Chapter X

# AZERBAIJAN

Ismail Askerov and Kamal Huseynli<sup>1</sup>

## I INTRODUCTION

Azerbaijan is an oil rich country in the Southern Caucasus region, which has tremendous potential in the field of renewable energy. According to the Ministry of Energy of the Republic of Azerbaijan (MERA), renewable energy sources are estimated to be able to generate 27,000MW, comprised 23,000MW of solar energy, 3,000MW of wind energy, 520MW of mountain rivers and 380MW of bioenergy potential.

The use of renewable energy sources is afforded a great level of importance, although Azerbaijan has been heavily in exporting its natural oil and gas resources. Following the oil price shocks of 2014–2015 and 2020, the government has recognised the need to shift reliance from traditional energy sources to renewable energy sources in an attempt to diversify the country's economy.

Major steps have been taken in Azerbaijan to accelerate the progress of renewables. This could be evidenced by number of pilot projects, as well as new laws being introduced into the existing legal framework governing renewable energy sources. Expertise has been sought from various channels – such as international financial institutions – in the pursuit of aiding the country to achieve its objectives.

Azerbaijan's geographically advantageous location offers an opportunity to capitalise on renewable energy sources. There is a considerable amount of solar, wind, bioenergy and hydro resources present throughout Azerbaijan.

According to MERA, the total capacity of power generated in Azerbaijan is 7,542.2MW, while the power plant capacity on renewable energy sources is 1,304.5MW. This figure contains large hydropower plants and accounts for 17.3 per cent of the total capacity. The capacity of hydropower is 1,154.8MW (consisting of 30 stations, 20 being small hydropower plants); wind power capacity is 66.1MW (seven stations, two being hybrid); solar energy capacity is 45.9MW (12 stations, two being hybrid); and bioenergy capacity is 37.7MW (two stations, one being hybrid).

In its pledge to contribute to global climate change initiatives, Azerbaijan has taken part in numerous international conferences. Under the Paris Agreement, Azerbaijan has set a target to keep a 35 per cent reduction in greenhouse gas emissions by 2030, in comparison with the base year (1990). By the conclusion of the 26th United Nations Climate Change Conference in Glasgow in 2021, Azerbaijan had adopted a new voluntary commitment to

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Ismail Askerov is a senior partner and Kamal Huseynli is a senior lawyer at MGB Law Offices.

create a zero emissions zone in the liberated territories and reduce greenhouse gas emissions to 40 per cent by 2050. To be able to realise the goals, MERA has set a target to increase the share of renewable energy sources in the generation of electricity to 30 per cent by 2030.

## II THE YEAR IN REVIEW

From 2019 onwards, there has been a gradual increase in the field of renewable energy sources in Azerbaijan. Essentially, this has been associated with the implementation of several pilot projects taking place with large corporations.

In early 2020, implementation agreements for pilot projects were signed between MERA and ACWA Power from Saudi Arabia and Masdar from the United Arab Emirates. Under these agreements, a wind power plant with a capacity of 240MW is to be constructed by ACWA Power and a solar power plant with a capacity of 230MW is to be constructed by Masdar. These energy projects will be instrumental in supporting Azerbaijan's aim of reducing greenhouse gas emissions and increasing the share of renewable energy sources as envisioned by MERA. Commercial operations of the implementation agreements signed with ACWA Power for the construction of wind plants commenced in 2022, while commercial operations in relation to the implementation agreements signed with Masdar for the construction of the Garadagh solar power plant are expected to commence from 2023.

Another notable development is the implementation agreement signed between MERA and BP in June 2021 for the construction of a 240MW solar power plant in the Jabrayil region. This agreement serves to establish a green energy zone in the Karabakh region.

In early June 2022, implementation agreements for new multibillion manat projects were signed between MERA and Masdar. Under these agreements, a wind power plant with a capacity of 1GW, a solar power plant with a capacity of 1GW, and integrated offshore wind and green hydrogen plants with a capacity of 2GW are to be constructed by Masdar. It is expected that the power generated from offshore wind development in the Caspian Sea will be exported through Turkey to Europe in the future.

To determine the optimal limit of new capacity to be connected to the electricity grid, MERA has invited the German consulting company VPC to help achieve its goal of increasing the share of renewable energy sources to 30 per cent. In accordance with the VPC's report, the installation of capacity of 1,500MW would be needed to achieve 30 per cent by 2030.

These developments can be seen as the foundation for the first foreign investment-based renewable power plants with substantial output capacities.

Azerbaijan's stance to actively promote the continuing growth of the renewable energy sources field is evident from its legislation. Recently, new laws have been introduced to improve the efficiency of other laws in this area.

Azerbaijan's market of renewable energy sources has only recently started to grow. Therefore, to date, there have not been any notable mergers or other significant market activities happening in this area.

# **III THE POLICY AND REGULATORY FRAMEWORK**

#### i The policy background

In light of the foregoing, it seems that the economy is being diversified and the development of renewable energy sources is being expedited. The strengthening of the use of renewable energy sources is one of the main goals being implemented as a part of the energy security policy of the Azerbaijani government.

The government began the process of economic diversification after the financial crisis of 2007–2008 and oil shock prices of 2014–2015. In 2012, the government produced a development strategy under the title 'Azerbaijan 2020 – Look into the Future'. The aim of the strategy is to expand opportunities and implement stimulating measures to speed up the use of renewable energy sources.

Furthermore, in December 2016, in response to the decline of oil prices and subsequent recession in Azerbaijan, the President signed a decree adopting strategic road maps on national economy and 11 individual sectors. This road map called for increasing the share of renewable energy, the establishment of a wholesale market and a gradual transition to a liberalised market.

In May 2019, to further boost reform efforts, the Order of the President on the Acceleration of Reforms in the Energy Sector was adopted. Reiterating the 2016 market reform ideas, it sets out timetables for the preparation of regulations and laws for the electricity sector.

Azerbaijan is at the early stages of progress in the renewable energy sources area. In the past, the lack of a robust legal framework with sufficient political support mechanisms has precluded it from achieving this goal. However, under the current state policy and new regulatory framework (which operates on the basis of either an auction system or direct negotiations with the government), support mechanisms ranging from guaranteed tariffs to additional tax concessions and other kinds of support mechanisms to promote foreign direct investment, active consumers and scientific research are envisaged. Similarly, certain incentive measures comprised of guaranteed offtake, guaranteed connection, priority in distribution and transmission, and long-term land leases are being proposed for investors in renewable energy sources projects in Azerbaijan.

Other support mechanisms are observed under the investment agreements in pilot projects. The granting of an investment right is one of them, which includes:

- *a* the exclusive right for the project company to the benefits of the plant, including the right to sell energy generated within Azerbaijan;
- *b* the exclusive right to the project site for the purposes of the development of a plant, under and in accordance with the land lease agreement; and
- *c* the rights provided under the investment promotion certificate.

The holders of an investment promotion certificate are granted tax and customs exemptions. Payment undertaking by the government and a governmental currency convertibility obligation are the other two supporting mechanisms.

The Azerbaijani government is also involved in ensuring that problems are raised quickly and efficiently with governmental authorities if an energy producer makes a notification concerning unreasonable and discriminatory behaviour of the governmental authorities against the energy producer in question. In addition, the government prompts state agencies to consider the energy producer's application in respect of the governmental authorisations, and to grant, issue or re-issue the governmental authorisations in a timely manner. Under the investment agreement, further support mechanisms are provided, including:

- *a* a wind measurement campaign (in wind projects) under which the energy producer shall be entitled to propose a revised technical configuration for the plant depending on the wind measurement results; and
- *b* currency de-pegging, under which the producer shall be entitled to consult with the government on the effect of such in Azerbaijan.

Currently, the government is actively engaged in the promotion of many modern technologies regarding renewable energy sources. In particular, it has been in close cooperation with many international companies – such as BP and KBR (United Kingdom), Masdar (United Arab Emirates), and Equinor (Norway) – to discuss the possibilities of producing green hydrogen using advanced technologies. Offshore wind power could be used to make this a reality as preliminary studies have shown that the wind potential in the Caspian Sea is estimated at 157GWh.

According to the Minister of Energy Parviz Shahbazov, the plans for the next five years until 2026 is to create hydropower plants and small hydropower plants with production capacities of at least 200MW and a network with an additional capacity of 10,00 kW for active consumers.

The President signed an order for the establishment of a green energy zone on 3 May 2021 in the Karabakh region. The agreement to establish this zone was signed between MERA and the Japanese company TEPSCO. The project envisages to develop modern and energy efficient technologies to realise renewable energy projects' potential (including solar, wind, hydro, geothermal and bioenergy) in Azerbaijan.

The Asian Development Bank has provided support to Azerbaijan in a pilot project titled Knowledge Exchange and Technical Assistance on the Development of Floating Solar Panels System. The project intends to establish an up to 100kW capacity photovoltaic system in Lake Boyukshor. According to the acting director of the Azerbaijan Renewable Energy Agency, Tabriz Ammayev, there will be a growing interest in the private sector in this area as a result of pilot projects for the installation of solar panels on the water surface. The implementation of this project is aimed to be completed by March 2023.

# ii The regulatory and consenting framework

There are five main laws regulating the energy sector:

- *a* the Law on Energy dated 24 November 1998;
- *b* the Law on Electro Energetics dated 3 April 1998;
- c the Law on Electrical and Thermal Power Plants dated 28 December 1999 (the ETPP Law);
- *d* the Law on Utilisation of Renewable Sources in the Electricity Production dated 31 May 2021 (the URSEP Law); and
- e the Law on Efficient Use of Energy Resources and Effectiveness of Energy dated 9 July 2021 (the EUER Law).

When the Law on Energy was adopted, the development of renewables was one of the early-stage targets set to be achieved. The Law on Electro Energetics determined the list of the actors of energy markets, including state electro-energetics company; private generators; energy supply companies; and energy consumers.

Similar to the Law on Electro Energetics, the ETPP Law emphasised that state would allow private generators to take part in the energy market. Under this law, the energy produced by private energy producers can either be used for private purposes, or sold to public electro-energetics companies or energy supply companies.

Two new substantial laws were passed in 2021, the most vital of which is the URSEP Law, which was the first act to solely pay attention to renewables. This legislation contains principles under which the renewable energy industry must be regulated, the support mechanisms offered to foreign investors, and the roles and responsibilities of the state and generators. The EUER Law envisages the energy efficiency policies of the government.

MERA holds the central executive authority in the energy field in Azerbaijan. The implementation of presidential orders and decrees as well as state policy issued by the government are among its principal responsibilities.

The Strategic Road Maps ultimately led to the establishment of the Azerbaijan Energy Regulatory Agency (AERA) under MERA in 2017 by Presidential Decree No. 1750. AERA regulates relations between producers, suppliers, transmission system operators, distributors and consumers in the Azerbaijani energy sector.

The duties of AERA include:

- *a* establishing control over current energy legislation and legislation on the protection of consumers' rights;
- *b* ensuring the development of incentives to increase the investment climate in the field, as well as preparation of supporting mechanisms to attract investment by taking account of international experience;
- *c* considering disputes between producers, suppliers, transmitters, distributors and consumers;
- *d* making proposals on the formation of price (tariff) policy in the relevant field; and
- *e* taking measures to create a healthy competitive environment in the relevant field and increase the efficiency of energy production.

To achieve its objectives, MERA makes proposals for restructuring measures, undertakes energy market analysis and develops the investment climate. Renewable energy policy is also overseen by MERA.

The duties of the Azerbaijan Renewable Energy Agency, established in 2020, with respect to renewable energy sources include, but are not limited to, the following:

- *a* ensuring the fulfilment of Azerbaijan's obligations on issues regulated by the international agreements of Azerbaijan and falling within its scope;
- *b* determining the potential of renewable energy sources in different regions of Azerbaijan and the directions for their use;
- *c* implementing projects for new energy facilities;
- *d* taking measures for the protection and monitoring of new energy facilities to assess their potential for the use of renewable energy;
- *e* making proposals to MERA on the direction of development and application of innovation in the relevant field; and
- *f* participating in measures taken to ensure environmental safety in the use of renewable energy sources.

In 2005, the Tariff Council was established, which is involved in regulating and determining wholesale and retail tariffs for gas, electricity, refined petroleum products and central heating.

Currently, the Tariff Council implements state regulations on service fees and prices related to public services, as well as their collection, by cooperating with public organisations and local or executive bodies.

There are four types of activity in Azerbaijan in the field of renewable energy sources for which regulatory approvals are required. These are import and export of electricity; electricity transmission; electricity distribution; and production of electricity in excess of the capacity established by the relevant executive authority. All permits pertaining to these activities are granted by MERA.

The process for granting permits to use renewable energy facilities includes a number of steps and responsibilities dispersed across various ministries and executive authorities.

First, a land use permit must be obtained from the relevant executive authority. Second, depending on the region where the renewable energy project will be constructed, a construction permit must be obtained from the relevant body determined by the President. For example, if the renewable energy project is to be constructed in the administrative territory of Baku or in the administrative territories and cities covered by the Karabakh and East Zangazur economic regions, the State Committee on Urban Planning and Architecture grants the construction permit. In relation to construction objects in other administrative territorial units, local executive authorities grant the construction permit.

Third, MERA grants an electricity generation permit. Fourth, AERA issues a commissioning act for power generation and a power purchase agreement (PPA) to be concluded with Azerenerji OJSC, which is a state electro-energetics company. Finally, an electricity connection permit is granted by either Azerenerji OJSC or Azerishiq OJSC, which is a state-owned energy supplier company, depending to which network the power plants will be connected.

To obtain a permit for the import and export of electricity, an applicant shall submit an application in the prescribed form (whether in person or electronically) to MERA.

Upon review of the project documents, MERA shall issue a permit (i.e., sign a contract or take any other action required of the applicant) or adopt an administrative act refusing to issue a permit.

The procedure for obtaining a permit for all the above-mentioned activities are regulated by the Law on Licenses and Permits and the Law on Electro Energetics. However, to obtain a permit for the production of electricity in an excess capacity, consent from the Cabinet of Ministers is required. An application by MERA shall be submitted to the Cabinet of Ministers for approval.

The main stakeholders involved in renewable energy developments are MERA and Azernerji OJSC. Their regulatory roles are set forth in legislation. Under the recent pilot projects, MERA signs the investment agreement on behalf of the government and Azerenerji OJSC acts as the guaranteed purchaser under the PPA.

One of the main legislative acts regulating environmental matters for renewable energy developments is the Law on Environmental Impact Assessment dated 12 June 2018. An environmental impact assessment is to be conducted upon developing a project concerning wind power plants with a capacity of more than 1MW as well as projects concerning solar, water, biogas, geothermal and electric power stations with a capacity of more than 10MW for the purposes of:

- *a* implementing measures to discover possible adverse impacts on the environment and human health;
- *b* assessing their scale and intensity; and

*c* eliminating or reducing any negative impacts.

While carrying out the proposed environmental impact assessment, impacts on flora and fauna and material cultural heritage, among others, are also considered.

There is a separate framework that applies to dealing with endangered species. Endangered species are protected by the Law on Specially Protected Natural Areas and Objects. This legal regime ensures that these objects are allocated in the specially protected natural areas, and prohibits economic and any other activities that violate the natural state of the environment.

# IV RENEWABLE ENERGY PROJECT DEVELOPMENT

# i Project finance transaction structures

A typical ownership structure in this sphere is created through a special purpose vehicle. In this way, the parent company is able to transfer the financing to the subsidiary company. As seen from recent pilot projects, this is done for the foreign investor (operator) company to be able to participate in renewable energy projects. As such, the main route is by creating a separate subsidiary company and complying with the registration requirements of the prevailing legislation.

The principal pieces of documentation used during renewable project finance include, among others:

- *a* common terms agreements;
- *b* loan agreements;
- *c* project funds and share retention agreements;
- d accounts agreements;
- *e* intercreditor agreements; and
- f security agreements.

This list is subject to change as more developments take place in this field.

The security structures used include:

- *a* the mortgage of the power plant to be built;
- *b* a pledge of the shares of the borrower company;
- *c* a pledge of the funds in the bank account of the borrower company; and
- *d* an assignment of rights both against the government and the guaranteed buyer (i.e., Azerenerji OJSC).

The principal participants in renewable energy projects are the Azerbaijani government, Azerenerji OJSC, the foreign investor (both the parent and subsidiary companies), the security agent and the institutional banks or lenders. Currently, there are four main lenders supporting the implementation of the pilot projects in the renewable energy sector: the European Bank for Reconstruction and Development (EBRD), the Asian Development Bank, the Abu Dhabi Fund for Development, and the Japan International Cooperation Agency.

One of the two most prominent examples of the pilot projects being implemented in Azerbaijan are the ones signed between ACWA Power (the Khizi-Absheron wind power plant) and Masdar (the Garadagh solar power plant). The former will be mainly financed by the EBRD, whereas the latter will be financed by all the above-mentioned lenders.

# ii Power purchase

Currently, Azerbaijan does not have specially designated institutions that purchase renewable energy. As the energy sector's main subsectors are state owned and monopolised, as at June 2022, there is only one institution that purchases renewable energy: Azerenerji OJSC.

The underlying route to use and generate the energy sources is to obtain permit from MERA. As discussed above, according to the Law on Licenses and Permits, special permits may be granted for the import and export of electricity, electricity transmission, electricity distribution and the production of electricity in an excess capacity.

There is no active market for environmental attributes. However, as seen from recent developments, there has been a reference to emission credit within PPAs that might hint to the potential development of environmental attributes in the near future.

As Azerenerji OJSC is the sole buyer, there is no active corporate power purchase market that has yet been established in any form. The same could apply to the wholesale market arrangements for the sale of power, as Azerenerji OJSC purchases the energy and passes to the operator, which is itself or, in some cases, Azerishiq OJSC (a state-owned company), depending on the connection grid.

# iii Non-project finance development

We have not recently seen any developments in the non-project finance area.

# V DISTRIBUTED AND RESIDENTIAL RENEWABLE ENERGY

For Azerbaijan, the specified limit for electrical installation is 150kW. If it goes beyond the stated limit, it is necessary to obtain a permit from MERA. There is a decision of Cabinet of Ministers in this regard (specifically, on the issuance of commissioning certificates for electrical installations with a capacity of more than 150kW). However, to date, there is no established market for distributed energy and residential renewable energy, nor have there been any significant developments in this area.

# VI RENEWABLE ENERGY SUPPLY CHAINS

In Azerbaijan, the three main types of renewable energy used are solar, hydro and wind. The main types of production used in Azerbaijan in the course of the most recent deals in renewable energy projects are solar panels and wind turbines. There are special policies and government mechanisms that provide support for renewable energy manufacturing, as discussed above.

To promote renewable electricity generation and alternative energy production, the government offers tax and tariff exemptions. Most remarkably, for a period of seven years, entrepreneurs and qualifying companies are exempt from value added tax for technical equipment and facilities, as well as being exempt from having to pay customs duties. Additionally, by law, they can also be exempt from paying property, land and half of their income tax.

The tariffs are set out below.

Туре	Small hydropower	Wind power	Other renewable energy
Manat per kilowatt hour	0.05	0.055	0.057

A purchase tariff does not apply to a large hydropower. Since 2021, the wholesale electricity tariff in Azerbaijan has been established at 0.066kWh.

It is encouraging that the government's current investment policy is to attract foreign investors and privatise the energy supply chain.

There is no known localisation requirement in relation to renewable energy in Azerbaijan. To reiterate, certain guarantee and payment undertakings are provided by the government to the interested foreign investor or investors and Azerenerji OJSC purchases the energy.

#### VII OTHER KEY CONSIDERATIONS

In relation to the operations and maintenance landscape, some projects are still ongoing and there is no such developed market in Azerbaijan.

Steps taken towards increasing multi-technological developments have been prevalent in Azerbaijan over the past few years. The government has been in active cooperation with many international organisations and companies, as discussed above. The specific stance of the government in this direction is noticeable from its Azerbaijan 2030: National Priorities for Socio-economic Development document. Under the framework of this document, special attention is paid to renewable energy sources usage as well as the expansion of green technologies, both for current and future periods.

There have been no merger and acquisition developments regarding renewable energy projects, as this area is fairly new in Azerbaijan compared to other countries. Such activities are regulated by the Civil Code.

The same is also true for repowering, as there is no specific framework or relevant practice in this regard. Recommissioning, by contrast, is regulated by the Urban Planning and Construction Code, where there is a reference to the demolition of construction facilities. Reference could also be made to the pilot projects, which are still in the process of being developed, for any additional matters in relation to decommissioning.

#### VIII CONCLUSION AND OUTLOOK

Azerbaijan has made an exemplary contribution to the renewable energy sources field. After years of stagnation in the sector of renewable energies, the government has begun to realise its alternative energy potential by implementing state policies, which proved to be influential in assisting the decision-making process by relevant state institutions such as MERA to facilitate developments in this area.

Nevertheless, there are still many intricacies involved in carrying out renewable energy projects in Azerbaijan. The legislation involving renewable energy sources is fairly new and there are still some nuances associated with it, as there are not many relevant implementing practices in this area. Acknowledging all the peculiarities of the sector, Azerbaijan has chosen to consult with many international institutions and organisations in its mission to keep improving this area and make it function effectively.

Taking into account relevant recommendations from international experts, Azerbaijan has accepted suggestions to attract more foreign investment by using pilot projects to gain expertise from key players in the sector.

The whole process of getting the relevant permits from authorised ministries and executive authorities is being simplified, and, in addition, the energy market should be

reformed. The government has shown a positive attitude in this sense by taking steps to minimise state participation and attempting to shift its burden to the private sector, making it more appealing for a potential foreign investor to invest in renewable energy projects in Azerbaijan. Currently, the EBRD and a consortium of international consultants are involved in the development of a legal framework to regulate the production of electrical energy from renewable sources as well as to set rules concerning the conduct of auctions for granting licences for renewable energy projects. Such regulations and rules, once enacted, will boost the interest of potential investors in the sustainable energy source sector in Azerbaijan.

By adopting a renewable energy target of 30 per cent to achieve by 2030, Azerbaijan has demonstrated a firm stance in its pledge to honour its obligations under the Paris Agreement. In doing so, it has succeeded in providing long-term clarity for potential investors and facilitating renewable energy projects in the process. These targets are seen as significant and challenging by representing the envisioned trajectory of market growth if backed by supportive policy.

Provided that all the above-mentioned recommendations are followed and regulatory deficiencies are cured within a reasonable time, Azerbaijan will continue to make a name for itself in the renewable energy sources field.

# ISMAIL ASKEROV

### MGB Law Offices

Ismail Askerov is a founding partner of MGB Law Offices, which has been active in Azerbaijan since 1995. Ismail regularly advises major corporations and multinational financial institutions on investment regimes, financing transactions, and conventional and non-conventional energy industries-related regulatory issues. Ismail also has significant experience in natural resource matters, corporate transactions and commercial property. His most recent experience includes advising and due diligence in respect of financing the borrower operating the major solar plant in Azerbaijan by a syndicate of international lenders.

He has also been engaged in advising the European Bank of Reconstruction and Development and a consortium of international consultants in connection with the Azerbaijani law and regulatory aspects of the development of the legal framework for the regulation electrical energy production from renewable sources.

As a leading lawyer, Ismail has received praise for his wide-ranging legal expertise, with his 'wealth of experience, extremely broad perspective and good all-round capability.' He is known for his 'significant experience in handling corporate and contractual law matters' according to *Chambers* and *Legal500*.

## KAMAL HUSEYNLI

## MGB Law Offices

Kamal Huseynli has an extensive experience in advising on energy, corporate and banking matters.

Kamal advises multinational and international financial institutions on conventional and non-conventional energy projects including project finance and secured loan financing in Azerbaijan. His most recent experience includes advising and due diligence in respect of financing the borrower operating the major solar plant in Azerbaijan by a syndicate of international lenders.

Kamal has also been assisting the European Bank for Reconstruction and Development and a consortium of international consultants in connection with Azerbaijani law and regulatory aspects of the development of a legal framework to regulate the production of electrical energy from renewable sources as well as to set rules concerning the conduct of auctions for granting licences for renewable energy projects.

## MGB LAW OFFICES

15 Rasul Rza Street, 28-30 Baku AZ1000 Azerbaijan Tel: +994 12 493 6669 / 493 2939 Fax: +994 12 4987132 ismail.askerov@mgb-law.com kamal.huseynli@mgb-law.com www.mgb-law.com