



ENERGY COOPERATION BETWEEN THE EU, THE LITTORAL STATES OF THE BLACK & CASPIAN SEAS AND THEIR NEIGHBOURING COUNTRIES



PROGRAMME
FUNDED BY THE EU

Baseline survey

INOGATE Partner Countries Institutional and Regulatory Frameworks in Sustainable Energy

“INOGATE Technical Secretariat & Integrated Programme in support of the Baku Initiative and the Eastern Partnership energy objectives”

Contract No 2011/278827

A project within the INOGATE programme

Implemented by:

Ramboll Denmark A/S (lead partner)
EIR Development Partners Ltd.
The British Standards Institution
LDK Consultants S.A.
MVV decon GmbH
ICF International
Statistics Denmark
Energy Institute HrvojePožar

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Tbilisi, Georgia

January 2014



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Abbreviations

The following abbreviations will be used throughout this document:

AHEF	Ad Hoc Expert Facility
CC	Country Coordinator
DSO	distribution system operator
EE	energy efficiency
EnC	Energy Community
EPC	energy performance contract
ESCO	energy service company
FIT	feed-in tariff
GDP	gross domestic product
GHG	greenhouse gas
ITS	INOGATE Technical Secretariat
NEEAP	national energy efficiency action plan
NERC	National Commission for State Energy Regulation
NREAP	national renewable energy action plan
PC	Partner Country
PSRC	Public Services Regulatory Commission of Armenia
RE	renewable energy
RES	renewable energy sources
SAARES	State Agency for Alternative and Renewable Energy Sources of the Azerbaijan Republic
SAEE	State Agency on Energy Efficiency and Energy Saving in Ukraine
SE	sustainable energy
TSO	transmission system operator

Table of contents

Table of contents.....	iv
Executive summary	1
1. Introduction	2
2. Methodology.....	3
3. INOGATE Partner Countries	7
3.1 Armenia	7
3.2 Azerbaijan	12
3.3 Belarus	17
3.4 Georgia.....	23
3.5 Moldova	26
3.6 Ukraine.....	30
4. Matrix of baseline survey	35
5. Conclusion and recommendations.....	38

Executive summary

This report comprises the results of the baseline survey of institutional and regulatory frameworks in sustainable energy (SE) in INOGATE Partner Countries (PCs), namely Azerbaijan, Armenia, Belarus, Georgia, Moldova and Ukraine. The survey was conducted according to sub-task C1-2 “Baseline survey / update of country institutional and regulatory frameworks” of INOGATE Technical Secretariat (ITS) project. The purpose of this document is to assess the state-of-play in terms of the institutional setting, including regulatory practices and regulatory reform susceptible to facilitate energy efficiency (EE) and renewable energy sources (RES) development in each PC. The specific objective of this work is inherently to better understand the prevailing situation as well as the pace and direction of regulatory reform, through identifying obstacles and gaps towards sustainable development in the legislation and institutional frameworks.

The document has five chapters. Chapter 1 provides the background of the Baseline Survey and highlights the importance of this document in identifying gaps and obstacles in institutional and regulatory frameworks in order to facilitate the sustainable development of Partner Countries. The Baseline Survey was not developed from scratch, as a significant number of studies in the SE field have been published in recent years. However, the previous studies did not provide a clear and concise message for policy makers on the overall reforms needed to improve EE and develop RES.

The methodology of the Survey is presented in Chapter 2, whereas Chapter 3 provides the results of the conducted survey per each PC. The survey represents a snapshot of the institutional and legislation framework in sustainable energy as of December 2013. Each PC profile contains 7 sections according to the methodology.

Chapter 4 shows the results of the analysis in matrix form, which clearly illustrates the gaps in the legislation framework in the SE field. The matrix can be used by policy makers as a tool for comparison of INOGATE Partner Countries and for the identification of the reform they needed to promote sustainable energy.

Chapter 5, “Conclusion and recommendations,” incorporates suggestions for the improvement and regional harmonisation of EE/RES policies with respect to best European practice. This chapter offers 15 recommendations aimed at determining to a great extent the specific areas that INOGATE Partner Countries should focus on.

1. Introduction

Good working relations between ITS and local stakeholders will serve the multiple purposes of:

- a) verifying the views of important stakeholders concerning potential proposals related to legal-regulatory reform;
- b) verifying areas of agreement and disagreement;
- c) building consensus;
- d) eventually mobilizing support for subsequent Project activities.

A critical step in this initial stage is to determine the current and expected role for energy efficiency and renewable energy development. This step should be focused on existing targets for sustainable energy, planned priority actions and institutional arrangements for policy implementation. An important role should be assigned to pricing and a tariff-setting system as well as to the enhancement of institutional capacities. In the same context, the existing incentive mechanisms for the improvement of EE and development of RES in PCs should be highlighted and made available to potential RES/EE developers.

More specifically, the document highlights an independent view on the key areas of the EE and RES policies and provides a baseline for the evaluation of the achievements of the INOGATE PCs on the way towards sustainable development in the future. The Survey will also serve as a tool for comparison of RES/EE policies in INOGATE PCs and for identification of reforms needed to achieve sustainable development of their economies.

It should also be mentioned that the document was not developed from zero as a significant number of studies, reports, policy documents, strategies and action plans have been already developed by the EU and other donors. However, the previous studies did not provide a clear and concise message on the overall reforms needed to achieve sustainable development. Nowadays, providing short and comprehensible information for policy makers becomes essential as people who can make decisions do not usually have time to read long and technical reports. Therefore, it is very important to provide a concise summary for policy makers on the state-of-play of PCs in the field of RES/EE and on the directions needed to achieve sustainable development.

2. Methodology

The report provides a 'snapshot' of the institutional and legislative framework in sustainable energy as of December 2013 unless another period is mentioned in the body of the report. The survey of six INOGATE Partner Countries, namely Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine, has been conducted using the common methodology, which consists of seven sections:

1. Membership in the Energy Community
2. The authority/organisation responsible for improvement of sustainable energy (SE)
3. Energy strategy or other main documents, which establish energy policy
4. Sustainable energy targets
5. Renewable energy legislation
6. Energy efficiency legislation
7. Electricity and gas prices

Section 1 "Membership in the Energy Community" provides general information about the status of the cooperation with the Energy Community (EnC). The progress towards becoming a full member of this organisation is a clear indicator of a PC's willingness to adopt EU legislation on EE and RES, which are the part of the EnC acquis communautaire.

Section 2 "The authority/organisation responsible for improvement of SE" describes the institutional framework in the fields of Sustainable Energy (SE). It includes identification of authorities responsible for the improvement of EE and RES in the country as well as information about legislation establishing their key duties.

Section 3 "Energy strategy or other main documents, which establish energy policy" provides information about key strategic documents which promote EE and RES in the country. This section also indicates whether the INOGATE PCs adopted National energy efficiency action plans (NEEAP) and National renewable energy action plans (NREAP) according to the EU Directives 2006/32/EC and 2009/28/EC respectively.

Section 4 "Sustainable energy targets" outlines information about the key long term targets in the following fields: Renewable energy, energy efficiency and CO₂ emissions.

Section 5 “Renewable energy legislation” describes the legislative framework on RES, which includes concise information about the following pieces of legislation:

- Primary legislation
 - Law on RE or any other laws which regulate development of RES
- Secondary legislation
 - Regulation on feed-in-tariffs (FIT) or other support mechanisms
 - Regulation on RES grid connection procedures
 - Regulation on other financial incentives for RES, like tax exemption, customs duty exemption, etc.

Section 6 “Energy efficiency legislation” describes the legislative framework on EE, which includes concise information about the following pieces of legislation:

- Primary legislation
 - Law on Law on EE or any other laws which regulate improvement of EE
- Secondary legislation
 - Mandatory building codes and regulations on minimum energy performance requirements
 - Regulation on appliances and equipment labelling
 - Regulation on other financial incentives for EE improvement, like obligatory energy audits, vehicle fuel-efficiency standards, activities of energy service companies (ESCO), energy performance contracts (EPC), etc.

Section 7 “Electricity and gas prices” provides key information about the tariff-setting system (tariff menu) which gives consumers correct signals for the improvement of energy efficiency. This section includes information on the authority responsible for setting energy tariffs and different types of residential and industrial tariffs, in the form of a table. The table shows the availability of the following tariffs in a country:

- *Single rate tariff* - sometimes referred to as ‘flat rate tariffs’ when a consumer is charged a fixed price per unit energy, no matter what quantity of energy is consumed or what time of day it is used.
- *Step (block) tariff* - the electricity or gas bill can be split into different tariff blocks, with each block charged at a different rate. When the consumer has reached the cap of the first block, any additional electricity or gas it uses is charged at the second block price and so on.

- Increasing block tariffs provide social protection of vulnerable consumers. The price increases if a consumer uses more energy. Declining block tariffs provide reduction of tariffs due to economy of scale if much energy is consumed.
- *Time-of-use price* – a consumer can be charged a different price depending on whether electricity is during the day, at night or on weekends. There are usually two (sometimes more) different price periods: peak and off-peak. Peak is the most expensive tariff period, and off-peak is the cheapest. Time-of-use pricing provides clear signals for consumers to use energy in a way that increases the efficiency of the whole power system.
 - *Voltage or capacity based tariffs* – an industrial consumer can be charged a different price depending on voltage or pressure level it is connected to the electricity or gas network. Due to the physical nature of energy losses, the higher the voltage or pressure level, the lower the tariffs.
 - *Two-part tariffs* - tariffs which consist of two or more parts, where the first part represents payment for the energy actually consumed, and the second part is a fixed fee, which a system operator charges for its services in a defined time period.
 - *Non-regulated tariffs* – a result of opening the electricity and gas market for consumers, giving them the ability to buy energy from producers using bilateral contracts and energy exchange, or to purchase electricity or gas from the wholesale market.
 - *Cross-subsidy* – shows that residential energy tariffs are not cost-reflective and are partially subsidised through higher industrial tariffs. Subsidized tariffs do not provide the right signals for households to implement energy efficiency measures.

Usually cross-subsidies can be graphically illustrated when residential tariffs are lower than industrial tariffs. The EU Directives 2003/54/EC and 2003/55/EC on common rules for the internal electricity/gas markets stipulate the removal of cross-subsidies in the EU member states. Therefore, a graphical comparison of residential and industrial energy tariffs in the PCs and the EU is provided at the end of the each PC's survey. The graphs illustrate the EUROSTAT¹ average electricity and gas tariffs in 28 EU countries and INOGATE PCs, which are calculated in €/kWh using the following methodology:

¹ <http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/database>

- Electricity:
 - Households with an annual consumption of 3,500 kWh that are connected to low-voltage networks, all taxes and levies are included;
 - Industrial consumers with an annual consumption of 2 GWh that are connected to medium-voltage networks, all taxes and levies are included.
- Gas:
 - Households with an annual consumption of 30 MWh (2 800 m³ of gas) that are connected to low-pressure networks, all taxes and levies are included;
 - Industrial consumers with an annual consumption of 10 GWh (933 thousand m³ of gas) that are connected to medium-pressure networks, all taxes and levies are included.

The methodology for the assessment of the institutional and legislative framework can be revised based on the future needs of the INOGATE Partner Countries. The methodology can also be applied to conduct a baseline survey for INOGATE PCs in Central Asia.

3. INOGATE Partner Countries

3.1 Armenia

3.1.1. Membership in the Energy Community

Armenia became an observer of the EnC on 01.10.2011. In June 2013, the Government of Armenia expressed interest in becoming a full member of the Energy Community and this initiative was supported by ITS². However, no further steps towards becoming a contracting Party of the EnC have been taken since then. As the observer, Armenia does not have any responsibilities to implement EU acquis.

3.1.2. The authority/organisation responsible for improvement of SE in the country

Ministry of Energy and Natural Resources is the main responsible body for the improvement of EE and the development of RES in the country (www.minenergy.am).

The Ministry's responsibilities for the improvement of sustainable energy are assigned by the Resolution of the Government of the Republic of Armenia № 55H dated 25.01.2005 "On granting the rights of an authorized body in the area of energy saving and renewable energy to the Ministry of Energy of Armenia".

3.1.3. Energy strategy or other main documents, which establish energy policy (promote EE & RES) in the country

There are three key strategic documents which establish energy policy in the country:

- "The Strategy of energy sector development in the context of economic development of the Republic of Armenia", adopted by the Protocol Decision № 1 of the Minutes № 24 of the Government Session of the Republic of Armenia dated 23.06.2005
- "Action Plan of the Ministry of Energy of Armenia based on the provisions of the National Security Strategy of the Republic of Armenia", approved by the Government Resolution of the Republic of Armenia № 1296-H dated 01.11.2007
- "National Programme on Energy Saving and Renewable Energy of Armenia", adopted by the Protocol Decision № 2 of the Government Session of the Republic of Armenia dated 18.01.2007

² http://www.inogate.org/index.php?option=com_inogate&view=activity&cid=250&pid=72&Itemid=75&lang=en

- “Strategic Plan of Development of Hydro Energy of the Republic of Armenia” adopted by the Protocol Decision № 35 of the Government Session of the Republic of Armenia dated 08.09.2011

All the above documents provide a general perspective of the development of the energy sector of Armenia and consider SE issues only from the perspective of developing wind and small hydro projects. The documents do not provide clear and transparent targets on the improvement of EE and the achievements of the share of RES in the country’s energy balance.

National renewable energy action plan – no legislation.

National energy efficiency action plan - no legislation.

3.1.4. Sustainable energy targets

Renewable energy

The Strategy (2005) stipulates that during next 15-20 years the electricity RES generating should reach 5,100 GWh, including:

- Hydro energy - 3,600 GWh (including medium and large HPP);
- Wind energy - 1,500 GWh.

The National Programme (2007) and Strategic Plan for Hydro Energy (2011) set the following targets by 2025:

- Construction of new small HPPs with installed capacity up to 400 MW, which will produce up to 1000 GWh annually.
- Construction of wind plants with an installed capacity of 200 MW, which will produce up to 525 GWh annually.

As of 2011, the installed capacity of operating SHPP was 190 MW, and of wind farms was 2.6 MW.

Energy efficiency - no strategic targets.

CO₂ emissions – no strategic targets.

3.1.5. Renewable energy legislation

Law on RE or any other laws which regulate development of RES -

- The Law of the Republic of Armenia "On Energy Saving and Renewable Energy" dated 09.11.2004;
- The Law "on Energy" dated 21.03.2001.

Regulation on feed-in-tariffs or other support mechanisms – The Resolution of the Public Services Regulatory Commission (PSRC) # 526-H dated 16.11.2011 "On approval of tariffs for sale of electricity generated from RES on the territory of the Republic of Armenia in 2012" sets the following FIT:

Wind power 0.079 €/kWh

Biomass 0.084 €/kWh

Small hydro 0.044 €/kWh

According to article 59 of the "Law on Energy", the obligatory purchase of electricity produced from RES using FIT is guaranteed for 15 years. However, there are no set tariffs or regulation on the calculation of the price of electricity produced from RES after the 15-year period.

Regulation on RES grid connection procedures - no specific legislation (provision in legislation framework) on RES grid connection.

In 2013, the New ITS Project implemented task "AHEF.18.AM. "Grid connection procedure for RES power plants"", which was requested by Public Services Regulatory Commission (PSRC). As a result of this task, the introduction of new regulation on RES grid connection can be introduced in 2014.

Laws/regulation on financial incentives (tax exemption, custom duty exemption) for RES - no legislation.

3.1.6. Energy efficiency legislation

Law on EE or any other laws which regulate improvement of EE - The Law of the Republic of Armenia "On Energy Saving and Renewable Energy" dated 09.11.2004.

Mandatory building codes and regulations on minimum energy performance requirements – no legislation.

Regulation on appliances and equipment labelling – no legislation.

Other EE regulation (on industrial EE, vehicle fuel-efficiency standards, energy service companies and energy performance contracts) - The number of voluntary standards on energy savings approved by the National Institute of Standards.

3.1.7. Electricity and gas prices

The authority responsible for setting energy tariffs: Public Services Regulatory Commission of the Republic of Armenia (PSRC).

Table 3.1.1 Differentiation on electricity and gas tariffs in Armenia

Tariff type	Electricity		Gas	
	Residential	Industrial	Residential	Industrial
Single rate	yes	yes	-	-
Step (block)	-	-	yes (declining)	yes (declining)
Time-of-use	yes	yes	-	-
Voltage/capacity dependent	-	yes	-	-
Two-part	-	-	yes	-
Non-regulated	-	-	-	-
Cross-subsidy	-		yes	

It should also be mentioned that there is no differentiation of gas tariffs for different groups of consumers in Armenia. The PSRC regulation № 2013-№ 190N³ establishes the following tariffs for all consumers:

- 285 € per thousand cubic meters, if a customer consumes up to 10 thousand cubic meters per month;
- 205 € per thousand cubic meters, if a customer consumes 10 thousand cubic meters or more per month.

The two-part residential gas tariff in Armenia consists of the payment for gas actually consumed and the annual fee for technical maintenance service provided, which depends on the amount of gas burning appliances installed on the households' premises.

A comparison of average energy tariffs in 28 EU countries with Armenia in 2013 is presented below.

³ <http://psrc.am/en/?nid=218>

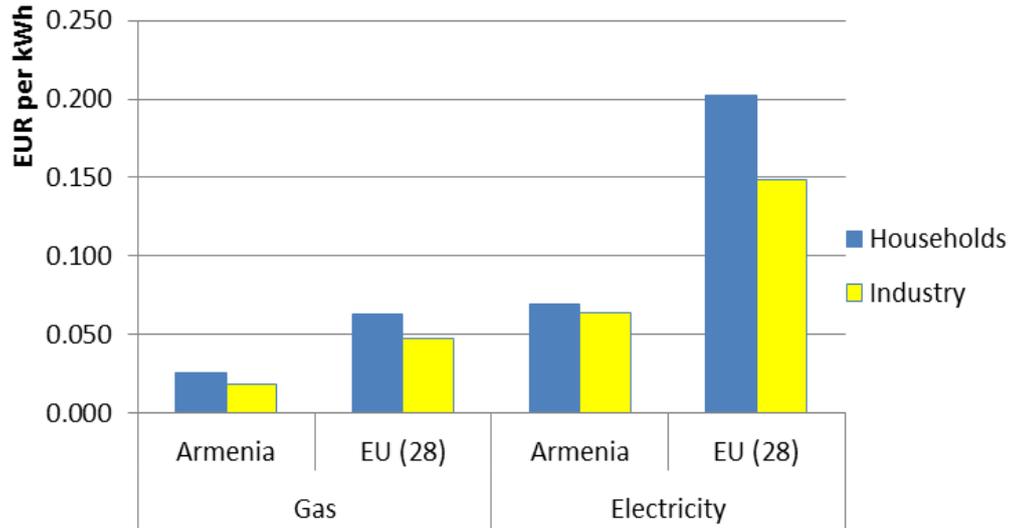


Fig 3.1.1. Comparison of energy tariffs (incl. all taxes and levies) in EU (28) and AM in 2013 (source: <http://epp.eurostat.ec.europa.eu> and national documents approving energy tariffs)

3.2 Azerbaijan

3.2.1. Membership in the Energy Community

Azerbaijan is not a member of the Energy Community.

3.2.2. The authority/organisation responsible for improvement of SE in the country

The Ministry of Energy is the main responsible body for the improvement of EE in the country (<http://www.sen.gov.az>).

According to the article 9.19 of the Ministry's Statutes, approved by Presidential Decree № 404 dated 15.05.2006, the Ministry together with relevant authorities have to develop and implement mechanisms on the efficient utilization of natural resources as well as energy resources in the framework of its responsibilities. However, no separate department or division responsible for the improvement of EE has been identified in the Ministry.

During the period from 01/2010 to 01/2012, the Ministry of Industry and Energy received 13 million € within the framework of the EC support reform programme⁴. The assistance was devoted to the development of a strategy for energy efficiency and use of renewable energy resources. As a result of EC support program, the following legislative documents are developed:

- National Strategy on the use of Alternative and Renewable Energy Sources (RES) for 2012-2020 (obtained comments and suggestions from relevant state bodies and the document is being improved)
- Action Plan on Renewable Energy Sources (short-term & mid-term), adopted by the Order of the Ministry of energy № 28 dated 05.07.2013
- Action Plan on Energy Efficiency (short-term & mid-term), adopted by the Order of the Ministry of energy № 28 dated 05.07.2013
- The Law on Alternative and Renewable energy Sources (ARES) (submitted to the Cabinet of Ministers for approval)
- The Law on Energy Efficiency (EE) (submitted to the Cabinet of Ministers for approval)

⁴ http://eeas.europa.eu/delegations/azerbaijan/projects/list_of_projects/200530_en.htm

- 23 Secondary legislative documents (submitted to the Cabinet of Ministers for approval)

In 2013, the New ITS Project received an application for technical assistance “AHEF.67.AZ. Support for the Creation of Energy Efficiency Centre under the Ministry of Industry and Energy of the Republic of Azerbaijan” submitted by the Ministry. As a result of this task, ITS will help the Ministry to create the institutional body especially responsible for the improvement of EE in the country.

State Agency for Alternative and Renewable Energy Sources of the Azerbaijan Republic (SAARES) is the main responsible body for the development of RES in the country (<http://www.abemda.az>). SAARES was established in February 2013 according to the Decree of the President «On additional measures in the field of alternative and renewable energy» dated 01.02.2013. The Agency was created on the basis of the State-owned Company on Use of Alternative and Renewable Energy (ABEMDA). However, as of December 2013, ABEMDA is a subsidiary of SAARES, which owns wind and solar installations and will continue developing government-funded RES projects in the country.

3.2.3. Energy strategy or other main documents, which establish energy policy (promote EE & RES) in the country

There are two key strategic documents which establish energy policy in the country:

- State Program on Development of Fuel-energy complex in Azerbaijan in 2005-2015 years, approved by presidential decree dated 14.02.2005.
- State Program on Use of Alternative and Renewable Energy Resources in Azerbaijan 2005-2013 years, approved by Presidential decree No 462, dated 21.10.2004.

However, none of the above documents define EE/RES support mechanisms and establish clear and transparent SE targets.

National Renewable Energy Action Plan – the document is under development and should be introduced as a result of the EU funded budget support program (13 million €) described in section 3.2.2 of this report.

National Energy Efficiency Action Plan - the document is under development and should be introduced as a result of the EU funded budget support program (13 million €) described in section 3.2.2 of this report.

3.2.4. Sustainable energy targets

It is important to note that there are no officially approved targets for sustainable energy in Azerbaijan. However, as results of the EC support reform programme (see section 3.2.2), the following targets were proposed for adoption:

- a reduction in GHG of at least 20% below 1990 level
- 20% share of RES in the overall energy consumption by 2020
- 20% increase in EE compared to a business-as-usual scenario by 2020

Renewable energy – no officially approved targets.

Energy efficiency – no officially approved targets.

CO₂ emissions – no officially approved targets.

It should also be mentioned that even though there are no strategic targets for the reduction of GHG emissions, this issue is regulated by two laws:

- Law on Protection of Atmosphere Weather, dated 27.03.2001, No109-IIQ;
- Law on Joining to the Frame Convention on Climate Changes, Kyoto Protocol of Azerbaijan, dated 18.07.2000, No 912-IQ.

3.2.5. Renewable energy legislation

Law on RE or any other laws which regulate development of RES - the legislation is under development.

Regulation on feed-in-tariffs or other support mechanisms – Resolution of the Tariff (Price) Council of Azerbaijan Republic № 3 dated 06.01.2007⁵, is in fact the main document in the country which regulates conventional generation costs, FIT and end-user tariffs. The Resolution sets the following FIT:

Wind plants	0.042 €/kWh
Small hydro power plants	0.023 €/kWh

It should also be mentioned that the document does not guarantee the obligatory purchase of electricity produced by RES in the long term.

⁵ <http://tariff.gov.az/?/en/resolution/view/5/>

Regulation on RES grid connection procedures - no specific legislation (provision in legislation framework) on RES grid connection.

Laws/regulation on financial incentives (tax exemption, custom duty exemption) for RES

According to the Cabinet of Ministers Decision “On the list of imported goods which benefit from VAT exemption No11,” dated 31.01.2005, import of wind energy installations is exempt from customs duty and VAT.

3.2.6. Energy efficiency legislation

Law on EE or any other laws which regulate improvement of EE- no legislation on EE in Azerbaijan. However, article 3 of the Law on Use of Energy Resources No: 94-IQ, dated 30.05.1996, stipulates that energy efficiency measures have to be taken during extraction, processing, transportation and storage of the energy resources.

Mandatory building codes and regulations on minimum energy performance requirements
- the legislation is under development.

Regulation on appliances and equipment labelling – no legislation in this area. The introduction of energy labelling is a part of the State Program on “Development of Technical Regulation, Standardization and Conformity Assessment system in the field of Energy Saving and EE (2014-2016),” which is currently under review by relevant institutions.

Other EE regulation (on industrial EE, vehicle fuel-efficiency standards, energy service companies and energy performance contracts) - no legislation in this area, except Euro 2 emissions standard (1996) for vehicles is identified. According to the Cabinet of Ministers decision № 45, from March 6, 2010, vehicles which are being used and imported to Azerbaijan have to meet Euro 2 requirements. It also should also be noted that the transition to the Euro-4 ecological standard is scheduled for April 2014.

3.2.7. Electricity and gas prices

The authority responsible for setting energy tariffs: Tariff (Price) Council of Azerbaijan Republic

Table 3.1.1 Differentiation on electricity and gas tariffs

Tariff type	Electricity		Gas	
	Residential	Industrial	Residential	Industrial
Single rate	yes	yes	-	-
Step (block)	-	yes (declining)	yes (declining)	yes (declining)
Time-of-use	-	yes	-	-
Voltage/capacity dependent	-	-	-	-
Two-part	-	-	-	-
Non-regulated	-	-	-	-
Cross-subsidy	yes		yes	

It should also be mentioned that there is no differentiation of tariffs for different groups of consumers in Azerbaijan. According to the Tariff Council's Decision, electricity tariff for all consumers in Azerbaijan is 0.06 €/kWh. However, for aluminium, steel and chemistry plants which consume monthly at least 5 GWh – the tariff is 0.042 €/kWh in daytime and 0.002 €/kWh at night. The natural gas tariff for all consumers is 100 €/1000 m³. If monthly consumption is more than 15 million m³ – the tariff is 75€/1000 m³.

A comparison of average energy tariffs in 28 EU countries and Azerbaijan is presented below in 2013.

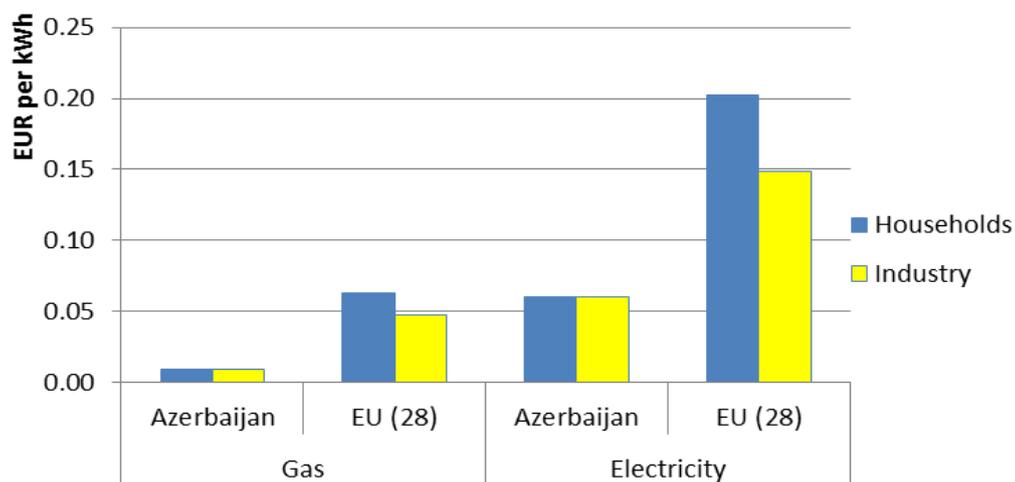


Fig 3.2.1. Comparison of energy tariffs (inc. all taxes and levies) in EU (28) and AZ in 2013 (source: <http://epp.eurostat.ec.europa.eu> and national documents approving energy tariffs)

3.3 Belarus

3.3.1. Membership in the Energy Community

Belarus is not a member of the Energy Community.

3.3.2. The authority/organisation responsible for improvement of SE in the country

The Law of the Republic of Belarus "On Renewable Energy Sources" № 204-3 dated 27.12.2010, envisages the following institutions responsible for the development of RES in the Country:

- Council of Ministers of the Republic of Belarus (<http://www.government.by/>);
- The State Committee for Standardization of the Republic of Belarus (Department of Energy Efficiency) (<http://gosstandart.gov.by/>);
- Ministry of Energy of the Republic of Belarus (<http://www.minenergo.gov.by/>);
- Ministry of Natural Resources and Environmental Protection of the Republic of Belarus (<http://www.minpriroda.by/ru/>);
- Ministry of Economy of the Republic of Belarus (<http://www.economy.gov.by/>);
- State Committee on Science and Technology of the Republic of Belarus (<http://www.gknt.org.by/>).

The State Committee for Standardization of the Republic of Belarus (Department of Energy Efficiency) is the main responsible body for the improvement of EE in the country (<http://gosstandart.gov.by/>).

The Committee's responsibilities for the improvement of energy efficiency are assigned by the Law "On Energy Efficiency" (№ 190 as of July 15, 1998), approved by the Council of the Republic dated 29.06.1998.

3.3.3. Energy strategy or other main documents, which establish energy policy (promote EE & RES) in the country

The Strategy of energy potential development in the Republic of Belarus, approved by the Resolution of the Council of Ministers of the Republic of Belarus № 1180 dated 09.08.2010, represents the key strategic documents which establish RES and EE targets by 2020.

There are also a number of documents which provide detailed programs on RE and EE.

- National programme of local and renewable energy resources development for 2011 – 2015, approved by the Resolution of the Council of Ministers of the Republic of Belarus № 586 dated 10.05.2011
- State program of construction of hydroelectric power plants in 2011-2015, approved by the Resolution of the Council of Ministers of the Republic of Belarus № 1838 dated 17.12.2010
- State program of the construction of energy sources on local fuels for 2010-2015, approved by the Resolution of the Council of Ministers of the Republic of Belarus № 1076 dated 19.07.2010
- Republican Energy Saving Programme for 2011-2015, approved by the Resolution of the Council of Ministers of the Republic of Belarus № 1882 dated 24.12.2010

National energy efficiency action plan – no legislation.

National renewable energy action plan – no legislation.

3.3.4. Sustainable energy targets

The Strategy of energy potential development in the Republic of Belarus, approved by the Resolution of the Council of Ministers of the Republic of Belarus №1180 dated 09.08.2010, establishes the following SE targets:

Renewable energy - share of own resources (including RES) in the boiler and furnace fuels:

- 28-30% by 2015
- 32-34% by 2020

It also should be mentioned that there are no separate targets for RES in Belarus. The development of RES is considered together with local conventional energy resources like peat, oil, associated petroleum gas, brown coal and oil shale. The main reason for combining local RE and conventional sources into one target is that the strategy targets are aligned with the Concept of energy Security until 2020, approved by Presidential Decree № 433 dated 17.09.2007. The Concept in its turn is more devoted to the reduction of energy dependency of the Republic of Belarus.

Energy efficiency - Reduction of GDP energy intensity compared to 2005:

- by 50% by 2015
- by 60% by 2020

CO₂ emissions – no strategic targets.

3.3.5. Renewable energy legislation

Law on RE or any other laws which regulate development of RES -

- "The Law of the Republic of Belarus ""On Renewable Energy Sources"" (№ 204-3 dated 27.12.2010);
- The Law of the Republic of Belarus "On ratification of the Statute of the International Renewable Energy Agency" (№188-3 dated 16.11.2010).

Regulation on feed-in-tariffs or other support mechanisms – The resolution of the Ministry of Economy “About electricity tariffs produced from RES” № 100 dated 30.06.2011.

Wind power	0.1669 €/kWh
Solar	0.3852 €/kWh
Biomass	0.1669 €/kWh
Small hydro	0.1669 €/kWh

It should also be mentioned that the approved FIT can vary from month to month as they are connected to the end-user tariffs for industrial consumers with installed capacity up to 750 kVA (end-user tariff * coefficient). The obligatory purchase of the electricity produced from RES using FIT is guaranteed for 20 years: coefficient = 3 for solar and 1.3 for other RES during first 10 years, and coefficient = 0.85 during years 11-20. However, there are no set tariffs or regulation on the calculation of price of electricity produced from RES after the 20-year period. Taking into account that the government is planning to eliminate cross-subsidy, the FIT will be automatically reduced, as they are connected to the industrial electricity tariff.

Regulation on RES grid connection procedures – article 21 of the Law on RES establishes the shallow costs of the RES grid connection. According to this scheme, a RES developer covers costs for the connection to the nearest point of the existing grid and a DSO/TSO covers all other expenses for modernisation/reinforcement of the existing grid.

Laws/regulation on financial incentives (tax exemption, custom duty exemption) for RES – according to article 96 of the Tax Code of the Republic of Belarus (№ 71-3 dated 29.12.2009), renewable energy installations are subject to the exemption from VAT on goods imported to the territory of the Republic of Belarus.

It should also be mentioned that the New ITS Project implemented task “AHEF 26.BY, Improvement of the current legislation aimed at RES promotion in heat and electricity generation” in 2013. The assistance was requested by the Ministry of Natural Resources and Environmental Protection. As results of this task, the ITS experts proposed changes to the legislation framework aimed at the facilitation of the development of RES in the country.

3.3.6. Energy efficiency legislation

Law on EE or any other laws which regulate improvement of EE - The Law "On Energy Saving" № 190 dated 15.07.1998.

Mandatory building codes and regulations on minimum energy performance requirements:

- Comprehensive program for the design, construction and reconstruction of energy efficient residential houses in the Republic of Belarus for 2009-2010 and up to 2020, approved by the Resolution of the Council of Ministers № 706 dated 01.06.2009
- Technical Code TKP 241-2010 (02230) Procedure of the development of feasibility study for the selection of heating supply schemes when constructing and reconstructing of facilities

Regulation on appliances and equipment labelling – no legislation on EU energy labelling. However, there is an approved programme of development of system of technical regulation, standardisation and conformity assessment in the area of energy saving for 2011-2015 in Belarus.

Other EE regulation (on industrial EE, vehicle fuel-efficiency standards, energy service companies and energy performance contracts):

- 117 standards in the area of energy efficiency are operating as for 31.12.2012⁶;

⁶ http://energoeffekt.gov.by/downloads/laws/standards/stand_20120710.doc

- Resolution of the Council of Ministers of the Republic of Belarus № 248 dated 22.02.2010 "Regarding measures to improve the efficiency of fuel and energy resources for the period up to 2012"
- "Programme of technical re-equipment and modernisation of foundry, thermal, voltaic and other types of energy-intensive industries for 2007 – 2010 (approved by the Resolution of the Council of Ministers № 1421 dated 31.10.2007)
- Directive of the President of the Republic of Belarus № 3 as of 14.06.2007 "Savings and economizing are the main factors of economic security of the state"
- Methodological recommendations for calculation of consumption rates of fuel and energy resources for cogeneration plants
- Number of other documents secondary and tertiary documents on energy efficiency

3.3.7. Electricity and gas prices

The authority responsible for setting energy tariffs:

- Council of Ministers approves residential tariffs.
- Ministry of Economy approves industrial tariffs.

Table 3.3.1 Differentiation on electricity and gas tariffs in Belarus

Tariff type	Electricity		Gas	
	Residential	Industrial	Residential	Industrial
Single rate	yes	yes	yes	yes
Step (block)	yes (increasing)	-	yes (increasing)	yes (declining)
Time-of-use	yes	yes ⁷	-	-
Voltage/capacity dependent	-	yes	-	-
Two-part	-	yes ⁸	-	-
Non-regulated	-	-	-	-
Cross-subsidy	yes		yes	

⁷ Time-of-use tariffs are applied for heating and heat-water supply purposes only

⁸ Two-part tariff is applicable for consumers with installed capacity more than 750 kVA only

A comparison of average energy tariffs in 28 EU countries and Belarus in 2013 is presented below.

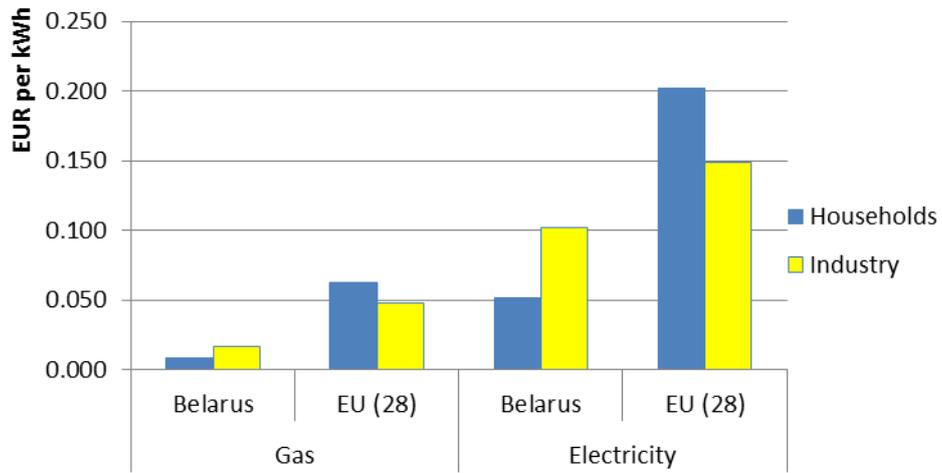


Fig 3.3.1. Comparison of energy tariffs (inc. all taxes and levies) in EU (28) and BY in 2013 (source: <http://epp.eurostat.ec.europa.eu> and national documents approving energy tariffs)

3.4 Georgia

3.4.1. Membership in the Energy Community

Georgia became an observer of the EnC in December 2007. In February 2013, the Government of Georgia expressed interest in becoming a full member of the Energy Community and this initiative was supported by ITS project⁹. ITS conducted the “Workshop on EU Directives and legally binding obligations in the area of Sustainable Energy under the Energy Community Treaty” for the Ministry of Energy and other interested stakeholders in Georgia. As of December 2013, the Georgian application for full membership is pending approval in the EnC.

3.4.2. The authority/organisation responsible for improvement of SE in the country

Ministry of Energy is the main responsible body for the improvement of EE and the development of RES in the country (<http://www.menr.gov.ge/en/>).

The Ministry’s responsibilities for the improvement of sustainable energy are assigned by the Georgian Law "On Electricity and Natural Gas" dated 30.03.1999.

3.4.3. Energy strategy or other main documents, which establish energy policy (promote EE & RES) in the country

- Energy policy “Main Directions of State Policy in the Power Sector of Georgia” adopted by the Parliament № N3190-1S dated 07.06.2006
- State program “Renewable energy 2008”, approved by the Governmental Decree № 107 dated 18.04.2008

It should also be mentioned that the former document devoted to the development of hydro power plants only and does not establish clear and transparent targets on the improvement of EE and the achievements of the share of RES in the energy balance of the country.

National renewable energy action plan – no legislation.

National energy efficiency action plan - no legislation.

3.4.4. Sustainable energy targets

Renewable energy - no strategic targets.

⁹ http://www.inogate.org/index.php?option=com_inogate&view=activity&cid=239&pid=72&Itemid=75&lang=en

Energy efficiency - no strategic targets.

CO₂ emissions – no strategic targets.

3.4.5. Renewable energy legislation

Law on RE or any other laws which regulate development of RES – the Law on RES is under development.

Regulation on feed-in-tariffs or other support mechanisms – no legislation. However, there are some documents approved by the Georgian National Energy and Water Supply Regulatory Commission, which regulate tariffs for electricity produced from SHPP.

Regulation on RES grid connection procedures - no specific legislation (provision in legislation framework) on RES grid connection.

Laws/regulation on financial incentives (tax exemption, custom duty exemption) for RES - no legislation.

3.4.6. Energy efficiency legislation

Law on EE or any other laws which regulate improvement of EE – no legislation

Mandatory building codes and regulations on minimum energy performance requirements - under development. The Ministry of Economy with support of German and local experts are updating the existing construction standards and developing a building code. According to preliminary information, the document will encompass provisions on

- a) building energy performance certification
- b) mandatory energy audits
- c) minimum energy performance requirements
- d) ESCO business

Regulation on appliances and equipment labelling – no legislation.

Other EE regulation (on industrial EE, vehicle fuel-efficiency standards, energy service companies and energy performance contracts) - no legislation.

3.4.7. Energy tariffs

The authority responsible for setting energy tariffs: Georgian National Energy and Water Supply Regulatory Commission

Table 3.4.1 Differentiation on electricity and gas tariffs

Tariff type	Electricity		Gas	
	Residential	Industrial	Residential	Industrial
Single rate	-	-	yes	-
Step (block)	yes (increasing)	-	-	-
Time-of-use	-	-	-	-
Voltage/capacity dependent	-	yes	-	Yes
Two-part	-	-	-	-
Non-regulated	-	yes ¹⁰	-	-
Cross-subsidy	-		-	

A comparison of average energy tariffs in 28 EU countries and Georgia in 2013 is presented below.

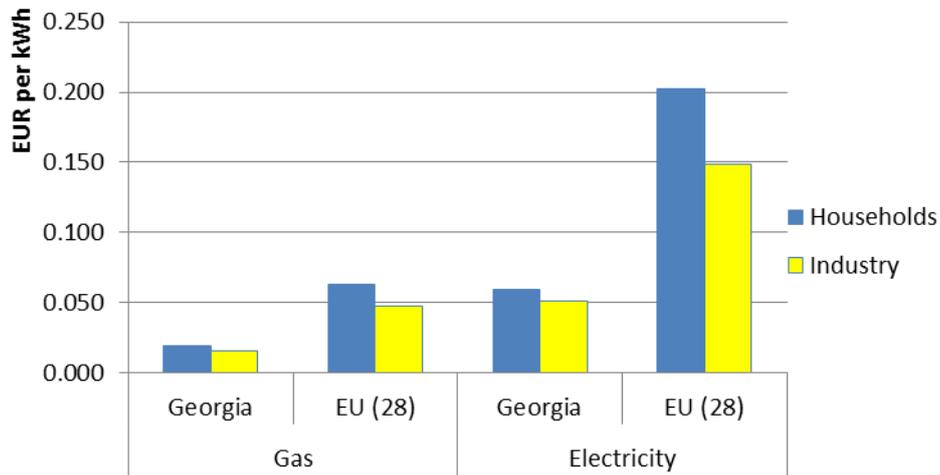


Fig 3.4.1. Comparison of energy tariffs (inc. all taxes and levies) in EU (28) and GE in 2013 (source: <http://epp.eurostat.ec.europa.eu> and national documents approving energy tariffs)

¹⁰ Industrials consumers are allowed to conclude long term bilateral contracts with electricity producers

3.5 Moldova

3.5.1. Membership in the Energy Community

Moldova is a Contracting Party of the Energy Community from 01.05.2010.

3.5.2. The authority/organisation responsible for improvement of SE in the country

Ministry of Economy is responsible for the development of the state policy on EE and RES in the country (<http://mec.gov.md/>).

The Ministry's responsibilities are assigned by the Government Decision No. 690 dated 13.11.2009 on approval of the Regulation on organization and functioning of the Ministry of Economy, its structure and staff limit.

Energy Efficiency Agency is the main responsible body for the implementation of the state policy for improvement of EE and development of RES in the country (<http://aee.md/>).

The agency's responsibilities are assigned by a number of documents:

- Law on renewable energy No. 160 dated 12.07.2007
- Law on energy efficiency No. 142 dated 02.07.2010
- Government Decision on Energy Efficiency Agency No. 1173 dated 21.12.2010

3.5.3. Energy strategy or other main documents, which establish energy policy (promote EE & RES) in the country

In February 2013, the Government of Moldova adopted the New Energy Strategy of the Republic of Moldova until 2030 (№ 102 dated 05.02.2013) which consequently replaced the previous Energy Strategy up to 2020. The new document is closely aligned with the requirements of the Energy Community Treaty and provides clear SE targets and incentive mechanisms needed to achieve these targets.

National Energy Efficiency Action Plan (2013-2015) – adopted by the Government Decision (№ 113 dated 07.02.2013) according to the requirements of the EnC.

National Renewable Energy Action Plan (2013-2020) – adopted by the Government Decision 1073 from 27.12.2013) according to the requirements of the EnC.

It should also be mentioned that there is one more strategic document, which establish SE targets - National Energy Efficiency Program for the period 2011-2020 approved by the Government Decision № 833 dated 10.11.2011.

3.5.4. Sustainable energy targets

The National Energy Efficiency Program for 2011-2020 and the Energy Strategy of the Republic of Moldova until 2030, establishes the following SE targets:

Renewable energy

- 20 % share of energy from renewable sources in the energy mix by 2020
- 10% share of biofuels in the total volume of fuel consumed by 2020

Energy efficiency – 20% reduction in overall primary energy consumption by 2020 compared to 2009.

CO₂ emissions – 25% reduction of GHG emissions by 2020 compared to 2009.

3.5.5. Renewable energy legislation

Law on RE or any other laws which regulate development of RES - Law on Renewable energy (No. 160 dated 12.07.2007). Currently a new RES Law is under development.

Regulation on feed-in-tariffs or other support mechanisms – under development.

Currently, RES feed-in tariffs are established case by case according to the “Methodology for calculation, approval and implementation of tariffs for electricity and biofuels produced from RES,” approved by ANRE Decision No. 321 dated 22.01.2009. According to the Methodology, a developer has to build the RES installation and submit the information about invested funds to ANRE. Based on the information submitted, ANRE establishes an individual feed-in tariff for the RES Developer.

Regulation on RES grid connection procedures – article 26 of the Law on RES stipulates that the technical specification for RES grid connection should be developed free of charge by a TSO/DSO. All other work should be completed according to contractual basis that establishes the deep costs of the RES connection to the grid, where a developer covers all costs related to grid connection.

Laws/regulation on financial incentives (tax exemption, custom duty exemption) for RES – according to article 28 of the Law on Custom tariff (№ 1380 dated 20.11.1997), wind generators with a capacity above 1 MW are exempted from custom duty until 31.12.2015.

3.5.6. Energy efficiency legislation

Law on EE or any other laws which regulate improvement of EE - The Law "On Energy Efficiency" (№ 142 dated 02.07.2010).

Mandatory building codes and regulations on minimum energy performance requirements: - the draft law on energy performance in buildings was approved by the Government in September 2013 and sent to the Parliament for approval. It is expected to be approved in 2014. The rest of the documents are under development.

Regulation on appliances and equipment labelling – The draft law on energy labelling was approved by government decision (№ 1095 dated 31.12.2013) and sent to the Parliament for approval. It is expected to be approved in 2014.

Other EE regulation (on industrial EE, vehicle fuel-efficiency standards, energy service companies and energy performance contracts): The Regulation on energy services was approved by the Government Decision № 1093 dated 31.12.2013. The Draft Law on Ecodesign requirements for energy-related products material (Directive 2009/125/EC) was elaborated and expected to be approved in 2014.

3.5.7. Electricity and gas prices

The authority responsible for setting energy tariffs: National Energy Regulatory Agency of Moldova (ANRE)

Table 3.5.1 Differentiation on electricity and gas tariffs

Tariff type	Electricity		Gas	
	Residential	Industrial	Residential	Industrial
Single rate	yes	yes	-	Yes
Step (block)	-	-	yes (increasing)	-
Time-of-use	yes	yes	-	-
Voltage/capacity dependent	-	yes	-	Yes
Two-part	-	-	-	-
Non-regulated	-	-	-	-
Cross-subsidy	-		-	

A comparison of average energy tariffs in 28 EU countries and Moldova in 2013 is presented below.

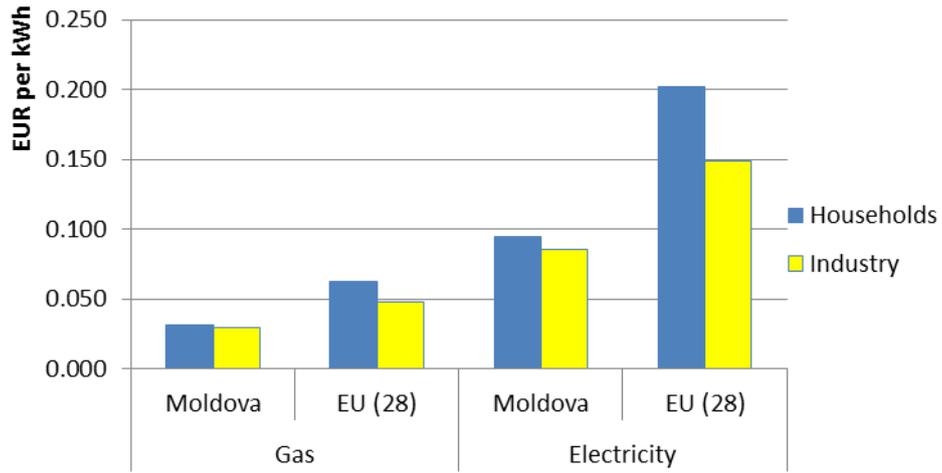


Fig 3.5.1. Comparison of energy tariffs (incl. all taxes and levies) in EU (28) and MD in 2013 (source: <http://epp.eurostat.ec.europa.eu> and national documents approving energy tariffs)

3.6 Ukraine

3.6.1. Membership in the Energy Community

Ukraine is a Contracting Party of the Energy Community from 01.02.2011.

3.6.2. The authority/organisation responsible for improvement of SE in the country

The Law “On Alternative Energy Sources” (№ 555-IV dated 20.02.2003) envisages the following institutions responsible for the development of the state policy on RES in the country:

- Verkhovna Rada (the Parliament of Ukraine) (<http://portal.rada.gov.ua>);
- The Cabinet of Ministers (<http://www.kmu.gov.ua/>).

The Law on energy saving (№ 75/94-VR dated 01.07.94) envisages the following institutions responsible for the improvement of EE in the country:

- The Cabinet of Ministers (<http://www.kmu.gov.ua/>);
- The State Agency on Energy Efficiency and Energy Saving (SAEE) (<http://sae.gov.ua/>).

SAEE is also the main responsible body for the implementation of RES and EE policies in the country. The Agency’s responsibilities are assigned by the President Decree “About the State Agency on Energy Efficiency and Energy Saving of Ukraine,” № 462/2011 dated 13.04.2011.

It should also be mentioned that during 2009-2012, the SAEE received 70 million € within the framework of the EC Sector Policy Support reform programme¹¹ to support the implementation of Ukraine's strategy in the area of energy efficiency and renewable sources. However, as of December 2013, information about the results of this program is not available.

3.5.3. Energy strategy or other main documents, which establish energy policy (promote EE & RES) in the country

Energy Strategy of Ukraine until 2030 (№ 145-r dated 15.03.2008) is the main strategy document which establish RES and EE targets until 2020. It also should be mentioned

¹¹ http://ec.europa.eu/europeaid/documents/aap/2008/af_aap_2008_ukr.pdf

that the document is outdated and an updated energy strategy of Ukraine is currently under development.

There are also a number of other strategic documents in the field of sustainable energy:

- The State Economic Program for EE and the development of energy production from RES and alternative fuels for 2010-2015, approved by the Resolution of the Cabinet of Ministers № 243 dated 01.03.2010.
- Concept of the National Environmental Policy for Ukraine for the Period to 2020", approved by the Resolution of the Cabinet of Ministers № 880-r dated 17.10.2007.
- Action Plan on Environmental Protection for 2011-2015, approved by the Resolution of the Cabinet of Ministers № 577-r dated 25.05.2011.

National Energy Efficiency Action Plan – the draft NEEAP until 2020 is developed but has not been approved yet.

National Renewable Energy Action Plan – the draft NREAP until 2020 is developed but has not been approved yet.

3.5.4. Sustainable energy targets

The above documents establish the following SE targets:

Renewable energy

- 10% share of RES and alternative fuels in the primary energy balance by 2015 (State Economic Program)
- 19% share of RES and alternative fuels in the primary energy balance by 2030 (Energy Strategy)

Energy efficiency

- 20% reduction of GDP intensity by 2015 in comparison with 2008 (State Economic Program)

CO₂ emissions

- 15-20% reduction of CO₂ emissions by 2015 in comparison with 2008 (State Economic Program)

- Reduction of CO₂ emissions (except transport) by 10% by 2015 and by 25% by 2020 in comparison with 2010 – According to the Law on Basic principles of public ecological policy of Ukraine until 2020, № 2818-VI dated 21.12.2010

It also should be mentioned that the draft NREAP and NEEAP, once adopted, will propose new targets: 11% share of RES in the energy balance by 2020 and 9% improvement of EE by 2020, respectively.

3.5.5. Renewable energy legislation

Law on RE or any other laws which regulate development of RES - The “Law on Alternative Energy Sources” (№ 555-IV dated 20.02.2003).

Regulation on feed-in-tariffs or other support mechanisms – the “Law on Electric Power” establishes the framework for FIT. The National Commission for State Energy Regulation (NERC) approves FIT (in Ukrainian hryvnia, or UAH) for each RES developer every month. Once FIT is fixed for an RES developer, the monthly fluctuation depends only on the exchange rate of EUR-UAH. As of December 2013, the following levels of FITs are approved by NERC:

Wind power	0.065-0.113 €/kWh
Solar	0.317-0.335 €/kWh
Biomass	0.124 €/kWh
Small hydro	0.065-0.108 €/kWh

The Law on Electric Power also establishes the obligation to purchase all produced electricity using FIT until 01.01.2030 and to use some share of local components during construction of RES installations. The share of local components depends on the type of technology and year of the commissioning of the RES installation.

Regulation on RES connection to the grid procedures – article 17 of the Law on Electric Power RES stipulates the following:

- Free of charge development of technical specification of RES connection to the grid.
- 50% of the connection cost is paid by the TSO/DSO.

- 50% of the connection cost paid by an RES developer is considered as reimbursable financial assistance, which should be repaid to the RES developer within 10 years.

Laws/regulation on financial incentives (tax exemption, custom duty exemption) for RES –

Tax Code of Ukraine stipulates the following:

- Exemption of RES equipment/installation from import tax
- Exemption from income tax for RES electricity producers from 01.01.2011-01.01.2021

3.5.6. Energy efficiency legislation

Law on EE or any other laws which regulate improvement of EE – Law “On energy saving” (№ 75/94-VR dated 01.07.1994) and the Law "On the combined heat and power (cogeneration) and Waste Energy Potential" (№ 2509-IV dated 05.04.2005).

Mandatory building codes and regulations on minimum energy performance requirements

- National Standard of Ukraine B A.2.2-8: 2010. This Standard specifies general requirements to the composition, layout and design of the "Energy Efficiency" in the design of residential and public buildings.

Regulation on appliances and equipment labelling – The Resolution of the Cabinet of Ministers “On the approval of technical requirement of energy labelling” (№ 702 dated 07.08.2013) introduces EU energy labelling for freezers and washing machines only. The legislation on energy labelling for other appliances is under implementation. There are also a number of National Standards of Ukraine which regulate national energy labelling.

Other EE regulation (on industrial EE, vehicle fuel-efficiency standards, energy service companies and energy performance contracts): Legislation on ESCO is under development.

3.5.7. Electricity and gas prices

The authority responsible for setting energy tariffs: the National Commission for State Energy Regulation (NERC)

Table 3.5.1 Differentiation on electricity and gas tariffs

Tariff type	Electricity		Gas	
	Residential	Industrial	Residential	Industrial
Single rate	-	yes	-	yes
Step (block)	yes (increasing)	-	yes (increasing)	-
Time-of-use	yes	yes	-	-
Voltage/capacity dependent	-	yes	-	-
Two-part	-	-	-	-
Non-regulated	-	yes	-	yes
Cross-subsidy	yes		yes	

A comparison of average energy tariffs in 28 EU countries and Ukraine in 2013 is presented below.

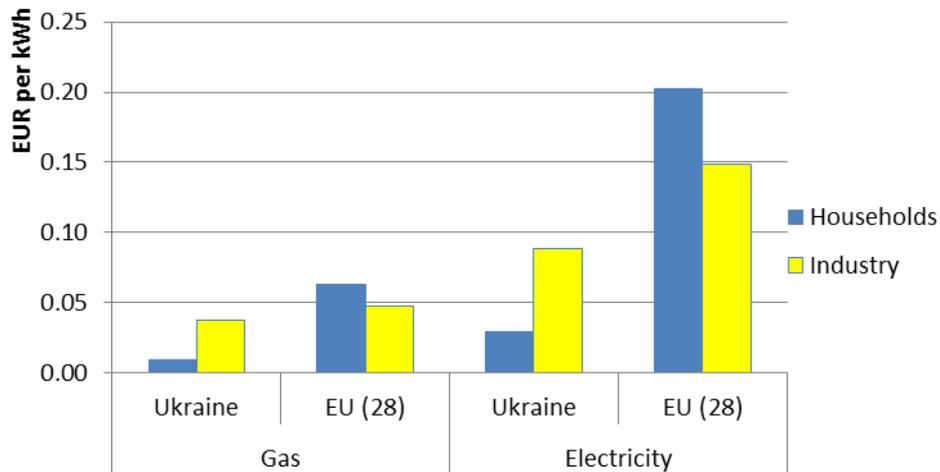


Fig 3.6.1. Comparison of energy tariffs (incl. all taxes and levies) in EU (28) and UA in 2013 (source: <http://epp.eurostat.ec.europa.eu> and national documents approving energy tariffs)

4. Matrix of baseline survey

	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
1. Membership in the EnC	Observer	-	-	Candidate to a full member	Full member	Full member
2. Authority responsible for:						
- RES	Ministry of Energy and Natural Resources	State Agency for Alternative and Renewable Energy Sources (SAARES)The	6 authorities	Ministry of Energy	Ministry of Economy Energy Efficiency Agency	Verkhovna Rada; Cabinet of Ministers; State Agency on EE and Energy Saving (SAEE)
- EE	Ministry of Energy and Natural Resources	Ministry of Industry and Energy	State Committee for Standardization	Ministry of Energy	Ministry of Economy Energy Efficiency Agency	Cabinet of Ministers; SAEE
3. Strategy documents						
- Energy strategy	Strategy of energy sector dev. (2005)	State Program on Development of fuel-energy complex in 2005-2015 (2005)	Strategy of energy potential development (2010)	Main Directions of State Policy in the Power Sector (2006)	Energy Strategy until 2030 (2013)	Energy Strategy until 2030 (2008)
- Key strategy legislation on RES, EE and GHG	Program on Energy Saving and RES (2007); Strategic Plan (2011)	State Program on Use of alternative and RES 2005-2013 (2005)	Number of state and national programs on energy savings and RES	State program "Renewable energy 2008" (2008)	Energy Strategy until 2030 (2013)	Number of state and national programs on EE, RES and environment
- NREAP	-	under development	-	-	yes (2013)	under development
- NEEAP	-	under development	-	-	yes (2013)	under development
4. SE Targets, including:						
- RES	SHPPS - 400 MW & wind - 200 MW installed by 2025	-	32-34% share of own resources (incl. RES) in the boiler and furnace fuels by 2020	-	- 20 % RES share in the energy mix in 2020; - 10% share of biofuel in the total volume of fuel consumed in 2020.	19% of RES and alternative fuels in the primary energy balance by 2030
- EE	-	-	60% of reduction of GDP intensity by 2020 (compared to 2005)	-	20% reduction in overall primary energy consumption by 2020 (compared to 2009)	20% reduction of GDP intensity by 2015 (compared to 2008)
- CO ₂ Emissions	-	-	-	-	25% reduction of GHG emissions by 2020 (compared to 2009)	Reduction of CO ₂ emissions (except transport) by 25% in 2020 (compared to 2010)
5. RES legislation						
- RES Law	on Energy Saving and RE (2004)	under development	on RES (2010)	Under development	On RES (2007)	on Alternative Energy Sources (2003)
- FIT (€/kWh)	PSRC Resolution (2011)	Tariff (Price) Council	Resolution of the Ministry	-	-	NERC Resolution

	Armenia	Azerbaijan (2007)	Belarus of Economy (2011)	Georgia	Moldova	Ukraine (monthly); Law on Electric Power
• Wind	0.079	0.042	0.167	-	-	0.065-0.113
• Solar PV	-	-	0.385	-	-	0.317-0.335
• Biomass	0.084	-	0.167	-	-	0.124
• Small hydro	0.044	0.023	0.167	-	-	0.065-0.108
- FIT obligatory purchase	15 years	-	10 years + 10 years of reduced FIT	-	-	until 2030
- RES grid connection	-	-	Law on RES - shallow cost	-	Law on RES – deep connection costs	Law on Electric Power: 50% -system operator 50% - RES developer to be reimbursed during next 10 years
- Other incentives	-	Custom duty/VAT exemption for wind turbines	Custom duty exemption for RES installations	-	Custom duty exemption for above 1 MW wind turbines	Custom duty exemption for RES installations; Income tax exemption until 01.01.2021
6. EE legislation						
- EE Law	on Energy Saving and RE (2004)	under development	on Energy Saving (1998)	-	on EE (2010)	On energy saving (1994)
- Building performance	-	under development	Program for the design, construction and reconstruction of energy efficient residential houses (2009)	Under development	Draft law passed first hearings.	National Standard of Ukraine B A.2.2-8: 2010
- Energy labelling	-	under development	-	-	passed first hearings	freezers & washing machines (2013)
- Other EE regulation	voluntary standards	under development	117 standards on EE	-	Regulation on ESCO (2013)	ESCO legislation is under development
7. Energy prices						
- Authority setting tariffs	Public Services Regulatory Commission (PSRC)	Tariff (Price) Council	Residential - Council of Ministers; Industrial – Ministry of Economy	National Energy and Water Supply Regulatory Commission	National Energy Regulatory Agency of Moldova (ANRE)	National Commission for State Energy Regulation (NERC)
- Electricity (€/kWh)						
• Residential	0.070	0.060	0.052	0.060	0.094	0.029
• Industrial	0.064	0.060	0.102	0.051	0.085	0.088
• Cross-subsidy	-	yes	yes	-	-	yes
- Gas (€/kWh)						
• Residential	0.026	0.009	0.009	0.019	0.031	0.009
• Industrial	0.018	0.009	0.017	0.015	0.029	0.037



Baseline Survey of Institutional and Regulatory Frameworks in SE in INOGATE PCs

	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
Cross-subsidy	yes	yes	yes	-	-	yes

5. Conclusion and recommendations

This survey provides a clear and concise baseline for the evaluation of future reforms/improvements in the areas of EE and RES in Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. According to the publicly available information, this is the first document which provides survey of six INOGATE PCs in the SE area using a common methodology. The methodology can be also applied for conducting the same baseline survey for INOGATE PCs in Central Asia and, if necessary, modified depending on the future needs of the INOGATE PCs.

The gaps identified in legislation and institutional frameworks can be used as indicators for policy makers on the direction of regulatory reforms needed to contribute to the sustainable development of their countries. The key findings and conclusion of the Survey are presented below in a form of table which illustrates the applicability of the ITS recommendations for each INOGATE Partner Country.

Table 5.1. General recommendations for the improvement of the institutional and legislation framework in sustainable energy in INOGATE Partner Countries

General recommendations	AM	AZ	BY	GE	MD	UA
1. Submission of application to the Energy Community for full membership	√	√	√			
2. Establishment of a key authority responsible for the development of RES	√		√	√		
3. Establishment of a key authority responsible for the improvement of EE	√	√	√	√		
4. Development of a sustainable energy policy that includes SMART (specific, measurable, achievable, realistic and time-bound) targets on EE and RES	√	√	√	√		
5. Adoption of the NREAP and NEAAP which provide clear breakdowns and paths towards achievement of the established SE targets	√	√	√	√		√
6. Development or improvement of primary legislation on RES that establishes clear and transparent incentives for development of RES	√	√		√		
7. Development or improvement of FIT legislation that includes an economically feasible level of FIT, FIT reduction due to technological progress, a guaranteed period for obligatory purchase, support to different scales of installation, etc.	√	√	√	√	√	
8. Establishment of a clear and transparent scheme for grid connection of RES installations	√	√		√		
9. Development or improvement of other incentive mechanisms, e.g., customs duty exemption, which support all RES technologies, if applicable	√	√	√	√	√	
10. Development or improvement of primary legislation on EE to establish clear and transparent incentives for improving EE	√	√	√	√		√
11. Development or improvement of legislation on minimum energy performance of new and renovated buildings	√	√	√	√	√	√
12. Development or improvement of legislation on a mandatory energy labelling scheme	√	√	√	√	√	√
13. Development or improvement of other EE incentives, e.g., obligatory energy audits, ESCO legislation, adoption of a model EPC contract, etc.	√	√	√	√	√	√
14. Elimination of cross subsidies and establishment of clear and transparent support schemes for vulnerable consumers	√	√	√			√
15. Improvement of a tariff menu for end-users to provide clear signals for improving energy efficiency	√	√	√	√	√	