

Thematic Session 2: Energy transition towards a low-carbon economy

(revised Work Programme 2014-2017, Activity 3 “Energy efficiency and renewable energy”)

Eastern Partners contribution in the energy sector (10 minutes each)

As known, Azerbaijan is a developing country highly sensitive to the impact of climate change. Apart from contributing to the international efforts to mitigate the negative impacts of global climate change, Azerbaijan promotes a sustainable and comprehensive development of the green economy.

National greenhouse gas emissions account for only 0.1% of global emissions, while the carbon intensity in Azerbaijan fell significantly between 1990 and 2010. Today, per capita greenhouse gas emissions are much lower in Azerbaijan compared to other developing countries, as well as average EU and US levels. Compared to 1990 the level of greenhouse gas emissions remained at 70% despite Azerbaijan’s economic growth by 4 times. As a signatory of the Paris Agreement under the UNFCCC, Azerbaijan targets 35% reduction in the level of greenhouse gas emissions by 2030 compared to 1990/base year.

If in 1990-2000s, the reduction of greenhouse gas emissions in Azerbaijan was mainly due to economic downturn followed by the collapse of the Soviet Union, in subsequent years the decrease of these emissions was related to the climate change mitigation activities and shift to the modern development policies despite the significant GDP growth rate increase of industrial production.

The penetration of more efficient energy technologies and renewable energy sources, the use of gas instead of fuel oil in thermal power stations, the improvement of waste management, reducing considerably the volume of associated gas since 2008 and conventional unit of fuel used in generation of power energy year by year and others may be cited as examples.

According to the report on “Environmental Performance Index” (EPI) conducted by the prestigious Yale and Columbia Universities in terms of positive changes in the field of the environment in the last 10 years, Azerbaijan ranked 2nd among the 132 countries (*Azerbaijan’s EPI is 55.47*).

Energy efficiency

As a result of the development of legislative acts and regulatory documents on energy efficiency and energy saving, raising awareness on energy efficiency, penetration of modern technologies in electricity and thermal energy production, reconstruction of distribution networks and transmission lines, use of automatic management system in lighting and other related activities, the greenhouse gas emissions is expected to be reduced by 17% in production of electric power and thermal energy compared to 1990/base year.

Due to the application of new and modern environmental-friendly technologies in the oil and gas processing, bringing the energy consumption per unit of product in line with international standards, production of fuel based on EURO-5 standards in a

new refinery complex by 2019 and building the staff capacity, it is expected to significantly reduce greenhouse gas emissions in oil and gas sector.

As a result of modernization of gas pipelines, gas distribution system and other measures, it is intended to decrease losses up to 1% by 2020 and ensure the volume of reduction in compliance with international standards by 2050. It is planned to diminish fugitive emissions into atmosphere up to 2% by 2030 via the accumulation of associated/flared gases during oil and gas production and prevention of gas leakage in oil and gas processing and distribution networks. It will be possible to reduce the amount of greenhouse gas emissions within 5-6% by 2030.

As a result of public awareness programs on the use of control and measurement devices in electrical and thermal energy and natural gas systems, the use of modern energy-saving technologies in energy production and energy consumption, it is expected to reduce greenhouse gas emissions in residential and commercial sectors by 37% compared to the base year.

Transport sector

Through the expansion of use of electric vehicles, electrification of railway lines and the transition to alternative current system in traction, improvement and expansion of the scope of intellectual transport management system, construction of transport infrastructure facilities, and increasing the average speed of vehicles, it is envisaged to reduce greenhouse gas emissions by 20% compared to the base year.

Waste sector

In recent years, large-scale projects on the reconstruction of the centralized sewerage system, upgrading of existing wastewater treatment facilities and the construction of new ones are being implemented. Over the last 5 years alone US \$8 billion had been invested in water projects of which about 95% was the public budget.

Solid waste management system was improved and as a result of the modern state of-the-art "waste to energy" type of solid waste incineration and sorting plant was put into operation since 2012. By its capacity, this type of the plant is considered to be the largest in Eastern Europe and the CIS. Modern hazardous wastes landfill was established and a large amount of environmentally harmful waste causing serious pollution neutralized.

A new seawater desalination plant on the Caspian Sea coast was commissioned for dealing with water shortage concerns, which is the most advanced and largest desalination plant in the Caspian Sea region.

Introduction of solid waste management technologies will result in the reduction of methane by 30% in the large cities of the country.

My colleague will be delivering presentation on **the use of alternative and renewable energy sources**, therefore I skip this specific topic.

Despite the progress achieved in the relevant field, a number of challenges still exist to ensure the desired level of low-carbon economy. Azerbaijan pursues broad cooperation and investment opportunities with the view to achieving the reduction of

emissions in the production and consumption sectors within the commitment period. To this end, the international support is required to promote development of modern technologies, technology transfer and innovation to increase Azerbaijan's adaptive capacity.

Identification of demands for technologies related to the mitigation of impact of climate change and adaptation measures, and assessment of needs for increasing finance and skills are also of particular importance in terms of successful implementation of further activities.

Technology needs

In recent years, capital investments made in low carbon technologies covered such areas as the application of low-emission technologies in energy sector, modernization of existing industrial facilities, oil refineries and power plants, expansion of renewables, establishment of intellectual transport management system, efficient waste management, etc. Technology needs of Azerbaijan in this field cover quite a wide range of spectrum from technologies to reduce greenhouse gas emissions, to adjust different economic sectors to climate change, the energy-efficient technologies in various sectors of economy, residential and commercial sectors, as well as technologies for the use of renewable energy sources, and the ones related to the efficient use of water and soil, natural resources and food safety.

Although Azerbaijan was fully depended on import of these technologies, in recent years such technologies have been already produced in our country. Investments made in the technology sector and the establishment of new industrial parks and techno-parks were instrumental for the development of high technologies.

Financial needs

The Republic of Azerbaijan welcomes the involvement of investments from external sources in low carbon technologies and intends to use the international financial mechanisms in the framework of the Convention (Global Environment Facility, Green Climate Fund, Adaptation Fund, etc.) for attracting such investments.

Capacity building needs

In terms of rapid change of existing mechanisms within the Convention and establishment of more advanced actions and approaches, there is a need for building capacities. These activities should cover the study of more efficient international experience and its adjustment to national specificities, the establishment of domestic Monitoring, Reporting and Verification system, development of a low carbon sustainable development strategy at the national level, and strengthening logistics of existing research institutions.

We are interested in strong cooperation with international organizations and institutions, including with EU for application of low carbon and modern technologies, study of best world practices and implementation of joint projects.

Thank you.

