

**ENERGY CHARTER
SECRETARIAT**

CCDEC 2015

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Brussels, 4 September 2015

Related documents: CC 518, Mess 1235/15
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DECISION OF THE ENERGY CHARTER CONFERENCE

Subject: Adoption by written procedure of the Recommendations of the In-depth Energy Efficiency Review of Moldova

By CC document 518, dated 10 August 2015, delegations were invited to approve the Recommendations of the In-depth Energy Efficiency Review of Moldova. As specified by Rule 20 of the Rules of Procedure (CC 53 corr. 2) concerning the adoption of decisions by correspondence, members of the Energy Charter Conference were informed that any delegation that wished to object to this proposal should notify the Secretariat of its position in writing not later than 4 September 2015.

Having received no objections within the specified time limit, on 4 September 2015 the Energy Charter Conference **welcomed** the report on the In-depth Energy Efficiency Review of Moldova and **endorsed** the recommendations made to the Government of Moldova.

Executive summary of the In-depth Energy Efficiency Review of Moldova is attached.

Keywords: In-depth review, Energy Efficiency, PEEREA, Moldova

IN-DEPTH REVIEW OF THE ENERGY EFFICIENCY POLICY OF MOLDOVA

The Republic of Moldova is situated in Southeast Europe, bordering Romania and Ukraine. The territory of the Moldova covers area of 33.8 thousand square km and, as per 01.01.2015 has population of 3.56 million, 41.9% of which urban. The city of Chişinău (Kishinau) is the capital of the country and had a population of about 804.5 thousand. Moldova has moderate climate and a favourable combination of climate and soil conditions for agriculture.

The Moldova is an independent state since August 27, 1991. The transition period has been characterized by political instability and numerous Governments change since independence. Three Governments changes took place also in the recent past: in 2009, 2013 and currently. New Government will take office in the first months of 2015. Following last Parliamentary elections of November 30, 2014, leading position has pro-European coalition.

As a result of reforms carried out in recent years, there have been a number of positive developments in Moldova, notably in the field of energy efficiency and use of renewable energy sources. Integration into EU structures was until recently a priority of Moldova's policy development, which is reflected in the efforts for transposition of the EU acquis into national legislation. New direction of policy development in Moldova will be shaped during the nearest future, reflecting latest political changes that took place in the country during the end of 2014 – beginning of 2015.

The past decade has brought about changes in the fuel mix. Fivefold increase during 2005-2013 in average annual natural gas import prices resulted in sharp increase in tariffs for gas supply, but also in tariffs for locally produced electricity and heat. These price increases served as the main driving force in search for alternative energy resources, but also for optimization of energy consumption in all sectors of national economy.

Moldova depends almost fully on imports of fossil fuels and electricity with natural gas providing two-thirds of its energy needs — all of which was imported from the Russian Federation (Russia) via Ukraine up to the end of 2014. In order to improve energy security and reduce resource dependency, Moldova has set an ambitious objectives and targets to improve energy efficiency and to diversify the energy mix with more renewable energy resource development (National Development Strategy "Moldova 2020").

At the same time the energy intensity in Moldova is still relatively high, though it was significantly decreased since 2005 until now. The efficiency of energy transformation has a high potential for improvement. Current level of the efficiency of energy transformation is significantly lower than that of modern and comparable technology and process characteristics within EU and worldwide, but also when compared to the local records during times when system was running at higher and closer to optimal loads. Numerous factors, including aging technology, equipment and networks, system running at much lower than designed loads and other, contribute to higher energy losses.

Majority of end-use sectors, except trade and public services and transport sectors, have reduced their energy consumption during 2005-2013, though during 2007-2011 energy consumption in residential sector was increasing, as well as in 2009-2012 energy consumption increased in the industry. The reduction in energy consumption during 2005-2013 was only to a minor extent due to improved energy efficiency, but mainly due to the significant energy prices increase as well as other factors including those inherent to the transitional period, but also world economic crisis of 2009. All sectors have big potential for energy efficiency improvements.

In 2014, Moldova signed an Association Agreement with the European Union, following its Energy Community membership since 2010. Following this agreement, it has to make its legislation conform to the EU *acquis communautaire* until December 2017, i.e. core EU energy legislation related to electricity, oil, gas, environment, competition, renewables, efficiency and statistics. Moldova also plans to fully synchronise its electricity network to the European Network of Transmission System Operators for Electricity (ENTSO-E) by 2020 in order to connect to the European electricity market.

Improving energy efficiency and energy security are among the main priorities of the National Development Strategy "Moldova 2020" and Energy Strategy of Moldova until 2030. The latter provides guidelines for national energy sector development, in order to ensure necessary grounds for economic growth and social welfare. The Strategy defines general policy goals for 2013-2030 as well as specific policy objectives for 2013-2020 and 2021-2030, specifying measures for their implementation. The following targets are set in this Strategy at national level:

- decrease in energy intensity by 10% by 2020;
- decrease of losses in transmission and distribution networks for electricity to 11% by 2020 (up to 13% in 2015), for natural gas: by 39% by 2020 (by 20% in 2015), and for heat: by 5% by 2020 (by 2% in 2015);
- decrease in greenhouse gasses emissions (compared to 1990) by 25% by 2020;
- decrease in buildings' energy consumption by 20% by 2020;
- share of retrofitted public buildings of 10% in 2020.

The overall objective of the Law on energy efficiency, approved in 2010, is to provide regulation of activities aimed at reducing the energy intensity of the national economy and the negative impact of the energy sector on the environment. The Law provides the field ground for the energy efficiency improvements, including by establishing and supporting the institutional activity in development and implementation of programs, plans, energy services and other energy consumption efficiency measures. This Law applies to energy services providers, through which the energy efficiency improvement measures are being realised, energy distributors, DSOs, energy suppliers and consumers.

National Energy Efficiency Programme 2011-2020 and Action Plan 2013-2015 were adopted and provide necessary set of measures in order to achieve the overall reduction in final energy consumption in all sectors of the national economy. In total 428 ktoe energy savings are estimated for the period 2013-2015. Out of this 45% or 193 ktoe are the savings in the residential/building sector, followed by transport 23% or 98 ktoe, 13% or 57 ktoe energy transformation sector, 10% (43 ktoe) industry and 9% (37 ktoe)

public/service sector. According to data from Energy Efficiency Agency, the in 2013 savings are achieved in the energy transformation sector (29.3 ktoe), industry (21.5 ktoe) and public sector (72.8 ktoe). For transport and residential sector the final energy consumption continues to increase in 2013.

In the recent years Moldova had achieved major progress in energy efficiency policies and programmes development, though the progress in their implementation is still moderate. The government needs to prioritise and timely develop all necessary secondary legislation and regulations to facilitate the implementation and attain the objectives of the adopted energy efficiency and renewable energy strategies, plans and programmes. If further needs to develop enforcement and implementation mechanisms for its policies and to provide incentives in order to attract necessary private investments in the energy efficiency and renewable energy sectors.

The energy market unbundling is in accordance with the provisions of the third energy package and EU directives. In 2014 the National Agency for Energy Regulation drafted the Rules of Electricity Markets. Heat supply in Chisinau is currently being restructured in an attempt to solve the numerous problems (including inefficient operation and distribution networks, not optimal technical conditions and accumulating financial debt) of the existing district heating company.

The EEA is responsible for the implementation of the state policy on efficiency and renewable energy and for taking measures for the national targets to be achieved, however there is a pressing need to strengthen the institutional, human and financial capacity of the Agency to enable it to have a leading role in implementing energy efficiency and renewable energy policies and regulations within the country. Also it was noted that there is limited institutional capacity of the local public administration authorities and unclear mandate for the Regional energy managers to be appointed, which results in limited identification and implementation of the energy efficiency measures at the local and regional level.

Recommendations

General Recommendations

- The government should consider that the stability of legislative framework is the important precondition for attracting investments in the energy efficiency and renewable energy sectors.
- The government's energy policy should continue to reflect the potential contribution of energy efficiency towards decreasing fuel imports and supporting economic growth and the environment.
- Energy efficiency and renewable energy should continue to be given high priority by the government. Future energy policies should be supported by detailed analysis of economic energy efficiency potentials in all sectors of the economy. The barriers impeding the realization of these potentials should be mitigated.
- The Ministry of Economy should strengthen its capacity to analyse and assess energy efficiency and renewable energy as a basis for future policy development.

- Efficient development of production, transmission and distribution assets in the gas and electricity sector is needed. This will maximise fuel burning efficiency and minimise the technical transmission and distribution losses.
- Energy strategies, policies and targets should be unified and their creation must be better coordinated on the national level.
- The level of transposition of the EU legislation in the energy efficiency sector is satisfactory. The emphasis needs to be given on the practical implementation and proper enforcement on different levels.

Institutional Framework

- Additional efforts are required to strengthen the capability and capacity building of various institutions that are important players in the energy sector. Special emphasis should be put on the Energy Efficiency Directorate within the Ministry of Economy and on the Energy Efficiency Agency.
- Dedicated authority, clear mandate and coordination function need to be given to the Energy Efficiency Agency. Role of the agency should be strengthened to enable it to have a leading role in implementing energy efficiency and RES policies and regulations within the country.
- Enhancement of inter-ministerial coordination is needed, in particular among other public policymakers in the fields of energy, environment, transport, housing and industry.
- The government should consider ways and means to strengthen work on energy efficiency at regional, district and local levels, such as regional authorities and municipalities.
- The efforts of various stakeholders, including IFIs, professional and sector associations, universities, research centres and NGOs need to be supported and included in the government's policy formulation and evaluation.
- The government needs to support research and development activities on renewable energy and energy efficiency technologies.
- The independence of the energy regulator needs to be guaranteed. It is crucial for the stability and proper functioning of the energy market.

Energy Market and Pricing

- The National Energy Regulatory Agency (ANRE) should continue to ensure that the energy prices are cost-reflective.
- The initiated restructuring of the electricity and gas market is commended. Complete liberalization of the market is the necessary precondition for its sustainable

development in the future (this relates to the energy community treaty obligations as well as third liberalization package).

Specific Energy Efficiency Programmes and Measures

- The long-term targets and objectives are currently set by National Energy Efficiency Programme 2011 – 2020. It needs to be made operational through short-term Energy Efficiency Action Plans with priorities and intermediate monitoring and evaluations.
- Based on the further assessment of energy efficiency potential, the government might consider setting sector specific targets.
- The government should continue to establish high efficiency standards for new and existing buildings, with focus on energy efficiency labelling schemes and minimum energy performance standards. These should include both construction characteristics and use of the buildings. The authority should ensure that compliance and enforcement procedures are in place.
- The government should continue stimulating energy efficiency through a wide range of measures for the buildings and industry sectors, such as compulsory energy audits, benchmarking, dissemination of information on energy efficiency measures, and involving sector associations in communication and information campaigns.
- The government should further facilitate the development of the market for energy services through a wide range of measures, such as a support schemes for energy audits, simplified procedures for investments in energy efficiency projects, and simplified procedures for certification of energy efficiency companies.
- The government should continue to give priority for highly efficient cogeneration and district heating plants.
- Improving the qualification of energy auditors, technicians and other energy professionals needs to be a priority regarding the efficient achievement of settled goals in the energy efficiency and RES sectors.
- Government should continue to promote the introduction of the energy management systems in industry.
- Awareness raising and information dissemination activities to promote energy efficiency should be continued and enhanced, particularly in municipalities, households and SMEs.
- Moldova should enhance the international cooperation through participating in various international energy efficiency-related initiatives, like Horizon 2020 and other community programmes.

- The role of the district energy manager should be clearly defined to allow for better implementation of district energy efficiency programmes as stipulated by energy efficiency law.

Renewable Energy Sources

- RES development should become a priority for Moldova. The finalization of primary and secondary legislation, including stable, transparent support scheme is necessary.
- Support schemes should cover also the production of heat from renewable energy sources.
- The development of RES resources needs to be carefully considered in light of comparative cost, grid access, stability of transmission network and dispatch. Considering the biomass potential of the country, further utilization should be supported by development of necessary regulation, certification and quality control.

Energy Efficiency Financing

- Sufficient financial resources are necessary for increasing energy efficiency in public as well as private sectors. It is important to be able to introduce sustainable instruments for financing energy efficiency and RES in long term perspective. Energy Efficiency Fund should consider reducing the grant component, towards loans with attractive interest rates.
- When implementing energy efficiency projects, public authorities should give careful consideration to the tender documentation in order to ensure the selection of the best available products and services.
- The government should ensure a good coordination mechanism with IFIs and donor communities, including priority settings, monitoring at the national level, and compatibility with the overall national strategy on energy efficiency and renewable energy.
- The government should explore which financial incentives are most appropriate for stimulating energy efficiency in different sectors.

Data Collection and Monitoring

- To support monitoring of achieved results, a centrally coordinated project database needs to be set up and collect data from all activities related to energy efficiency in Moldova. This will allow to use bottom-up approach when evaluating the results of the national energy efficiency action plans and programmes.
- Results at the project level should be aggregated at the national level in order to periodically assess the implementation progress of national policies.

- The statistics on the building stock should be created first, so that they can be used to estimate the energy-saving potential for the building sector and support the policymaking and improvement process.
- The government should ensure full implementation of international environmental reporting standards and methodologies concerning renewable energy and energy efficiency.
- Usage of metering devices needs to be considered in different sectors. They are an important instrument according to the consumers rights protection as well as receiving the valuable data on energy consumption.