



Organization for Security and
Co-operation in Europe
Office in Baku



Ministry of Industry and Energy



EU Twinning Project "Legal Approximation
and Structural Reform in the Energy Sector of Azerbaijan"

Conference Report

Renewable Energy: International Best Practices and Prospects for the Development in Azerbaijan

***Landmark Rotunda Conference Centre, Baku, Azerbaijan
12-13 October 2009***

Point of contact at the OSCE Office in Baku:

Mr. Robert Zahn
Economic and Environmental Officer
Email: robert.zahn@osce.org

Table of contents

I. Introduction	3
II. Report on Proceedings	
Day 1	
Opening remarks	4
Session I: Renewable Energy – The International Perspective	5
Session II: Renewable Energy in Azerbaijan	5
Session III: Wind Energy in Azerbaijan – Natural Conditions and Practical Application	8
Day 2	
Session IV: Prospects and Challenges for Promoting Renewable Energy in Transition Countries	11
Session V: Small Hydro Power Plants, Wind and Solar Energy – Further Pilot Projects	11
Final Discussion and Comments	12
Concluding Remarks by the OSCE Office in Baku	13
Recommendations	14

I. Introduction

The topic of renewable energy (RE) has gained greater importance in Azerbaijan in recent years. This is evident, for instance, in Azerbaijan's accession to the newly established *International Renewable Energy Agency (IRENA)* on 10 June 2009; in the decree by H.E. President Ilham Aliyev to create of a *National Renewable Energy Agency* on 16 July 2009; as well as in the adoption of the *State Programme on the Use of Alternative and Renewable Energy Sources in the Azerbaijan Republic*, approved by Presidential Decree on 21 October 2004. It is also important to note that in the extended meeting of the Cabinet of Ministers, on 16 October 2009, the President of the Republic of Azerbaijan proposed to announce 2010 as a Year of Ecology, with a special focus on alternative sources of energy. However, to date there are only a few examples of the practical application of renewable sources of energy other than hydro power.

In order to contribute to the development of the RE sector in Azerbaijan, the OSCE Office in Baku (in co-operation with the Ministry of Industry and Energy (MoIE) and the EU Twinning Project on *Legal Approximation and Structural Reform in the Energy Sector of Azerbaijan*) organized a conference on the topic of RE on the 12th and 13th of October 2009. The event was part of the ongoing efforts of the OSCE Office in Baku to strengthen a multi-stakeholder dialogue on energy policy in Azerbaijan and to promote wider application of renewable sources of energy. The conference addressed relevant Azerbaijani Government agencies, civil society organizations, private sector representatives from Azerbaijan and abroad, as well as international organizations. In total, more than 80 participants attended the conference.

The event had three main objectives:

- to share international best practice for developing renewable sources of energy
- to give a comprehensive overview of the current state of the RE sector in Azerbaijan, including the legal, political and economic conditions, and to provide an opportunity to discuss possible future developments
- to bring together the relevant actors in Azerbaijan and thus provide an opportunity for networking and information exchange

The objectives were reflected in the conference programme, which included the following sessions:

Day 1

Session I: RE – The International Perspective

Session II: RE in Azerbaijan

Session III: Wind Energy in Azerbaijan – Natural Conditions and Practical Application

Day 2

Session IV: Prospects and Challenges for Promoting RE in Transition Countries

Session V: Small Hydro Power Plants, Wind and Solar Energy – Further Pilot Projects

Further information on the conference, including the annotated agenda, list of participants and presentations can be accessed at:

http://www.osce.org/conferences/az_renew_2009.html

II. Report on Proceedings

Day 1

Opening remarks

The welcome remarks were delivered by Ambassador Bilge Cankorel, Head of the OSCE Office in Baku; by Deputy Minister Gulmammad Javadov of the Azerbaijani Ministry for Industry and Energy; and by Mr. Andreas Obersteller, Head of the Department for European Affairs. Mr. Obersteller is also Head of the EU Twinning Projects of the German Federal Ministry for Economy and Technology as the representative of the EU Twinning Project on "Legal Approximation and Structural Reform in the Energy Sector of Azerbaijan".

Ambassador Bilge Cankorel, Head of the OSCE Office in Baku

In his welcome remarks, Ambassador Cankorel acknowledged the great and increasing importance that Azerbaijan is attaching to the development of renewable energy. This is manifested through the State Programme on the Use of Alternative and RE Sources in the Azerbaijan Republic 2005-2013; in the joining of Azerbaijan in the International RE Agency (IRENA) in June 2009; and in the Presidential Decree on the creation of a National RE Agency in July 2009. Ambassador Cankorel suggested that the positive implications of RE go beyond environmental protection. For example, countries can benefit from increased energy security by reducing its dependency on exhaustible fossil fuels. In promoting the large-scale application of renewable sources of energy, Azerbaijan prepares for the time when oil and gas deposits are depleted. Ambassador Cankorel further stressed that RE had created hundred of thousands of jobs in the OSCE area which greatly contributed to economic development and is now a driving force in technical innovation.

Deputy Minister Gulmammad Javadov, Ministry for Industry and Energy of the Republic of Azerbaijan

In his welcome remarks, Deputy Minister Gulmammad Javadov discussed the depletion of fossil fuels over time, and noted that energy issues are becoming an increasingly important topic on the international agenda. Mr. Javadov made a reference to the State Programme on the Socio-Economic Development of the Regions of the Republic of Azerbaijan, adopted in April 2009, saying that RE is recognized as an important aspect in overall regional socio-economic development. Deputy Minister Javadov also reported on the status of the setting up of the National RE Agency in Azerbaijan (its charter has been drafted and submitted for approval and the Agency is expected to start its operation by the end of October 2009). To conclude with, Mr. Javadov stated that the development of a legal framework for RE is by and large a new area for the Ministry of Industry and Energy, but its work in this direction, which indicates further encouragement of the production of energy using renewable sources, is intensifying.

Mr. Andreas Obersteller, Head of the Department for European Affairs and EU Twinning Projects, German Federal Ministry for Economy and Technology.

Mr. Obersteller started his welcome remarks by referring to Azerbaijan's oil exports, which increased by 84% over the period of 2006-2008. Subsequently, he drew the audience's attention to Azerbaijan's ever closer energy ties with the EU by discussing the Nabucco project, among other issues. In this way, the EU Twinning project is working closely with the Ministry of Industry and Energy in conducting an overall legal approximation project of the energy sector. Mr. Obersteller also briefed the audience about a new training project that is about to start with the Ministry of Economic Development. This scheme will make it possible for Azerbaijan's future managers to become acquainted with Germany's pioneering experience in RE regulation.

Session I: Renewable Energy – The International Perspective

Key Note Speaker: PhD Mr. Wolfgang Palz (World Council for Renewable Energy)

The key note speaker, Mr. Wolfgang Palz, opened his presentation by referring to Baku as the starting point of oil's dominating role in the energy sector 150 years ago. The *solar age* will, however, gradually take over, according to Dr. Palz. In his presentation Dr. Palz spoke of the history of the EU main organs and their orientation towards the energy sector from the very outset. He gave an overview of the EU-level RE policies and targets but emphasized that the Member States are due to complete their national RE action plans by June 2010. Subsequently he highlighted the development of RE in EU Member States which has progressed at a much faster pace than expected resulting in targets being frequently overfilled. Consequently, the EU has been able to define much more ambitious targets for the future. Dr. Palz stated that in Member States RE sources should account for at least 40% of the electricity produced, according to EU mandatory targets. Mr. Palz concluded that one of the main reasons for the remarkable success of RE in Europe is the favourable legal and regulatory framework that exists in many EU Member States.

Session II: Renewable Energy in Azerbaijan

Presentation: Current State and Prospects for the Development of RE in Azerbaijan

Speaker: Mr. Mehdi Seyidov, Head of the Department for RE of the Ministry of Industry and Energy

At the start of his presentation, Mr. Seyidov stressed the necessity to formulate energy policies by taking into consideration the needs of future generations. Subsequently, he made reference to the *State Programme on the Use of Alternative and RE Sources in the Azerbaijan Republic 2005-2013*, and outlined the role of the RE Commission in formulating governmental action plans, guaranteeing energy security, improving energy efficiency and creating new jobs.

Mr. Seyidov highlighted Azerbaijan's RE potential in many of its main forms. The potential for wind energy production is estimated to reach 800 MW, through sites distributed across the Absheron peninsula, the western parts of the country, the Nakhchivan Autonomous Republic

and other coastal areas which often receive 250 windy days per year with wind speeds above 3.5 m/s. Furthermore, A 50 MW wind farm is being planned to be built to the north of Baku. Solar hours amount to 3000-3200, which can be regarded as high when compared to the European average. Moreover, small hydro power and biomass potential is considerable. The decentralized nature of these sources of energy would be favourable from the point of view of energy security.

Mr. Seyidov also described the *National RE Agency* that is being established by the government of Azerbaijan and will operate under the Ministry of Industry and Energy. He invited foreign organizations to co-operate with this Agency in the development of their RE initiatives in Azerbaijan.

Discussion following Session I and II

One participant raised a question regarding the government's expectations and capacity for development of RE in Azerbaijan and the procedures concerning the access to the grid for RE facilities. According to Mr. Seyidov, the government's main aim is to attract the private sector to engage in the concrete investment projects. The co-operation would start from the Ministry of Industry and Energy, which is committed to providing all the necessary information. The government gives priority to high technology ventures.

Another participant touched upon the issue of electricity tariffs, which are considered to be too low to attract investments into the RE sector. Mr. Seyidov stated that Parliament is currently working on this issue and anticipated that RE producers will enjoy higher tariffs at some time in the future.

With regards to the question of access to the grid for RE facilities, one participant suggested that this does not constitute a problem in the context of Azerbaijan. In fact, small hydro power plants and wind mills are already connected to the grid and sell the produced electricity to regional and national energy distributors.

The issue of feed-in-tariffs was touched upon by a participant who described a privately funded investment project operating in a small, Sheki-based hydro power plant. The participant stated that a planned investment of 2 million AZN to upgrade the facility will have a very long payback time due to the currently low feed-in-tariff of 0.025 AZN/kWh. Again, Mr. Seyidov referred to the ongoing review process of the tariffs.

One participant commented on the EU's unified power market with subsidized production of renewable energy. A question was posed regarding the possibility of the preferential treatment of RE in Azerbaijan. Mr. Seyidov responded that it is too early to talk about preferential treatment.

The key note speaker, Dr. Palz, commented on the discussion by noting that the two key points in the promotion of RE in Azerbaijan are the guaranteed (priority) access to grid and appropriate feed-in-tariffs. He made reference to operations in Germany, France, Spain and the UK which offer examples of both good and bad practices.

Reflecting on the potentially large-scale application of renewable energy, a participant suggested that too high a reliance on RE poses technical risks to the energy security of Azerbaijan. The potential for improved energy efficiency should not be ignored since the application of due construction methods could save up to 50% in energy. A notion was also made regarding the taxation of the key components of the RE facilities: Wind turbines are exempt from VAT whilst solar panels are not. This makes the cost of solar power installations high.

Mr. Seyidov stated that the Ministry of Industry and Energy has a great interest in supporting the production of turbines, generators and other components, but the products must be competitive on international markets.

The representative of the OSCE Office in Baku, Mr. Robert Zahn, contributed by stressing the importance of relevant education and training when setting up the manufacturing of components. There is a learning curve which is central to catching up with international standards in manufacturing high technology components for RE installations. On the other hand, there are immediate business opportunities available for Azerbaijani companies who could focus relatively low-tech components and services such as the construction and maintenance of towers and foundations of wind turbines.

Mr. Palz discussed the encouraging example of the manufacturing of solar water heaters, without any subsidies, in China. This is cost competitive at present and could be a good starting point, according to Mr. Palz.

A representative of the Ministry of Economic Development noted that the job creation aspect is the government's first concern foreign investment projects. Number of employees and the necessary qualifications shall be defined.

Deputy Minister Gulmammad Javadov of the Ministry of Industry and Energy commented that conventional energy producers should be encouraged to include alternative energy into their portfolio. Mr. Palz responded by sharing the knowledge that some big Western European utilities were initially hesitant, or even reluctant, about the development of renewable energy, but are now becoming increasingly committed. This can be partly attributed to relevant policies on EU-level and by national government.

A representative of AzerEnergy provided information on their RE projects: A 400 MW hydro power plant in the Kura river is due to be commissioned in 2010; the Fizuli hydro power plant project will start in early 2010 with civil works while the Varvara hydro power plant upgrade project from 6 MW to 22 MW is being implemented at the moment in co-operation with Areva and Chinese partners. AzerEnergy estimates the potential for small hydro power plants to total 380 MW. The company is also mapping the solar energy potential. Long delivery times of certain components and the customs procedures were mentioned as impediments to the implementation of the projects.

A representative of the International Finance Corporation (IFC) stated the IFC's interest in RE projects. Last year the IFC conducted a research project to identify energy efficiency potential with local companies. A public awareness campaign on this matter is being planned. The IFC representative invited interested organizations to join this initiative.

Mr. Zahn informed the audience about the new RE project by the OSCE Office in Baku. The project aims to contribute to the improvement of the legal and regulatory framework that concerns the use of renewable energy. For this purpose, the Office will organize a training seminar covering the topics of RE technology, natural conditions for RE in Azerbaijan and international best-practice for creating a legal framework conducive to the development of renewable energy. The OSCE Office in Baku will invite relevant representatives of the Legislature and Government institutions to participate in the event. In addition, the seminar will address relevant representatives of the private sector as well as the civil society.

Session III: Wind Energy in Azerbaijan – Natural Conditions and Practical Application

Natural Conditions for Wind Energy in Azerbaijan

Presentation: The Natural Conditions for Wind Energy in Azerbaijan
Speaker: Rauf Mustafayev, AzerEnergy Elektro-Energetika Institute

In his presentation, Mr. Mustafayev first gave a general overview of the natural conditions for the application of wind energy in Azerbaijan. He then presented the results of a detailed study on the wind potential in the Gobustan area, which lies 50 km south of Baku. The study was conducted by a Japanese company between April 1999 and March 2000. Mr. Mustafayev provided insights of the study's results in terms of average wind speeds and wind directions. He also illustrated how the measured results would translate into the production of electricity by wind turbines depending on the model used. The expert presenter concluded that the area around Gobustan presents a very favourable location for the large-scale application of wind energy.

Practical Application of Wind Energy in Azerbaijan

Presentation: Wind Farm Shurabad (I)
Speaker: Mr. Nazir Ramazanov, Project Co-ordinator, Caspian Technology Company

At the beginning of his presentation, Mr. Ramazanov reiterated the existence of excellent natural conditions for wind energy in several parts of Azerbaijan. He continued his presentation by outlining his company's activities in the field of RE in Azerbaijan. His work includes: a pilot project consisting of two 850 kW wind turbines in Yeni Yashma; wind speed measurement; establishment of a training facility for wind energy; the creation of local production facilities for the manufacturing of parts of wind turbines and the Shurabad Wind Farm Project which will consist of 16 turbines with a capacity of 3 MW each.

In conclusion to his presentation, Mr. Ramazanov emphasized the need for greater co-operation between private companies and the various public organisations dealing with RE in Azerbaijan such as, the National Academy of Science, relevant Ministries and the Tariff Council. He also proposed to improve the legal and regulatory framework for RE in Azerbaijan through tax incentives and the introduction of a carbon credit scheme. Finally, he suggested sharing more information on the subject of RE through conferences and increasing the nation's awareness of the field by collaborating with the media in Azerbaijan.

Presentation: Wind Farm Shurabad (II)
Speaker: Mr. Stephan Simon, ALPHA New Technology Services GmbH

Mr. Simon explained at the beginning of his presentation that his company provides services and equipment for RE projects world-wide. In Azerbaijan the company partnered with the Caspian Technology Company in implementing a pilot project consisting of two 850 kW wind turbines located in Yeni Yashma, 50 km north of the capital Baku. In addition, the company helped to establish a training facility for the maintenance of wind turbines and the

construction of equipment necessary for measuring wind speeds. Since July 2010, Alpha Technologies has been the main contractor for the Caspian Technology Company for building a 48 MW wind farm in Shurabad. Mr. Simon also stressed that his company is helping to create local production facilities for components of wind turbines. The presenter then illustrated the process of setting up a wind farm starting from the first feasibility study until the long term operation of the completed wind farm. Mr. Simon explained the technical requirements for constructing a wind farm, such as, comprehensive wind speed measurements and grid connection. The presenter concluded by providing details on the range of services the company offers to its clients.

Presentation: How to Create an Attractive Wind Market

Speaker: Mr. Karl Heinz Fatrdla, VESTAS, Director Sales Eastern Europe

Mr. Fatrdla outlined in his presentation some of the key elements needed to create a commercial environment conducive to the development of wind energy. He started by providing empirical evidence for the rapid development of wind energy in Europe and world-wide. By the end of 2008, a total of 66 GW of wind energy was installed in Europe and 180 GW on a global scale. It is expected that by 2020, a total of 180 GW of wind energy will have been installed in Europe alone.

The presenter emphasized that one of the main factors for such fast growth is a stable and predictable commercial framework established through respective government policies and legal acts. Such a framework is needed for securing investments and large-scale deployment of wind energy. Mr. Fatrdla outlined the characteristics of different legal frameworks that regulate the use of wind energy, such as guaranteed feed-in-tariffs, quota and certificate market system and the tender system. He also stressed that renewable sources of energy create more jobs due the fact that they are more labour, and less fuel, intensive. He provided evidence for this by comparing wind energy to different conventional sources of energy.

Finally, he expressed the opinion that wind energy could be an important element in power production in Azerbaijan and encouraged the government to foster its further development in the country.

Presentation: Practical Experience with Wind Energy

Speaker: Mr. Nariman Mahmudov, Technical Director, Sumqayıtelektrikşəbəkə ASC

(Sumgayit Network Operator)

Mr. Mahmudov outlined in his presentation the experience of the Sumgayit Network Operator in the field of wind energy. The company is the principle buyer of the electricity produced by the two 850 kW wind turbines located north of Sumgayit and operated by the Caspian Technology Company (see presentation by Mr. Nazir Ramazanov). Mr. Mahmudov explained that the wind turbines are connected to the regional network through a specifically designated sub-station. He also provided details on the monthly power output of both wind turbines from June to September 2009.

In conclusion, the representative of the Sumgayit Network Operator stated that the integration of two wind turbines into its electricity network of his company went without problems and operations are continuing smoothly.

Presentation: Wind Farm Baku
Speaker: Mr. Hagan Teymurov
(on behalf of Mitaki Project GmbH and AirWerk GmbH)

Mr. Teymurov started his presentation by summarizing the key characteristics of another wind farm project. The wind farm, which is due to be completed by December 2010, will consist of 20 wind turbines with a capacity of 2.5 MW each. Thus, the wind farm will have a total capacity of 50 MW. The project involves a great number of stakeholders including two European banks and the International Bank of Azerbaijan on the financing side, as well as 15 European and 10 Azerbaijani companies dealing with the practical implementation of the project.

Mr. Teymurov explained the organizational structure of the project. The wind farm is owned by the Azerbaijani companies Caspian Management System and Aztorq. The German company Mitaki Project GmbH is the overall contractor for the project and deals with issues that concern financing, consultancy services and legal advice, while AirWerk GmbH of Germany is responsible for the engineering and logistical work. The presenter provided further details on the wind farm project in terms of its location and planned grid connection.

Day 2

Session IV: Prospects and Challenges for Promoting Renewable Energy in Transition Countries

Key Note Speaker: PhD Mr. Wolfgang Palz (World Council for Renewable Energy)

Mr. Palz provided in his second presentation an overview of the development of the RE sector in Brazil, Russia, India and China. He noted that China is one of the world's leading countries in the application of wind power and the country also has an enormous capacity in terms of photovoltaic, solar water heating and small hydro power. India is very strong in building up its wind energy potential while Brazil is the world's leading country in the usage of bio fuels. Mr. Palz elaborated on the usage of RE in the Soviet Union and stressed that in modern-day Russia renewable sources of energy play only a marginal role in the energy supply of the country.

The key note speaker stressed that RE is especially well-suited for developing countries due to its decentralized nature and recent technological developments, which make their application cheaper. In the context of developing countries, RE can be used for various purposes, which have far-reaching positive implications for respective societies. On this matter, Mr. Palz mentioned that RE can be used for lightning as well as for powering water pumps and mobile communication systems.

Session V: Small Hydro Power Plants, Wind and Solar Energy – Further Pilot Projects

Presentation: Environmental Park Project

Speaker: Mr. Rashid Ziyadli, State Oil Company of the Azerbaijan Republic (SOCAR)

The representative of SOCAR, Mr. Rashid Ziyadli, outlined SOCAR's plan to build an environmental park that would be self-sufficient in energy and generate electricity from renewable sources. The park serves as a pilot project to demonstrate to interested citizens, students and professionals the application of wind and solar energy. The park will also accommodate greenhouses for growing trees. In order to power these facilities, SOCAR will install a number of small wind turbines as well as photovoltaic systems.

Mr. Ziyadli also elaborated on other deployment possibilities for renewable sources of energy within SOCAR. He specifically highlighted the potential in utilizing solar energy to provide electricity at SOCAR's production sites. Besides using renewable sources of energy, the SOCAR representative also stressed the importance of energy saving measures and increasing energy efficiency as a way for more environmentally friendly production.

Presentation: Potential for Small-Hydro Power Plants in Azerbaijan
Speaker: Mr. Tahir Javarov, Head of the Department for Energy Production, Ministry of Industry and Energy

Mr. Javarov provided an overview of the operations of small-hydro power plants in the Republic of Azerbaijan. Furthermore, he noted that the natural conditions in Azerbaijan are well-suited for the deployment of additional small-hydro power plants. In support of this, he provided concrete data for volumes of water flowing in different rivers around the country, especially in the mountainous areas of Azerbaijan. In order to promote the increased utilization of renewable energy, Mr. Javadov proposed to broaden the legal definition for small-hydro power plant from the current 10 MW power output to a maximum of 35 MW. Such a change in legislation would grant the favourable treatment reserved for small-hydro power plants to a larger number of utility companies.

The representative of the Ministry noted that more scientific studies on the natural conditions for RE in Azerbaijan, e.g. measuring volumes of water flows, are necessary to form a basis for commercialisation. He stated that although the current tariff of 0.025 AZN per kWh for electricity produced from small-hydro power plants seems relatively low, producers have the right to sell their electricity for the wholesale price of 0.041 AZN per kWh to any customer they like. However, producers have to pay 0.002 AZN per kWh for using the transmission network.

Final Discussion and Comments

Replying to a question by a participant concerning the tariffs for small-hydro power plants, **Mr. Tahir Javadov (MoIE)** explained that, according to Azerbaijani legislation, operators of such plants do not have the right to define the whole-sale or retail price of the electricity they produce. Tariffs for electricity are determined by the Tariff (Price) Council of the Republic of Azerbaijan.

Mr. Wolfgang Palz used the opportunity to thank the participants, expert presenters and the organizer of the conference for their active participation in the event. He expressed his opinion that Azerbaijan indeed has great potential for the utilization of renewable sources of energy, especially with regards to wind, solar, and hydro power plants. He stressed, however, that it is not sufficient to utilize only one of these resources. His suggestion to the Government of Azerbaijan is to look into the possibility of combining all available sources of RE and make wind, solar, and hydro power the corner stones of the future RE mix. In addition, Mr. Palz recommended that the Government develops a "RE master plan", which sets forth concrete targets for the utilization of RE in the future.

The representative of the **Tariff (Price) Council, Mr. Elshan Asadov**, also used the opportunity to express his gratitude to the organizers of the conference. He commented on the work of the Tariff (Price) Council and highlighted that since the creation of the Council numerous changes to the tariffs for gas, water, and electricity have been made. He highlighted in particular that the Tariff (Price) Council established a special tariff for energy produced from wind turbines. At the moment, the Council is working on the issue if producers can sell their energy directly to third parties.

A **representative of a small-hydro power plant in the Sheki district** shared with participants his experience in operating the plant. He stated that the power plant employs 24 staff and a total of 2 million AZN was spent on its construction. At present, his company is conducting feasibility studies at several other locations in the Sheki and Zaqatala districts for the construction of a total of 30 small hydro power plants, which would employ more than 600 staff. He calls upon the Tariff (Price) Council and International Organizations to support these initiatives by improving the tariff structure for small hydro power plants in Azerbaijan.

The **representative of the German company AirWerk** stressed the importance of transparency when determining the tariffs for electricity. From the point of view of private companies, it is crucial to learn as soon as possible about any changes or future plans to change tariffs in order to allow for predictability when planning renewable energy projects.

The **Resident Twinning Advisor of the EU Twinning Project "Legal Approximation and Structural Reform in the Energy Sector of Azerbaijan"**, **Mr. Walter Sandter**, also thanked the participants for their contribution to a fruitful discussion during both days for the conference. He noted that although the renewable energy sector is a relatively recent phenomenon, it has developed rapidly in many countries round the world. Azerbaijan certainly has the potential of replicating this development. In this regard, it is important to take the discussions about the current tariff system seriously and try to find solutions that benefit all involved actors.

Concluding Remarks by the OSCE Office in Baku

The Economic and Environmental Officer of the OSCE Office in Baku, Mr. Robert Zahn, summarized the main findings of the presentations and discussions of the conference:

In his presentations, the international key expert, Mr Palz, outlined the international experience in developing renewable sources of energy. Mr. Palz highlighted that the growth rates for RE in Europe in the last 20 years were higher than anticipated. The set targets were usually achieved ahead of schedule. For 2020, the EU expects that on average 40% of all produced electricity is coming from RE sources. One main reason for this rapid development is the favourable legal and regulatory framework for RE in many European countries. Mr. Palz stressed that RE is especially suitable for transition countries because of its decentralized nature and respective technologies are available at much lower costs than just a few years ago and continue to become cheaper.

In the course of their presentations, the different representatives of the MoIE outlined the current state of RE in Azerbaijan – including the natural conditions for various sources of RE in Azerbaijan - and illustrated the measures undertaken by the Government of Azerbaijan to promote RE such as respective State Programmes and the establishment of a Natural Renewable Energy Agency in July 2009. The representatives of the MoIE stated that the Ministry is ready to provide assistance to the private sector in implementing RE projects.

The conference also provided information about two concrete wind farm projects of 48 MW and 50 MW capacity, respectively. Construction of both projects is already underway and scheduled to be completed in 2010 and 2011.

The representative of SOCAR, Mr. Rashid Ziyadli, presented a new pilot project called "Ecology Park". This facility is meant to demonstrate the different types of RE - such as wind and solar energy – to the wider public of Azerbaijan.

Mr. Zahn concluded that the objectives of the conference – 1) sharing of international best practices, 2) providing an overview on the current state of the development of RE in Azerbaijan, and 3) network opportunity for relevant actors – had been achieved.

Mr. Zahn expressed again the viewpoint of the OSCE Office in Baku that the promotion of RE is beyond environmental protection. RE creates many new jobs - even in countries that do not have production facilities for RE technologies - in the fields of planning, maintenance and operation. In the context of Azerbaijan, such newly created value chains in the RE sector would contribute to regional economic goals of the Government. RE would also increase the energy security of Azerbaijan by reducing its dependency on exhaustible fossil fuels. Since a large share of electricity in Azerbaijan is produced using gas-fired power plants, RE has to potential to make more natural gas available for export and thus, increase Azerbaijan's revenues.

The representative of the OSCE Office in Baku emphasized that one of the key factors for the development of a successful RE sector and achieving the benefits outlined above, is the creation of a favourable legal and regulatory framework. Such a framework needs to be based on international best practices and match the specific requirements in the context of Azerbaijan.

Mr. Zahn stated that the OSCE Office in Baku welcomes the initiatives by the Government of Azerbaijan to promote RE like, for instance, Azerbaijan's accession to the IRENA, the creation of a National Renewable Energy Agency as well as relevant State Programmes and Presidential Decrees. The OSCE Office in Baku stands ready to assist the Government in Azerbaijan to further improve the legal and regulatory framework for RE in the country.

Recommendations

In the course of the presentations and subsequent discussions, some recommendations for improving the conditions for the implementation of RE projects were brought forward by the participants of event:

- Participants suggested to revise the current tariff structure for electricity produced from RE in terms of introducing more technology-specific tariffs and adjusting them to a economically sustainable level,
- Producer of RE should have guaranteed access to the transmission network,
- The purchase of all electricity from renewable sources of energy by the grid operator should be guaranteed,
- The overall legal framework should be made more favourable for RE, respective legal provisions should be compiled in one comprehensive renewable energy law rather than being dispersed across different laws,
- Co-operation and information sharing between all involved actors – private sector, the Executive, the Parliament, and other state institutions such as the newly-established National Renewable Energy Agency.