

Research

Research on Energy Trade Between China and Turkmenistan

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Abstract: As China's economy has extended, so has its requirement for vitality. Subsequently, China has expanded its local vitality limits and created import procedures for oil and gas. In its global vitality exercises, China has advanced through an arrangement of stages. The reason for this paper is to concentrate on China's most recent stage: making an overland vitality organize, provided fundamentally by Turkmenistan and turning into the vitality center point of an incorporated Asian market – China's later "Silk Road" proposition. This paper additionally inspects the effect of Chinese vitality ventures on the possibilities of Central Asian vitality makers progressing to developing markets.

Keywords: Energy, Trade, Gas, Oil, China, Turkmenistan

Introduction

Chinese authorities are hoping to catalyze endeavors to verify bigger volumes of vitality imports from Central Asian providers, particularly Turkmenistan, and elevate ventures associated with the \$1-trillion Belt and Road foundation improvement activity. The Energy Charter Treaty goes back to 1991 and was intended to give an unmistakable system to all aspects of cross-outskirt vitality advancement in Eurasia in the post-Soviet time, including venture and travel. Individuals are essentially European and post-Soviet states. China picked up onlooker status in 2001. Albeit Chinese monetary development has moderated, the nation's interest for vitality stays solid. Oil utilization developed 3.3 percent in 2016, after normal yearly development rates of 5.7 percent from 2005-2015, as indicated by BP. Gas utilization ascended at a 7.7 percent rate in 2016, down altogether from a normal yearly development rate of around 15 percent from 2005-2015. As indicated by the International Energy Agency, China's interest for gas is estimate to ascend by 8.7 percent every year to 2022. China's very own vitality holds are unimportant, in this manner it needs to extend access to universal providers. In the meantime, Beijing is concentrating on inclining up overland supplies so as to diminish its reliance on tanker-borne imports that go through the Strait of Malacca, an

oceanic chokepoint that could be effectively shut off in a period of potential clash. Chinese consideration is normally concentrating on growing flammable gas supplies from Turkmenistan. Ashgabat supposedly controls the world's fourth biggest stores of gas, and transported around 30 billion cubic meters (bcm) of it to China in 2016. As indicated by the June 2017 BP Statistical Review of World Energy, China imported around 38 bcm of gas from different nations by means of pipeline in 2016, while another 34.3 bcm of melted petroleum gas (LNG) additionally was imported. Of the gaseous petrol imported by means of pipeline, Turkmenistan represented around 77 percent of China's all out imports in 2016 by means of the 3,666-kilometer (2,278-mile) Central Asia-China gas pipeline organize. With fares to Iran and Russia having wilted, China is presently Ashgabat's sole huge buyer of gas, which is making important part of governmental budget income of Turkmenistan.

China has just put billions of dollars in attempting to create Turkmen gas fields. In 2009, Turkmenistan got an underlying \$3 billion credit from the Chinese Development Bank (CDB) for building up the Galkynysh (otherwise called the South Yolotan-Osman) gas field, and, after two years, got an extra \$4.1 billion tranche. In the mean time, a consortium headed by the China National Petroleum Corp. (CNPC) picked up a \$10-billion creation sharing understanding (PSA) for Galkynysh field in 2009, and CNPC additionally holds the PSA for Bagtyyarlyk, which covers a few gas fields, including Saman-Depe and Altyn Asr.

Under the Galkynysh PSA, Turkmenistan should send out 30 bcm every year to China for a long time. Be that as it may, the two nations need to convey yearly gas conveyances up to 65 bcm per annum — 30 bcm from Galkynysh, and the rest from the Bagtyyarlyk PSA and other Turkmen sources.

Table 1 : Natural Gas in China in 2020, Import Requirement

Demand	200
Domestic production	140
Required import	60
Planned LNG import	20
Required import through pipelines	40

Chinese authorities additionally will search for circumstances amid the Ashgabat meeting to tout the Belt and Road activity, which is imagined as a way to grow Chinese fares to Europe and Eurasian states. Chinese exchange with Central Asian expresses nowadays will in general be a single direction road, with crude materials and normal assets streaming to China, and couple of high-esteem products returning return. For instance, Turkmenistan's imports of Chinese products represent about \$815 million out of China's all out-world fares of \$2.3 trillion, or under 0.04 percent. Chinese money related organizations are relied upon to help

Chinese organizations in extending Turkmenistan's rail framework. Another railroad associating Kazakhstan, Turkmenistan and Iran opened in 2015, with the main trains making the 14-day venture from beach front Zhejiang Province in China to Tehran in February 2016. Also, the China Railway Corporation (CRC) has proposed a 3,200-kilometer (almost 2,000 mile) Silk Road fast railroad associating the western city of Urumqi in China with Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan and ending in Tehran. Exchange is additionally expected to improve for China after the finish of the \$2-billion, 635-kilometer Turkmenistan-Afghanistan-Tajikistan (TAT) railroad. Turkmenistan finished its area of the railroad with Afghanistan in November 2016. On other hand, Tajikistan have been also fulfilling his obligations concerning this project. Since the first moves of the project until today the progress have been experienced.



Map: New Natural Gas Pipelines going to China

Methods

To accomplish our objectives, we employ an exploratory research design based on (1) prior research reviews and (2) case analysis. The exploratory research design was selected because it is well-suited for studying material on which little research. Our analysis of China's global energy strategy and its energy relations are informed by an extensive review of a wide variety of materials, including Chinese, English and Russian-language sources, including Chinese and US government documents and reports, academic articles and research papers, international datasets, energy industry specific publications, international lending agency and think tank reports, and news media reporting. To assess the potential impact of China's energy investments on Central Asian exporters, we conduct a comparative case analysis of the impact of similar energy investments, by China, on the political, economic and social

development of energy exporters in Latin America and Sub-Saharan Africa. Whereas a great deal has been written about Chinese investments abroad, in general, scant attention has been paid to the impact of energy investments on developing countries. However, through careful scrutiny of the existing literature, we ascertain distinct similar effects. To assess China's potential impact on Turkmenistan, we apply the insights of our comparative analysis.

Oil and Gas Production

Turkmenistan is rich in oil and especially gas resources. According to official figures, Turkmenistan's resource base is approximately 71.64 billion tons of oil equivalent, including 53 billion tons located in onshore fields and 18.21 billion tons in the Caspian Sea. The Government of Turkmenistan announced at May's 2017 Turkmenistan Gas Conference its reserves were 50.4 trillion cubic meters (tcm). International estimates, however, vary. The 2018 British Petroleum (BP) Statistical Review of World Energy indicated that Turkmenistan, as of the end of 2017, had 100 million tons of proven oil reserves and 19.5 tcm of gas. According to the same report Turkmenistan, with a local annual consumption of 28.4 bcm of gas, produced 62 bcm of natural gas in 2017 and exported 33.6 bcm in 2017, 31.7 to China. In May 2018 the China National Petroleum Corporation (CNPC) reported that the accumulated volume of natural gas exported from Turkmenistan to China reached 204 bcm. CNPC did not specify how much of the 204 bcm was produced by TurkmenGas and how much by CNPC. The State Committee of Statistics of Turkmenistan reported a total production of 69.4bcm in 2016. According to Turkmenistan's State Statistics Committee, Turkmenistan produced about 11,397 million tons of oil, including gas condensate, in 2016. According to official figures, the Turkmenbashi Complex of Oil Refineries produced 270 thousand tons of liquefied petroleum gas (LPG) in 2014.

Oil & Gas:

	2015	2016	2017	2018 (Estimated)[1]
Total Local Production	71.9[2]	69.4[3]	62[4]	*
Total Exports[5]	38.1	37.3	33.6	*
Total Imports	0	0	0	*
Imports from the US	0	0	0	*
Total Market Size	33.8	32.1	28.4	*
Exchange Rates	3.5	3.5	3.5	3.5

(total market size = (total local production + imports) - exports)

With the drop of the global prices, Turkmenistan's hydrocarbon dependent economy is under pressure. There are dwindling opportunities to purchase exports from the United States and many reports of the Government of Turkmenistan's payment issues with foreign companies throughout the year. Nevertheless, below are the major sectors that have historically attracted foreign companies to Turkmenistan. Exploration and development of oil and natural gas fields, especially Galkynysh (formerly South Yoloten), Osman, Minara, Tagtabazar-I, offshore blocks, and the Central Karakum group of fields. Construction of gas treatment and processing units at the abovementioned fields. Opportunities also exist for gas-to-liquid (GTL) technology providers as Turkmenistan is currently building two GTL plants.

Table 1 : The Trade, Investment and Energy Legal Relationship between China and Central Asia

Countries in Central Asia	Date of signing the Energy Charter Treaty	WTO status	Date of signing Bilateral Investment Agreement with China
Kazakhstan	17/12/1994	Observer	10/08/1992
Kyrgyzstan	17/12/1994	20/12/1998	14/05/1992
Tajikistan	17/12/1994	2/03/2013	09/03/1993
Turkmenistan	17/12/1994	None	21/11/1992
Uzbekistan	05/04/1995	Observer	13/03/1992, 19/04/2011

China Effect

China's interest in Turkmenistan, the world's fourth-largest holder of natural gas reserves, dates to 1992, when CNPC and Mitsubishi proposed to export Turkmenistan gas to China. The first gas export agreement, however, was sealed fifteen years later in 2007 when Ashgabat and Beijing agreed to construct the 1,833 km long Central AsiaChina gas pipeline, connecting Xinjiang with Turkmenistan and transiting Kazakhstan and Uzbekistan. The Turkmenistan portion of the pipeline was built with Chinese funding and is operated by a set of joint ventures between CNPC and state-owned Turkmenistan companies. In 2009 China began receiving Turkmenistan gas and by 2012 this amount reached 21.3 bcm/y of gas, equivalent to 51 percent of Turkmenistan's total gas exports. This volume is about half the total volume of China's gas imports. In 2008, CNPC and Turkmengaz signed an agreement to increase the volume of Turkmen gas to 40 bcm/y by 2015. In addition to exporting Turkmenistan gas, China has also become active in gas field development and production. In 2009 China provided a \$4 billion loan for the first development phase of the South Yoloten gas field, the world's second largest gas field with proven reserves of seven trillion cubic

meters, and in 2011 China added a \$4.1 billion-dollar loan (US EIA, 2013b). In September 2013 China and Turkmenistan decided to significantly expand the Central Asia-China pipeline to 65 bcm/y by 2020. Even before this agreement was signed, China had become Turkmenistan's leading trade partner in 2012, with \$10 billion bilateral trade turnover.

Conclusion

We found that China has utilized both local and worldwide measures to this end. We contended that, in its global exercises, China has experienced an arrangement of dynamic stages, from bringing in beginner to worldwide vitality heavyweight. This article especially centered around the most recent phase of China's universal vitality technique, which we asserted is to turned into the focal vitality purpose of an organized Asian district. This arrangement requires vitality. After not exactly a time of pursuing Eurasian vitality makers – especially Turkmenistan, – China has verified their participation and their vitality assets for its "Silk Road" plan. Our next goal was to comprehend the effect of noteworthy Chinese vitality speculation on energy producing creating nations. We along these lines led a near investigation of the two districts in which such speculation has happened: Latin America and Sub-Saharan Africa. The example we recognized includes elevated amounts of venture joined with the opening of business sectors for ease Chinese products. This methodology is exceptional and we named it the Chinese vitality collaboration model. While interests in capital-escalated vitality projects and the influx of goods is a boon for incumbent elites and everyday consumers, we found that the Chinese energy cooperation model carries potential disadvantages, particularly for local manufacturing and the development of local competencies.

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