

## THE ROLE OF ENERGY IN IRAN-TURKMENISTAN RELATIONS

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### ABSTRACT

**T**he emergence of independent countries in Central Asia in the wake of the Soviet Union's collapse in 1991 marked the beginning of a new chapter and a turning point in Iran-Turkmenistan relationships. The Islamic Republic of Iran perceived cooperation with independent Turkmenistan as an opportunity to play an influential role not only in the newly emerged Central Asian regional political structure, but also at the international level, as an important corridor for supplying energy to other countries. Turkmenistan is among the countries with huge energy resources, but no direct access to outside markets except through Russia. Therefore, Iran can play an important role for Turkmenistan in diversifying its energy exports, which is crucial for Turkmenistan in order to reduce its dependence on the Russian market.

Thus, the main focus of this paper is the energy-related cooperation between the two countries, which may play a significant

role not only in developing a close relationship between Iran and Turkmenistan, but also in opening up a new chapter in their mutual cooperation. In addition, Iran has great geostrategic significance, since in the south it borders the Gulf of Oman and the Persian Gulf—the biggest energy exporting center in the world. In the north, it borders the Caspian Sea, Armenia, Azerbaijan and Turkmenistan. In the east, it shares borders Afghanistan and Pakistan. In the northwest, Iran borders Iraq and Turkey.

Thus, Iran's geographical location has catapulted it to a significant role in regional connectivity, particularly after the situation exacerbated following the United States' armed intervention in 2001 in Afghanistan and in 2003 in Iraq, which increased instability in the region. Therefore, Iran is currently the most stable and suitable country for the Central Asian nations to rely on for connecting their economies with the other countries of the world.

**KEYWORDS:** *energy sector, electrical power generation sector, transit routes.*

### *Introduction*

In contemporary world politics Iran and Turkmenistan are among the countries that enjoy a mutually beneficial relationship in the region. Iran was one of the first countries to recognize the independent Turkmenistan in 1991, following the disintegration of the U.S.S.R. Of all the Central Asian republics, Turkmenistan is the only country that shares both its land and maritime borders with Iran.

In the northwest, there is Kazakhstan, in the north—Uzbekistan, in the east—Afghanistan, and Iran in the southeast. Turkmenistan has been at the crossroads of civilizations throughout all of its history, but it lacks direct access to international waters.

Iran, on the other hand, occupies an advantageous geostrategic location and possesses vast energy resources. Iran has the largest coastline in the region. On its northern side lies the Caspian Sea, in the south there is the Gulf of Oman, Persian Gulf and Strait of Hormuz, with the latter acting as the jugular vein for the whole world's energy supply. To the east there are Afghanistan and Pakistan. Iran also has the capacity to act as an access point for the landlocked Central Asian countries for reaching out to other countries and regions of the world. Central Asian countries, particularly Turkmenistan, would be able to transit energy and other resources to energy-starved regions and countries through Iran.<sup>1</sup> Strategic interests, ample economic opportunities, particularly in the energy sector, and Turkmenistan's role as a gateway to the Central Asian republics have maintained Iran's interest in furthering relations with Turkmenistan. Turkmenistan, on the other hand, not only considers Iran a consumer of its energy, but also sees it as a transit route for exporting energy supplies to other countries. Over the years, both countries have identified various areas that have laid the foundation for strengthening their bilateral relationship. However, due to the imposed economic sanctions and instability in the region, the two countries could not expand their cooperation to its fullest potential. Nonetheless, with the removal of international sanctions and integration of Iran into the global economy, the country has demonstrated tremendous improvement in its relations with other countries, particularly with European states. Further implementation of Iran's participation in projects like the International North-South Transport Corridor and China-Pakistan Economic Corridor should expand the reach and access potential of Central Asian countries, and particularly of Turkmenistan, which will ultimately transform the cooperation between the countries into a natural long-term partnership.

## Energy Cooperation

As far as Turkmenistan's resources are concerned, it is a country with abundant energy reserves, which has become increasingly important for the contemporary energy-starved world. According to the EIA (U.S. Energy Information Administration) report dated January 2016, Turkmenistan, with an estimate of 265 trillion cubic feet of natural gas, occupies the sixth place in the list of countries with the largest natural gas reserves, and was among the top 15 dry natural gas producers in 2015.<sup>2</sup> Turkmenistan's proven crude oil reserves are estimated at 600 million barrels. Turkmenistan's total production of petroleum and other liquids in 2015 amounted to 261,000 barrels and 2.5 trillion cubic feet of dry natural gas.<sup>3</sup> Despite its huge energy resources, due to its geographic location, lack of infrastructure, and limited exporting capabilities Turkmenistan has not been able to increase its influence and play a role of a major energy exporting country in the era of growing energy demands.

On the other hand, Iran has the second-largest proven natural gas reserves in the world after Russia. Iran holds 17% of the world's proven natural gas reserves and more than one-third of OPEC's (Organization of the Petroleum Exporting Countries) reserves. However, the vast majority of Iran's gas reserves are unexploited, which may lead to Iran's inability to utilize its resources. Iran's gross natural gas production in 2012 reached almost 8.2 trillion cubic feet, showing an increase of 3% from

<sup>1</sup> See: A. Mafinezam, A. Mehrabi, *Iran and its Place among Nations*, Praeger Publishers, London, 2008, pp. 77-78.

<sup>2</sup> See: *U.S. Energy Information Administration (EIA), 2014*, available at [<http://www.eia.gov/countries/countrydata.cfm?fips=tx>], 25 July, 2017.

<sup>3</sup> See: *EIA Turkmenistan Overview*, available at [<https://www.eia.gov/beta/international/analysis.cfm?iso=TKM>], 8 August, 2017.

5.2% in the year 2011.<sup>4</sup> In 2013, it decreased to 8.1 tcf. Meanwhile, Iran's domestic natural gas consumption has also been growing, and Iran is currently the third largest consumer of natural gas after the U.S. and Russia. In 2011, domestic consumption of natural gas in Iran equaled 3.5 tcf, which grew to 5.6 tcf in 2013, showing an increase of 2.1 tcf in comparison to 2011.<sup>5</sup> According to the Oxford Institute for Energy Studies, the average annual increase from 2000 to 2011 in domestic natural gas consumption in Iran constituted 9.3%, which was almost equivalent to the production growth rate (9.5%).<sup>6</sup> Moreover, Iran, a major exporter of natural gas, is forced at the same time to import great volumes of gas, in order to meet the needs of the fossil fuel-free northern areas: purchasing gas from the northern neighbors is generally cheaper than its delivery from the southern fields across the entire country. In 2013, Iran imported over 90% of natural gas from Turkmenistan. In 2013, over 90% of Iran's exported natural gas went to Turkey and the rest—to Armenia and Azerbaijan. It is a fact that Iran accounts for less than 1% of the global natural gas trade, but with the reintegration of Iran into the world economy after the suspension of international sanctions and implementation of proposed regional gas pipelines, Iran can act as a major natural gas exporting country in the future. Iran has signed many agreements with various countries for exporting natural gas via pipelines. The following are Iran's major pipeline projects: (a) Iran-Iraq gas pipeline. (b) Iran-Oman gas pipeline. (c) Iran-Pakistan gas pipeline.

The Iran-Iraq gas pipeline has been inaugurated and started supplying natural gas to Iraq in June 2017. The pipeline increased the flow of natural gas from Iran to Iraq from 7 billion cubic feet to 35 billion cubic feet per day. The two countries have also signed another agreement in 2015 for supplying natural gas from Iran to the Iraqi city of Basra.<sup>7</sup> In 2013, Iran has signed a \$60 billion agreement with Oman to export natural gas over the course of 25 years. Evidently, the implementation of the project was delayed because of international sanctions on Iran, but both countries have renewed their efforts immediately after the suspension of sanctions on Iran in 2016.<sup>8</sup> The third important gas pipeline is intended to link Iran and Pakistan. Clearly, the gas pipeline project is also delayed due to sanctions, but the Iranian side has completed its work on the pipeline, and Pakistan is also determined to start working on the project as soon as possible.<sup>9</sup> Therefore, Iran can play a vital role in acting as a transit route for Turkmen energy export to other countries and regions of the world.

In addition, Turkmen natural gas can act as one of the preferred solutions for Iran to satisfy its growing domestic energy demand, particularly during winters. Secondly, imported natural gas from Turkmenistan is cheaper in comparison to delivering gas from the south to the north of Iran.<sup>10</sup> For that purpose, in 1994, the two countries presented their first formal proposal for developing cooperation in the energy sector by constructing the 1,400-km-long Turkmenistan-Iran-Turkey gas pipeline with a capacity of 28 bcm per year. The pipeline project was conceived in the context of building a gas pipeline for supplying natural gas from Turkmenistan to Turkey, and then to European

<sup>4</sup> See: U.S. Energy Information Administration (EIA), "Country Analysis Brief: Iran," 21 July, 2014, available at [<http://www.eia.gov/countries/analysisbriefs/Iran/iran.pdf>], 25 February, 2015.

<sup>5</sup> See: *ELA Iran Overview*, available at [<https://www.eia.gov/beta/international/analysis.cfm?iso=IRN>], 8 August, 2017.

<sup>6</sup> See: D.R. Jalilvand, *Iran's Gas Export: Can Past Failure Become Future Success*, Oxford Institute for Energy Studies Oxford University, London, 2013.

<sup>7</sup> See: *Radio Free Europe*, 22 June, 2017, available at [<https://www.rferl.org/a/iran-iraq-gas-pipelines-years-of-delay-exports/28573674.html>], 9 August, 2017.

<sup>8</sup> See: *Reuters*, 7 February, 2017, available at [<http://www.reuters.com/article/iran-oman-gas-idUSL5N1FS2ZK>], 10 August, 2017.

<sup>9</sup> See: *The Times of Islamabad*, 7 March, 2017, available at [<https://timesofislamabad.com/iran-pakistan-gas-pipeline-project-status/2017/03/07/>], 11 August, 2017.

<sup>10</sup> See: F. Atai, H. Azizi, "The Energy Factor in Iran-Turkmenistan Relations," *Iranian Studies*, Vol. 45, No. 6, November 2012, available at [[http://www.academia.edu/6557443/The\\_Energy\\_Factor\\_in\\_Iran\\_Turkmenistan\\_Relations](http://www.academia.edu/6557443/The_Energy_Factor_in_Iran_Turkmenistan_Relations)], 25 June, 2017.

countries via Iran. But due to U.S. opposition, the project could not be carried out. However, the two countries did not stop their cooperation efforts in the energy sector.<sup>11</sup> A year later, in 1995, the National Iranian Oil Company signed an agreement with Turkmenistan for constructing the 200-km-long Korpėje–Kurt-Kui gas pipeline with a diameter of 40 inches (1,000 mm). The National Iranian Oil Company assured Turkmenistan of maintaining its supplies by signing an agreement with a term of 25 years. In 1997, the pipeline started supplying natural gas from the Turkmen Korpėje gas deposit to the northern part of Iran. In the beginning, it pumped 6 bcm of natural gas per year, later increasing the volume to 8 bcm per year.<sup>12</sup> The actualization of the project is not only important to Turkmenistan for the purpose of diversifying pipeline infrastructure, but also provides leverage against Russia in gas price discussions.

Based on previous experience, and with an objective to further strengthen their relations, on 6 January, 2010, during the visit of Iranian President Mahmud Ahmadinejad to Turkmenistan, the two countries inaugurated the 182-km-long Dovletabad-Serahs-Hangeran gas pipeline. Its capacity equals 12 bcm per year, which will more than double Turkmen gas exports to Iran—from 8 bcm to 20 bcm annually.<sup>13</sup> During the inauguration, the Iranian president said: “The pipeline will be a good stimulus for energy co-operation between Turkmenistan and Iran, as well as for the delivery of Turkmen gas to the Persian Gulf and the world market.”<sup>14</sup> Both countries regarded the implementation of the project as a foundation for the development of long-term strategic partnership, and as an important factor in promoting the possibilities of expanding bilateral and multidimensional relations between Iran and Turkmenistan.<sup>15</sup> In order to further deepen their relations, both countries have extended their cooperation in developing the new jointly controlled gas fields, as well as the development of the Gonbadli natural gas field, which is located in northeastern Iran and is expected to yield 700 hundred cubic meters of sweet (hydrogen sulphide-free) gas per day (0.7 bcm/d). There are several other completed joint oil and gas projects, such as the \$47-million gasoline production unit construction project at the Turkmenbashi refinery. Other projects include the \$200 million Korpėje gas refinery unit, the \$160 million Korpėje gas compressor station, as well as liquid gas terminals, worth \$33 million.<sup>16</sup> Both Iran and Turkmenistan have continuously vowed to further boost their cooperation in this sector.

## Electrical Power Generation Sector

The sector of energy generation in Turkmenistan that is second in significance is electrical power generation. Turkmenistan’s electrical power generation is entirely fueled by natural gas. The country’s total capacity for electrical power generation in April 2016 was about 5.2 gigawatts, which

<sup>11</sup> See: *Ibidem*.

<sup>12</sup> See: V. Mesamed, “Iranian-Turkmen Relations in an Era of Change,” *Central Asia and the Caucasus*, No. 4 (46), 2007, available at [<http://www.ca-c.org/journal/2007-04-eng/13.shtml>], 25 July, 2017.

<sup>13</sup> See: B. Pannier, “Turkmen Gas Exports to Iran a Boon for Both Countries,” Radio Free Europe/Radio Liberty, 5 January, 2010, available at [<http://www.rferl.org/articleprintview/1921933.html>], 26 July, 2017.

<sup>14</sup> “Turkmenistan Opens New Iran Gas Pipeline,” BBC News, 6 January 2010, available at [<http://news.bbc.co.uk/go/pr/fr//2/hi/asiapacific/8443787.stm>], 26 July, 2017.

<sup>15</sup> See: *Press Release on Gas Pipeline from Turkmenistan to Iran on a Route of Dovletabad-Serahs-Hangeran*, Embassy of Turkmenistan, 6 January, 2010 available at [[http://www.turkmenembassy.org.uk/news/january\\_2010/PRESS\\_RELEASE\\_TURKMENISTAN\\_IRAN\\_GAS\\_PIPELINE.pdf](http://www.turkmenembassy.org.uk/news/january_2010/PRESS_RELEASE_TURKMENISTAN_IRAN_GAS_PIPELINE.pdf)], 1 August, 2017.

<sup>16</sup> See: F. Atai, H. Azizi, *op. cit.*

exceeds domestic demand. In 2015, Turkmenistan generated over 22 billion kWh of the required amount and exported 3.2 billion kilowatts to Afghanistan, Iran, Turkey and other Central Asian countries. In addition, Turkmenistan has continuously adopted different policies and programs to modernize and expand its electrical power generation sector by establishing new transmission lines and constructing fourteen new natural gas-fueled electricity generation plants from 2015 to 2020. By April 2016, the country had twelve operational thermal power plants, and plans to further increase its electrical power generation capacity from 19 billion kWh to 35.5 billion kWh in between 2011 and 2030.<sup>17</sup>

The Turkmenistan-Iran bilateral relationship reached new heights in 2003, when both countries signed an agreement of cooperation in the electrical power sector. The signing of the agreement enabled Iran to import electricity from Turkmenistan and to establish a Turkmenistan-Iran-Turkey energy corridor. Via this corridor, Turkey receives 600 million kWh of electricity generated by power stations in the western regions of Turkmenistan annually. June 2003 marked the implementation of the first phase of the jointly built 220 kV Balkanabat-Gonbad power transmission line, which stretches between Balkanabat in Turkmenistan and Aliabad in Iran and supplies 562.2 million kWh per annum. In 2004, the second phase of 220 kV Serakhs (Turkmenistan)-Serakhs (Iran) transmission line with a capacity of 100 mWh (megawatt hour) was launched. Following the implementation of the two transmission lines, Iranian electricity import from Turkmenistan reached 375 million kWh per year.<sup>18</sup> In February 2014, during a meeting with Iranian Energy Minister Hamid Chitchian in Tehran, Meredov, the foreign minister of Turkmenistan, stated that Turkmenistan exported over 1.5 billion kWh of electric power to Iran in 2013, and has 800 million kWh in excess, which it is seeking to export to Turkey via Iran.<sup>19</sup>

## Iran as a Transit Route

Geographically, the Central Asian region is landlocked. It does not have any direct land route to access international waters. It is enclosed by China in the east, in the west there are Russia and the Transcaucasian republics of Armenia, Azerbaijan and Georgia. On the northern side is the snow-bound Western Siberian taiga, and on the southern side of Central Asia there are Afghanistan and Iran.<sup>20</sup> Before independence, the Central Asian republics were wholly and solely dependent upon the U.S.S.R. leaders. The whole infrastructure of connectivity was developed according to the needs and requirements for the region's integration with the other republics of the U.S.S.R. But their independence provided them with an opportunity to diversify their economies and seek alternative routes to access other countries and regions of the world in order to promote their trade. Apart from Russia, the Central Asian republics have three options to access the world, namely via

- (i) China,
- (ii) Afghanistan and Pakistan, and
- (iii) Iran.

<sup>17</sup> See: *EIA. Turkmenistan Overview*, available at [<https://www.eia.gov/beta/international/analysis.cfm?iso=TKM>], 8 August, 2017.

<sup>18</sup> See: "Another Power Transmission Line Commissioned on Turkmen-Iranian Border," *Turkmenistan.ru*, 23 August, 2004, available at [[http://www.turkmenistan.ru/?page\\_id=3&lang\\_id=en&elem\\_id=5375&type=event&sort=date\\_desc](http://www.turkmenistan.ru/?page_id=3&lang_id=en&elem_id=5375&type=event&sort=date_desc)], 2 July, 2017.

<sup>19</sup> See: *Tehran Times*, 16 February, 2014, available at [<http://www.tehrantimes.com/economy-and-business/114118-turkmenistan-seeks-to-transit-electric-power-via-iran>], 3 July, 2017.

<sup>20</sup> See: Shamsuddin, "Central Asia: A Factor in Indo-Iranian Relations," in: *Contemporary Iran and Emerging Indo-Iranian Relations*, ed. by Girijesh Pant, P.C. Jain and A.K. Pasha, Neelkanth Publishers, New Delhi, 1996, p. 160.

While the route through China is the longest, the one passing through Afghanistan and Pakistan is the shortest. However, due to the civil war in Afghanistan, the possibility of Central Asia's access through the Afghan route is ruled out in the near future. Therefore, the only palpable alternative route for Central Asia to access the world passes through Iran.<sup>21</sup> Iran enjoys a special geographical location, being a crossroads of transit routes from the Middle East and Persian Gulf to the Central Asian republics. The landlocked countries of the Central Asian region can only access the sea through the land of their neighbors. Therefore, due to its convenient geographical location, Iran is the most suitable country that can provide a direct access link between Central Asian countries and the outside world.<sup>22</sup> Secondly, Iran is the shortest route, only 2,000 miles away from the Persian Gulf shore, making it the most economical route for Central Asian republics to reach the Persian Gulf.<sup>23</sup>

### *Conclusion*

After going through all the details and initiatives taken up by the two countries, we can clearly see that the energy sector has the capacity to play an important role in strengthening their bilateral relationship. Iran views cooperation with Turkmenistan as an opportunity to play an influential role, particularly in the energy export sector. Similarly, for Turkmenistan, the relationship with Iran is important in several respects. Iran can become the main route for Turkmenistan to access international waters. Not only does Iran serve as an energy consumer/market for Turkmenistan, but it can also play an important role in providing technical knowledge and expertise in the energy sector. The successful completion and operationalization of the Iran-Turkmenistan and Kazakhstan rail link through the east coast of the Caspian Sea, which was designed with the purpose of enhancing Central Asia's access to the Persian Gulf and the Gulf of Oman, has further strengthened the possibilities of deepening their cooperation, since it can act as a route for transporting oil and gas supplies to world markets. However, Iran-Turkmenistan relations have been affected by U.S.-Iran relations, but the success of ongoing negotiations between Turkmenistan and IRI will definitely take Iran-Turkmenistan relations to new heights.

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<sup>21</sup> See: *Tehran Times*, 16 February, 2014.

<sup>22</sup> See: M. Aghazadeh, "Iran's Foreign Policy Approach Toward Central Asia and the Caucasus," *Eurasian Universities Union Academic Journal*, Winter 2015, Turkey, p. 199, available at [[http://www.researchgate.net/publication/275689164\\_Irans\\_Foreign\\_Policy\\_Approach\\_toward\\_the\\_Central\\_Asia\\_and\\_Caucasus](http://www.researchgate.net/publication/275689164_Irans_Foreign_Policy_Approach_toward_the_Central_Asia_and_Caucasus)], 12 July, 2017.

<sup>23</sup> See: F. Atai, "A Look to the North: Opportunities and Challenges," in: *Iran in the 21st Century: Politics, Economics and Conflict*, ed. by H. Katouzian and H. Shahidi, Routledge Taylor and Francis Group, New York, 2008, p. 125.