

In-depth review of the investment climate and market structure in the energy sector of THE REPUBLIC OF ARMENIA



ENERGY CHARTER SECRETARIAT
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About the Energy Charter

The Energy Charter Secretariat is the permanent office based in Brussels supporting the Energy Charter Conference in the implementation of the Energy Charter Treaty.

The Energy Charter Treaty and the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects were signed in December 1994 and entered into legal force in April 1998. To date, the Treaty has been signed or acceded to by fifty-two states, the European Community and Euratom (the total number of its members is therefore fifty-four).

The fundamental aim of the Energy Charter Treaty is to strengthen the rule of law on energy issues, by creating a level playing field of rules to be observed by all participating governments, thereby mitigating risks associated with energy-related investment and trade.

In a world of increasing interdependence between net exporters of energy and net importers, it is widely recognised that multilateral rules can provide a more balanced and efficient framework for international cooperation than is offered by bilateral agreements alone or by non-legislative instruments. The Energy Charter Treaty therefore plays an important role as part of an international effort to build a legal foundation for energy security, based on the principles of open, competitive markets and sustainable development.

The Treaty was developed on the basis of the 1991 Energy Charter. Whereas the latter document was drawn up as a declaration of political intent to promote energy cooperation, the Energy Charter Treaty is a legally-binding multilateral instrument.

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Foreword

Armenia has been very successful in attracting foreign investment to promote energy production in a sustainable manner, nevertheless the development of secure and diversified sources of energy imports/exports remains pressing issue for the country.

The performed review shows that potential of Armenia in the electricity sector could be further facilitated by improved interconnections with countries in the region. The Energy Charter Secretariat is preparing grounds to launch a regional taskforce on a technical level to address issues of electricity interconnections among countries in the region of Caucasus with a view to the creation of a regional electricity market in the long-term future.

It should be emphasised that the Energy Charter Treaty is an important mechanism for addressing national development of the energy sector of Armenia and provides a stable platform for multilateral co-operation with increasing number of countries around the world. In 2014 Armenia took active participation among almost one hundred countries in the negotiations of International Energy Charter which is a political declaration mapping out common principles for international cooperation and common areas of cooperation in the field of energy. It is anticipated that the International Energy Charter will be adopted in May 2015 in The Hague, Netherlands.

Armenia' participation in the Energy Charter process is an important factor in promoting the development of the country' energy sector. By observing the principles of the Energy Charter the Government of Armenia convey a strong political message to foreign investors that the country is committed to observe the principles of openness and non-discrimination in the energy market.

This book provides extensive information about investment climate in Armenia along with valuable information on the legal frameworks to establish business in the country. Insights into structure of the energy market provide valuable analysis related to potential of further development and investment opportunities.

The results of the performed review lead to policy conclusion and recommendations that are intended to assist the national government policy makers in designing better investment climate policies that motivate energy market players to make timely investments in appropriate technologies with more certainty. At stake are energy security, economic growth and environment protection.

Urban Rusnák

Secretary General



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Introduction

Armenia ratified the Energy Charter Treaty (ECT) and the Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) in 1997. In fulfilment of its commitments, Armenia presents the report on the Investment Climate and Market Structure (ICMS). The report mainly covers the period 2009–2014 and is generally based on the latest publicly available data for Armenia.

The ICMS report has been prepared by the Ministry of Energy and Natural Resources of the Republic of Armenia in close cooperation with the Energy Charter Secretariat. Peer review experts from Albania and Lithuania contributed to preparation of the report.

The report serves the purpose of investment promotion, information sharing and cooperation among the Energy Charter member states. It is hoped that the report along with the policy recommendations and conclusions will contribute to improving the investment climate in the energy sector, as well as promote investment flows for the implementation of national energy plans in Armenia.

The report contains policy conclusions and recommendations, updated information on the development of the national economy, a review of the legal framework for investments and an analysis of the ICMS in the energy sector of Armenia.



Policy Recommendations and Executive Summary

THE CHARTER CONFERENCE

Taking into account the decision by the Investment Group that convened on 14 October 2014 in Brussels regarding the Policy Conclusions and Recommendations arising from the In depth Review on Investment Climate and Market Structure in the Energy Sector of Armenia (ICMS 66 and ICMS 67)

NOTED¹

- a) that Armenia has been successfully progressing with institutional and structural reforms aimed at liberalizing the energy sector, which has led to a better investment climate for investors. Armenia has a well-established and functioning energy sector with stable energy supply and services extended to all local population and economy sectors;
- b) that the In-depth Review has shown that Armenia honors its commitments under the Energy Charter Treaty (ECT). The Review has confirmed the existence of only one exception, under Article 10 (5) of the Treaty, that limits access to land to foreign investors. The confirmed exception will be updated in the “Blue Book” of the Energy Charter;

and, in particular,

- welcomed a steadily improving investment climate in Armenia which recently included establishment of a one-stop-shop system for business registration and other reforms. The Government is advised to continue targeted reforms aimed at creating a better environment for private and foreign direct investment by strengthening institutions, simplifying the procedure of paying taxes, enforcing contracts and improving trading across borders;
- took note with satisfaction that the legal system of Armenia provides a National Treatment regime based on non-discrimination to foreign investors. It is noted that foreign nationals cannot own land with legal registration in the country.
- noted that Armenia has developed a comprehensive legislation for investors in the energy sector and is currently revising the National Energy Strategy. Taking into account the strong energy dependency of Armenia, the Government is invited to consider various policy measures to reduce energy dependency and increase security of supply through development of local energy sources;
- noted that Armenia is planning to shut down the existing nuclear power station by 2026. The Government plans to construct a new nuclear station with participation of foreign investors. There are also needs for investments to upgrade aging infrastructure in the generation sector and transmission networks to keep security of supply;
- drew attention that Armenia has partially liberalised its electricity sector through unbundling of production, transportation and distribution. Foreign investors are present in the generation and distribution sectors. The Government is invited to further improve competition to allow more secure national supply and adequately promote exports by taking advantage of unused cross-border transmission capacity and spare generation capacity;
- emphasized that the potential of Armenia in the electricity sector could be further facilitated by improved interconnections with countries in the region. The Government is advised to consider participation in a regional taskforce on a technical level to address issues of

¹ The policy conclusions and recommendations were adopted by the Energy Charter Conference by correspondence on 20 November 2014

electricity interconnections among countries in the region of Caucasus with a view to the creation of a regional electricity market in the long-term future;

- encouraged the Armenia Renewable Energy and Energy Efficiency Fund to prepare an Energy Efficiency Action Plan in accordance with the best practice of the Energy Community countries. It is advised to consider introduction of energy efficiency standards in the construction sector and promote financing schemes to allow more rapid improvements in existing and new buildings;
- took note with satisfaction that over the last few years the Government has successfully supported the development of small hydropower energy. Based on the experiences, the Government is advised to extend similar support and regulatory framework for development of other renewable energy sources (RES) and in particular wind, geothermal and solar energy sources. It is recommended to take a stepwise approach to introducing a transparent auction system for additional RES capacity in the short term and expand the feed-in tariffs system for the long term;
- recommended that new RES projects are to be connected to the grid on a priority basis by the system operator and to eliminate the requirement of constructing transmission lines up to existing grid infrastructure by RES investors. Furthermore, it is advised to increase the capacity of the local financial institutions to provide innovative financial products for small-scale RES projects. There is need to increase knowledge among renewable energy project developers on application of modern technologies, and improve awareness on RES through a broad public education campaign;
- underlined that the economy sectors and electricity generation in Armenia are strongly dependent on the supply of natural gas. The affordability of gas prices will remain a challenge in the mid- and long-term future. It is advised to introduce an energy-saving programme in the gas sector through a modernisation program and wider use of new energy-saving technologies. The natural gas transportation network is not fully utilised. There are spare capacities in the transportation system that could be used, which is subject to improved regional cooperation;
- invited the Government to promote individual use of solar water heaters and energy efficiency measures in the building sector that would result in gas savings. The Government is also advised to investigate possibilities to use geothermal energy for electricity production and the heating sector where it is economically and technically feasible.

Investment Climate

The Government of Armenia has been successfully progressing with institutional and structural reforms aimed at liberalising the energy sector which has led to a better investment climate for investors. Armenia has a well-established and functioning energy sector with stable energy supply and services extended to all local population and economy sectors. The implemented reforms have created a solid basis for future development. Over the last five years, domestic and foreign investment in larger-scale energy infrastructure has been increasing. Both national gas supply and electricity networks have been improving since the beginning of power sector reform.

The Government established the Armenia Development Agency (ADA) which promotes the attraction of national and Foreign Direct Investment (FDIs) and works to improve the business climate. The recent improvements in the investment climate include establishment

of a one-stop-shop system for business registration which significantly reduced bureaucratic procedures for investors. The national authorities continue to deregulate the economy and strengthen competition. Reduction of red tape and the implementation of inspection reform enabled the country to continue to improve its ranking in international business environment surveys.

International donors provide assistance to the country to facilitate reforms aimed at simplifying procedures of paying taxes, enforcing contracts and improving trading across borders. The Government plans to introduce the Electronic Guillotine, a comprehensive database of legislation and business processes, which in addition to providing a consolidated electronic database will promote transparency in relations with the state authorities.

The International Monetary Fund stated² that the structural reforms in Armenia will support medium-term growth by targeting improvements in the business climate, strengthening institutions, improving connectivity and competition, creating a stronger environment for private and foreign direct investment, and tackling key risks, especially in the energy sector.

Recent assessment³ by the European Bank for Reconstruction and Development indicated that further steps are needed to improve the business environment and strengthen competition in the economy. The competition authority should strengthen its analytical, investigative and enforcement capabilities, and the government should continue tackling monopolies and simplifying other regulatory norms for enterprises.

Armenia is ranked⁴ 45th out of 189 economies in the international assessment Doing Business 2015 prepared by the World Bank. The country has a very positive assessment regarding starting a new business and protecting investors. More reforms are needed to improve the country's ranking in the area of paying taxes, trading across the borders, enforcing contracts and getting electricity.

Energy Strategy and Legislation

The legal system of Armenia provides a National Treatment regime based on non-discrimination to foreign investors, with only one exception. Foreign nationals cannot own land without legal registration in the country. It is important to note the Foreign Investment Law of Armenia is currently under revision. According to the Law, all disputes that arise between a foreign investor and the Republic of Armenia must be settled in Armenian courts. However, in 2007, a new law on Commercial Arbitration of Armenia was adopted which provides investors with a wider range of options for resolving their commercial disputes. It is noted that Armenia has not experienced any investment disputes under the Energy Charter Treaty (ECT). Under Armenian law, foreign investments cannot be nationalized. They also cannot be confiscated or expropriated except in extreme cases of natural or state emergency, upon a decision by the courts and with compensation paid to the owner.

Armenia has developed a comprehensive legislation and regulatory framework in the energy sector. The Government is currently considering adopting a Grid Code of the Republic of Armenia in order to harmonise technical and operational aspects of the power system.

In November 2013, the President of Armenia adopted a strategic document, the Energy Security Concept of the Republic of Armenia, and issued a decree according to which the

² <http://www.imf.org/external/np/sec/pr/2014/pr1488.htm>

³ <http://www.ebrd.com/pages/country/armenia.shtml>

⁴ <http://www.doingbusiness.org/data/exploreeconomies/armenia>

Government has to revise the National Energy Strategy. It is noted that the Government is planning to adopt an Action Plan of the Energy Security Concept of the Republic of Armenia to boost investment in the different energy sectors.

The Renewable Energy and Energy Efficiency Fund of Armenia plans to prepare an Energy Efficiency Action Plan in accordance with the best practice of the Energy Community countries. Armenia has a large potential for energy conservation, which can be considered as internal energy resource. The main potential is in the sectors of power generation, municipal heat supply, and transport. The technical potential for GHG reduction in case of realization of energy conservation is estimated as 22 mln t CO₂ for the period of 2000–2020⁵.

Energy Markets

Energy is one of Armenia's most fully operational and cost-effective sectors. The single largest benefit of the power sector reform has been the removal of the government's subsidies for power sector operations. It was estimated⁶ that annual fiscal support to the sector in 1995, through explicit and implicit subsidization, represented as much as 11 per cent of Armenia's GDP. The long-term value of this fiscal subsidy alone is worth well over US\$1 billion. Other gains can be found in the so-called deadweight loss recovered as a result of the reforms. It is noted that changes in the electricity price have forced industries and end-users to use energy more efficiently, curtail inefficient use, and switch to lower-cost fuels.

Armenia has an independent energy regulator (PSRC – Public Services Regulatory Commission of Armenia) for the electricity, natural gas and heating sectors. The Commission has made significant progress in streamlining the licensing process, eliminating cross-subsidies and establishing cost-effective pricing and tariff structures.

Affordability of energy remains a concern, especially for the poor segments of the population. In order to ensure a reliable and affordable energy supply system, development of local energy resources like hydropower and improving energy efficiency shall be key priorities for Armenia.

Electricity Sector

Armenia has partially liberalised its electricity sector through unbundling of production, transportation and distribution. The activities of the PSRC are aimed at the balancing of interests between the consumers and the entities operating in the energy sector. Foreign investors are present in the generation and distribution sectors. Among the major investors is Electricity Networks of Armenia (ENA) which is the electric power utility responsible for maintaining distribution power infrastructure and supply of electricity in Armenia. The company is majority owned and controlled by InterRAO (Russian Federation).

Currently, the electricity market is close to a "single buyer" model. It works well but for the market players this model may pose significant challenges in the medium term, since it does not adequately promote exports, nor does it fully take advantage of unused cross-border transmission capacity and spare generation capacity.

Armenia is planning to shut down the existing nuclear power units by 2026. It is planned to construct a new nuclear unit with participation of foreign investors. It is important to note that there are needs for investment to upgrade aging infrastructure in the generation sector. The International Financial Institutions actively finance rehabilitation programmes in the

⁵ UNDP/GEF "Armenia – country study on climate change Phase II" project report.

⁶ WB publication "From Crisis to Stability in the Armenian Power Sector", 2006

transmission sector but there is a need for more large-scale investments to keep security of supply and infrastructure.

Iran and Armenia have linked their electricity grids, allowing for power sales in both directions driven by seasonal differences in demand between the two countries. During the summer months, Armenia exports its power to Iran, and during the winter months it imports from Iran. Armenia also supplies some of its surplus seasonal electricity to Georgia. The Armenia potential in the electricity sector could be further facilitated by improved interconnections with the countries in the region.

Renewable Energy

Armenia has a significant potential in RES and ways to improve energy intensity. In order to improve its energy security and contribute to climate change mitigation efforts, the Government is advised to adopt RES targets, incentive schemes and secondary legislation which would stimulate confidence of investors.

It is noted that the Government and International Financial Institutions have supported the establishment of the Armenia Renewable Energy and Energy Efficiency Fund. The Fund plays an important role as a promoter of investments in the RES and energy efficiency sectors. In 2011, the Fund prepared a first version of an Armenian Renewable Energy roadmap. The roadmap identified the economically and financially viable potential of renewable energy (RE) projects in Armenia. It defines short-term (2013), midterm (2015), and long-term (beyond 2020) targets for the development of RE as well as outlining specific steps towards achieving those targets.

Gas Sector and Heating Sector

Armenia has a very high gasification level up to 97 per cent. Natural gas is widely used in the different sectors of economy and transportation. In 2013, Russia's Gazprom signed a sale and purchase agreement for 20% of ArmRusgasprom, increasing its stake to 100%. The foreign investor has responsibilities to import, transport and distribute natural gas to all customers in Armenia. It is estimated that Gazprom annually provides Armenia with 2.5 billion cubic meters of gas⁷. Armenia also imports some natural gas from Iran in exchange for electricity.

The economy sectors and electricity generation are strongly dependent on the supply of natural gas. The affordability of gas prices will remain a challenge in the mid- and long-term future. It is advised to introduce an energy-saving programme in the gas sector through a modernization programme and wider use of new technologies.

The main natural gas transportation network is well developed but not fully utilised. There are spare capacities in the transportation system that could be used, which is subject to improved regional cooperation.

In the early 1990s, 55 per cent of apartments in Armenia were heated through district heating systems. Armenian district heating systems included both heat-only boilers and combined heat and power plants. Over the years district heating was underinvested in and has significantly decreased. Currently natural gas and electricity are used for water and space heating by the household sector.

⁷ <http://www.naturalgaseurope.com/russia-strengthens-ties-armenia>



Overview

1. Summary Information

General information regarding the Republic of Armenia is presented in Table 1.

Table 1: Key Information

Official Name	Republic of Armenia
Head of State	President: Serzh Sargsyan (since 9 April 2008)
Head of Government	Prime Minister: Hovik Abrahamyan (since 13 April 2014)
National Legislature	National Assembly
Capital	Yerevan
Major Cities	Gyumri, Vanadzor, Ejmiatsin, Abovyan, Hrazdan, Kapan
Total Land Area	29,800 km ²
Population	3.3 million
Labour Force	56%
Literacy	99%
Official Language	Armenian
Independence Declared	1991 (21 September 1991 – National Holiday)
Religion	Christianity (adopted in 301 AD)
Currency	Dram (AMD) (issued in November 1993)
Time Zone	GMT + 4

Source: Ministry of Energy and Natural Resource of RA

2. Geography and Climate

The Republic of Armenia is a small landlocked country, located at the crossroads of Europe and Asia, between the Black and Caspian seas. Together with Georgia and Azerbaijan, Armenia is situated in the South Caucasus. The country occupies an area of 29,800 square kilometres (km²), of which 28,400 km² is land and 1,400 km² is water. Armenia shares borders with Turkey to the west, Georgia to the north, Azerbaijan to the east, Nakhichevan (Azerbaijan) to the south-west, and Iran to the south.

The climate of Armenia is continental. Summer is dry and sunny, lasting from June to mid-September. Winter is short and quite cold with plenty of snow. In the mountains the average summer temperatures range between +10 and +22°C, and in the winter temperatures range between +2 and -14 °C. In plain lands the average January temperature is -5 °C, and the average July temperature is +25 °C.

The type of land is as follows: 37.2% mountains, 29.8% pasture, 21% arable land and 12% woodland.

Armenia has deposits of copper, iron, molybdenum, gold, lead, silver, clay, limestone and zinc, as well as semi-precious and ornamental stones. Armenia is also rich in natural mineral waters. There are hundreds of natural wells throughout the country, as well as 10 natural lakes,

5 canyons, and numerous springs and torrents. Armenia's rivers, especially the Hrazdan, have considerable hydropower potential. Lake Sevan is the world's largest highland freshwater lake (1,254 km²). It is located at 1,916 metres (m) above sea level. The country's highest peak is Mount Aragats (4,090 m).

3. Population

Armenia's 3.3 million population breaks down ethnically as Armenian 97.9%, Yezidi 1.3%, Russian 0.5%, other 0.3%. The official language is Armenian, spoken by about 97.7% of the population. Yezidi is spoken by 1%, Russian by 0.9%, and other languages by 0.4%. The religion is predominantly Christian.

The population is relatively young and concentrated in cities. The urban population represents 64% of the total, with 34% of the urban population living in Yerevan. The average age of the population is 35 years, with about 20% of the population 15 years and under. Life expectancy is 71 years for men and 77 years for women.

The level of education is high, and continues to be one of the main values in Armenian society. Working population age is 16–63 years for men, and 16–63 years for women. However, the employment to population ratio is 51% between age 15 and older and they are generally considered the working-age population.

The official unemployment rate for women increased to 20.7% in 2009–2013 compared to 20.3% in 2004–2008, while for men the rate decreased to 17.0% in 2012 from 17.9% in 2009. The combination of graduates and the unemployment rate means that there is a huge supply of highly qualified people available in Armenia.

Administrative and territorial units of the Republic of Armenia are called marzes. Marzes consist of rural and urban communities. The entire territory of Armenia is divided into 10 marzes. They are: Aragatsotn marz, Ararat marz, Armavir marz, Gegharkunik marz, Lori marz, Kotyaik marz, Shirak marz, Syunik marz, Tavush marz and Vayots Dzor. Yerevan has status of community, according to the Law on *"Local Self-governance in the city of Yerevan"*.

Armenia has a worldwide diaspora comprising about 5 million Armenians. The largest diaspora communities are in Russia, U.S.A., France, Germany and Iran.

4. State Structure

According to the Constitution, which was adopted by national referendum on 5 July 1995 and subsequently amended by national referendum on 27 November 2005, Armenia is an independent and democratic country with a presidential form of government.

The President is elected by popular vote for a five-year term and may serve no more than two consecutive terms. The Government of Armenia, which is headed by the Prime Minister, is the main executive body. The President, in consultation with parliamentary groups, appoints the Prime Minister supported by the majority of deputies.

The President is also responsible for appointing members of the Government, as proposed by the Prime Minister. At the presidential elections held on 19 February 2013, the leader of the ruling Republican Party of Armenia and incumbent President Serzh Sargsyan was re-elected President of the Republic of Armenia.

The single-chambered National Assembly is the supreme legislative authority of the Republic of Armenia. The National Assembly consists of 131 deputies (90 of which are elected on the basis of proportional representation and 41 by majority representation). The National Assembly

is elected through general elections for a term of five years. Parliamentary elections were last held in May 2012.

The highest appeal instance is the Appeals Court, which ensures the uniformity of law enforcement in the country through its final review of cases. The Constitutional Court rules on whether the decrees and decisions adopted by the National Assembly, the President and the Government comply with the Constitution of Armenia.

Armenia has a three-tiered judicial system consisting of the Courts of First Instance, Courts of Appeal and the Supreme Court. The Courts of First Instance include the Courts of General Jurisdiction and the Administrative Court. Courts of General Jurisdiction examine all civil and criminal cases, whereas administrative cases are heard by the Administrative Court. The decisions of the Courts of General Jurisdiction and the Administrative Court can be appealed to the Courts of Appeal.

These include the Civil Court of Appeal, the Administrative Court of Appeal, and the Criminal Court of Appeal. The Supreme Court revises the rulings of the Courts of Appeal. Fee structures are defined by the law "On State Duties" for statements of claims, applications and complaints submitted to the Court, for appeals, as well as for receipt of copies (duplicates) of other Court documents.

The Armenian judiciary system also includes the Constitutional Court of Armenia, the highest body of constitutional justice in Armenia. The Constitutional Court primarily settles disputes, assesses the conformity of laws and regulations with the Constitution, resolves election-related disputes, and assesses compliance of international treaties with the Constitution.

Disputes between a foreign investor and the Republic of Armenia must be resolved in Armenian courts, through the application of domestic legislation, according to the law "On Foreign Investment". In cases of mutual consent, businesses may opt to settle disputes through commercial arbitration either in Armenia or abroad. Arbitration is regulated by the law "On Commercial Arbitration". This law provides a sound framework for the conduct of both domestic and international commercial arbitration in Armenia, and for the enforcement in Armenian courts of arbitration awards made in other countries.

The Government has continuously honoured arbitration judgments. Other alternative dispute resolution procedures such as mediation, mini-trials, and neutral negotiation are also applicable in Armenia. The Permanent Arbitration Body at the Chamber of Commerce and Industry was established in 2007 based on the law "On Commercial Arbitration". Armenia is a signatory to the 1958 Convention on the Recognition and Enforcement of Foreign Arbitral Awards, and is also a signatory of the International Convention on Investment Disputes.

Administrative and territorial units of the Republic of Armenia are marzes and communities. Marzes consist of rural and urban communities. The entire territory of Armenia is divided into 10 marzes. They are: Aragatsotn marz, Ararat marz, Armavir marz, Gegharkunik marz, Lori marz, Kotyaik marz, Shirak marz, Syunik marz, Tavush marz and Vayots Dzor. Yerevan has status of municipality. Self-governance in Yerevan city is conducted according to the provisions of the Republic of Armenia Law on "Local Self-governance in the city of Yerevan."

5. Economic Situation

a) Economic Outlook

Due to the crisis impact in 2009, the Armenian economy shrank severely, registering a 14.1% decline in annual economic growth. The reasons behind this were mainly the structural

characteristics of economic growth in the before-crisis period. During the crisis the investments-to-GDP relationship has declined sharply, mainly because of private monetary remittances inflow decreases, and national savings declined to an even larger extent. In 2010–2011 the investments continued shrinking in parallel with decreasing volumes of housing construction.

In the pre-crisis period the double-digit growth rates had been accompanied with large volumes of remittance inflows, which had brought changes to the ratio of consumption and savings. The result was that an increase of national savings, which in 2008 comprised 32% of GDP, has basically bypassed the financial sector, and the volume of private investments has been increasing (40.9% in relation to GDP), including those in housing construction.

During and after the 2009 crisis, the economic structure was adjusted, marked with the increase of the exporting sectors. The post-crisis economic structure has been characterized by relatively higher diversification. The 7.2% and 3.5% economic growth rates respectively in 2012 and 2013 have been driven by these developments.

In the aftermath of the crisis, macroeconomic stability has been successfully maintained due to strong monetary and fiscal coordination. In 2010–2011, the economy experienced renewed growth. The industrial structure became more diversified. The industrial sector has the highest growth rate, 15.3%. The total investment grew by 16.2% in 2011, with strong growth in the telecommunications, mining, food processing, IT and R&D, tourism, airport infrastructure, energy generation and distribution sectors. This resulted in an acceleration of growth which continued positively in 2012–2013.

The pattern of economic growth has changed, moving towards a larger share of exporting sectors. This makes grounds for future growth sustainability and shock-resistance pace, helping the country to its midterm growth trend of around 5–6%.

Table 2 : Main Economic Indicators

	2008	2009	2010	2011	2012	2013
Real GDP Growth, %	6.9	-14.1	2.2	4.7	7.2	3.5
CPI Inflation, %	9.0	3.4	8.2	7.7	2.6	5.8
Balance of Payments, min USD						
Current Account	-1381.8	-1368.9	-1373.2	-1108.2	-1115.1	-
Capital Account	148.9	89.1	107.9	96.2	105.4	-
Trade Balance	-2653.8	-2066.8	-2016.9	-2087.0	-2127.5	-
Total FDI	925.2	724.8	561.8	447.5	473.6	-
External Debt, min USD	1577.2	2966.8	3300.5	3569.3	3739.1	3903.8
External Debt, % of GDP	13.5	34.4	35.6	35.2	37.7	37.5
Unemployment Rate, %	16.4	18.7	19.0	18.4	17.3	-
Exchange Rate AMD/USD, annual average	306.0	363.3	373.7	372.5	401.8	409.6

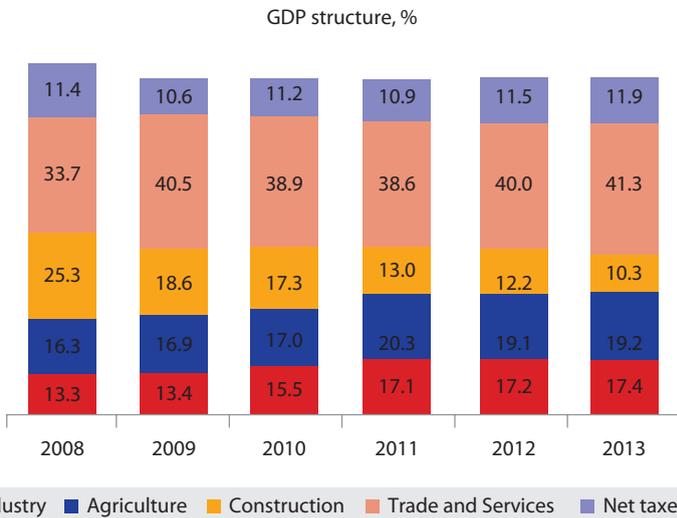
Source: Ministry of Energy and Natural Resources of RA

b) Sector Performance

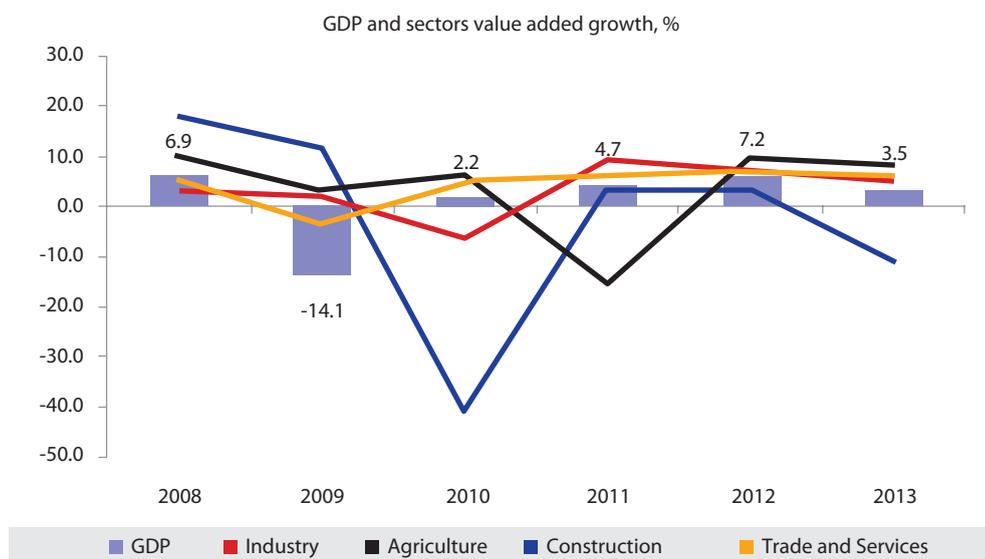
The below graphs show that the share of the **construction** sector in GDP increased and reached 25.3% in 2008, with an accelerated increase of the share in GDP (on average 26.3% in 2003–2008). The unprecedented growth of construction in the pre-crisis period was mainly due to private investments, especially the increase in the volume of housing construction. In 2009 the construction sector recorded a serious drop of 41.6%. After the crisis, the construction sector did not recover its former high levels and still continued to decline. As a result, in 2013 the share of construction in GDP amounted to only 10.3%.

The share of the services in GDP in 2008 amounted to 33.7% as derived from the high demand for services in the preceding five years due to a high rate of income growth. In the pre-crisis period (2003–2008), the average growth rate of the sector amounted to 12.2% mainly based on the non-tradable subsectors – trade, transport and communications, and financial mediation. The decline in services during the crisis was relatively modest at 3%, with the main impacts on trade and transport and communications. In 2010–2013, services with 5.8% average growth rate were one of the engines for economic growth.

Figure 1: Structure of GDP in 2008–2013



Source: Ministry of Energy and Natural Resources of RA

Figure 2: Annual Growth of GDP (% with respect to previous year)

Source: Ministry of Energy and Natural Resources of RA

The industrial sector had the smallest share in the GDP in 2008 (the average growth in 2003–2008 amounted to 3.3%). In the crisis period, the industrial sector had a 6.9% decline, mainly as a result of the reduced demand in the global and domestic markets and the decline in foodstuff and construction material productions. After the crisis, growth in foodstuff and beverages production, as well as mining and metallurgy, contributed to the industrial growth. In 2010–2013, industry increased on average by 8.7%. The share of industry in GDP in 2013 amounted to 17.4%, compared to the 13.3% in 2008.

The share of agriculture in the GDP in 2008 was 16.3%. During the crisis, agriculture was the only sector with positive growth rate of 6%. The sector is highly dependent on climate conditions and the growth dynamics are mostly vulnerable. In 2011 the sector registered the highest contribution to economic growth due to favourable climate and targeted government policy⁸. The sector continued to grow in 2012 and 2013. The share of agriculture in GDP in 2013 amounted to 19.2%.

c) Trade

The Republic of Armenia ensures favourable foreign trade regimes and eliminates trade barriers. Armenia provides the Most Favored Nation (MFN) regime to investors under WTO and the Energy Charter Treaty in the energy sector.

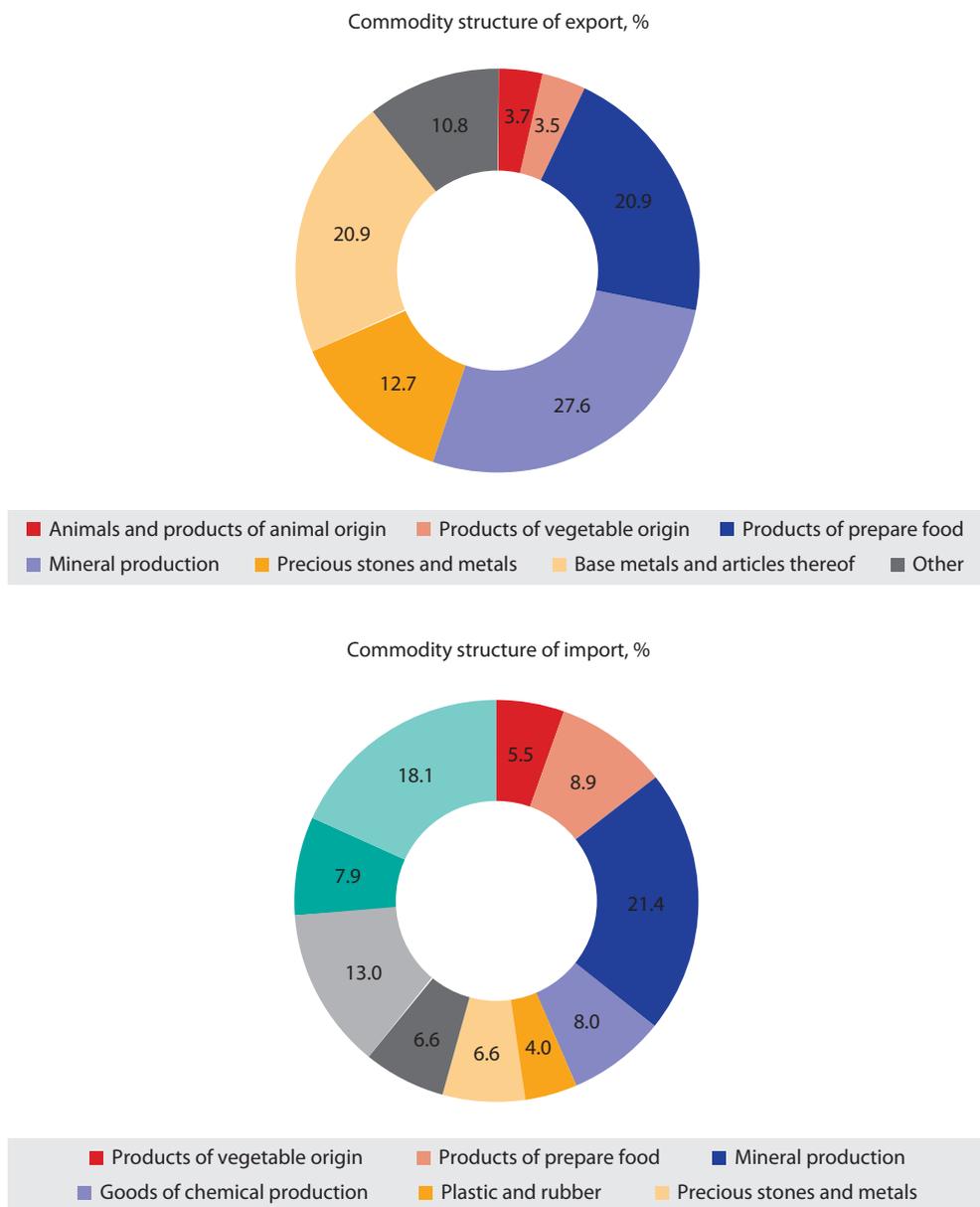
Armenia – Commonwealth of Independent States (CIS) trade-economic relations: Armenia has free trade agreements with Georgia and CIS countries; the exceptions are Uzbekistan and Azerbaijan. Armenia also joined the multilateral free trade agreement within the framework of CIS.

⁸ In 2010–2011, the government initiated a number of measures – the subsidizing of interest rates on credits, ensuring the market chain for agricultural products, seed production for wheat and barley, development of organic agriculture, development of local bio-fertilizers and refurbishment of agricultural machinery.

In 2008–2009, exports were predominantly influenced by the decline in global demand for especially non-food products, worsening of Armenia's terms of trade, and the reduction of foreign currency inflows and remittances. During the global economic crisis, current account deficit worsened sharply factored with relatively lower level of consumption, relatively smaller decline of imports compared to export volumes, and the private remittances shortfall.

The situation improved in the aftermath of the crisis with revitalizing trends of progressive export growth. During 2010–2011 the average growth rate of merchandise exports was 37%, while imports grew by only 12%. This helped to narrow the trade deficit from 24.1% of GDP in 2009 to 20.5% in 2011. After shrinking by 30% during the crisis, the remittances were revived to about 10% above the 2009 level. The current account deficit further reduced to 10.7% of GDP in 2012.

In 2013 the merchandise trade balance was -2,996.8 million USD, or 28.8% of GDP. Commodity trade turnover was 5956.8 million USD, or 57.2% of GDP.

Figure 3: Commodity Trade Structure 2013

Sources: Ministry of Economy of RA

In 2013, the shares of the CIS and EU groups of countries in export volume were respectively 27.1% (in 2008 – 23.6%) and 33.4% (in 2008 – 54.2%). In imports volume separated by goods origin countries, the share of the CIS countries was 31.0% (in 2008 – 28.5%), growth 3.8%, and the share of EU was 26.0% (in 2008 – 30.7%) and growth was 3.2%.

Table 3: Main Trade Partners 2013

Main export partners	Share in total export, %	Main import partners	Share in total import, %
Russia	22.6	Russia	24.8
Bulgaria	10.3	China	8.6
Belgium	8.9	Germany	6.3
Iran	6.4	Ukraine	5.1
USA	6.0	Turkey	4.7
Canada	5.9	Iran	4.4
Georgia	5.8	Switzerland	3.8
Germany	5.8	Italy	3.7
China	4.7	USA	3.1
Netherlands	4.5	Romania	2.6

Sources: Ministry of Economy of RA

Armenia–EU relations: There are many consistent institutional reforms in a number of areas such as non-tariff regulatory procedures, standardization and certification systems, accreditation, copyrights, protection of intellectual property rights, easing of trade, competition, and others. These reforms are with the objective to ensure negotiations for a free trade agreement with the EU.⁹

d) Investment Climate

Armenia has a positive and open investment climate. The reforms related to the economy and infrastructure, macroeconomic stabilization and economic growth have contributed to the development and implementation of the country's foreign investment policy.

Having the objective of effective implementation of its investment policy, the Republic of Armenia has announced and is carrying out an "open-door" policy. The main legal acts regulating the investment sector in Armenia are the 1994 RA law "On Foreign Investments", as well as other provisions of legal acts regulating the economic sphere and related to the investments.

There are virtually no restrictions concerning the sectors in which a foreign investor may invest, except in certain national defence-related sectors. A prior approval for making an investment is generally not required, except for the investments made in regulated establishments, such as banks, investment companies and certain public utilities.

Armenia has a liberal exchange system, and in general there are limitations on converting/transferring funds associated with an investment into freely usable currency. Foreign exchange is widely available, and the local currency, the Armenian dram (AMD), is freely convertible.

⁹ Republic of Armenia, Ministry of Economy, *Strategy of Export-Led Industrial Policy of Republic of Armenia – Yerevan, 2011*

Foreign investors can benefit from the following investment incentives:

- The ownership is 100% permitted; even companies registered by a foreigner have the right to buy land, while foreign citizens are not allowed to own land in the Republic of Armenia;
- VAT payments postponement for 1-3-year period for importing equipment.
- VAT payments postponement for 3-year period for importing goods within the scope of investment projects selected by the corresponding decree of the Government of RA.
- Profit tax privileges can be also provided for new jobs creation for the projects selected by the corresponding decree of the Government of RA.
- VAT, profit tax and customs duty preferences in jewelry, agriculture, carpet weaving, pharmaceuticals.
 - Free exchange of foreign currencies and free repatriation of profit;
 - In case of any changes in legislation, foreign investors can choose which law to use for up to a five-year term (five-year grandfather clause);
 - Free Economic Zones (NO income tax, NO property tax, NO profit tax, NO customs duties), and moreover there is no screening or specific authorization required for making investment;
 - No restrictions on remittances, or staff recruitment; and no sector-specific or geographic restrictions on investments.

According to the above mentioned law, in the event of amendments to the foreign investment legislation of the Republic of Armenia, the legislation that was effective at the moment of implementation of investments shall be applied, upon the request of a foreign investor, during a five-year period from that moment. Currently several other amendments are planned, the purpose of which is the equitable, stable and predictable development of the investment and business environment, both for local and foreign investors.

Since 2011, the International Finance Corporation (IFC), together with funds from the Ministry of Finance of Austria and the Ministry of Foreign Affairs of the Netherlands, finances the Armenia Investment Climate Reform Project.

Armenia has signed bilateral treaties on reciprocal promotion and protection of investments with 39 countries and is currently negotiating more such treaties with an additional 24 countries. Armenia is also a signatory of the Energy Charter Treaty (ECT), the International Convention of Investment Disputes (ICSID), and the CIS Multilateral Convention on the Protection of Investor Rights. In addition, it has double taxation treaties with 41 countries as of 2012.

Since 02.01.2015 Armenia is a member of the Eurasian Economic Union (EEU), which creates the following opportunities :

- Access of Armenian production to about 170 million consumers.
- Duty free import of raw materials from EEU member countries.
- No customs formalities during mutual trade between EEU member countries, which leads to financial costs reduction and time-consuming for business.
- No non-tarif measures of trade and trade technical barriers between EEU member countries.
- Favorable import tariffs for about 750 products.

The economic developments have been paralleled with continuous institutional reforms. The implementation of inspection reform, the reduction of red tape and the easing of the tax administration burden have been reflected in tangible improvements in the country's business climate. The establishment of a one-stop-shop mechanism means the procedures of starting a business have been markedly improved in terms of administration, time and cost. In 2013 the company registration fee was eliminated. In the World Bank 2015 Doing Business report, Armenia was ranked 45th of 189 countries.

Table 4: Armenia rank in the World Bank 2015 Doing Business report

2008 DB report (178 countries)	2009 DB report (181 countries)	2010 DB report (183 countries)	2011 DBreport (183 countries)	2012 DBReport (183 countries)	2013 DBReport (185 countries)	2014 DBReport (189 countries)	2015 DBReport (189 countries)
41	50	44	61	55	40	37	45

Sources: World Bank 2015 Doing Business report Armenia

According to the Index of Economic Freedom¹⁰ 2008–2014, Armenia's economic freedom score is 68.9, making its economy the 41st freest in the 2014 Index. Its overall score has declined by 0.5 points from last year, primarily due to combined deteriorations in investment freedom, business freedom, and fiscal freedom. Armenia is ranked 18th among the 43 countries in the European region, and its score is above the world and regional averages.

Table 5: Index of Economic Freedom 2008–2014

Country	2008	2009	2010	2011	2012	2013	2014
Armenia	28	31	38	36	39	38	41
Azerbaijan	107	99	96	92	91	88	81
Georgia	32	32	26	29	34	21	22
France	48	64	64	64	67	62	70
Germany	23	25	23	23	26	19	18
Hungary	43	44	51	51	49	48	51
Iran	151	168	168	171	171	168	173
Poland	83	82	71	68	64	57	50
Russia	134	146	143	143	144	139	140
Turkey	74	75	67	67	73	69	64
Ukraine	133	152	162	164	163	161	155
USA	5	6	8	9	10	10	12

Sources: Index of Economic Freedom 2014

¹⁰ <http://www.heritage.org/index/country/armenia>. Last accessed on 17 March 2014.

Free Economic Zones in Armenia

The main goal of the Free Economic Zone (FEZ) is to contribute to the export volume growth and creation of new workplaces, as well as ensure sustainable economic development through integrating foreign direct investments and introducing advanced technologies. An appropriate legal framework has been established to ensure the operation of free economic zones.

With this in mind, the Law of the Republic of Armenia “On Free Economic Zones” adopted on May 25, 2011 by National Assembly of Armenia is a basic regulatory document.

FEZ operators are granted the following preferences:

- FEZ organizers and operators (hereinafter residents) are exempted from VAT when delivering services and supplying goods in FEZ territory;
- Legal entities are exempted from profit tax and individual entrepreneurs from income tax when being a resident and performing activities in FEZ;
- Public and industrial buildings and structures that belong to or are used by FEZ residents in FEZ territory are exempted from property tax;
- Goods released through the “Import to Free Economic Zone” regime, as well as other goods produced on these goods in the territory of the free economic zone, can be exported from the Republic of Armenia to foreign countries through “export for free circulation” or “re-exportation” regimes without applying customs charges and non-tariff regulation measures; and
- Services delivered in the free economic zone on behalf of the state bodies are realized on a “one-stop-shop” basis.

The Government of the Republic of Armenia:

- Issues a decree on establishing a free economic zone;
- Implements state policy in free economic zones; and
- Carries out the selection process of FEZ organizers.

The FEZ residents may be the commercial legal entities, individual entrepreneurs or branch offices registered in Armenia, as well as the representatives of foreign organizations running business only in the free economic zone based on the relevant permission granted by the Government of Armenia as a result of business plan evaluation and on the contract signed with the organizer.

Currently operating “Alliance” free economic zone is oriented to the production and exports of high and innovative technologies in the field of electronics, precision engineering, pharmaceuticals and biotechnologies, information technologies, alternative energy, industrial design and telecommunications (elaboration and production of technological equipment, systems and materials for data/information transfer), as well as in the fields producing goods not produced in Armenia¹¹.

e) Foreign Direct Investment (FDI)

The Republic of Armenia is interested in attracting foreign direct investment. The Government adopted an “open-door” policy, granting Most Favored Nation (MFN) and National Treatment regimes to foreign investment and securing stability of the legal regime promoting foreign investment.

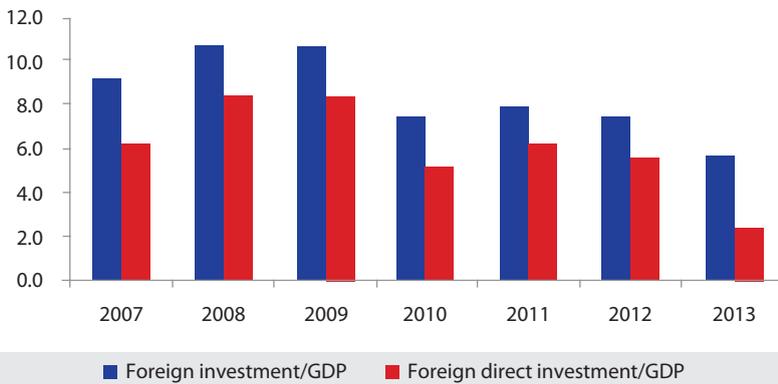
¹¹ <http://fez.am/arm/index.php>

The investment policy of the Republic of Armenia and the support to the investments are one of the core directions of the state economic policy. The investment policy is aimed towards creating a favourable investment and business climate, advancement of the transparency of the regulating environment, revelation of competitive advantages of the country, and increase of investments in the economy of Armenia.

The further course of industrial and technological development of the country is mostly conditioned by the development and effective implementation of a targeted investment policy. The provision of increase in the volume of the investments in Armenia will solve several key issues, such as creation of new workplaces, involvement of know-how specific to market economies (general and financial management, marketing, new technologies, skills, etc.), revelation of new markets and their accessibility, opportunities for entering them, etc.

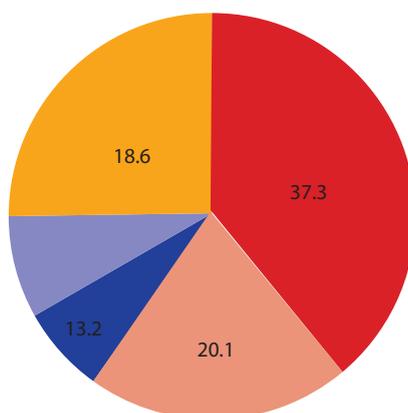
The share of companies with foreign capital participation has considerably increased in Armenia. During 2005–2011 the total number of companies established in Armenia has grown by 3.4% Compound Annual Growth Rate (CAGR), while the growth of companies with FDI participation reached 8.6%. This can be described as a rough indication of increased dynamism of business interest by foreign investors.

Figure 4: Foreign Investment Dynamics



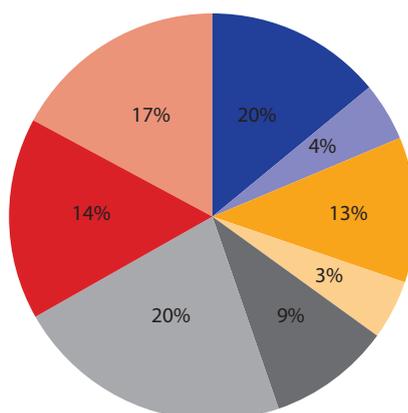
Sources: Ministry of Economy of RA

The above graph shows that relation of FDI to the national GDP of Armenia was highest in 2008–2009 and gradually decreased to 5.7% in 2013. The distribution of FDI by sectors indicates that five sectors of the economy – telecommunication, utilities, transport, warehousing and banking – have been the major drivers for FDI. Four of these sectors also sustained a leading position in the post-crisis period. In the pre-crisis period, mining was in the top three; however, the negative impact of the crisis drove the sector out of the FDI targeted sectors. Increased interest toward the manufacturing sector made the sector 4th in cumulative FDI in the 2009–2011 period.

Figure 5: Foreign investments structure by types of activities 2013, %

■ Telecommunication ■ Energy ■ Mining ■ Manufacturing ■ Other

Source: Ministry of Economy of RA

Figure 6: Foreign investments structure by countries 2013, %

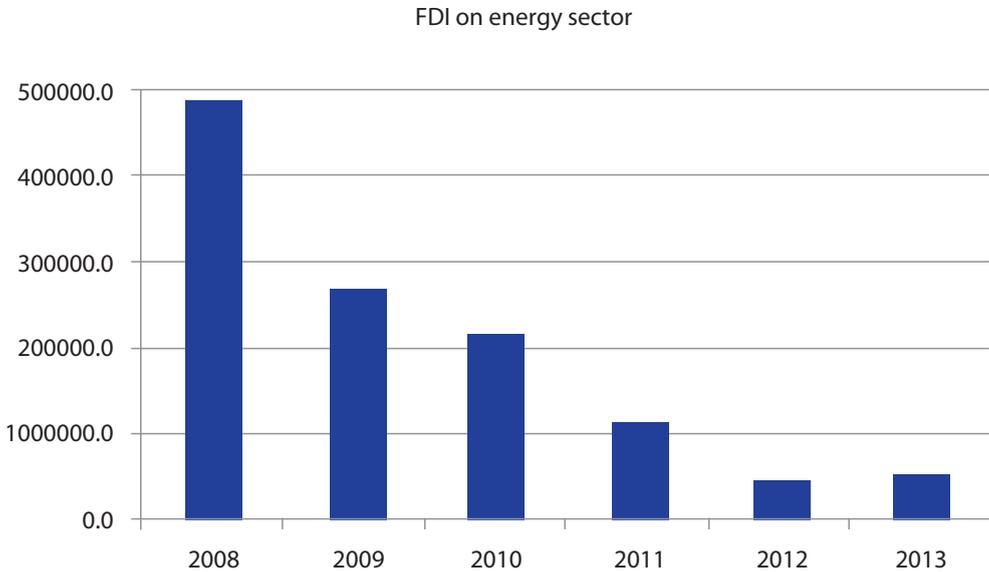
■ Russia ■ France ■ Argentina ■ Germany ■ Cyprus ■ Finland ■ Canada ■ Other

Source: Ministry of Economy of RA

During 2013 the flows of foreign investments into the real sector amounted to 597.4 million USD, out of which FDI was 271.2 million USD; investments have declined compared to the previous year by 20.5 and 52.2 per cent respectively. During the same period the investments were done mostly by Argentina (117.9 million USD), France (99.1 million USD), the Russian Federation (86.3 million USD) and Canada (53.6 million USD).

However, in 2013 foreign investments were mostly directed to the following sectors: mining industry and operation of open mines (168.2 million USD), communications (113.7 million USD), air transport activity (108.9 million USD), and real estate activities (46 million USD).

Figure 7: FDI on energy sector



Source: Ministry of Economy of RA

During 2013 in Armenia the greater part of investments are made in telecommunication and energy sectors. The lion's share of investments in energy sector is made by the Russian Federation, mainly by "ARMRUSGASPROM", "Electric Networks of Armenia" companies.



Legal Framework for Investments

1. Main Elements of Legislation Relevant to Foreign Investment in the Energy Sector

a) Constitutional Provisions

The Constitution of the Republic of Armenia was enacted by referendum on 5 July 1995, and was amended on 27 November 2005 to separate legislative, executive and judicial power.

According to the last amendments, the President of the Republic appoints the Prime Minister based on the distribution of the seats in the National Assembly and consultations with the parliamentary factions. The President also appoints (or dismisses from office) the members of the Government upon the recommendation of the Prime Minister.

International treaties which are ratified are a constituent part of the legal system of the Republic of Armenia. In case of conflict, the norms of the ratified international treaty prevail over those stipulated in the laws.

b) Establishment of Enterprises

Establishing of business starts with registration. To be registered, businesses are required to file an application (attaching their constituent documents) to the State Register by presenting all necessary documents in hard copies or through the www.e-register.am website. At present, registration is carried out on a one-stop-shop basis, which means that the registration of the company name, the obtainment of a tax code and the registration of the company as a whole is exercised as one procedure by filing one application. It is worth mentioning that, at present, the registration of legal entities in Armenia is free of charge. According to the State Registration Law, the State Register must either approve or deny registration applications within 2 working days.

Armenian legislation provides the same legal guarantees and protections to foreign and local businesses. Foreign investors have the right to create any form of enterprise. Foreign investors may establish a subsidiary, representative office or branch in Armenia. A business company is considered to be a subsidiary (dependent company) if another partnership or company holds more than 20% of the charter capital or voting shares in that enterprise.

The Civil Code of the RA defines the following most common types of enterprise: joint-stock company (open and closed); limited liability company; and business partnership (general or limited).

Joint Stock Company (JSC). The capital of a JSC is divided into shares, and the liability of the founders is limited to the nominal value of the shares in their possession. The shares of the closed JSC can only be sold with the consent of the shareholders, while the shares of the open JSC can be freely traded to the public. No minimum capital requirement is required for JSC except for those operating in the financial sector (such as: banks, credit and insurance companies).

Limited liability company (LLC). The capital of a LLC is divided into shares, proportional to the initial investment. The profits are divided among founders according to the investment share ratio unless another ratio is stipulated in the charter.

Business partnerships, in the form of a general or limited partnership. A general partnership is an association of two or more individuals (general partners) who act as owners of the partnership, and who are liable for the partnership with all their property. A limited partnership is an association of two or more individuals who act as owners or contributor participants of the partnership, and who are liable for the partnership within the limits of their contribution.

Foreign companies may operate in Armenia without establishing a new entity, i.e. by registering in Armenia a representative office or a branch of the foreign legal entity. Representative offices and branches have no legal personality, and they act on the basis of statutes approved by their foreign legal entity.

c) Entrepreneurship and corporate laws

On 30 December 2010, the RA Government adopted the decree “On Approving the Code of Corporate Governance of the Republic of Armenia” N 1769-A. The Code was elaborated with the assistance of EBRD in compliance with the international best practice and OECD principles. The Code defines the criteria based on international best practice of corporate governance, taking into account the current practice and environment in Armenia.

Listed companies and state-owned enterprises in accordance with the Stock Exchange regulations and/or the order established by legislation, and banks, insurance companies and investment funds having the status of legal entity in case of implementation of this Code upon their own initiative, are required to prepare an annual Corporate Governance Statement (CG Statement) and attach it to their Annual Report. In the CG Statement, companies are required to clearly state whether they comply with the Code’s recommendations or explain why they have not followed a particular recommendation.

The governmental decree of the Republic of Armenia “On the list of 50 percent and more state owned enterprises and Corporate Governance Code’s Implementation schedule” N 881 was adopted on 23 June, 2011. The enterprises owned by the State (by a share of 50 per cent or more) are subject to the Corporate Governance Code and are required to publish their annual corporate governance statements¹².

d) Foreign Investment Legislation

Armenia is a contracting party to the Energy Charter Treaty (ECT) since 1998. Armenia has signed bilateral treaties on reciprocal promotion and protection of investment with 39 countries and is currently negotiating more such treaties with an additional 28 countries. Armenia is also signatory of the International Convention on Settlement of the Investment Disputes (ICSID), CIS Multilateral Convention on the Protection of Investor Rights. In addition, it has concluded double taxation treaties with 41 countries as of 2013.

The country has signed free trade agreements with Georgia and most of the CIS countries. Armenia currently enjoys Generalised Scheme of Preferences (GSP) beneficiary status under the WTO with Canada, Japan, Norway, Switzerland, and the United States. Since 2009, Armenia has also been included in the list of countries granted GSP+ by the European Union.

The Law on Foreign Investments of 1994 (LFI) of Armenia sets out the general framework for the establishment and the activities of foreign investors in Armenia. It also protects investors against certain political risks, and includes provisions for dealing with dispute settlement. According to the legislation, the ratified international investment treaties prevail over conflicting norms of the LFI.

Definition and Forms of FDI

“Foreign investment” includes any type of property, including financial resources and intellectual values, which is directly or indirectly (with a share higher than 30%¹³) owned by a

¹² Published on their own web pages or on azdarar.am

¹³ Art. 18 LFI.

foreign investor in commercial and other profitable activities in the territory of the Republic of Armenia¹⁴. Foreign investment may therefore consist of property rights, licence and contractual rights, as well as enterprises and partnerships¹⁵.

Investment Protection

Foreign investments are granted national treatment like domestic investments¹⁶. In case of amendments to the investment climate, foreign investment benefits from a “stabilisation clause”, which grants that the legislation that was effective at the moment of establishment of the investment shall apply for a further five-year period¹⁷. Foreign investments cannot be nationalised, and expropriation is only permitted as an extreme means in case of emergency declared by law and ordered by a court with full compensation¹⁸.

Foreign investors have a right to dispose of their profits, after paying taxes and fees, including deposit in Armenian banks in domestic or foreign currency or commodities, as well as to export them, in compliance with the applicable law¹⁹. Foreign exchange is widely available, and the local currency – the Dram – is freely convertible.

Incentives

Goods imported for the implementation of a foreign investment are exempt from customs duties²⁰.

Licenses

Renewable and non-renewable natural resources are exploited by concessions concluded by the foreign investor and the Republic of Armenia²¹. Concession contracts may contain exceptions from the legislation in force in the Republic of Armenia. In such cases, they shall be subject to approval by the Parliament of the Republic of Armenia.

Dispute Settlement

Disputes arising between foreign investors and the Republic of Armenia in respect of foreign investment are subject to the jurisdiction of the Armenian courts. Foreign investors may avail themselves of investor–state arbitration provided under international investment agreements (including the Energy Charter Treaty) ratified by the Republic of Armenia, which prevail over domestic legislation²². Arbitration of commercial disputes is based on mutual consent of the disputing parties, and can be carried out in Armenia or abroad.

Arbitration is regulated by the law “On Commercial Arbitration”. This law provides a sound framework for the conduction of both domestic and international commercial arbitration in Armenia, and for the enforcement before Armenian courts of foreign arbitration awards. The Government has continuously honoured arbitration judgments. The Permanent Arbitration Body at the Chamber of Commerce and Industry was established in 2007.

¹⁴ Art. 1 LFI.

¹⁵ Art.es 3 and 4 LFI.

¹⁶ Art. 6 LFI.

¹⁷ Art. 7 LFI.

¹⁸ Art. 8 LFI.

¹⁹ Art. 10 and 11 LFI.

²⁰ Art. 15 LFI.

²¹ Art. 21 LFI.

²² Art. 24 LFI.

Armenia is a signatory to the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, and is also a signatory of the 1965 Convention on the Settlement of Investment Disputes. Other alternative dispute resolution procedures such as mediation, mini-trials, and neutral negotiation are also applicable.

e) Legislation on Real Estate

According to the *Law on Real Estate* of 1996, ownership of land is reserved for Armenian citizens and legal persons. However, any lawfully established legal entity in Armenia enjoys the same status as national legal entities, and is therefore entitled to acquire ownership rights over land. Foreign nationals cannot obtain ownership rights over land. Nonetheless, according to Article 20 of the LFI, property may be leased by contract to foreign investors.

More information about the legal regime on access to land is provided in section 4) and in Annex (Exceptions to National Treatment).

f) Competition Legislation

The competition legislation of the Republic of Armenia comprises the Constitution, the *Civil Code*, and the *Law on the Protection of Economic Competition*.

The *Law on the Protection of Economic Competition* prohibits anti-competitive agreements, abuse of dominant position and unfair competition. Concentrations and agreements are subject to authorization. Anti-competitive agreements are those which might result in the restriction, prevention or prohibition of competition, including: establishment of discriminatory prices or artificial increase; decrease of prices on the commodity market; division of the market according to a territorial principle, or according to the volume of purchase or sale, stock of goods or seller or buyer (contractor) terms, and others; and hampering (restricting) other economic entities to enter the market or ousting them from the market.

In addition, the *Law on Energy* restates that the basic principle of the energy policy shall be the enhancement of competition and efficient operation in the energy sector and the creation of essential conditions for the development of a competitive environment.

g) Taxation

Most of the tax legislation dates back to 1997 (Law on Taxes, Law on VAT, Law on Profit Tax), except for the Law on Income Tax, published in 2010. The main state and municipal taxes are Profit Tax, Income Tax, Value Added Tax, Property Tax and Land Tax. Taxation applies differently to residents and to non-residents.

Profit Tax

Taxpayers: Resident organizations incorporated in the RA and non-resident organizations incorporated abroad. **Taxable profit:** The taxable profit is the positive difference between the total income from the sale of goods, services, assets and other property, less total expenses which are deductible by law.

The taxable profit of non-residents can be established indirectly, such as the positive difference between income recognized for taxation purpose and allowances established by law or by reference to promotion of revenue, proportion of expenses, and proportion of number of staff of Armenian subdivision in overall revenue.

Profit tax rate: For residents and registered non-residents the rate of profit tax is currently 20% of the taxable profit.

Income Tax

Income tax is paid by individuals, regardless of whether they are resident or non-resident. Tax object: For residents the tax object is taxable income received in Armenia and outside of Armenia; non-residents will have an income tax liability solely on income received from Armenian sources.

Taxable income: wages and salaries, interest, income from donations and assistance (unless specifically exempt), royalties, rental income, benefits in kind, income from entrepreneurial activities received by soul entrepreneur, etc. For most of the employees their employer will withhold the income tax and pay to the tax authorities as tax agent.

Taxable income: The taxable income is the positive difference between the gross income of the taxpayer and the deductions provided under the law "On Income Tax".

Below is a table of the income tax rate for residents.

Table 6: Income Tax Rates

1. The income tax rates on wages and salaries are:	
Monthly Taxable Income	Income Tax Rate
Up to AMD 120,000	24.4 %
From AMD 120,000 to AMD 2,000,000	AMD 29,280 + 26% of amount exceeding AMD 120,000
Over AMD 2,000,000	AMD 518,080+36% of amount exceeding AMD 2,000,000
2. The income tax rates on income taxes by tax agent are:	
Annual Taxable Income	Income Tax Rate
Up to AMD 1,440,000	24.4%
Over AMD 1,440,000	AMD 351,360 + 26% of amount exceeding AMD 1,440,000
3. Tax rates on some types of income received by foreign citizens are:	
Type of Income	Amount of the Profit Tax
Dividends	0%
Insurance reimbursement and income from transportation (freight)	5%
Royalties, interests, lease payments, increases in the value of property and other passive income, as well as other income received from Armenian sources	10%
4. Tax rates on some types of income received by foreign citizens are:	
Type of Income	Amount of the Profit Tax
Royalties, rental income from the sale property, interest income	10%

Source: Ministry of Energy and Natural Resources of RA

Table 7: Rates of Income Tax for Non-resident Company

Type of Income	Amount of the Profit Tax
Insurance compensation, reinsurance payments and income received from freight	5%
Dividends, interests, royalties, income from the leases of property, increase in the value of property and other passive income (with the exception of the income received from freight)	10%
Income from other services provided by non-residents, as well as income from services provided by non-residents to Armenia residents outside Armenia, which includes consulting, legal, accounting, management, expertise, marketing, advertising, translating, engineering and other similar services.	20%

Source: Ministry of Energy and Natural Resources of RA

Value Added Tax

VAT payers: Individuals and legal entities that carry out economic (entrepreneurial) activities and perform the VAT taxable transactions on the territory of the RA. VAT taxable transactions: delivery and supply of goods; rendering of services for any form of compensation; free (partially) consumption and delivery of services; importation of goods under the import for free turnover customs regime. The rate of VAT is 20% of taxable turnover.

Privileges: Certain activities are exempt from VAT: insurance, most banking and financial activities, scientific and research work, sales of newspapers and magazines, procurement and supply of goods and provision of services arising from loans and grants made by international organizations for the realization of programmes in Armenia, etc. The zero rate of VAT is applied to the exportation of goods and services (works) from the territory of Armenia.

Land Tax

Land tax is paid by landowners and by the permanent or temporary users of state-owned land. Tax on rented land is levied on the lessor. The land "cadastre" value is used to determine the value of the land. Land tax for agricultural land is calculated at 15% of the net income established by the cadastral evaluation. For non-agricultural land, the rate is 0.5% to 1.0% of the cadastral value of the land.

Property Tax

Property tax is assessed on buildings, motor vehicles and means of water transport. The tax base for buildings is the cadastral value based on original cost and subsequent revaluations carried out every three years by the relevant state authority. The annual tax rate on public and industrial buildings is 0.3% of the property value.

h) Legislation Regulating Conditions for Entry, Stay and Employment of Foreign Nationals

The *Law of Foreign Citizens of 2006* regulates the conditions for entry, stay and employment of foreign nationals. Visas are required to enter and stay in the Republic of Armenia (e.g. upon arrival at Zvartnots International Airport). Citizens of countries that have concluded non-visa agreements with Armenia can enter and stay for a period of 180 days. Foreigners traveling through Armenia can obtain transit visas for 3 to 4 days.

Table 8: Visa Fees of the Republic of Armenia

Visa Type	Fee (AMD)
Visitor, single entry, up to 21 days of stay	3 000 (8 USD)
Visitor, single entry, up to 120 days of stay	15 000 (40 USD)
Visitor, multiple entries, up to 60 days of stay, validity up to 6 months	20 000 (54 USD)
Visitor, multiple entries, up to 120 days of stay, validity up to 1 year	40 000 (107 USD)
Official	0
Diplomatic	0
Transit, single entry	10 000 (27 USD)
Transit, multiple entries	18 000 (48 USD)
Children under 18 for all types of visa	0

Source: Armenian Investment Guide 2013, The Ministry of Economy of the Republic of Armenia

i) Foreign Exchange and Securities Laws/Regulations

Foreign investors and foreign employees are entitled to freely transfer their property, profits, revenues and other means legally gained as a result of investments or as a payment for labour or as compensation²³. Foreign exchange is widely available, and the local currency – the Dram – is freely convertible.

The *Law on Securities Market Regulation* of 2007 aims at protecting the rights and legitimate interests of investors, ensuring transparency of the securities market, its sustainable and efficient development, trustworthiness of the price formation system and reducing systemic risks in the securities market.

The Law regulates the offering of securities, the provision of investment services and the functioning of regulated financial markets. The definition of securities includes: shares; other securities that confer rights equivalent to the rights fixed by shares; bonds and other debt securities, except for the money market instruments; depository receipts, documents verifying the subscription or acquisition right of securities; documents verifying shares in investment funds or other similar documents verifying the participation in those funds; profit allocation agreement, the document verifying participation in such agreement; money market instruments; derivative instruments.

j) Legislative Basis Regulating Compensation for Losses and Expropriation

As anticipated, Law on Foreign Investment guarantees foreign investments against nationalisation and expropriation.

Foreign investments cannot be nationalised, and expropriation is only permitted as an extreme means in case of emergency declared by law and ordered by a court with full compensation²⁴.

²³ Art. 11 LFI.

²⁴ Art. 8 LFI.

In addition, investors are specifically protected against damage or loss of profit resulting from actions by state bodies or officials (illegal actions or improper performance of their obligations). Compensation, for expropriation as well as for damages, is paid at current market prices or at prices determined by independent auditors, either in the currency invested or in any other currency mutually agreed upon by the parties. Interests at the current rate for deposit accounts are due.

k) Legislation Regulating Intellectual Property Rights

The general objective of Armenia's intellectual property (IP) rights policy regime is to promote innovation and IP commercialization, and to provide effective protection of proprietary rights to IP owners. Granting of patents and protection of intellectual property rights in Armenia are mainly regulated by the Civil Code of the Republic of Armenia, and by the law "On Copyrights and Related Rights". The law on copyrights provides legal protection of literary works, musical works, paintings, films, software, and other intellectual property rights. It also provides legal protection of the rights of performers, producers of sound recordings, and broadcasting organizations. The law "On Trademarks" defines the procedure for registering and protecting service marks, geographical indications and trademarks. The law "On Trade Names" regulates the registration, legal protection and use of trade names of legal entities²⁵.

Armenia is a member of the World Intellectual Property Organization (WIPO) and has signed a number of international agreements on intellectual property rights. Key legal instruments for the protection of copyright and related rights are the following international conventions ratified by Armenia: the Berne Convention for the Protection of Literary and Artistic Works; the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations; the WIPO Copyright Treaty; and the WIPO Performances and Phonograms Treaty.

l) Legislation Regulating the Publishing of Laws

According to Art 6 of the Constitution, all laws of the Republic of Armenia are published in the Official Bulletin of the Republic of Armenia and enter into force following the publication.

2. Energy-Related Legislation

The laws that are specific to the energy sector of Armenia are: the Law on Energy of 2001; the Energy Saving and Renewable Energy Law; the Energy Efficiency Law; the Law on Licensing; and the Law on the Public Services Regulatory Commission.

a) Law on Energy

The Law on Energy regulates the energy sector in Armenia, including the electrical energy system, the thermal energy supply and the gas supply system. The oil sector is excluded.

The basic principles governing the energy policy and its implementation are expressly stated in Art. 5: competitive energy markets; separation of the economic activity, government management and regulation functions; protection of consumers' rights; energy efficiency; promotion of investments; safety; energy independence; environmental protection; research and development; unbundling between generation / transmission / distribution / export / import.

The energy sector regulation is carried out by the Regulatory Commission (composed of five members appointed by the RA President upon proposal of the Prime Minister) which aims at

²⁵ In addition, the protection of intellectual property is also regulated by the law "On Protection of Economic Competition", the law "On Utility Models and Industrial Designs", the law "On the Legal Protection of Integrated Circuit Topography" and the law "On Geographical Indications".

balancing customers' and operators' interests by means of licenses, tariffs, contracts, market rules, and investment programs.

According to Article 23, Generation of Electricity, generation of thermal energy (including combined electric/thermal generation), transmission (transportation) and distribution of electricity, thermal energy and natural gas, implementation of system operator services in electric energy and natural gas sectors, electricity and natural gas import and export activities, as well as power market services provision activities, can be conducted only by the licensees holding adequate licenses issued by the Commission. The following shall not be regulated:

- The activities of generation, transmission (transportation) and distribution of thermal energy exclusively for internal needs;
- The activities of generation, transmission (transportation) and distribution of thermal energy if the installed capacity of that system does not exceed 5.8 MWT;
- Construction period of solar station with capacity up to 150 KWT;
- The activity of combined electric/thermal generation and generation of electricity in diesel power generation stations exclusively for internal needs. Generation of electricity exclusively for internal needs is a subject for regulation only in the construction period.

The generation of electrical and thermal energy exclusively for the internal needs of a consumer is not subject to license. The Regulatory Commission sets the model agreements for consumer contracts and authorises all other contracts between operators who are holders of a license.

b) Land Use Right for Generating Capacities, Power Networks and Installations

The Law on Energy sets specific rules for the right to use land for the construction of electricity or gas generation and transmission facilities. The constructor of this energy infrastructure enjoys a priority right on the use of land, in compliance with the applicable law. All infrastructure enjoys compulsory and free-of-charge assistance in the establishment of safety zones. When the energy infrastructure is decommissioned, the owner is obliged to restore and reclaim the land.

c) Energy Saving and Renewable Energy Law

The Law on Energy Savings and Renewable Energy aims at strengthening national energy independence, security and safety; at promoting energy-saving and renewable-energy industry, infrastructure and services; as well as at reducing the environmental impact of energy technologies.

The basic principles of the national policy on Energy Saving and Renewable Energy are: voluntary participation, indigenous renewable energy, energy saving and efficient use of energy environmental protection consumer choices.

The main instruments of such a policy are: state programs, standardisation, voluntary certification and the establishment of energy examination/audit.

3. Summary of Laws/Regulations Relevant to Investing in the Energy Sector

The principal laws covering foreign investment in the energy sector in Armenia are summarised below:

Table 9: The Laws Covering Foreign Investment in the Energy Sector

Constitution	1995
Law on Foreign Investment	1994
Civil Code	1998
Law on Energy	2001
Law on State Registration of Legal Entities	2001
Law on Licensing	2001
Mining Code	2011
Law on Energy Saving and Renewable Energy	2004
Law on Regulatory Body for Public Services	2003

Source: Ministry of Energy and Natural Resources of RA

4. Summary of Participation in International Organizations and/or Conventions

a) List of Bilateral Treaties on the Protection and Promotion of Foreign Investments

The Government of Armenia has signed several bilateral agreements on the protection and promotion of investments. A list of all concluded BITs is presented in Annex I.

In addition, Armenia is also a signatory to the *CIS Multilateral Convention on the Protection of Investor Rights*.

b) List of Bilateral Treaties (Agreements) on Avoidance of Double Taxation

The Republic of Armenia has ratified several bilateral treaties on the avoidance of double taxation. A list of all Bilateral Treaties (Agreements) on Avoidance of Double Taxation is presented in Annex II.

c) Free Trade Agreements

The Republic of Armenia has concluded free trade agreements with the Russian Federation, Belarus, Ukraine, Georgia, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, and Kazakhstan. Under these free trade agreements, the parties mutually undertake not to levy equivalent customs duties. Protocols listing exceptions to the free trade agreements, and their phasing-out, have been signed with the Russian Federation and with Belarus.

Bilateral agreements on trade and economic cooperation were signed with the European Union, USA, Canada, Cuba, Argentina, Brazil, Switzerland, China, India, Iran, Egypt, Lebanon, Syria, United Arab Emirates, Qatar, the Republic of Korea (South Korea), and Vietnam, which stipulate the use of most-favoured-nation treatment (MFN) in foreign trade.

d) Membership in International Organizations

Since independence in 1991, Armenia has become a member of more than 40 international organizations. These include the United Nations, the Council of Europe, the Organization for Security and Cooperation in Europe (OSCE), the Commonwealth of Independent States, the World Trade Organization, the World Customs Organization, the Organization of the Black Sea

Economic Cooperation, the International Organization of La Francophone, and others. Since 1994, Armenia has also participated in NATO's Partnership for Peace program. Armenia has been included under the EU-endorsed European Neighbourhood Policy since 2004.

In the energy sector the Republic of Armenia is a member of the Energy Charter, the International Renewable Energy Agency, the International Atomic Energy Agency, the Electrical Energy Council of Commonwealth of Independent States, the Organization of the Black Sea Economic Cooperation, and observer in the Energy Community.

A list of Armenian membership in all international organizations is provided in Annex III.

e) Multilateral Conventions, Investment Disputes or Intellectual Property Rights

The Republic of Armenia ratified the *Energy Charter Treaty* in 1997. Armenia ratified the 1958 New York Convention on Recognition and Enforcement of Foreign Arbitral Awards in 1997 and the 1965 Convention on the Settlement of Investment Disputes in 1992. In addition, Armenia has ratified the following multilateral treaties for the protection of the environment:

- Convention on Long-Range Transboundary Air Pollution (entered into force in 1983);
- Montreal Protocol on Substances that Deplete the Ozone Layer (entered into force on 1 January 1989);
- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention, adopted in 1991 and entered into force on 10 September 1997);
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (entered into force on 5 May 1992);
- United Nations Framework Convention on Climate Change (entered into force on 21 March 1994); and
- Kyoto Protocol (adopted in Kyoto in 1997 and closed for signature on 15 March 1999).

5. Exceptions to National Treatment

There are no general restrictions applicable to foreign investors concerning investments in the Republic of Armenia.

With specific reference to land rights, Armenian legislation discriminates against the purchase of land by foreigners. Under the Law on Real Estate, only Armenian citizens and companies (including subsidiaries of foreign companies incorporated in Armenia) may own land rights.

Foreign nationals, stateless natural persons and foreign legal persons not incorporated in Armenia do not have the right of land ownership. Non-incorporated branches of foreign companies may only lease land. Please refer to Annex IV for more details on this national measure.



Energy Sector – supply and demand side

a) Energy Strategy and Institutional Structure

The Energy Sector Development strategy of Armenia was adopted by the Government of Armenia in 2005, and updated in 2007. The primary objective of the aforementioned strategy is to formulate strategic goals for the development of the energy system in Armenia till 2025. It aims to identify the avenues to achieve those goals, based on the principles adopted by the international community for sustainable development.

The following four pillars are identified in all official documents:

- nuclear energy development
- full and sound utilization of renewable energy sources, improving energy efficiency
- diversification of primary energy resources and import/export routes
- regional integration and cooperation

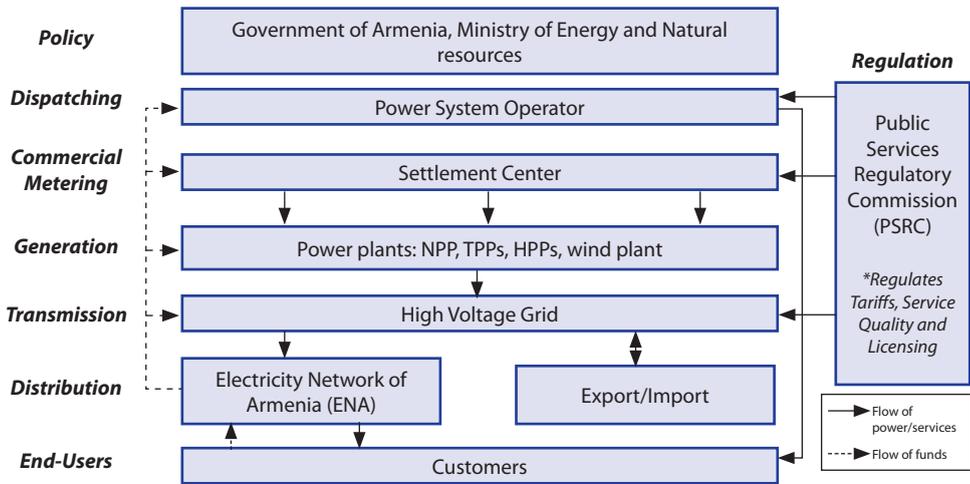
In an effort to ensure an appropriate level of energy security of the Republic of Armenia, the Ministry of Energy and Natural Resources has developed in cooperation with the Armenian National Security Council a “Concept of the Energy Security of the Republic of Armenia” that was approved by the Republic of Armenia President’s decree in October 2013.

The Republic of Armenia government has adopted a program-schedule of the events to be held in 2014–2020 providing for the implementation of the concept provisions in July 2014.

The events include electricity and gas consumption quotas in emergency and force-major conditions, programs to neutralize internal and external threats, lifetime extension issues of the ANPP Unit 2, and construction of new generating facilities at lowest costs considering that construction of the new nuclear unit has been delayed due to absence of financial funds..

Institutional Structure

The Ministry of Energy and Natural Resources of RA (MENR) and the Public Service Regulatory Commission (PSRC) are the key entities regulating the energy sector. The MENR is responsible for developing primary legislation and main policy documents guiding energy sector activities, including system planning and investment planning for state-owned entities. The PSRC regulates the electricity and natural gas sectors, and as part of its responsibilities, sets both end-user and supply-side power sector tariffs. The electricity sector consists of publicly and privately owned generation companies, one state-owned transmission company, one privately owned distribution company, a state-owned system operator and a state-owned settlement centre. The gas sector remains vertically integrated. Gazprom Armenia CGSC, the gas company fully owned by Russia’s Gazprom, imports gas from Russia and Iran, and owns and operates the gas transmission and distribution networks in Armenia.

Figure 8: Structure of the Electricity Sector in Armenia

Source: Ministry of Energy and Natural Resources of RA

b) Supply and Demand

Supply-side

Armenia relies on electricity and gas to meet the majority of its energy consumption needs. The industrial, residential and transport sectors account for 85 per cent of final energy consumption in Armenia. Industry relies on a combination of electricity and gas to meet its energy needs. Residential households rely on a mix of electricity and gas for heating, cooking and hot water, and electricity for lighting and other household appliances. The transport sector relies on oil and gas with 75 per cent of the automobile and truck fleet using compressed natural gas (CNG).

Primary energy supply in Armenia in/during 2006–2013 is presented in the following table.

Table 10: Primary Energy Supply, Mtoe

Indicator	2006	2007	2008	2009	2010	2011	2012	2013
TPES	2.59	2.84	3.00	2.60	2.45	2.72	3.08	3.09

Source: Scientific Research Institute of Energy of RA

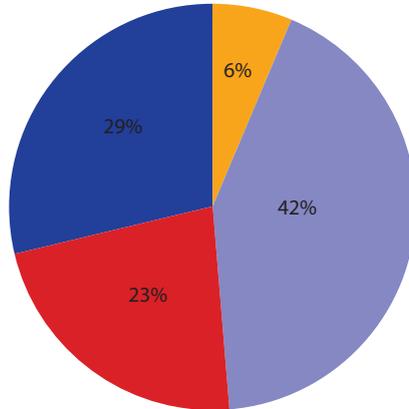
Electricity generation by technology and electricity generation balance are presented in Table 10.

Table 11: Electricity Generation in Armenia, 2008–2013 (billion kWh)

	2008	2009	2010	2011	2012	2013
Net Generation	6.1	5.7	6.4	7.4	8.1	7.7
Hydro	1.8	2	2.6	2.5	2.3	2.1
Nuclear	2.5	2.5	2.5	2.5	2.3	2.4
Thermal	1.8	1.2	1.4	2.4	3.4	3.1
Imports	0.3	0.3	0.3	0.26	0.01	0.15
Exports	0.3	0.3	1.1	1.3	1.7	1.31

Source: Public Services Regulatory Commission of RA

Figure 9: Electricity Generation by Technology, GW / %



■ Hydro ■ Nuclear ■ RE (<10MW) ■ Thermal

Source: Public Services Regulatory Commission of RA

Table 12: Imports of Petroleum Products, 2009–2013 (kt/year*)

Refined Product	2009	2010	2011	2012	2013
Motor Gasoline	172.0	176.6	153.3	178.5	171.6
Jet Fuel	27.2	40.4	41.3	30.0	39.1
Kerosene	-	-	-	-	-
Diesel Fuel	114.0	126.6	130.4	115.0	112.7
Residual Fuel Oil (Mazut)	-	-	-	-	-
Liquefied Gas	7.1	6.2	6.2	11.5	7.4
Total	320.3	349.8	331.2	335	330.8
Natural Gas, mln m ³	1812.0	1765.5	2069.1	2455.5	2361.1

*Note: kt/year = thousand tonnes per year

Source: Republic of Armenia Customs Service / National Statistical Service

Table 13: Forecasted Primary Energy Supply, ktoe

Fuel Type	2015	2018	2020
Coal	1.5	0.8	0.6
Crude Oil	0.0	0.0	0.0
Electricity	94.4	94.4	188.3
Natural Gas	1652.8	2739.4	2702.6
Nuclear	602.2	608.6	608.6
Oil Products	397.9	471.5	548.8
Renewables	204.0	226.6	295.7
Total	2952.9	4141.3	4344.5

Source: Ministry of Energy and Natural Resources of RA

Demand-side

Electricity consumption in the Republic of Armenia grew steadily in 2003–2009 (5.72% annually in summer, 3.48% annually in winter), but fell 7.4% between 2008 and 2009. Consumption revived again in 2010 with the revival of the economy, growing by around 3% as GDP grew roughly 2%.

c) Energy Consumption by Sector

Total energy consumption and energy consumption by fuel are presented in the tables below.

Table 14: Total Energy Consumption, Mtoe

Indicator	2006	2007	2008	2009	2010	2011	2012	2013
TFC	1.78	2.01	2.14	1.89	1.88	1.99	2.03	2.18

Source: Ministry of Energy and Natural Resources of RA

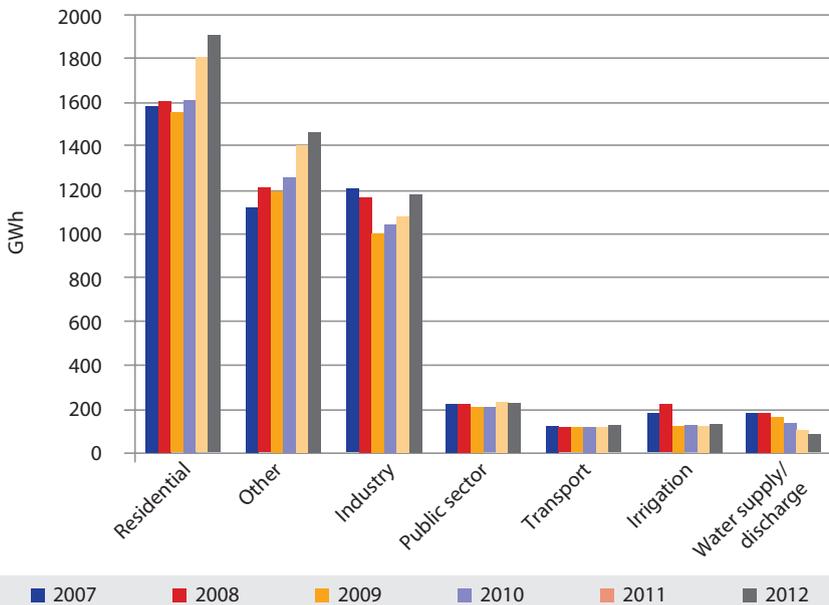
Table 15: Energy Consumption by Fuels, ktoe

Fuel	2006	2007	2008	2009	2010	2011	2012	2013
Natural gas	988	1183	1357	1134	1021	1182	1115	1201
LPG	15	12	9	8	7	7	13	8
Gasoline	172	169	198	184	189	164	191	184
Jet kerosene	39	56	56	29	43	44	32	42
Diesel	172	121	129	118	131	135	119	117
Coal	0	1	0	0	0	0	2	0

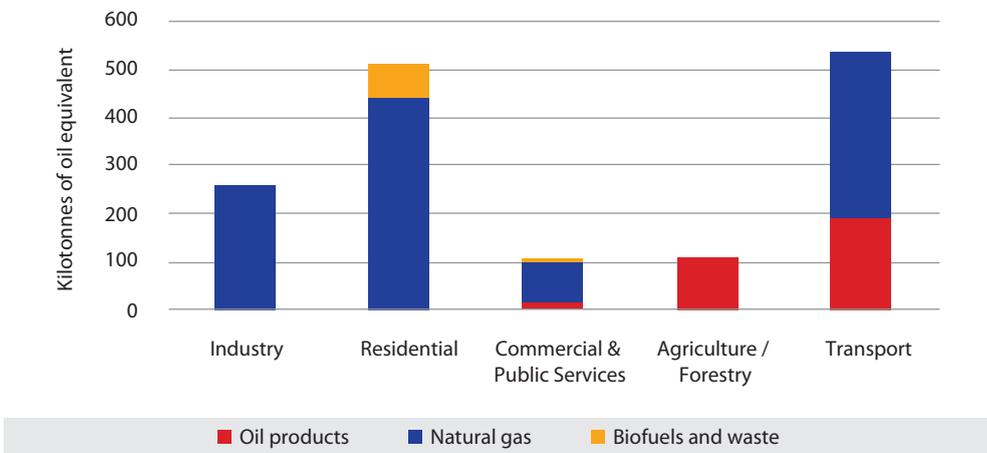
Source: Scientific Research Institute of Energy of RA

The below figures present electricity consumption by sector and primary fuel consumption by customers.

Figure 10: Electricity Consumption by Sector, 2007–2012



Source: Public Services Regulatory Commission of RA

Figure 11: Primary Fuel Consumption by Customer, 2012

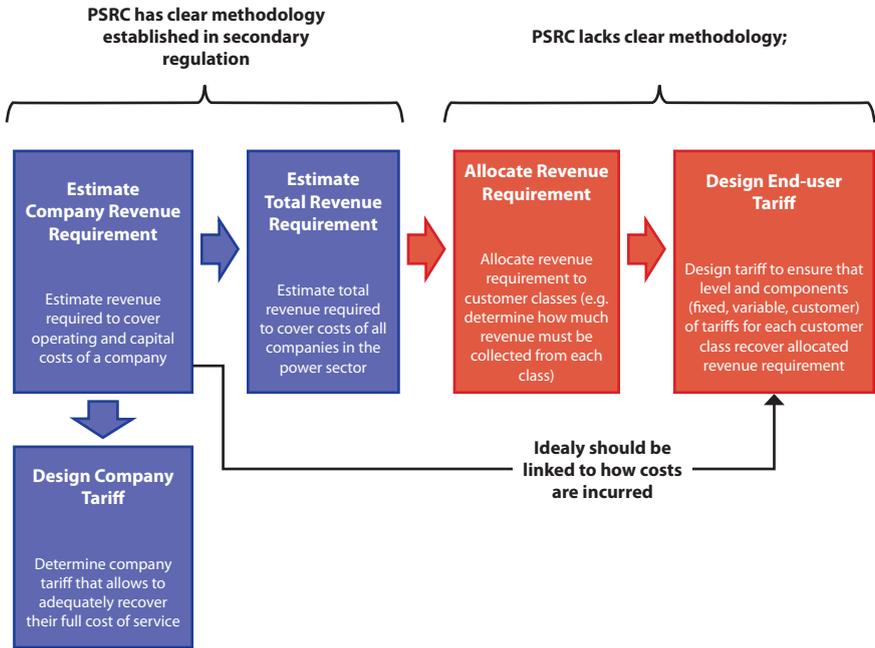
Source: International Energy Agency

d) Energy Prices and Tariffs Setting Policy

The Public Services Regulatory Commission (PSRC) of RA establishes the procedure for setting and reviewing tariffs. The PSRC has a clear methodology for setting tariffs for all companies in the sector. It does not, however, have a clear methodology for determining how much revenue should be accrued from each customer class or for determining the end-user tariffs structure and rates within each class that will achieve the class revenue. This is an important missing link in the tariff setting process in Armenia. In one of the reports in 2013, the World Bank suggest to have clearer methodology for determining how much revenue should be collected from each class and also suggest a clear methodology for determining how revenue should be accrued through different components of the tariff.

Some difference between the revenue requirement for the sector and the revenue from customers is to be expected every year because of uncertainty in demand, supply availability and costs. This discrepancy must then be adjusted or “trued-up” in the following year to ensure that companies receive their required revenue and customers are not overcharged for service. However, the lack of increase in end-user tariffs in recent years coupled with cost increases driven by higher natural gas prices, inflation and a large drop in demand in 2009 led to a mismatch in the revenue collected from customers and the revenue required to cover the efficient cost of electricity services. The figure below illustrates the steps in the tariff setting process and indicates where the PSRC lacks a clear tariff setting methodology²⁶.

Figure 12: Tariff Setting Process



Source: World Bank

According to the Energy Law, the PSRC can either set the specific monetary value of the tariff or establish a clear formula for calculating the tariff based on parameters defined in the Energy Law.

According to the Energy Law, a tariff should cover:

- Justified operation and maintenance costs
- Loan service costs
- Costs related to environmental standards
- Mothballing and preservation costs
- Costs of the safekeeping of the utilized nuclear fuel and requisite allocations to the Nuclear Plant Decommissioning Fund
- Technical and commercial losses
- Other justified costs as provided by legislation

The tariff should also provide the operator with the opportunity to make a reasonable profit.

The PSRC or the licensee can request a tariff review every six months. Once requested, a tariff review must be submitted within 80 working days (for SHPPs and other RES plants within 25 working days). The PSRC is authorized to set long-term tariffs for more than six months if it is considered necessary to provide investment security. Once a tariff is set, licensees cannot appeal the amount of a tariff. The only recourse for altering an assigned tariff is to petition the PSRC's tariff methodology.

Table 16: Actual versus Cost-Recovery Tariffs for Individual Companies

Company	Actual tariffs became effective from 01.04.2012	2012 Cost-Recovery Tariff	2013 Cost-Recovery Tariff
AMD/kWh			
Hrazdan TPP	41.219	41.227	40.92
Hrazdan 5	21.65	21.65	21.65
Yerevan CCGT	5.328	5.328	5.328
Vorotan Cascade of HPPs	4.778	7.049	7.621
Sevan-Hrazdan Cascade of HPPs	4.56	4.578	4.838
ANPP	9.658	14.109	16.995
Small HPPs	17.132	19.293	19.293
HVEN	0.3325	0.6517	0.5429
ENA	9.338	9.338	9.476
Million AMD/month			
Settlement	9.0513	9.0513	9.0513
System Operator	93.9496	93.9496	93.9496

Source: PSRC and World Bank

Electricity tariffs to end users have been changed two times: in 2013 and 2014 as the result of increasing gas prices. End-user tariffs are time differentiated, in which users pay different prices for consuming energy during the day versus at night.

- End-user tariffs, VAT inclusive (1€ – 540 AMD as September 2014)

Table 17: Current end-users tariffs in Armenia became effective from 01 August 2014 (including VAT), AMD/kWh

Tariff type	Day	Night
(AMD/kWh)		
Residential	41,85	31,85
0.4kV	41,85	31,81
6(10) kV	38,85	28,85
35+ kV	32,85	28,85

Source: Public Services Regulatory Commission of RA

Tariffs for Renewable Energy, 2014 (excluding VAT)²⁷

- Tariff for small hydropower plants constructed on natural riverbeds – AMD 21.061/kWh;
- Tariff for small hydropower plants constructed on irrigation systems – AMD 14.039/kWh;
- Tariff for small hydropower plants constructed on waterways for drinking water – AMD 9.361/kWh;
- Tariff for wind power stations – AMD 37.007/kWh; and
- Tariff for stations using biomass – AMD 40.338/kWh.

Natural gas Distribution Licensees are granted the exclusive right, within a defined geographic area, to distribute (sell) natural gas to consumers, as well as construction and reconstruction of the natural gas distribution network, purchasing and selling of natural gas in accordance with the Rules established by the Commission.

Tariffs are developed by the Operation Licensee and submitted to the Public Services Regulatory Commission for approval. The Public Services Regulatory Commission may either approve or disapprove any tariffs proposed by an Operation Licensee. The Public Services Regulatory Commission must rule about proposed tariff changes within 80 working days after submission of the request by the Operation Licensee. New tariffs must be made public and become effective 30 days after adoption of the resolution. PSRC also has the right to review the tariffs on its own initiative.

Natural Gas Tariffs, 2013 (including VAT)

- The gas tariff for each 1000 normal cubic meters of natural gas with monthly consumption up to 10.0 thousand cubic meters – 156.000 AMD (including VAT).
- The gas tariff for each 1000 normal cubic meter of natural gas with monthly consumption 10.0 and above thousand normal cubic meters – AMD equal to 276.98 USD (including VAT) based on exchange rate established by Central Bank of RA on 25th of the month previous to each reporting month.

²⁷ Public Services Regulatory Commission (PSRC)



Energy market structure

Presently the Energy Market of Armenia represents, in general, a closed system, where economic relations between the power sector entities are formed on a “single buyer-seller” scheme, the role of which is performed by the “Armenian Electric Networks” CJSC. A system of direct sale-purchase contracts between generators and the distribution company is being applied in the Republic of Armenia.

The gas sector lags behind in unbundling and market opening. Import, transmission, distribution and supply of natural gas are carried out by one vertically integrated company, CJSC Gazprom Armenia.

Currently under discussion is the possibility of implementing partial or phase-by-phase power market liberalization, with the aim:

- Technical problems may occur with respect to the absence of sufficient capacities and the existing limitations on transboundary power flows and trading;
- To avoid a drastic increase of tariffs and social problems associated with the opening of the market, the possibility of implementing partial or phase-by-phase liberalization of the market;
- In case of opening the market problems may occur regarding the provision on the guaranteed purchase of electricity delivered by renewable energy sources effective for a period of 15 years;
- In contracts for privatization of historically existing plants, advanced commitments are stated therein with regard to refunded money, fulfilment of which may be threatened, in case of opening of the market.

The EU directives and regulations on the energy sector were negotiated and agreed. The mechanisms of their development and implementation potential with EU assistance were discussed within the framework of negotiations of the Armenia–EU Association Agreement. The unified list of energy sector directives and regulations was approved by the Government of the Republic of Armenia in November 2012.

In the events program of the Republic of Armenia’s membership in the Customs Union, the Common Economic Space (roadmap), which was approved on December 24, 2013 by the Eurasia Economic Council, a separate chapter of 18 pages is included focusing on energy sector issues. 32 steps have been provided for in the events plan approved by the Republic of Armenia Government decision No. 61. Adherence to these steps will enable the fulfilment of the roadmap requirements.

Armenia is planning to join the following agreements:

- Agreement on unified principles and rules of regulation of natural monopolies’ operations;
- Agreement on ensuring access to the natural monopolies’ services in the energy sector, including principles of price formation and tariff policy;
- Agreement on ensuring access to the natural monopolies’ services in the area of gas transportation via gas transporting systems, including principles of price formation and tariff policy;
- Agreement on operation of common markets of oil and oil products of the Customs Union member countries;
- The main purpose of the agreements is to ensure access to the services provided by

natural monopolies involved in power transmission and gas transportation in the power system and the gas transportation system. The negotiations on application of custom duties quotas for the energy sector within the framework of Customs Union cooperation are currently being completed.

In 2013, certain amendments were introduced to the Republic of Armenia Energy Law that were necessary from the viewpoint of regional integration, as well as to increase the levels of reliable and efficient power supply and use. This shall regulate the identification of ways to solve strategic issues, the establishment of new functions of licensees aimed to ensure reliability of the energy sector, as well as the establishment of incentive mechanisms for certain sectors; license issuance mechanisms are being simplified.

1. Oil

a) Exploration and Production

Petroleum Exploration and Production Legal Framework

Armenia does not produce crude oil and has no refinery. However, the right conditions for oil and gas accumulations do exist in the country, and considerable effort has been devoted to creating the preconditions for private investment in exploration and production. On November 1, 2012, decisions N 1431-N “On the procedure for granting permission to provide the mining for geological exploration of oil and natural gas” and N 1421-N “On approval of exemplary form of the Contract on share production of oil and natural gas products” were adopted by the Government of Armenia.

The draft law of “On features of oil and natural gas geological exploration and extraction” has been developed and is in the final stage of discussions.

For the implementation works of geological study and exploration oil and gas, the area of the Republic of Armenia is divided into six conventional blocks.

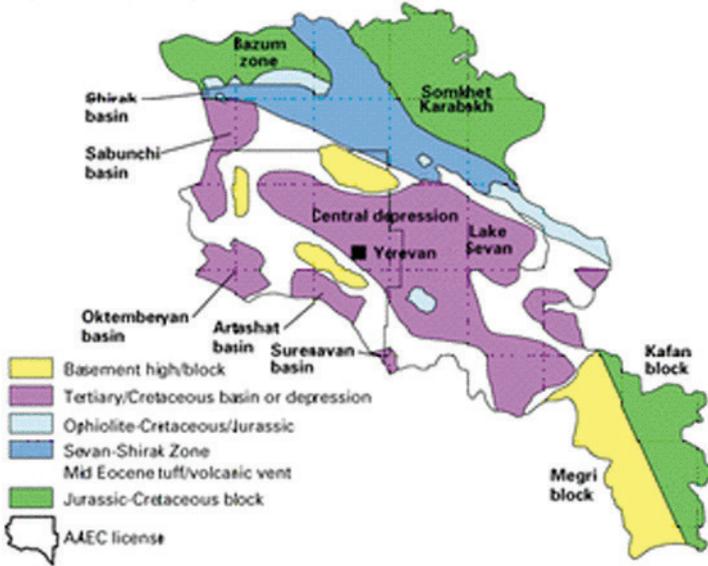
Figure 13: Petroleum Exploration Contract Areas



Source: Ministry of Energy and Natural Resources of RA

As shown²⁸ in Figure 14, six contract areas have been defined: Block 1 (open, 5,450 km²); Block 2 (7,250 km²); Block 3 (open, 3,325 km²); Block 4 (5,925 km²); Block 5 (4,250 km²); and Block 6 (3,600 km²).

Figure 14: Petroleum Basins in Armenia



Source: OGJ

In 2014 the U.S. Geological Survey's (USGS) National and Global Petroleum Assessment Project Team evaluated the potential for undiscovered conventional and unconventional oil and natural gas resources in Armenia.

The assessment was based on the postulated presence and viability of petroleum-system elements:

- Source rocks
- Reservoir rocks
- Traps
- Timin

The four Assessment Units (AUs) were delineated entirely within the country of Armenia.

The postulated petroleum-system elements of the Paleozoic-Sourced Conventional Reservoirs AU, the Permian Shale Gas AU, and the Cenozoic Coalbed Gas AU are uncertain, resulting in low geological probabilities; thus they were not quantitatively assessed.

The petroleum-system elements of the Paleogene-Sourced Conventional Reservoirs AU, although uncertain and risky, were quantitatively assessed because they resulted in a geological AU probability above the threshold of 10 per cent (that is, the probability of at least

²⁸ This document and any maps included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

one conventional oil or gas accumulation of 5 million barrels of oil equivalent or greater based on postulated petroleum-system elements).

We estimated fully risked mean volumes of about 1 million barrels of oil, about 6 billion cubic feet of natural gas, and less than 1 million barrels of natural gas liquids.

b) Shipment of Oil Products and Excise Tax

Market Structure

Armenia does not have oil refineries and all of the oil products are imported. Imports currently run at about 350,000 tonnes/year, mostly engine fuel (gasoline, diesel). Stocks run at insignificant levels and are basically limited to operational buffer stock at distribution depots and retail outlets. By far the greater part of oil product imports originates in Georgia. Shipments are mostly via railroad linking Armenia to Georgia. Railway connections to the world markets are relatively limited. There is a rail link via Georgia for cargoes from the ports of Poti and Batumi. For the time being, the only other option to supply Armenia with oil products is by road from Iran, which crosses a difficult mountainous area.

Excise Tax

Irrespective of results of economic activity of payers of excise tax payments, customs value or 1 tonne has been set for diesel fuel at customs value or 1 tonne 10%, but not less than 32,500 AMD for 1 tonne and for petrol at 1 tonne 25,000 AMD. If the total amount of excise tax provided for 1 tonne of fuel and VAT calculated by the legislation is less than 112,000 AMD, the excise tax is increased in order for the total amount of excise tax provided for 1 tonne of fuel and VAT calculated by the legislation to be 112,000 AMD. Retailing is competitive, with many private gas stations offering fuel, lubricants and services.

2. Coal and Shale Oil

Coal is the only fossil fuel of which Armenia has known resources. Total in-place reserves are 200–250 million tonnes. There are six known coalfields, at Antaramut (in the north), Ijevan (north-east), Jajur (north-west), Jermanis (west central), Nor Arevik (south), and Shamut (north). In addition, there are also oil shale deposits at Jajur, Nor Arevik, Aramus (central), and Dilijan (north central).

However, there has never been much of a systematic evaluation to determine how much coal and oil shale can be mined economically. There seem to be exploitable deposits at Ijevan, in the north-east part of the country, and Jermanis, in the western central part of the country, and there are plans to open at least one state-owned mine.

3. Natural Gas

a) Statutory Framework

The natural gas sector in Armenia is considered to be a natural monopoly. It is regulated by the Public Services Regulatory Commission (PSRC). The PSRC issues and revokes operating licenses for import, transportation, export and distribution of natural gas. Holders of natural gas import and distribution licenses must comply with the instructions issued by the National Dispatch Centre. The Energy Law does not prohibit the third party access, but there is no mechanism of its implementation described.

Natural gas distribution licensees are granted the exclusive right, within a defined geographic area, to distribute (sell) natural gas to consumers and take delivery of (purchase) natural gas

from the natural gas transportation network. Natural gas distribution licensees must comply with the instructions of the natural gas transportation Central Dispatch Service.

Licensees should, develop and apply energy supply model contracts between Operation Licensees, as well as model contracts for natural gas supply to consumers, and conducts discussions for the settlement of disputes between economic entities within its jurisdiction. Operation Licensees must also submit to the PSRC information about their activities during the past year and anticipated activities for the current year.

The supply of natural gas may be discontinued or limited and appropriate supply schedules may apply in cases of natural calamity, military acts and major failure of gas supply equipment. The supply of electrical energy, thermal energy, and natural gas to consumers may be discontinued or limited if they fail to comply with their contractual obligations.

PSRC is specifically authorized to set tariffs for natural gas. Tariff setting principles for natural gas are identical to those for power and heat. There are no cross subsidies between different categories of customers. Tariffs are developed by the Operation Licensee and submitted to the PSRC for approval. PSRC may either approve or disapprove any tariffs proposed by an Operation Licensee. PSRC must rule about proposed tariff changes within 90 days after submission of the request by the Operation Licensee. New tariffs must be made public and become effective 30 days after public notice.

In the residential sector, gas meters (produced in Russia, France or Slovakia) are installed by Gazprom Armenia CJSC for each individual consumer. Border metering is in accordance with EU standards, but there are also differential GOST standards in use. Billing is performed on a monthly basis and payments are completed within 7 days of the notice.

On December 2, 2013, the following agreements were signed between the Governments of the Republic of Armenia and the Russian Federation, which were ratified by the Republic of Armenia National Assembly on December 23, 2013:

- On the terms of the purchase and sale of ArmRusgasprom CJSC shares and further operation;
- On the price formation order in case of natural gas delivery to Armenia;
- On cooperation in the area of gas, oil products and rough diamonds supply to Armenia;
- The gas price for the Republic of Armenia for the period of January 1, 2014 – December 31, 2018 shall be defined by indexation of the gas price effective in Armenia during the previous period, with correlation of the gas price in the Orenburg region of the Russian Federation.

b) Imports and Transportation of Natural Gas

The operation of the gas system in the Republic of Armenia is implemented by “Gazprom Armenia” CJSC. The company carries out import, distribution and supply of natural gas, as well as system management, and implements transportation of gas from the Armenia border as well as the operation of underground storages. The total length of the main gas transmission pipelines operating in the gas transportation system is 1,863 km. 75 gas distribution stations of different types, 21 metering stations, 237 linear valves, 167 stations of electrochemical protection (cathodic protection), and Abovian Underground Gas Storage Facility, with 19 underground gas wells and a compressor station of 9.9 MW installed capacity, operate in the gas transportation system. The length of high, medium and low pressure gas pipelines operating in the gas distribution system totals 11,625 km.

The Company realized the construction of the Iran–Armenia gas pipeline, which allows expanding the resource base of natural gas supply and creating a second technological entry to the RA. In the energy security provision context today Gazprom Armenia CJSC solves another important problem – restoration of Abovian Underground Gas Storage Facility’s (UGSF’s) design operating parameters. This facility of strategic importance ensures the reliability of gas supply to the Republic. As a result of the UGSF reconstruction and modernization project implementation, the capacity of UGSF has been brought to 135 mln. cub. m. Gazprom Armenia CJSC intends to increase this figure year by year

c) Gasification and Gas Supply Rehabilitation

The gasification of the country is a very important large-scale project implemented by the Company, which started in 2002 when the percentage of gasification level hardly reached 20%. At present the gasification level of Armenia is around 95% and with this indicator our country is one of the leaders in the world. The large-scale gasification of the country can be confidently qualified as a social program of a national level. At present 576 settlements consume natural gas in Armenia and the number of the Company’s actual gas consumers among the population has exceeded 630,000.

The majority in the structure of natural gas consumption have CNG special gas refuelling compressor stations due to an increasing share of vehicles operating on compressed natural gas. The use of natural gas as a motor fuel compared to petrol is twice as cost effective. As a result of natural gas market liberalization, in the territory of the Republic, covering an area of 29,800 square kilometres, the number of CNG RCS exceeds 320, i.e. there are more than 11 CNG RCS on each 1,000 sq. km.

Gazprom Armenia operates a SCADA system in the gas transportation system of Armenia in order to carry out centralized monitoring and management of the gas transportation flows via main gas transmission pipelines. Due to improvements in gas accounting systems, installation of modern flow-meters and up-to-date high accounting equipment, today the Company ensures 100% gas consumption accounting – moreover, the actual losses in the gas distribution system are about 2%. Besides, the collection of amounts against consumed gas have achieved a 100% level.

One of the most important directions of Gazprom Armenia CJSC’s activity is the installation project of alarm devices and shut-off valves (security systems) in the apartments and houses of gas consumers, within the frame of which Gazprom Armenia CJSC has already installed more than 600,000 security systems. Armenia has become the first among CIS countries where widespread installation of security devices is implemented in order to exclude the human factor and avoid induced anthropogenic accidents and disasters while using gas devices.

4. Electricity

At present, in the electricity trade the practice of direct contracting between generators and the distribution company exists, aiming at subsequent gradual increase in the degree of liberalization of the market. The power sector is separated into three sub-sectors: generation, transmission, and distribution. Transmission, dispatch, and settlements companies are tasked with delivering power from diversely owned generating facilities to a single, privately owned distribution entity called Electricity Network of Armenia (ENA). Dispatching is performed by the power system operator. The country uses a Regulated TPA scheme as use of the transmission and distribution network by market actors, which have the license on generation and import, is performed as provided in the order established by market rules.

a) Generation

In Armenia, electricity is produced from nuclear power plant, hydro power plants, and thermal power plants. Nuclear power is used primarily to cover base load consumption, thermal power covers seasonal peaks during the fall and winter low-water and cold season, and hydro power covers daily load variation, but has reduced operable capacity during the winter months.

Total installed power generation capacity amounts to about 4,115 MW out of which only 2,700 MW is used. Some of the available generation capacities require rehabilitation or demolition due to the aging character of these two thermo power plants.

However, the installed capacity does not reflect the restricted availability of many of these plants due to their poor operating conditions or, for hydro power plants, environmental restrictions. The table below lists Armenia’s major power plants and information about their installed capacity, summer and winter availability, age and ownership.

Table 18: Breakdown of Power Stations by Installed Capacity

Plants	Capacity	Owner
Nuclear Power Plant		
Metsamor NPP	408 MW <i>(Only Unit #2 is operational. Unit #1 is not in use.)</i>	The Government of Republic of Armenia
Thermal Power Plants		
Hrazdan TPP	1,110 MW <i>(section 1: 2×50 and 2×100; section 2: 3×200 and 1×210)</i>	INTER RAO RF
Hrazdan 5th Unit	480 MW	Gazprom Armenia CJCS RF
Yerevan CCTPP	240 MW	The Government of Republic of Armenia
Yerevan TPP	550 MW <i>(section 1: 5×50 MW; section 2: 2×150 MW)</i>	The Government of Republic of Armenia
Vanadzor TPP	96 MW <i>(2×12, 1×25, and 1×47)</i>	Private
Hydro Power Plants		
Sevan-Hrazdan Cascade (IEC)	559.4 MW	RusGidro CJCS RF
Vorotan cascade	404.2 MW	Private USA
Small HPP	268 MW	158 small private HPPs
Wind and anther		
Lori-1 Wind power plant	2.64 MW	The Government of Republic of Armenia
Lusakert Biogas Plant	0.835 MW	Private
Total	4,115	

Source: PSRC and World Bank

Hydro Power Plants

At present hydro resources are the most widely used among the renewable energy resources. The country has two major HPP Cascades (Sevan-Hrazdan HPP Cascade and Vorotan HPP Cascade) and HPP Dzora. There are plans to construct another three new middle-size HPPs and increase utilization of small HPPs' potential.

Sevan-Hrazdan HPP Cascade includes 7 HPPs: Sevan's, Hrazdan's, Argel's, Arzni's, Kanaker's, Yerevan-1 and Yerevan-3 HPPs, the total installed capacity of which is 559.4 MW, and annual design generation is 2.32 milliard kWh. The HPPs are placed on the River Hrazdan and at present they use irrigation water flow from Lake Sevan and the stream waters of the Hrazdan River. The Sevan–Hrazdan system is owned by Russia..

Vorotan HPP Cascade consists of three hydro power plants, placed on the River Vorotan in the territory of the Syunik Marz, and they use both the river and stream waters. The HPP Cascade consists of Spandaryan, Shamb, and Tatev hydro power plants with total installed capacity of 404.2 MW, and annual design generation of 1.16 billion kWh.

Dzora HPP of the River Dzoraget is the first hydro power plant of Armenia, which was put into operation in 1932, with installed capacity of 25.2 MW and annual design generation of 90 million kWh.

Armenia has middle size rivers: Debet River with its Dzoraget stream, and Araks River, for which hydro power potential has not been utilized yet.

Figure 15: Rivers of Armenia



Source: Food and Agriculture Organization of the United Nations, quoted in US DOE International Fossil Fuel Energy Overview of Armenia

It is foreseen to construct the following HPPs:

- on Araks River – Meghri HPP with about 130 MW capacity and around 800 million kWh annual electricity generation;
- on Debet River – Shnogh HPP with about 75 MW capacity and 300 million kWh annual electricity generation; and
- on Dzoraget River – Loriberd HPP with about 66 MW capacity and around 200 million kWh annual electricity generation.

Thermal Power Plants

The main thermal power plant complexes are Yerevan CCTPP and Hrazdan TPP. The Yerevan thermal power plant dated 1963 has capacity of 550 MW is on the balance but it is not operational any more. The opening ceremony of the new power Yerevan Combined Cycle Co-generation Power Plant took place on April 21, 2010. YCCPP has the following specifications: Total installed capacity is 271.7MW; including electrical capacity of 242MW, thermal capacity is 434.9 GJ/h. Major equipment: Gas Turbine manufactured by Alstom company (Switzerland), GT13E2 MXL type with 179.9MW installed capacity, two modes of operation, 36.4% efficiency.

Steam Turbine with extraction manufactured by Fuji company (Japan) with 63MW installed electrical capacity, 103.7 GCal/h heat energy export.

The Hrazdan TPP is mainly used to cover winter peak loads, and to substitute for the Metsamor nuclear power plant during its shut-down for maintenance in or early autumn. The Hrazdan thermal power plant, built in 1963, has a total capacity of 1,110 MW. Its fuel efficiency is 35% compared to 57% for a new, efficient thermal power plant. Gazprom Armenia CJSC has recently completed construction of a new 440 MW Hrazdan 5 unit, which is an efficient plant meeting today's operational standards. The unit allows consuming 270 g reference fuel for 1 kWh power generation.

The Vanadzor Plant, with a capacity of 98 MW, is currently not operating; this will operate only if the Vanadzor chemical complex becomes operational.

Nuclear Energy Sector

Existing Armenian Nuclear Power Plant

Nuclear energy development is important part of the energy security of the Republic of Armenia. The existing Armenian Nuclear Power Plant (ANPP) consists of two power units with VVER-440 reactors. The design capacity of the unit is 407.5 MW. The issue of continuous safety upgrading at the ANPP was and remains one of the first-priority issues for the Government of Armenia, considering the special role of the ANPP in terms of uninterrupted supply of electricity for the Republic of Armenia.

After the accident at the Japanese Fukushima NPP in 2011, Armenia announced its consent to implement "stress tests" at ANPP according to the program proposed by the nuclear safety regulatory bodies of Europe. A Belgian company, "Tractebel", became the winner in the tender announced by the EU in 2012. Currently works are completed and the report is submitted to the State Nuclear Safety Regulatory Committee and to a European organization "RISK Audit" for expert opinion. It is planned to implement recommended additional works within the framework of the ANPP Unit 2 lifetime extension program.

During the follow-up visit of the OSART mission in June 2013, it was mentioned that 10 out of 14 recommendations given by the OSART mission in 2011 were completed, and additional work needs to be done for the remaining four measures; in particular the issue of middle and high level radioactive waste management was mentioned. The works implemented so far for the enhancement of the ANPP safety and equipment upgrades amounted to about USD 160 million. Under the IAEA coordination, Armenia receives ongoing technical and financial support from the USA, EU, Russian Federation, Czech Republic, Slovakia, Great Britain and Italy. The 5th donor conference was held in Yerevan on September 3–4, 2014.

The 13th session of the Presidential Nuclear Energy Safety Council (was held on November 6, 2013 in Yerevan. The Council came to a general conclusion that since the previous session all activities of the State Nuclear Safety Regulatory Committee are carried out by performing their duties at the highest level.

Currently, within the framework of the ARM–EU cooperation, the development of radioactive waste and spent fuel management strategy for Armenia is being carried out. It is planned to complete the development of the aforementioned strategy in 2016. In the frame of the ARM–EU cooperation, the ITER Consulting Consortium started the development of radioactive waste and spent fuel management strategy for Armenia beginning November 2013. The first IPPAS (International Physical Protection Advisory Service) mission to Armenia was provided in 2003.

Armenia is planning to have the prep meeting for the IPPAS mission, during which the consultant from IAEA will assist us to prepare all necessary documentation. By adopting the resolution on the ANPP Unit 2 lifetime extension (LTE) the safety issues become especially important. The State Nuclear Safety Regulatory Committee under the Republic of Armenia Government and IAEA established the minimum safety level, compliance with which is mandatory for the issuance of a license for design lifetime extension. The LTE program lists the actions necessary to bring the Unit's safety level in line with the licensing requirements, and describes their sequence and deadlines (by dividing into two phases).

Taking into consideration the restrictions on providing the credits to the Republic of Armenia by sovereign guarantee, the implementation of the project on the construction of a new nuclear unit(s) in Armenia was slowed.

Since the development of the Armenian New Nuclear Unit has been delayed, the Government of Armenia made the decision to extend the lifetime of the existing unit in order to ensure a sustainable and secure electricity supply to Armenian customers. However, this phenomenon requires reconsidering its energy strategy in order to address the short and medium term challenges.

On 27 March 2014 the Republic of Armenia Government approved a decision on the ANPP Design Lifetime Extension Program which will be carried out in two phases. The list of works, their sequence and timing required for being in compliance with the requirements for energy security licensing are described in the program:

- The first phase of the project (complex analysis, safety analysis) is designed to implement analysis of efficiency measures and programs aimed at increasing the safety level. At the end of the first phase it is planned to develop the list of preparatory measures for plant operation during the prolonged period, including measures towards enhancement of ANPP safety security.
- The second phase (preparation of the plant design lifetime extension) includes i) implementation of all the measures defined within the first phase for obtaining a license for the project when its design lifetime is expired. This part is expected to be completed in November 2016; ii) (upon receiving the license for operation of the plant when its design lifetime is expired) the rest of the measures defined within the first phase (long-term) should be implemented, the delay of which does not hinder the implementation of obtaining a license (technical, technological or financial reasons).

New nuclear unit

To cover electricity demand and to maintain the necessary level of energy security and independence in the middle term and long term, Armenia plans to provide for replacement of the existing nuclear unit by nuclear unit (units) of new generation III+.

In October 2009, the RA law "On construction of new nuclear unit(s) in the Republic of Armenia" was adopted, which will serve as a legal basis for construction of the new nuclear unit in Armenia. For the new NPP the Russian NPP-92 design (capacity – 1,060 MW; operating life – 60 years) was approved, which has a certificate in accordance with requirements of European Utilities (certificate on 24 April 2007). Other components of the project, i.e. turbine island and I&C systems, will be the subject of negotiations with international suppliers. Nowadays the negotiations with potential investors are ongoing. According to the Government decree 511-A, as of 19 May 2014 the new nuclear power unit has to start operation in 2027.

b) Management and Oversight Bodies

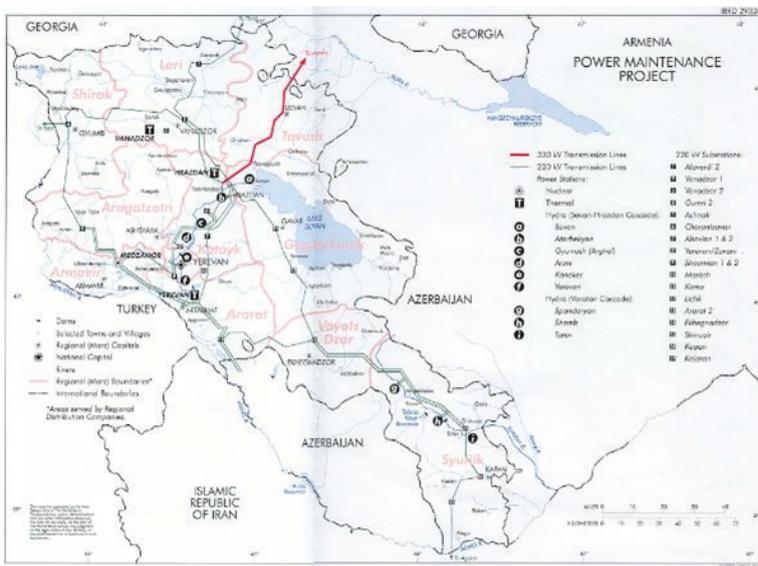
To establish regulatory control over nuclear and radiation safety in the atomic energy utilization field, and to comply with IAEA requirements, the Government of the Republic of Armenia adopted a decree on establishment of state regulatory authority for nuclear and radiation safety in the atomic energy utilization field (ANRA) within the Government of the RA.

ANRA's task is the state regulation at atomic energy utilization (safety of nuclear facilities, the safe use of ionizing radiation sources, the safe management of radioactive waste, and the safe transport of radioactive and nuclear materials) aimed at ensuring the safety of population and personnel, environmental safety and defending the safety interests of the Republic of Armenia. ANRA regulates the nuclear and radiation safety of the Armenian NPP, dry spent nuclear fuel storage facility, ionizing radiation sources, RADON radioactive wastes storage facility, and of other facilities where practices with nuclear materials are implemented.

c) Transmission, Export/Import and Regional Network Agreements

The below map is the electric transmission system of Armenia.

Figure 16: Armenia's Electricity Transmission Grid



Source: World Bank, quoted in US DOE International Fossil Fuel Energy Overview of Armenia

The system is operated by High Voltage Electrical Networks CJSC. The main object of the company is the transmission of electricity via 220–110 kV electrical networks; the system consists of 14 220 kV substations, 164 km of 330 kV lines, 1,320 km of 220 kV lines, and 3,146 km of 110 kV lines.

Table 19: Armenia's Electricity Interconnections

Country	Connection Type	Operational state
Azerbaijan	Line HVL–330 kV (100 km)	Out of Service
	Line HVL–220 kV (63.5 km)	Out of Service
	Line HVL–110 kV (98 km)	Out of Service
	Line HVL–110 kV (30 km)	Out of Service
Georgia	One line HVL–220 kV (65 km)	Operational
	One line HVL–110 kV (35.8 km)	Operational
	One line HVL–110 kV (19 km)	Operational
	One line HVL–400 kV	Under contraction
Turkey	One line HVL–220 kV (65 km)	Out of Service
Iran	One line HVL–220 kV (78.5 km)	Operational
	One line HVL–220 kV	Operational
	One line HVL–400 kV	Under Construction

Source: Ministry of Energy and Natural Resources of RA

By the loans of International financial organization such as World Bank, Asian Development Bank, European Bank Reconstruction and Development, KfW, are implementing rehabilitation of 220 kV substations and transmission lines. The construction works of the 400 kV high voltage double circuit Iran–Armenia third transmission line is ongoing by loan Export Development bank of Iran.

It is for the construction of 400 transmission line and DC B&B substation Armenia–Georgia by the loan of KfW. It aims to implement reliable inter-connection with the CIS unified power system and access the regional electricity.

d) Distribution and Retail Supply

Distribution and sale is concentrated at the CJSC Electric Networks of Armenia. The activity of “ENA” CJSC mostly entails distribution of electricity to the population and other consumers in Armenia. The Company supplies electricity to some 980,000 consumers. “ENA” CJSC holds an exclusive license for distribution of electricity within the Republic of Armenia.

The Company has made considerable efforts to make its activities more efficient. Over the past nine years, the electric loss within the networks has decreased from 25.5% to 12.9%, and the average collection extended from 76.9% to 100%. In 2010 the Company has finished the rehabilitation of 17 100 kV substations funded by the loan of Japan International Cooperation Agency.

e) Settlement Centre

The “Settlement Centre” CJSC is a fully state-owned company which was founded to make power and energy calculations in the market.

The main directions of activities are to:

- calculate produced, delivered, imported , exported and purchased energy/ power;
- compile energy sale and purchasing acts;
- calculate technology and inadvertent losses in wholesale energy market;
- calculate intersystem flows in local energy systems;
- operate and maintain energy systems` commercial power automation systems;
- coordinate power calculation commercial and meter extraordinary and planned.

f) Power System Operator

“Electro Power System Operator” CJSC has an exclusive right to perform the fundamental functions of the energy system operator, such as:

- Power system technological process operational and economical control;
- Power system operation (generation, import, export and transit) planning and coordination as per signed contracts;
- As per License conditions and Market Rules calculation of the settings of the control and protection devices of the power system having system importance, its provision to the companies having licenses for activities in energy sector and control of that devices operation;
- Provision of interconnected operation of Power System of the Republic of Armenia with regional power systems.

“Electro Power System Operator” CJSC has an affiliate company “Energycommunication” which is responsible for provision of operational and process communication of the power system, power system dispatch control and process communication, maintenance and repair of telecommunication equipment and devices.

“Electro Power System Operator” CJSC also provides the power system operator services during power import and export.

In 2010 the Company installed the SCADA system funded by the loan of Japan International Cooperation Agency. Now it is foreseen to start the second stage of the SCADA system, to be funded by the loan of Asian Development Bank.

5. Renewable Energy

Armenia has significant indigenous renewable energy resources, and an educated workforce with extensive scientific and engineering expertise. Furthermore, the Government has taken proactive steps in recent years to craft laws and regulations designed to reform the power sector to enable private sector involvement in renewable energy technology development. However, Armenia’s renewable energy sector faces a number of important barriers to renewable energy deployment, primarily related to the availability of financing, the regulatory framework for renewable energy, the high cost of renewable energy technologies and public awareness of the potential benefits of renewable energy technologies.

It should be noted that all electricity produced for 20 years at all types of grid-connected renewable energy resources (for SHPPs 15 years), from the moment first resolution of commission about setting tariffs for electricity (capacity) becomes effective, must be purchased in compliance with the rules of the power market and for a tariff calculated in accordance with the approved methodology.

Table 20: Renewable Energy Resource Potential in Armenia by Technology

Technology	Capacity (MW)	Generation (GWht/yr)
Wind	795	1,640
Utility scale solar PV	835–1,169	1,735–2,118
Concentrating solar power	1,169	2,400
Distributed solar PV	93	128
Geothermal power	31–54	244–436
Landfill gas	2.3	20
Small hydro power	91	334
Biogas	3.3	26
Biomass	29	228
Solar thermal hot water	200	254
Geothermal heat pumps	3,500	4,423

Source: Ministry of Energy and Natural Resources of RA

a) Small Hydro Power Plants (SHPP)

In the renewable energy sector Armenia has mostly developed small hydro power plants (SHPP). Typically plants with less than 30 MW of installed capacity are considered SHPP. There are 158 SHPPs which annually produce about 781 million kWh electricity. Under construction there are 63 SHPPs.

The table below summarizes the potential for additional SHPP development in Armenia over the next 10 years, and is based on data presented in a recent study prepared by the Armenian Renewable Resources and Energy Efficiency Fund (R2E2).

Table 21: Potential Remaining SHPP Capacity in Armenia²⁹

Mid and Long Range	Capacity (MW)	Output (GWh)	Needed Investment (Mil \$)
Resource: Possible max	305	1 118	366
Resource: Possible min	252	774	303
2015 (forecast)	179	517	214–225
2020 (forecast)	216	626	259–270

Source: Ministry of Energy and Natural Resources of RA

²⁹ The values are average annual energy output number with the maximum peak occurring during spring runoff, and the minimum occurring during winter months when stream flows are at their lowest

Over the past five years, those SHPPs that were approved for licensing and were constructed faced and overcame a number of issues. The main technical problem with SHPPs in Armenia has been the lack of automation and utilization of modern control technologies. Other factors include poor performance and low reliability of locally produced equipment and those that are imported from China; metallurgical and materials problems resulting from the reuse of salvaged piping from irrigation systems and hydro facilities.

It is important to attract private foreign capital investment to develop new small hydro capacity. The experience of the past years indicates that most credible foreign developers do not consider the current returns for investments in renewable energy projects in Armenia to be equal to the necessary risk-adjusted returns, and hence have not been forthcoming with investment funds. There is competition in the world for renewable energy development capital as many countries focus on developing internal generating resources. Those countries with the most attractive risk profiles and investment quality will attract the most capital.

Developing feasible and economically viable renewable energy resources will create stable domestic power generation capabilities, which in turn could be a major component of Armenia's national security. The contribution of renewable electricity in Armenia can increase fivefold by 2020 in comparison to the present energy production from renewable energy... It is important to emphasize that the achievement of targets is much more dependent on politically implemented measures than on technical capabilities.

In the Republic of Armenia the donor community played an important role in promoting development of renewable energy through investment and technical assistance to improve the legal and regulatory framework, as well as through a number of projects including resource assessment and mapping.

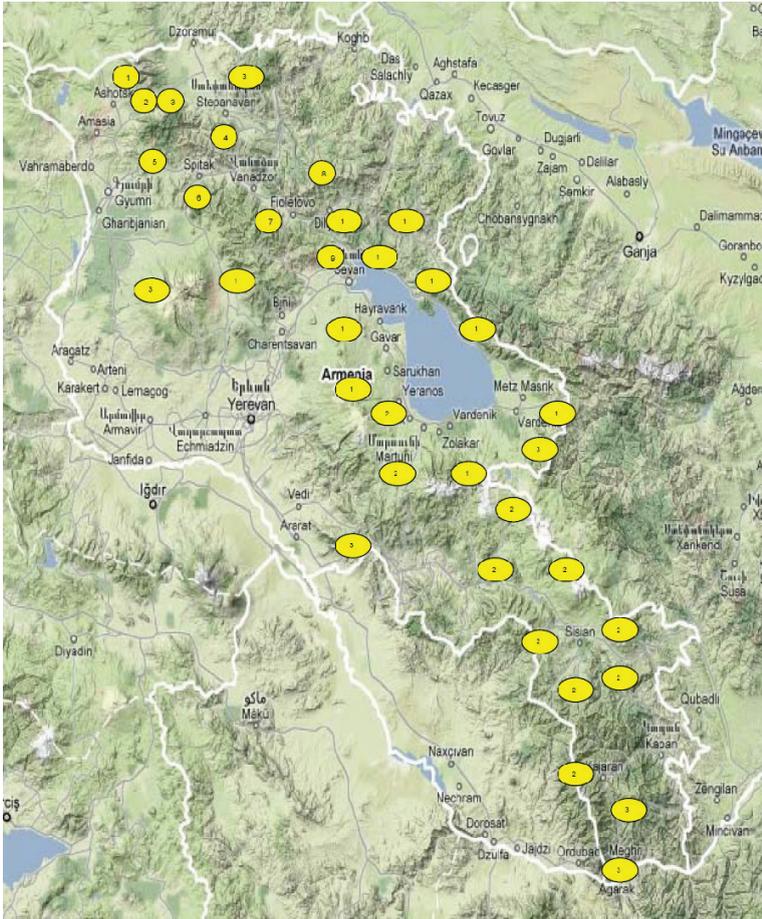
b) Wind

Armenia has a number of areas with promising wind resources. The most promising areas that have been identified and characterized to date are Zod Pass, Karakach Pass, Pushkin Pass, Sisian Pass and the Fontan region. Together these sites are estimated to have 800 MW of developable resource potential, with estimated capacity factors ranging from 21 to 31 per cent, depending on the site.³⁰ The private companies Zodwind and Arenergy have completed feasibility studies for wind plants in Armenia. Two other private companies, SolarEn and MVV-Decon, have conducted wind measurement projects. However, to date no private companies have moved forward with wind plant development in Armenia. Armenia's only operating wind project is the 2.64 MW Lori-1 plant. Lori-1 was built in December 2005 under a grant from Iran. The plant has a capacity factor of approximately 11 per cent and generates 2.5 GWh per year.³¹

³⁰ R2E2 Renewable Energy Roadmap for Armenia Task4 report

³¹ 20 USAID 'Wind Energy in Armenia: Overview of potential and perspectives' March 2010

Figure 17: Potential wind power plant sites



Source: USAID

c) Biomass

Armenia’s biomass resources that could potentially be used for power generation consist of forestry residues (fallen wood and sanitary cuttings) and crop residues from grain farming. Dedicated energy crops have also been considered as a potential biomass resource in Armenia, but preliminary estimates suggest that cultivating crops for fuel would be very high-cost.

The biomass resource assessment suggests that there are sufficient forestry residues to support a 4 MW power plant in Armenia and sufficient grain crop residues from all around the country to central locations, and there is currently no established infrastructure to do this. Therefore, it is expected that it would be logistically difficult to collect biomass resources for power generation, and that the collection costs from transporting the fuel would make fuel costs very high.

d) Biogas

Armenia has the potential for biogas-based power production at livestock farms, at the Nubarashen landfill (in the city of Yerevan) and at the Aeratsia waste water treatment plant (in the city of Yerevan). In 2010, the GEF/UNDP identified three livestock farms as potential candidates for biogas-to-energy projects, with a combined resource potential of 3.3 MW. These plants would be similar to the Lusakert biogas plant, which is Armenia's only operating industrial-scale biogas-to-energy plant, located at the Lusakert poultry farm.

In 2001, a consortium of Japanese companies studied the potential for a landfill gas-to-energy plant at the Nubarashen landfill. Although eventually the consortium installed a methane gas flare plant instead of an energy project, more recent assessments have identified the potential for building up to a 2.5 MW landfill gas-to-energy plant at the facility.

The other potential source of biogas energy in Armenia is the Aeratsia waste water treatment plant. The plant is currently dilapidated and largely non-functioning, but if the plant were to undergo significant rehabilitation and anaerobic digesters were installed at the facility, it is expected that a 3 MW cogeneration plant could be constructed at the facility.

e) Solar PV

Armenia has good solar PV resources, with annual average global horizontal irradiation (GHI) ranging from 1,490 kWh/m² to over 2,100 kWh/m². By comparison, average annual GHI in Europe is 1,000 kWh/m². The total resource potential for utility-scale solar PV is over 6,500 MW. Assuming polycrystalline solar PV modules mounted at a fixed angle to the sun are deployed in ground-mounted utility-scale plants, solar PV systems could achieve capacity factors of 20 to 24 in Armenia (dependent on location). If single-axis tracking solar PV technology is deployed, capacity factors could be as high as 30 per cent.

In addition to utility-scale solar PV, distributed solar PV mounted on building rooftops could also be deployed throughout Armenia, although these plants are likely to have higher costs and lower capacity factors than large-scale, ground-mounted plants. Solar PV deployment in Armenia to date has been limited to relatively small-scale rooftop-based installations at schools, hospitals, office buildings and municipal sites throughout Armenia.³² It is estimated that less than 100 kW of solar PV is currently operational.³³

f) Concentrating Solar PV and Concentrating Solar Thermal Power

Although Armenia has good resources for solar PV, Armenia receives relatively low direct normal irradiation (DNI) compared to most of the locations where concentrating solar thermal power (CSP) is successfully deployed. Armenia's annual DNI ranges from 1,410 kWh/m² to 2,453 kWh/m². The minimum DNI level threshold for viability for CSP plants that is generally accepted in the industry is 2,200 kWh/m². Only one area in the south-eastern corner of Lake Sevan receives DNI above this threshold. However, overall Armenia has rather poor resources for CSP and for this reason this technology is not considered a viable option for development.

Concentrating solar PV (CPV) also does not appear to be a favourable technology option in Armenia compared with the other available solar PV technologies. Like CSP, CPV also takes advantage of DNI resources. An analysis of the theoretical performance of CPV plants deployed in Armenia revealed that CPV is expected to have lower capacity factors than flat-plate solar PV installations (fixed axis or single-axis tracking), and CPV is also expected to have higher capital costs than these technologies.

³² USAAA/US Embassy/EcoTeam

³³ /UNDP/GEF, "Use of Renewable Energy Sources in the World and Armenia Through Innovations to Clean Technologies," 2010

g) Geothermal

Armenia has no installed geothermal power plants, but comprehensive geo-technical studies suggest that geothermal resources suitable for power production may exist at a number of sites, including the most promising Karkar, Jermaghbyur, and Grizor sites, as well as along the Armenian–Georgian border. In 2009–2011, comprehensive surface investigation works were conducted for the Karkar site, including field scouting, magneto-telluric sounding, independent interpretation of the results, three-dimensional (3D) MT sounding, independent interpretation of the results of 3D MT sounding, and early-stage economic and financial appraisal. The results of the above studies suggest that two different conceptual geothermal models or their combination might exist for the Karkar site:

- Model A: Model A assumes that low resistance is not present in the geothermal zones of interest. In such a case, Model A would provide only for a diffuse source of heat and characterizes the field as a reservoir of moderately warm waters (around 150 °C).
- Model B: Model B assumes that low resistance may be present in geothermal zones of interest. In such a case, Model B would provide for a localized high-temperature source of heat. Along with this, some of the layers could be characterized as a reservoir of high-temperature water (more than 250 °C). Results of the above studies indicate that a geothermal resource exists at the site, and can only be confirmed through exploratory drilling. The key conclusions and recommendations of those studies were also reviewed by a third party – Iceland Geosurvey (ISOR) – which confirmed the robustness of the methodology for the above studies and the key conclusion that exploratory drilling is needed to confirm the resource and its characteristics.

The World Bank/ESMAP Global Geothermal Development Plan TA Program supported the Government to prepare a drilling program for the Karkar site, including test well options, drilling and associated consulting services required, contracting arrangements, and costs. The total geothermal resource potential of three geothermal sites that were explored to some extent has been estimated to be at least 150 MW. However, it is important to note that because of the limited exploratory activities and information about Armenia’s geothermal resources, this is a very rough estimate, which relates only to three potential sites for which information was available, and the actual geothermal resource potential could be much larger.

h) Armenia Renewable Resources and Energy Efficiency Fund

Armenia Renewable Resources and Energy Efficiency Fund (Fund) has been established by the Government of Armenia. The mission of the Fund is to facilitate investments in energy efficiency and renewable energy in Armenia. Under the umbrella of one organization, the Fund provides an array of comprehensive assistance to renewable energy and energy efficiency project developers, investors, banks, condominiums, researchers, etc. It is professional expertise for government in issues related to the green energy development strategy and legislation. The Fund continuously analyses the situation, identifying barriers and proposing solutions to the Government’s responsible agencies. The Fund also established a financing mechanism through a revolving lending tool, which finances energy efficiency and renewable energy projects through the banks or credit organizations.

The Government of Armenia requested a Scaling-Up Renewable Energy Program in Low Income Countries (SREP) to support development of viable renewable energy technologies and projects, for several of which detailed technical assessments, pre-feasibility or feasibility studies are available. The objective of the SREP is to pilot and demonstrate the economic,

social and environmental viability of low carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy. In response to the request for financial assistance made on behalf of the Armenia Renewable Resources and Energy Efficiency Fund, the International Bank for Reconstruction and Development (World Bank) extended a grant in an amount not to exceed three hundred thousand USD (US\$300,000).

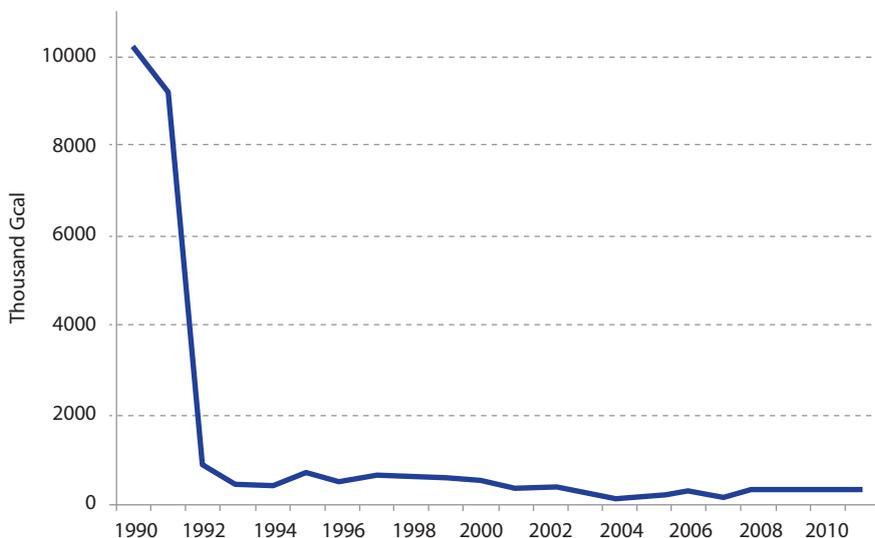
The project development objective is to support the Armenian government in preparation of a renewable energy investment plan for consideration by the SREP for funding. The project will help the Government to try securing financing from the SREP for identified priority renewable energy projects, which will help to improve energy security and power supply reliability through development of new power generation / heating projects. Recently, during a high level meeting, the steering committee adopted a 40,000,000 USD loan for SREP Armenia.

6. District Heating

Until the economic and energy crisis of the 1990s, the district heating system in Armenia supplied nearly all heating and hot water to residential and public buildings; 35% of the housing stock and 90% of residential and public buildings in the country were supplied from district heating systems, operating on natural gas and with mazut as a reserve fuel.

Heat supply for the housing sector was provided by both large heat sources, thermal power plants (TPPs) and regional heat plants (35%), and by medium- and small-scale heat plants (65%).

Figure 18: Heat Production by District Heating Systems in the RA



Source: MENR for 1992 to 2002 and "Gazprom Armenia" CJSC for 2003 to 2011

The district heating system had actually collapsed; heat generation by district heating systems in 2005 fell to about 2.5% of that in 1990.

- There were no regulations or authorised body designated responsibility for the sector, no targeted social support and no financial support schemes;
- Public reliance on individual heating solutions for heating and hot water increased;
- The gas supply system was expanded and safety requirements were relaxed for using natural gas for heating purposes in multi-storey residential buildings.

The government's policy is to encourage the development of cogeneration in market conditions, without crosswise subsidies.



Annex I

Table 22: Bilateral Investment Protection Agreements of Armenia

Partner	Date of Signature	Date of Ratification
Argentina	16 April 1993	27 September 1993
Austria	17 October 2001	9 October 2002
Belarus	26 May 2001	21 November 2001
Belgium/Luxembourg	7 June 2001	20 February 2002
Bulgaria	10 April 1995	29 August 1995
Canada	8 May 1997	17 March 1999
China	4 July 1992	6 October 1992
Cyprus	18 January 1995	12 June 1996
Egypt	9 June 1996	8 December 2005
Finland	5 October 2004	27 February 2007
France	4 November 1995	5 August 1996
Georgia	4 June 1996	18 February 1997
Germany	21 December 1995	23 June 1997
Greece	25 May 1993	13 October 1993
India	23 May 2003	27 April 2004
Iran	6 May 1995	14 November 1995
Israel	19 January 2000	21 March 2001
Italy	23 July 1998	11 October 2000
Kazakhstan	6 November 2006	01 August 2010
Kuwait	25 June 2010	-
Kyrgyzstan	4 July 1994	29 August 1995
Latvia	7 October 2005	27 February 2007
Lebanon	1 May 1995	29 August 1995
Lithuania	25 April 2006	27 February 2007
Qatar	22 April 2002	23 October 2002
Romania	20 September 1994	11 October 1995
Russian Federation	15 September 2001	2 December 2005
Sweden	8 February 2006	01 May 2005

Partner	Date of Signature	Date of Ratification
Syria	17 June 2009	26 April 2010
Switzerland	19 November 1998	9 October 2002
Tajikistan	22 April 2002	4 November 2002
The Netherlands	10 June 2005	2 December 2005
Turkmenistan	19 March 1996	-
Ukraine	7 October 1994	16 January 1996
United Arab Emirates	20 April 2002	4 November 2002
United Kingdom	27 May 1993	13 October 1993
United States	23 September 1992	26 September 1995
Uruguay	6 May 2002	25 March 2003
Vietnam	1 February 1993	28 April 1993
Total	39	35

Source: Ministry of Energy and Natural Resources of RA



Annex II

Table 23: Bilateral Treaties (Agreements) on Avoidance of Double Taxation

Country	Signed	Entered into Force
Austria	27 February 2002	1 April 2004
Belarus	19 July 2000	7 November 2001
Belgium	7 June 2001	1 October 2004
Bulgaria	10 April 1995	01 December 1995
Canada	26 June 2004	29 December 2005
China	5 May 1996	30 November 1996
Estonia	13 April 2001	23 January 2003
France	9 December 1997	1 May 2001
Georgia	18 November 1997	03 July 2000
Greece	12 May 1999	19 June 2002
India	31 October 2003	9 September 2004
Iran	6 May 1995	10 July 1997
Italy	05 May 2005	05 May 2008
Latvia	15 March 2000	26 February 2001
Lebanon	16 September 1998	13 December 2000
Lithuania	13 March 2000	26 February 2001
Moldova	6 October 2002	19 December 2004
Netherlands	31 October 1999	22 November 2002
Poland	14 July 1999	28 February 2005
Qatar	22 April 2002	06 November 2007
Romania	25 March 1996	25 August 1997
Russia	28 December 1996	17 March 1998
Syria	25 June 2005	11 December 2006
Cyprus	17 January 2011	19 September 2011
Thailand	7 November 2001	12 November 2002
Turkmenistan	5 June 1997	30 December 1999
UAE	20 April 2002	19 December 2004
Ukraine	14 May 1996	25 November 1996

Country	Signed	Entered into Force
United Kingdom of Great Britain and Northern Ireland	13 July 2011	21 February 2012
Spain	16 December 2010	21 March 2012
Hungary	10 November 2009	26 October 2010
Kuwait	3 November 2009	12 April 2013
Swiss	12 June 2006	7 November 2007
Czech	6 July 2008	16 July 2009
Finland	16 October 2006	30 December 2007
Kazakhstan	6 November 2006	19 January 2011
Luxembourg	23 June 2009	9 April 2010
Germania	---	24 November 1981
Slovenia	11 October 2010	23 April 2013
Croatia	22 May 2009	18 February 2010
Ireland	14 July 2011	19 December 2012

Source: Ministry of Energy and Natural Resources of RA



Annex III

Table 24: Membership in International Organizations

Member	
APCTT	Asian and Pacific Centre for Transfer of Technology
BSEC	Black Sea Economic Cooperation
BSTDB	Black Sea Trade and Development Bank
CCC	Customs Cooperation Council
CIS	Commonwealth of Independent States
CoE	Council of Europe
EAPC	Euro-Atlantic Partnership Council
EBRD	European Bank for Reconstruction and Development
ECT	Energy Charter Treaty
IFC	International Finance Corporation
IMF	International Monetary Fund
ISO	International Organization for Standardisation
ITU	International Telecommunication Union
IPU	Inter-Parliamentary Union
FAO	Food and Agriculture Organization
ECE	Economic Commission for Europe
ICRM	International Red Cross and Red Crescent Movement
IFRCS	International Federation of Red Cross and Red Crescent Societies
IOM	International Organisation for Migration
OPCW	Organization for the Prohibition of Chemical Weapons
PFP	Partnership for Peace
WFTU	World Federation of Trade Unions
ESCAP	Economic and Social Commission for Asia and the Pacific
IAEA	International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development
ICAO	International Civil Aviation Organization
IDA	International Development Association
IFAD	International Fund for Agricultural Development

Member	
ILO	International Labour Organization
IOS	International Organization for Standardization
ICDO	International Civil Defence Organization
ICAO	International Civil Aviation Organization
INTOSAI	International Organization of Supreme Audit Institutions
INTERPOL	Interpol
IOC	International Olympic Committee
ITU	International Telecommunication Union
OSCE	Organization for Security and Cooperation in Europe
RAMSAR	Ramsar Convention on Wetlands
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNIDO	United Nations Industrial Development Organization
MIGA	Multilateral Investment Geographic Agency
UPU	Universal Postal Union
WCO	World Customs Organization
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WMO	World Meteorological Organization
World Bank / IDA	World Bank / International Development Association
WTO	World Tourism Organization
WTO	World Trade Organization

Source: Ministry of Energy and Natural Resources of RA



Annex IV

NON-CONFORMING MEASURES

COUNTRY: **ARMENIA**

MEASURES

Constitution of the Republic of Armenia of July 1995;
Law on Real Estate Property of 1996;
Foreign Investment Law of 1994, Art. 20.

SECTOR

National Economy.

LEVEL OF GOVERNMENT

National.

DESCRIPTION

Foreign natural persons, stateless natural persons and foreign legal persons do not enjoy the right to own land on the territory of Armenia.

According to Law any lawfully established legal entity in Armenia enjoys the same status as national legal entities, and is therefore entitled to acquire ownership rights over land.

According to Article 20 of the Foreign Investment Law, property may be leased to foreign investors and enterprises with foreign investment on the basis of lease contracts.

PHASE-OUT

No plans at present.

OTHER EXCEPTIONS

None.



Annex V

LIST OF ABBREVIATIONS

RA – The Republic of Armenia

AMD – Armenian Dram

ENA – Electricity Networks of Armenia

GDP – Gross Domestic Product

CIS – Commonwealth of Independent States

EU – European Union

VAT – Value Added Tax

JSC – Joint Stock Company

LLC – Limited Liability Company

LFI – Law on Foreign Investments

IT – Information Technology

R&D – Research and Development

USD – United States Dollar

ICSID – International Convention of Investment Disputes

FEZ – Free Economic Zone

FDI – Foreign Direct Investment

BIT – Bilateral Investment Treaty

WIPO – World Intellectual Property Organization

MFN – Most-Favoured-Nation Treatment

MoU – Memorandum of Understanding

OSCE – Organization for Security and Cooperation in Europe

PSRC – Public Services Regulatory Commission

NATO – North Atlantic Treaty Organization

IPPAS – International Physical Protection Advisory Service

IP – Investment Plan

HPP – Hydro Power Plant

SHPP – Small Hydro Power Plant

TPP – Thermal Power Plant

NPP – Nuclear Power Plant

ANPP – Armenian Nuclear Power Plant

ANRA – Armenian Nuclear Regulatory Authority

CCGT – Combined Cycle Gas Turbine

CCTP – Clean Coal Technology Program

UGSF – Underground Gas Storage Facility

IAEA – International Atomic Energy Agency

Mtoe – Million Tonnes of Oil Equivalent

Ktoe – Kilotonnes of Oil Equivalent

R2E2 – Armenian Renewable Resources and Energy Efficiency Fund

SREP – Scaling-Up Renewable Energy Program



Annex VI

LIST OF INFORMATION SOURCES

Armenia country profile, 2012, EBRD

Report on Electricity Supply Reliability Project, World Bank, May 4, 2011

Investment Guide, Armenia 2014

Commercial Laws of Armenia, June 2012, European Bank

Doing Business 2014, Armenia, The World Bank

Fostering Entrepreneurship in Armenia, The World Bank

Strategy of Export-Led Industrial Policy of Republic of Armenia, Ministry of Economy of Republic of Armenia, Yerevan 2011

Renewable Energy in Armenia, Working paper by Areg Gharabegian, Artak Hambaria, Morten Søndergaard, Kenell Touryan

Wind Power Development in Armenia, 2008, Armenian Renewal Resources and Energy Efficiency Fund

Consulted web sites:

<http://www.president.am>

<http://www.parliament.am>

<http://www.court.am/>

<http://www.investinarmenia.am>

<http://data.worldbank.org>



Annex VII

ORGANIZATIONS MET BY THE ENERGY CHARTER SECRETARIAT REVIEW TEAM

Ministry of Energy and Natural Resources of the Republic of Armenia

Armenian Development Agency

Public Services Regulatory Commission of the Republic of Armenia

Electro Power System Operator CJSC

Electric Networks of Armenia CJSC

Armenia Renewable Resources and Energy Efficiency Fund

ArmRusGasProm CJSC

Asian Development Bank (Yerevan office)

The World Bank (Yerevan office)

NORAVANK Foundation

Tetra Tech



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