“Security of supply: outlook and future development”

Azerbaijan

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BUILDING PARTNERSHIPS FOR ENERGY SECURITY

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Agenda

1. Evolution of Supply/Demand Balance
2. Energy Policy, Legal or institutional framework for Security of Supply
3. Main challenges in implementing the policy and or legal/regulatory framework
4. Identification of strategic investments/projects at national level
5. Regional coordination for Security of Supply (plans and/or projects)
6. International cooperation
## 1. Evolution of Supply/Demand Balance

<table>
<thead>
<tr>
<th>Energy Resources</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oil Mt</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>40.7</td>
<td>40.9</td>
<td>39.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Consumption</td>
<td>6.7</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
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<tr>
<td><strong>Gas Bcm</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>30.1</td>
<td>33.0</td>
<td>40.0</td>
<td>45.0</td>
</tr>
<tr>
<td>Consumption</td>
<td>11.0</td>
<td>11.2</td>
<td>11.3</td>
<td>11.4</td>
</tr>
<tr>
<td><strong>Electricity B kWh</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation</td>
<td>26.3</td>
<td>32.0</td>
<td>39.0</td>
<td>47.5</td>
</tr>
<tr>
<td>Consumption</td>
<td>21.7</td>
<td>26.4</td>
<td>33.6</td>
<td>40.9</td>
</tr>
</tbody>
</table>
2. Energy Policy, Legal or Institutional Framework for Security of Supply

**National Resource Base for Security of Supply**

At present proven energy resources of the country are estimated at 2 Bt of oil and 2.6 Trln cm of natural gas, transported to Europe and global markets via 7 pipelines. Three oil pipelines (to Russia, Georgia and Turkey), 4 gas pipelines (to Turkey, Georgia, Russia and Iran).

The installed capacity of the energy system is 7.2 GW with peak demand 4.0 GW. There are high voltage lines to the region: Russia, Georgia, Turkey and Iran.

Development of the oil and gas resources is regulated by the Product Sharing Agreement (PSA) approved by the Parliament and have the force of a law main of them are:

- Azeri, Chirag and deep water Gyuneshli (contract of the century);
- Shah-Deniz, Absheron, Araz, Alov, Sherg, Bakhar, Gum Deniz, etc.

Additionally, Azerbaijan has rich resources of renewable energy sources: hydro energy, solar energy, wind energy and biomass.

It is worth noting a big potential of energy saving and improvement of energy efficiency which could be regarded as an energy source.
2.1 Energy Policy, Legal or Institutional Framework for Security of Supply

Reliable and sufficient energy supplies to population and industry in Azerbaijan are secured by a package of laws adopted the late 1990s “On use of energy resources”, “On energy”, “On electricity”, “On gas supply” and others. These laws are not market oriented and reflect the then situation: transition from a planned to a market economy.

The following areas in the energy policy are:

1. Development of energy statistics in line with the IEA Standards
   - Participation in development of the energy statistics system and application in making the country’s energy policy

2. Development of strategy and medium-term development programmes
   - Preparation of energy development strategy of Azerbaijan for 25-30 years.
   - Development of 15-20 year programme on efficient use of energy resources, end users’ energy efficiency and utilisation of alternative energy sources.
   - Utilisation of a 5-year State Programme
2.2 Energy Policy, Legal or institutional framework for Security of Supply

3. **Legal and regulatory framework in energy**
   - Drafting laws on regulated internal electricity and natural gas markets.
   - Drafting law on Independent Energy markets (electricity and gas) Regulator.
   - Developing Network code for electricity and gas.
   - Restructuring electricity systems (AZERENERGY, AZERISHIG) on the basis of market entities foreseen by the legislation.
   - Establishment of a flexible tariff system reflecting and distributing interests of end consumers and other market entities (X-factor), and also based on product and service costs.

4. **Easy access to information and improvement of communication**
3. Main challenges in implementing the policy and or legal/regulatory framework

- Lack of a sectoral institute (centre) to develop a policy, strategy and energy legislation;
- Lack of market-related legislation;
- Lack of a market regulated by an independent regulator;
- Lack of market entities in energy (power, gas and heat supplies);
- Rigid tariff system discouraging efficient energy use;
- Availability of cross-subsidies;
- Devaluation of the national currency by 33% in February 2015;
- Low electricity, heat and gas tariffs:
  1. create no economic preconditions for energy saving and introduction of EE technologies;
  2. low interest by private investments into these sectors;
  3. International donors (ADB, EBRD, KfW, WB) provide development credits only on the governmental guarantees
4. Identification of strategic investments/projects at national level

- At national level identification of strategic investments is done through the mechanisms of the State Programmes on sectors development and State Investments Programme under the Budget package approved annually by the Parliament. The State Programme on Region Development, approved every 5 years, also consists of target indicators of development of power, heat and gas supply in each separate administrative district of the country.

- State Investment Programme undergoes the standard procedure of consultations of the budget package defined by the Budget Law.
Regional energy coordination between Azerbaijan and neighbouring countries (Russia, Kazakhstan, Turkmenistan, Iran, Georgia and Turkey) is done bilaterally on all the levels: (i) Heads of States; (ii) Governments; (iii) Relevant state bodies governing the energy sector; and (iv) directly between energy companies.

It is necessary to note that the most important political documents between the EU and Azerbaijan which laid the foundation of the regional energy supplies:

- **Memorandum on Understanding between the EU and Azerbaijan** in energy defining “Improvement of reliability and security of the energy supply and transit from Azerbaijan and the Caspian Sea Region to the EU” as an one out of 4 focus areas of cooperation (Brussels, November 2006);

- **Joint Declaration on the South Gas Corridor** signed by Azerbaijan President, Mr. Ilham Aliev, and European Commission Chairperson, Mr. Jose Manuel Barroso (Baku, January 2011).

In elaboration of this Declaration major regional projects on delivery of natural gas from gas field Shah Deniz to Europe: (i) TANAP – TransAnatolian gas pipeline; (ii) TAP – TransAdriatic gas pipeline.

First gas supplies to Europe of 10 bcm are expected in 2020.
6. International Cooperation

- **European Union** (i) – Technical Assistance (TA) in development of the institutional capacity, improvement of the management system, development of the legal framework (INOGLATE, Twinning); (ii) Budget Support Instrument (Programme of Energy Reform Support) – diversification of energy resources, development of energy saving and energy market instruments

- **International Energy Agency** – TA in development of energy statistics in line with international standards (State Committee on Statistics)

- **UNDP** – TA and pilot projects on development in non-traditional energy sources (ABEMDA)

- **World Bank** – Financing development of electricity networks (Azerishyg), TA in utilisation of associated gas at offshore field Gyuneshli (SOCAR)

- **European Bank of Reconstruction and Development** – financing the development of generation capacities (Yenikendskaya HPP, Azerbaijan regional power plant), improvement of energy efficiency (Programme “Energy credit-Azerbaijan”)

- **Asian Development Bank** – financing development of the electricity networks (Azerenergie and Azerishyg)

- **KfW** – financing transmission infrastructure and SCADA system (Azerenergie), development of wind energy (ABEMDA)

- **USAID** – financing SCADA system (Azereneergy), TA in studying technical potential of the energy bridge Azerbaijan – Georgia – Turkey, TA in development of the tariff system
THANK YOU!

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INO Gates Technical Secretariat and Integrated Programme in support of the
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