment of technical committees mirroring to the international or regional ones.

The sixth stage is the implementation of standards.

First stage of harmonisation



Moldova's strategic standardisation objectives are as follow:

- To fulfil the obligations under the Association Agreement and DCFTA Agreement with EU.
- To fulfil the obligations under the Energy Community Treaty.

Compilation of a list of priority standards: electric power



The list of priority standards was drafted based on the document of Energy Community Secretariat called Generally applicable standards – electric power - Reg. #: MC2 / 4-2 / 21-05-07ECS. The document was prepared in 2007 and contained a list of 190 standards and series of standards. After been updated the list amounted to 319 standards.

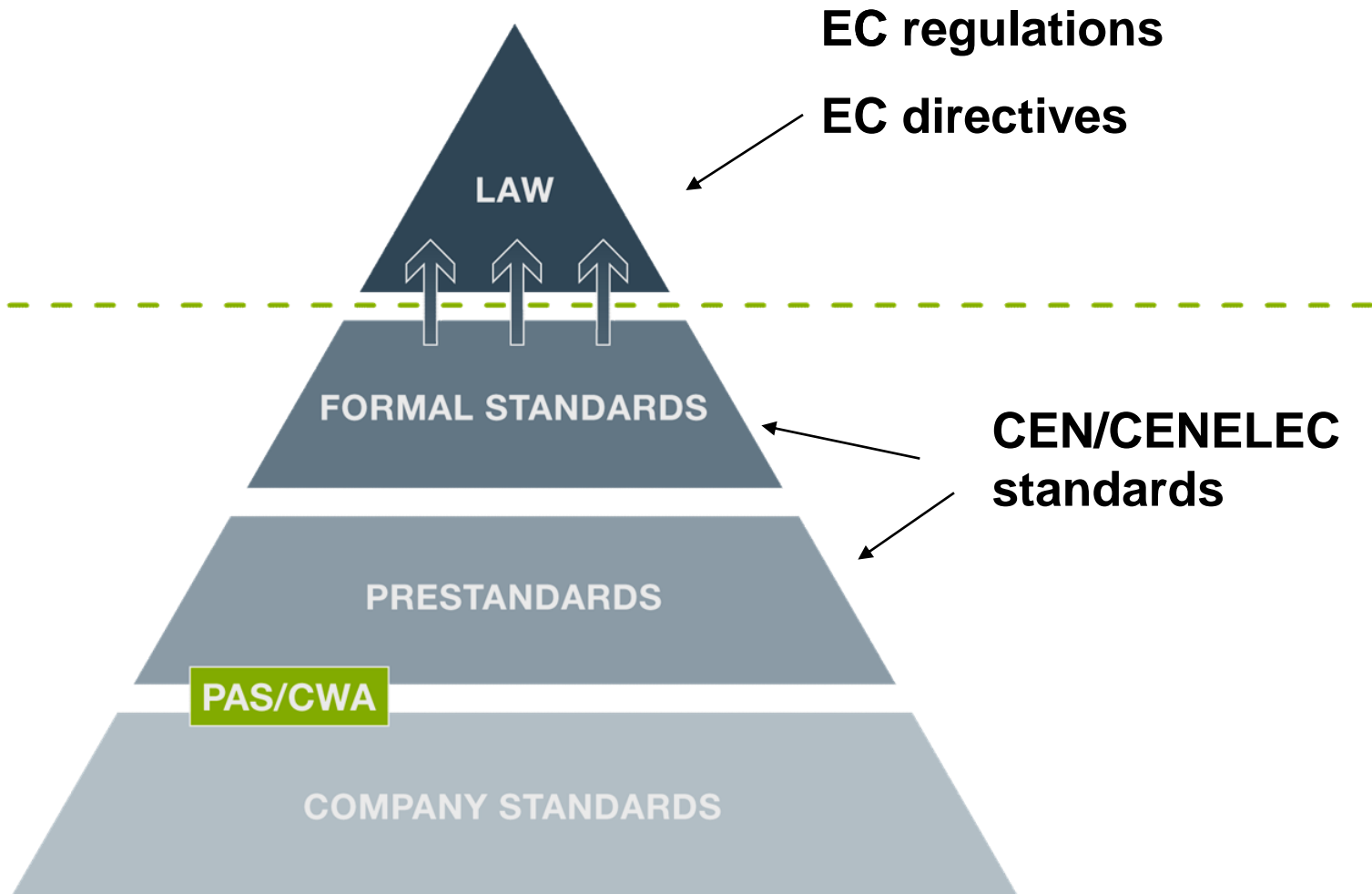
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The structure of the European system



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EC regulations

EC directives

LAW

FORMAL STANDARDS

CEN/CENELEC
standards

PRESTANDARDS

PAS/CWA

COMPANY STANDARDS

PAS-Publicly Available Specification
CWA - CEN Workshop Agreement

The self-regulation principle (or self-responsibility) in the EU gas infrastructure



**National
REGULATION**

**EU GAS
FUNCTIONAL
STANDARDS**

**NATIONAL STANDARDS /
CODES of PRACTICES**

COMPANY STANDARDS

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The study of the EU experience



The INOGATE event:
a study tour “**Gas Transmission Aspects**”

April 9 – 11, 2014

Bonn and Essen, DVGW, Germany

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The 3rd stage is the study of functional gas standards



The notion of “functional standard” was introduced by MARCOGAZ and CEN / TC 234.

The introduction of CEN/TC 234 **functional** standards obliges to cancel the conflicting standards, however, it requires more detailed national standards / technical regulations in the same field.

The introduction of CEN standards for **products** obliges to cancel the conflicting national standards in the same field.

The 3rd stage is the study of functional gas standards



The functional standards describe:

- Design
- The choice of materials, equipment and component parts in accordance with standards for industrial products
- Construction
- Testing and commissioning
- Operation and maintenance
- Decommissioning

SCOPE: standardisation of functional requirements in the area of gas infrastructure from the point of gas supply into the ground transportation system to the inlet of a gas appliance.

The 3rd stage is the study of functional gas standards



The main European functional standards for the pipelines with maximum operating pressure (MOP) over 16 bar is the **EN 1594: 2013**

Gas infrastructure - Pipelines for maximum operating pressure over 16 bar - Functional requirements.

The upcoming INOGATE event on "Gas infrastructure and European Standard EN 1594" that will take place in Tbilisi will be dedicated to a detailed study of EN 1594 standard.

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The 3rd stage is the study of functional gas standards



A workshop on priority standards for electric power is scheduled under the current project for the end of year. It envisages the participation of members of the relevant TCs.

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4th stage is the adoption of priority standards



On the basis of 2014, the rate of acceptance of priority standards amounted to:

- Gas sector - 96.2%, and
- Power sector - 93.4%.

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The results of standards adoption - 2014



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		Σ	NS Σ
2	Delivery of equipment for power plants	39	38
3	Standard voltages, currents and frequencies	4	4
4	Measurements	9	9
5	Specifications and requirements for equipment	162	151
6	High voltage direct current	3	3
7	Integrated insulation	3	0
8	Electrical apparatus for explosive atmospheres	22	21
9	Safety of machinery	16	16
10	Exposure to electric current and protection against electric shock	3	3
11	Protection against lightning	6	5
12	Electromagnetic compatibility	34	34
13	Electricity from RES	18	17
	SUM	319	298

5th stage: STANDARDS IMPLEMENTATION



Implementation of the main provisions of standards in the practice of energy companies:

- Introduction of standards into the company's information systems,
- Cancelling companies' standards conflicting with the provisions of the European standards,
- Development of new company's standards/



THANK YOU!

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