

## SECTOR ASSESSMENT (SUMMARY): ENERGY

### Sector Road Map

#### 1. Sector Performance, Problems, and Opportunities

1. The energy sector plays a central role in Azerbaijan's economy, contributing 31% of the country's gross domestic product and 87% of the country's total gross exports in 2015.<sup>1</sup> Since 1994, the government has successfully pursued a strategy of developing the oil and gas sector as the country's primary source of economic growth, which has led to an estimated \$61.1 billion in foreign direct investment in Azerbaijan during 1994–2014.<sup>2</sup>

##### a. Oil and Gas Sub-Sector

2. Azerbaijan's first post-independence oil field was the Azeri, Chirag and deep-water Gunashli (ACG), which started operations in December 1994. It is referred to as the "Contract of the Century," and its oil reserves were estimated at 6 billion barrels. ACG oil is transported via a 1,768 kilometer Baku–Tbilisi–Ceyhan pipeline linking Azerbaijan, Georgia, and Turkey. It started operations in July 2006, transports more than 1 million barrels per day, and is the world's second-longest oil pipeline.

3. The Shah Deniz gas and condensate field was discovered in 1999 and transformed Azerbaijan into a major gas producer. Stage 1 of the Shah Deniz is now complete and supplies Georgia and Turkey with 10 billion cubic meters (bcm) of natural gas per year via the South Caucasus Pipeline.<sup>3</sup> Stage 2 of the Shah Deniz (Shah Deniz-II) started in December 2013 and is currently under construction. It will add 16 bcm annually to Azerbaijan's gas production. Shah Deniz-II gas will be exported to Europe.<sup>4</sup> Future expansion of gas production is expected from the Absheron block, with an estimated 350 bcm of natural gas.

4. The State Oil Fund of the Republic of Azerbaijan (SOFAZ) is the country's sovereign wealth fund. SOFAZ receives its funds from (i) revenues from the sale of Azerbaijan's share of oil and gas resources, (ii) bonus payments, (iii) royalties and/or acreage fees, (iv) transit fees from the use of pipelines, and (v) revenues from investment of the fund's assets. These proceeds of monetized hydrocarbon reserves are invested in financial assets managed by SOFAZ and aiming to generate perpetual income for current and future generations. It also funds strategically important national infrastructure and social projects by providing support to the national budget. Its reserves have recently fluctuated at \$33 billion to \$36 billion. The State Oil Company of Azerbaijan Republic (SOCAR) is responsible for oil, gas and condensate exploration, production, processing and transportation in the domestic and international markets. Azerigaz, a wholly owned subsidiary of SOCAR, is responsible for the transportation, distribution and sale of natural gas to customers in Azerbaijan, including domestic power stations. Azerbaijan's domestic market uses about 10 bcm annually. The government plans to achieve 90% gasification of the country by 2018. Increased access to reliable gas supplies has helped reduce the urban–rural divide,

<sup>1</sup> Standards & Poor's Rating Services. 2016. *Azerbaijan Country Rating Update, 29 January*. London.

<sup>2</sup> The Oil and Gas Year. 2015. *The Oil & Gas Year Azerbaijan 2014*. Wildcat International. Dubai.

<sup>3</sup> BP. Shah Deniz Business Update. 2015 Year-End-Results.

[http://www.bp.com/content/dam/bp-country/en\\_az/pdf/businessresultsslides/2015-year-end-results.pdf](http://www.bp.com/content/dam/bp-country/en_az/pdf/businessresultsslides/2015-year-end-results.pdf)

<sup>4</sup> This will be done through the South Caucasus Pipeline and its expansion from the Sangachal Terminal in Azerbaijan through Georgia to Turkey; the Trans-Anatolian Pipeline through Turkey to Greece; and the Trans-Adriatic Pipeline through Albania, Greece and the Adriatic Sea to southern Italy and the European gas grid.

promote inclusive development and development of small and medium-sized enterprises, and contribute to economic diversification in non-oil and gas sectors.

5. The key challenges facing the oil and gas sub-sector are: (i) low global prices for oil and natural gas, which are constraining the national budget; (ii) the need to improve the operations of Azerigaz and increase efficiency in domestic gas usage; and (iii) the lowering of Azerbaijan's sovereign rating, which has increased cost of capital needed to meet financial commitments to continue developing the oil and gas sector.

#### **b. Power Subsector**

6. The Ministry of Energy is in charge of policy and regulation, while the Tariff Council is responsible for all tariff-related issues. The State Agency on Alternative and Renewable Energy Resources is an independent agency responsible for the preparation of policies, legal acts, and regulatory documents, and for implementing state policy for the creation and development of renewable energy sources.

7. In 2015 Azerbaijan's electricity production reached 22,542 million kilowatt-hours (kWh), 92.7% of which was generated from thermal power and 7.3% from hydropower resources. The current total installed generating capacity is 7,793 megawatts (MW), including 6,690 MW (85.8%) from gas-fired thermal power plants and 1,103 MW (14.2%) from hydropower plants. It is expected that 1,800 MW of new power generating capacity will be added in 2015–2020, while 1,200 MW in capacity from old power plants is scheduled to be retired. At present, electricity production is sufficient to cover domestic demand and generate a surplus that is exported to neighboring countries.

8. Key challenges facing the power subsector are: (i) improving operational and financial efficiency; (ii) rehabilitating transmission and distribution systems to ensure full electricity services in the country; and (iii) establishing sustainable cost-recovery financing mechanisms.

### **2. Government's Sector Strategy**

9. In March 2016, the President of the Republic of Azerbaijan approved the basic direction for a national economic roadmap, outlining the diagnostics and an implementation plan to prepare a new comprehensive National Economic Vision.<sup>5</sup> In line with this, the government's overall vision for the energy sector is to develop the non-oil sector, increase foreign direct investment, use domestic energy resources efficiently, protect the country's energy security, and ensure the delivery of reliable and adequate energy services throughout the country for sustainable economic growth.

#### **a. Oil and Gas Subsector**

10. To ensure the success of the fully developed Shah Deniz gas field, and gas delivery to Europe, in October 2013 the President of Azerbaijan signed a decree establishing a State Commission to oversee provision of state support.<sup>6</sup> A subsequent presidential decree in

<sup>5</sup> 2016. Republic of Azerbaijan. *Basic Direction of the Strategic Roadmap on the National Economy and Main Economic Sectors*. Approved by order of the President on 16 March 2016. Baku. A working group was established in 2016 to prepare the new National Economic Vision that includes: (i) an economic development strategy and action plan for 2016–2020, (ii) a long-term vision for the period until 2025, and (iii) a target vision for the period after 2025.

<sup>6</sup> The State Commission was established by the Order of the President of the Republic of Azerbaijan on measures for the transportation Azeri natural gas to world markets along the Southern Gas Corridor, dated 29 October 2013.

February 2014 established SGC to consolidate the financing and management of Azerbaijan's ownership interests in Shah Deniz and transmission of gas to Europe.<sup>7</sup> SGC, through its 100% subsidiary SGC Upstream (SGCU), acquired a 6.67% interest in Shah Deniz and contracted to purchase an additional 10% interest (completion of which is expected to take place in 2023), which is held by SOCAR's 100% subsidiary, Azerbaijan (Shah Deniz) Limited (AzSD).<sup>8</sup> SGC's indirect stake in BP's cash call contributions; and its concurrent investments in the Southern Gas Corridor to date have been financed by (i) approximately \$1.7 billion in equity injections from its shareholders, the Ministry of Economy, and SOCAR; (ii) \$2.5 billion in 10-year bonds issued by SGC and subscribed by SOFAZ; (iii) \$1.0 billion in 10-year Eurobonds issued in March 2016; and (iv) revenues generated by the Shah Deniz-I and South Caucasus Pipeline projects.

11. As part of the government's efforts to consolidate its holdings in Shah Deniz (and SCPX), SGCU and AzSD entered into a deferred sale and purchase agreement, under which AzSD's 10% participating interest in the Shah Deniz production sharing agreement (PSA) will be transferred to SGCU, resulting in SGCU eventually holding a 16.67% stake in Shah Deniz by 2023, subject to prior fulfillment of certain conditions.<sup>9</sup> Pursuant to the Resolution of the State Commission of July 2014,<sup>10</sup> all revenues received by SOCAR from its indirect 10% interest in the Shah Deniz PSA are to be used to support SGC's financing needs, including those for Shah Deniz-II (details are in Supplementary Document no.15).

12. SOFAZ provides support to the government's budget. In 2015, it was responsible for 46.5% of the national budget.<sup>11</sup> SOFAZ has recently financed projects such as a housing project for refugees and internally displaced persons who were forced to flee their native lands as a result of the Armenia–Azerbaijan conflict, the Oguz–Qabala–Baku water supply system, and the reconstruction of the Samur–Absheron irrigation system. The government's request for ADB assistance to finance SGC's ongoing equity participation in Shah Deniz-II promotes prudent public sector financial management. ADB assistance to SGC to meet financial commitments to Shah Deniz will allow SOFAZ and the government to use oil and gas revenues for social expenditures and continued efforts to diversify the economy away from the oil and gas sector.

## **b. Power Subsector**

13. Many of the country's power generation, transmission and distribution networks are well beyond their useful life. The efficiency of some generation plants is only 25%, with distribution system losses of about 16%. The financial performance of the utilities is also weak, requiring government budget support to finance capital expenditures. To enhance operational and financial efficiency, the government has committed to full cost recovery by 2022, by pursuing financial and tariff reform and gradually adjusting the tariff level and structure. As an initial step to improve sector efficiency, power distribution assets and functions were recently separated from

<sup>7</sup> SGC is 51% owned by the Republic of Azerbaijan, represented by the Ministry of Economy, and 49% by SOCAR.

<sup>8</sup> SGC's initial 6.67% was purchased from SOCAR in 2014, which SOCAR in turn purchased from Statoil in 2013.

<sup>9</sup> Deferred Sale and Purchase Agreement in respect of an Interest in the Shah Deniz Prospective Area, South Caucasus Pipeline and Related Shares and Agreement. 23 July 2014. The transfer of AzSD's 10% Shah Deniz PSA share to SGC is deferred to 2023 because it is subject to transferability restrictions of other SOCAR debt instruments.

<sup>10</sup> The State Commission was established pursuant to the Order of the President of the Republic of Azerbaijan on measures related to the transportation of the Azerbaijani natural gas to world markets along the Southern Gas Corridor, dated 29 October 2013. The Resolution of the State Commission on determination of the financing mechanism of the Projects by Southern Gas Corridor CJSC (SGC) in order to ensure the operation of the Southern Gas Corridor in connection with the transportation of Azerbaijani Gas to world markets. 9 July 2014.

<sup>11</sup> Republic of Azerbaijan. 28 November 2014. The Law on State Budget for 2015. Baku.

the state-owned company Azerenerji to Azerishiq. The new company is responsible for the distribution and sale of electricity to domestic customers nationwide.

### 3. ADB Sector Experience and Assistance Program

14. The energy sector is a priority area for ADB operations. ADB is assisting the government address issues in the oil, gas, and power subsectors.

15. **ADB's sector strategy.** The ADB Midterm Review of Strategy 2020 has identified infrastructure development as a core area of operation.<sup>12</sup> The three pillars of the ADB Energy Policy are to promote energy efficiency and renewable energy; maximize access to energy for all; and promote energy sector reform, capacity building, and governance.<sup>13</sup>

#### a. Oil and Gas Subsectors

16. ADB has not been involved in the gas subsector in Azerbaijan, as it has been considered financially viable with strong private sector participation. However, low global gas prices have forced Shah Deniz shareholders to seek multilateral development bank financing. In 2015, the ADB Private Sector Operations Department provided a non-sovereign loan to Lukoil to finance its participation in Shah Deniz-II.<sup>14</sup> In early 2016, Azerbaijan's sovereign rating was downgraded by international ratings agencies, increasing the government's financing cost to continue developing its gas resources. The government has requested assistance from ADB to address the increased cost of developing Shah Deniz-II. In response, ADB was requested to provide this partial credit guarantee for up to \$500 million in principal cover, and a non-sovereign loan for up to \$500 million from the Private Sector Operations Department to SGC for Shah Deniz-II.<sup>15</sup>

#### b. Power Subsector

17. The 2008 ADB loan of \$160 million to the energy sector's power transmission enhancement project was successfully implemented.<sup>16</sup> Ongoing interventions include: (i) a Multitranche Financing Facility for the Power Distribution Enhancement Investment Program;<sup>17</sup> and (ii) technical assistance for preparing a pilot renewable energy project (biomass cogeneration),<sup>18</sup> improving the financial sustainability of the power sector, and encouraging private sector participation in the energy sector.<sup>19</sup> Major lessons from previous ADB interventions in the energy sector include the need for (i) continuous dialogue with the government on tariff issues and to promote energy sector reform, (ii) capacity building for power utilities, and (iii) actions to promote good governance and increased commercialization of the sector. The first Tranche Distribution Investment Program has achieved 30% contract award within three months of approval.

<sup>12</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

<sup>13</sup> ADB. 2009. *Energy Policy*. Manila.

<sup>14</sup> ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Azerbaijan for Lukoil Overseas Shah Deniz: Shah Deniz Stage II Gas Field Expansion Project*. Manila.

<sup>15</sup> ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Southern Gas Corridor CJSC for the Shah Deniz Gas Field Expansion Project (Azerbaijan)*. Manila.

<sup>16</sup> ADB. 2008. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Azerbaijan for the Power Transmission Enhancement Project*. Manila.

<sup>17</sup> ADB. 2016. *Report and Recommendation of the President to the Board of Director: Proposed Loan to the Republic of Azerbaijan: Power Distribution Enhancement Investment Program - Tranche 1*. Manila.

<sup>18</sup> ADB. 2013. *Technical Assistance for Renewable Energy Development (Biomass Cogeneration) Project*. Manila.

<sup>19</sup> ADB. 2014. *Technical Assistance for Preparing an Enabling Environment for Private Sector Participation in Azerbaijan's Energy Sector*. Manila.

### Problem Tree for Gas Sector

