

# Overview of standardization and mandatory technical regulation systems of Armenia (gas and electricity)

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## Overview of technical normalisation and standardization systems of the Partner Countries

### Abbreviations

AM	Armenia
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CIS	Commonwealth of Independent States
EASC	Eurasian Council for standardization, metrology and certification
EFTA	European Free Trade Association
EOTS	European Telecommunications Standards Institute
EU	European Union
IDT	Identical
IEC	International Electrotechnical Commission
ISO	International Organisation for Standardization
ITC	Interstate Technical Committee for standardization
MOD	Modified
NEQ	Not equivalent
NSB	National Standardization Body
TC	Technical Committee for standardization

## Overview of technical normalisation and standartization systems of the Partner Countries

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## Overview of technical normalisation and standardization systems of the Partner Countries

### **I. Mandatory technical regulation**

The system of mandatory technical regulation includes basic legal documents (legal basis), mandatory technical regulations and participants of technical regulation activity.

Transition from the former Soviet Union system of technical regulation (the system of mandatory standards and other normative acts of Ministries and other Government bodies) to the two-tier system of mandatory technical regulations and voluntary standardization documents began in Armenia in 1999<sup>1</sup> and was completed at the end of 2012<sup>2</sup>.

#### **1. Regulatory framework (documents of mandatory technical regulation)**

##### **1.1. Legislative base**

a) Laws:

- On Technical Regulations № AO-19-H, dated 08.02.2012

b) Government decrees

- Recognition in the Republic of Armenia of a coordinating body in the field of technical regulations and the approval of the list of regulators, № 753-H dated 07.06.2012
- Establishment of the National Council of Quality and Technical Regulations, and the approval of its composition, charter and work plan, decree № 1317-H dated 18.10.2012

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<sup>1</sup> In 1999, the relevant law on standardization was adopted

<sup>2</sup> In accordance with the Law on Technical Regulation dated 08.02.2012 only technical regulations are mandatory for execution in Armenia.

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- Approval of the customs reporting procedure related to the products subject to mandatory assessment of their conformity with technical regulations, decree № 1010-H dated 09.09.2012
- Approval of the procedure for the competent authorities to provide the data on conformity assessment following the conformity assessment results, decree № 1001-H dated 09.09.2012
- Plan for development of technical regulations (revision), decree № 1015-H dated 09.08.2012

### 1.2. Types of documents in the system of mandatory technical regulation

- Technical regulations <sup>3</sup>
- Harmonized standards, which are voluntary for application, but have "presumption of conformity" to the requirements of corresponding technical regulations

### 1.3. Fundamentals of mandatory technical regulation system

#### a) Area of application

The area of application of technical regulations is defined by combining the exhaustive lists of products and processes that are subject to regulatory requirements, as well as the rules to identify these products and services.

#### b) Contents of technical regulations:

- technical requirements that must be met mandatorily
- rules and forms of conformity assessment

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<sup>3</sup> Technical regulations are understood to be international treaties, national laws and decrees of the Government, which set out technical requirements for products, processes and services, as well as the requirements for procedures to assess compliance with these requirements.

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- rules for labelling objects of technical regulation
- procedural requirements for the exercise of state supervision of compliance with technical regulations

c) Acceptable methods of specifying mandatory technical requirements:

<b>Technical requirements are set forth as follows:</b>	
• by describing the specific technical requirements for the design (prescriptive technical regulations)	Not allowed except when it is impossible to ensure the safety of products otherwise
• by describing specific operational requirements	Allowed
• by describing generalised technical requirements (description of possible dangers with the definition of the required level of safety without identifying specific ways to achieve this level)	Allowed
• as references to specific standards or technical codes of practice (in this case the referenced documents become mandatory and fall into the category of technical regulations)	Allowed

d) Use of international and regional standards

International standards or harmonized with them national standards may be used (in whole or in part) as a basis for the development of technical regulations.

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- e) Use of "Presumption of Conformity"<sup>4</sup> of standardization documents, which are voluntary for application

In case the mandatory requirements are set out in generalised terms<sup>5</sup> (indicating possible dangers with the definition of the required safety level for possible hazards without identifying the specific ways of achieving this level) to create a set of voluntary standards that have "presumption of conformity" with the technical regulations is mandatory.

Detailed description of "Presumption of Conformity" principle is given in paragraph 2 of Article 14 of the Law on Technical Regulation and fully complies with internationally accepted interpretation.

### 1.4. Adoption of technical regulations

#### Adopted technical regulations

	<b>Technical regulation</b>	<b>Compliance with EU</b>
1	Fuel for internal combustion engines - Government decree PA № 1592-H from 11.11.2004 (technical regulations are revised, their adoption is planned for 2020)	98/70/EC

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<sup>4</sup> Presumption of Conformity - the principle according to which it is believed that products, conforming to the requirements of the voluntary standards, meet the mandatory requirements of technical regulations, until reasonably proved otherwise.

<sup>5</sup> Generic requirements - an indication of the possible hazards with the definition of the required safety level for possible hazards without identifying the specific ways of achieving this level (Article 7, paragraph 2, pp. 3 (c) of the law on technical regulation)

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2	Electromagnetic compatibility - Government decree № 1925-H from 23.12.2004 (technical regulations are revised, their adoption is planned for 11.2013)	2004/108/EC
3	Requirements for low voltage equipment- Government decree № 150-H from 03.02.2005. (technical regulations are revised, their adoption is planned for 12.2014)	2006/95/EC
4	Lifts and requirements for their safe operation- Government decree № 692-H from 09.02.2006 (technical regulations are revised, their adoption is planned for 2018)	95/16/EC
5	Requirements for safety of household gas appliances - Government decree № 1458-H from 07.09.2006 (technical regulations are revised, their adoption is planned for 2018)	2009/142/EC
6	Safety rules for gas facilities- Government decree № 2399-H from 22.12.2005	Not provided
7	Conversion of vehicles to operate on compressed natural gas and liquefied petroleum gas – Government decree № 2388-H from 28.09.2005	Not provided
8	Safety requirements for electric devices of high voltage conversion exceeding 1000 V - Government decree PA № 1922-H from 23.11.2006 (technical regulations are revised, their adoption is planned for 2020)	Not provided

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9	Safety requirements for electric devices of high voltage conversion exceeding 1000 V - Government decree № 1933-H from 23.10.2006	Not provided
10	Rules for consumers' electric power plants operation and maintenance - Government decree № 1939-H from 23.11.2006	Not provided
11	General requirements for electrical installations design - Government decree № 1943-H from 21.12.2006	Not provided
12	Rules of electrical energy transmission and distribution - Government decree № 961-H from 12.07.2007	Not provided
13	Minimum requirements for the construction and operation of compressed gas filling stations - Government decree № 1101-H from 28.09.2008	Not provided
14	Technical requirements for electric power units- Government decree № 554-H from 14.05.2009	Not provided
15	Safe exploitation of mineral deposits produced by underground method - Government decree № 1083-H from 27.09.2009	Not provided
16	Requirements for electrical distribution equipment and installation of substations - Government decree № 1033-H from 04.09.2008	Not provided

#### 1.5. The process of technical legislation development and adoption

The process of development and adoption of technical regulations is defined in Articles 8-12 of the Law on Technical Regulation, according to which:

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Technical regulations are being developed (revised) in accordance to the work plan for development (revision) of technical regulations to be approved by government decree.

- Technical regulations are developed by working groups that are created within the primary regulatory authorities in the area of their competence. The working group is composed of all the major stakeholders-regulators, as well as of industrial and public organisations.
- After being prepared by the working group the draft technical regulation goes for public discussion, and after editing by the working group it is submitted to the primary regulatory body for consideration, after which it goes to the authorised coordinating body on technical regulation for consideration (Ministry of Economy).
- After approval by the coordinating Ministry the draft regulation is transferred to the Government of the Republic of Armenia and is adopted as a government decree.
- The list of national standards, the application of which on a voluntary basis shall ensure compliance with technical regulations, is published by the National Standards Body of the Republic of Armenia (National Institute of Standards) by order of the coordinating body.

## **2. Participation in the mandatory technical regulation activity**

### 2.1. Participants of national technical regulating system

- a) The Government of the Republic of Armenia,
- b) The authorised body on technical regulation - Ministry of Economy
- c) State authorities in their area of competence
- d) National Institute of Standards Ltd.

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### 2.2 Membership in international and regional organisations

In the field of technical regulation, Armenia has agreements and cooperates with the following regional organisations:

- Full member of CIS Electric Power Council

The main goal of Electric Power Council is to ensure reliable energy supply by using the advantages of a common technological base of electric power industry and organisation of stable parallel operation of the national electric power grids.

Documents developed under the Electric Power Council are of an advisory nature and can be adopted in Armenia in accordance with the general adoption procedure of legislative acts in the field of technical regulation.

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## II. Standardization

### 3. Regulatory framework (documents in the area of standardization)

#### 3.1. Legislative base

Key national legislation acts in the field of standardization:

##### a) Laws

- On Standardization, № AO-21-H dated 08.02.2012.

#### 3.2. Types of documents used in the standardization system

Normative documents on standardization applicable in the territory of the Republic of Armenia include:

##### a) National standards:

- Standards of the Republic of Armenia;
- International, regional, inter-state standards and national standards of other countries applied in the Republic of Armenia.

##### b) Rules and guidelines for standardization

Fundamental documents of standardization system:

- ACT 1.0-2006 Basic provisions.
- ACT 1.2-2008 Procedure for national standards development.
- ACT 1.3-95 Procedure for technical specifications development.
- ACT 1.4-2001 Company standards. Basic provisions.
- ACT 1.5-2005 Standards. General requirements to the structure, presentation, design, content and designation.

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- ACT 1.6-2006 Rules and methods to adoption of international and regional standards as national standards
- ACT 1.8-93 Examination procedure of draft national standards
- ACT 1.10-99 Procedure for development, adoption, registration of rules and recommendations for standardization, metrology, certification, accreditation, and the information about them.
- ACT 1.11-2002 Procedure for development and application of interstate standards

The above standards should be brought into compliance with the new laws on technical regulation and standardization, adopted in 2012, as well as with the new modern procedures applied in international practice. The implementation of this task is scheduled for 2013.

### 3.3. Fundamentals of the standardization system

#### Legal status of standardization documents

- The voluntary use of tools in the field of standardization is reaffirmed by the law.
- Certain national standards may be mandatory in case the technical regulations contain direct instructions about them (reference to specific standards or lists)

#### Copyright on the documents in the field of standardization

- The right to publish national standards of the Republic of Armenia belongs to the National Institute of Standards
- Copyright of company standards and technical specifications is owned by developers
- Foreign countries company standards are used in compliance with the companies-holders of the original copyright on the use of these documents.

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Application of presumption of conformity of voluntary standards to the mandatory requirements of technical regulations

It is allowed to use the presumption of conformity principle of voluntary standardization documents in carrying out procedures for conformity assessment with the mandatory technical regulations.

No additional requirements (for example, the presence of additional applications indicating the relationship between the requirements of technical regulations and the provisions of harmonized standards) are specified to the content of standards that have a presumption of conformity (harmonized standards).

Lists of voluntary standardization documents having a presumption of conformity are part of the technical regulations and are approved, together with the technical regulations themselves.

**3.4. Implementation of international, regional and foreign standards as national standards**

1	ISO - International Organisation for Standardization	yes (full member)
2	IEC – International Electrotechnical Commission	yes (affiliate)
3	CEN - European Committee for Standardization	yes (affiliate)
4	CENELEC - European Committee for Electrotechnical Standardization	no
5	EASC - Eurasian Interstate Council for standardization, metrology and certification	yes (full member)
6	Other organisations and/or foreign states	yes (if there is a corresponding agreement)

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Methods for adoption of international and regional standards as national standards (except interstate standards GOST)

The adoption of international and regional standards as national ones is regulated by national standard “ACT 1.6-2006 - The rules and methods for adoption of international and regional standards as national standards” which corresponds to ISO/IEC Guide 21-1:2005:

<b>Methods of ISO/IEC Guide 21-1:2005</b>	
1. Endorsement	permitted
2. Republication	
2.1. Reprinting	permitted
2.2. Translation	permitted
2.3. Redrafting	permitted

Methods of incorporation of international and regional standards without their adoption as national standards:

- Reference method <sup>6</sup> - not permitted
- Registration method <sup>7</sup> - not permitted

The order of application of interstate standards GOST

In accordance with GOST 1.2-2009 the interstate standard is used as a national standard in the countries whose national authorities have adopted this standard (acceded to) in line with with the procedure established by these national bodies.

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<sup>6</sup> Application of international, regional and international standards, which are referenced in legal documents (including the contracts between businesses)

<sup>7</sup> Application of international, regional and interstate standards, which are registered by the authorised body in the prescribed manner

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### In the Republic of Armenia:

- The interstate standards are applied directly without their re-registration as a national standard through the enactment of relevant organisational and administrative documents by the National Standards Body (the National Institute of Standardization).
- The National Standards Body sets the start date for the standard's validity in the Republic of Armenia, in this case national conflicting standards (or duplicating) may remain current (contrary to GOST 1.2-2009 which requires withdrawal of contradictory or duplicated standards).
- Publication of information on the introduction of interstate standard for use as a national standard, its publication and distribution on the territory of the Republic of Armenia is done in accordance with the procedure established for the national standards.

### 3.5. The order of development and adoption of standardization documents

- National standards are developed on the basis of work plans for standardization. Two plans are annually prepared and approved, namely:
  - State Programme for standards development, which is approved by the government and implemented through budget funds, and
  - General Plan of standards development which is approved by the National Institute of Standards and implemented using its own financial resources through donor money or other initiatives.
- National standards development is carried out exclusively by technical committees or, in their absence, by working groups, which are created under the National Institute of Standards;
- The process of national standards development includes:
  - Publication of the information about the national standards development start on the National Standards Body web page

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- Preparation of a draft standard by the developer
- Draft standard discussion and editing within the relevant technical committee or working group
- Adoption of the final version of the draft standard by the relevant technical committee
- Approval of the standard by the National Standards Body

## 4. Participants of the standardization activity

### 4.1. Main participants of standardization activities

#### a) The Government:

- approves the annual State programme of standards development

#### b) Ministry of Economy - The state authorised body for standardization:

- develops and submits for the Government's approval an annual programme of standards development;
- develops and maintains the State policy in the field of standardization

In addition to the functions of the authorised body for standardization, the Ministry of Economy performs the functions of the authorised body on mandatory technical regulation (development of technical regulations).

#### c) "National Institute of Standards" Ltd. - the National Standards Body:

- prepares and adopts the general plan for national standards development;
- adopts national standards;
- sets the organisational, methodological and general technical rules, procedures for work on standardization as standards of the national standardization system, establishes the rules for use of international, regional, interstate standards, and the national standards of other countries;

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- organises the expertise of drafts of international, interstate, and national standards;
- represents the Republic of Armenia in international or regional standardization organisations;
- participates in the work on international, regional, and interstate standardization;
- publishes national standards;
- establishes technical committees and coordinates their standardization activities;
- establishes and maintains the national database of standardization documents;

### d) State executive authorities:

- participate in the standardization process within their competence.

### e) Technical committees for standardization:

Technical committees are created by the "National Institute of Standards" Ltd. on the basis of proposals from state agencies and stakeholders for standardization work at the inter-industry level.

Technical committees are created from representatives of the "National Institute of Standards" Ltd., government agencies and other relevant organisations that are guided by the secretariats of technical committees.

In accordance with the scope of its activities technical committees:

- approve draft national standards, rules and guidelines for standardization and submits proposals to adopt them;
- develop national, regional, international standards and amendments to them; prepares proposals for their consideration and their withdrawal;
- provide the expertise on draft international, regional, national standards and amendments to them;
- participate in the development of Standardization Programmes;

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- participate in the work of international and regional technical committees (sub-committees, working groups) and co-operates with their secretariats in accordance with the agreements signed between the National Standards Body and international (regional) organisations;
- organise and carries out expert assessment of standardization documents within its competence area and in accordance with the modern achievements of science and technology as well as taking into account the condition of the national economy.

### f) The developers of the first draft standard:

Development of the first draft standard before its consideration, discussion and adoption by the Technical Committee, as a rule, is carried out by the working group under the National Institute of Standards and the appropriate professional institution, as standards are developed mainly on the basis of existing international or regional standards. Only a small number of purely national standards are developed by the relevant regulatory authorities or industrial and public organisations.

## 4.2. List of the existing technical committees for standardization

Abbreviations:

P – Participant

O – Observer

M – Mirror (the same subject-matter), indicated in the absence of official relations

S – Similar (partially overlapping with the same subject-matter), indicated in the absence of official relations

**Gas sector:**

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Existing National Technical Committees	Analogous international and regional Technical Committees (TC)				
	ISO	IEC	CEN	CENELEC	EASC
TK 5 -) Gas supply (TC Secretariat holding organisation - Ministry of Energy and Natural Resources)	TC 67 - П		TC 12 - S TC 234 - O		ITC 007 - O ITC 260 - S ITC 523 - O

## Electrical sector:

Existing National Technical Committees	Analogous international and regional Technical Committees (TC)				
	ISO	IEC	CEN	CENELEC	EASC
TK 1 - Energy (TC Secretariat holding organisation - Scientific Research Institute of Energy)	TC 180 - S TC 203 - S TC 242 - S		CEN/CLC/TC 2 - S		ITC 111 - S
TK 19 - Electromagnetic compatibility of technical equipment (TC Secretariat holding organisation - National Institute of Standards)		TC 77 - M			ITC 210 - M

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TK 20 - Low-voltage electrical tools (TC Secretariat holding organisation - National Institute of Standards)		TC 61 – M		ITC 61 - M
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#### 4.3. Membership in international and regional organisations for standardization

	Organisation for standardization	yes (status) / no
1	ISO - International Organisation for Standardization	yes (full member)
2	IEC – International Electrotechnical Commission	yes (affiliate)
3	CEN - European Committee for Standardization	yes (affiliate)
4	CENELEC - European Committee for Electrotechnical Standardization	No
5	EASC - Eurasian Interstate Council for Standardization, Metrology and Certification	yes (full member)

#### 4.4. Participation in the activities of international and regional technical committees for standardization

Abbreviations:

P – Participant

O – Observer

## Overview of technical normalisation and standartization systems of the Partner Countries

**Gas sector:**

	<b>ISO Technical Committee</b>		<b>Representation of Armenia</b>	<b>Status</b>
1	ISO TC 207	Environmental management	CAPM TC 14	P
2	ISO TC 252	Project committee: Natural gas fuelling stations for vehicles	CAPM TC 5	P

	<b>CEN Technical Committee</b>		<b>Representation of Armenia</b>	<b>Status</b>
1	CEN/TC 234	Gas infrastructure	CAPM TC 5	O

	<b>EASC Technical Committee</b>		<b>Representation of Armenia</b>	<b>Status</b>
1	ITC 007	Pipe and steel tanks	CAPM TC 5	O
2	ITC 052	Natural gas	CAPM TC 5	P
3	ITC 098	Household equipment operating on gas and liquid fuels	National Institute of Standards	P
4	ITC 523	Technique and technology of oil and gas extraction and processing	CAPM TC 5	O

**Electrical sector:**

	<b>ISO Technical Committee</b>		<b>Representation of Armenia</b>	<b>Status</b>
1	ISO TC 274	Light and lighting	National Institute of Standards	O

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	<b>EASC Technical Committee</b>		<b>Representation of Armenia</b>	<b>Status</b>
1	ITC 019	Electrical machinery and apparatus	CAPM TC 1	P
2	ITC 036	Power transformers	CAPM TC 1	P
3	ITC 111	Energy saving	CAPM TC 1	P
4	ITC 208	Air-conditioning and ventilation	CAPM TC 1	P
5	ITC 232	Apparatus for measuring electrical energy and load control	CAPM TC 1	P
6	ITC 233	Measuring equipment for electrical and electromagnetic quantities	CAPM TC 1	P
7	ITC 234	Alarm and anti-burglary protection systems	CAPM TC 1	O
8	ITC 333	Rotating electrical machines	National Institute of Standards	P
9	ITC 506	Fans, centrifugal and axial-based contactless AC and DC motors	National Institute of Standards	P

Armenia's participation in the work of interstate technical committees is currently being revised. Upon completion of this revision the relevant information will be forwarded to the EASC Bureau of Standards and posted on the website of the National Institute of Standards of Armenia.