

Václav Líd1

The Natural Gas Conundrum

Transformation
of the Central Asian
Energy Security Complex
after 1991

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Note on Transliteration

The transfer of terms and names between different cultures is not only a linguistics issue. Knowledge of the extra-linguistic context is usually necessary. The transliteration of names in this book was very challenging, especially because of the multidisciplinary nature of the text and its wide territorial span. I worked chiefly with primary and secondary sources available in English and Russian, but I also tried to gather all possible datasets originating from different ideological and political directions. Therefore, this monograph works not only with English and Russian terms and concepts, but quite often uses terms from local Turkic and Iranian languages as well as the Chinese language. Standard ISO transliterations were used in all cases.

1. Introduction

Research Topic

The Central Asian region experienced an increasing engagement of many external state actors after the fall of the Soviet Empire, and even earlier, between 1989 and 1991. The main stimulus for this increased engagement was the unique opportunity for world powers to gain access to the region's vast mineral wealth. The United States and Russia confirmed their roles as the two most important external actors in Central Asia following the events of September 11, 2001. Nevertheless, the United States lost a great deal of interest in the region after Barack Obama became president in 2009, and this process culminated in the termination of the mandate of the International Security Assistance Force (ISAF) in Afghanistan and the drawdown of troops at the end of 2014. After that, Russia and China became the principal great powers asserting their interests in Central Asia.

The energy and economic interests of Russia and China in Central Asia significantly overlap. Russia's political elite still perceives the region as the "South" of the former Russian Empire, or as Russia's "Near Abroad." For its part, China has begun to refer to Central Asia as the "Chinese Far West." Russia has been attempting to bring the region back into its sphere of influence by means of "integration initiatives" such as the Eurasian Economic Union and the Collective Security Treaty Organization (CSTO). China, by contrast, favors an "open door policy" toward Central Asia. Its emphasis is on various transportation infrastructure projects known as the Belt and Road Initiative.

The main topic of this monograph is energy security in Central Asia after 1991. It pays attention to the energy interdependence of the Central

Asian countries, Russia, and China, and the major changes that have taken place in the system over time. It focuses especially on interdependencies in the field of natural gas because this commodity has significant geopolitical implications which arise from the technical complexity of transporting it. Natural gas represents the best litmus test for assessing the degree of energy interdependence of states, especially in certain cases. The most important player in Central Asian energy, given its huge reserves of natural gas and its existing ability to export, is Turkmenistan, followed by Uzbekistan and Kazakhstan.

Russia remained Turkmenistan's main energy partner throughout the 1990s. However, Moscow began to lose this position between 2000 and 2005, and especially after Turkmenistan's President Gurbanguly Berdimuhamedov took office in 2006. The commissioning of the first branch of the Turkmenistan–China Gas Pipeline in December 2009 was a tipping point in the balance of the relationships between Ashgabat, Moscow, and Beijing. China became the principal importer of energy from Turkmenistan and has established itself as the major economic power in Central Asia.

Since around 2005, China's energy-related projects in the region began to change the energy interdependencies of Central Asia. Although China's rising influence in Central Asia's energy sector is an attractive topic, it has not yet been studied systematically. This is especially true of the Turkmenistan–China Gas Pipeline. As of yet, there exists only a handful of academic works dealing with Turkmenistan and its energy sector. This book is a contribution to the study of energy interdependencies in Central Asia, a subject that has yet to be examined in greater detail.

State of the Research

The principal topic of this book is the system of energy security in the Central Asian region. Based on rigorous research using primary and secondary data, I identified four major subjects under this rubric. The first of these is energy security, which represents a relatively new and promising field of study. Energy security is crucial not only from an academic perspective but also for foreign policy goals and national security of state actors. The second topic is how energy policy is formulated by various state actors. It builds upon the topic of energy security, applying theory to real-world cases. The third topic centers on regional energy security complexes and looks at energy security and energy policy formulation

in the context of territorial systems. Energy security is best analyzed in the context of regional systems of positive and negative energy interdependencies. The aim of this book is to advance our knowledge of energy security, energy policy formulation, and the regional energy security complex in Central Asia.

Energy security

The issue of energy security lies at the heart of current research. Its study is a multidisciplinary field drawing on knowledge from the fields of engineering, energy systems analysis, earth sciences, economics, technology studies, political science, international relations, and security studies. In the literature on energy security, there are several ongoing debates. The first one concerns the question of whether energy security is only a national-level issue or if it is also relevant on the global, regional, and local levels. The second topic of discussion is whether energy security is a socially constructed concept or if it is inherent to most energy systems. There is also a debate about whether energy security relates only to a state's national security or to human security as well. This book will contribute to the first-mentioned debate as it attempts to connect energy security in Central Asia with the regional security complex, a concept initially developed by the Copenhagen School of security studies.

The study of energy security as an academic discipline is quite a recent development. Thus, there is only a limited number of energy security studies in the literature that provide a comprehensive overview of the subject. The co-authored works of Aleh Cherp and John Jewel represent some of the most comprehensive approaches to energy security. Cherp and Jewel analyze energy security and energy policy in their historical and scientific contexts.¹ The study of energy security has been further advanced by Benjamin Sovacool, who focuses on the classification of countries and regions from the point of view of energy security.²

The issue of energy security in the post-Soviet space, especially as it relates to the security of supply of energy commodities, has been

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- 1 Alah Cherp and John Jewel, "The Three Perspectives on Energy Security: Intellectual History, Disciplinary Roots and the Potential for Integration," *Current Opinion in Environmental Stability* 3, No. 4 (2011): 202–212.
 - 2 Benjamin Sovacool, ed., *The Routledge Handbook of Energy Security* (Oxford: Routledge, 2011).

researched by Martha Brill Olcott.³ She defines security of energy supply, in its broadest sense, as an adequate supply of energy resources for an adequate price. Sanam Haghighi is another important scholar who focuses on energy security, especially in the context of external relations of the European Union. According to her, it is imperative to take into account the differences of the types of energy resources because energy security is heavily dependent on their particular qualities. The difference between the global nature of the oil market and the regionalism of the natural gas market is one example of this. The difference stems from the different technical conditions needed for the transportation of oil and those for natural gas.⁴ Moreover, natural gas can be substituted in some industrial sectors by either oil or coal; however, that is not possible the other way around. Haghighi defines security of the supply of natural gas as a guarantee that the amount of natural gas demanded by the customer will be available at an acceptable price.⁵

Barry Buzan has demonstrated that energy security policy can take different forms. For instance, it can be a reaction to a real threat, a strategy for avoiding a threat, or a rationale for specific political goals. Buzan claims that security policy is not a direct consequence of a threat but rather a political articulation of the threat. The way in which the threat is perceived is thus as important to the formulation of policy as the real nature of the threat. In that sense, security policy is a non-linear reaction to a threat. Buzan calls the process of perceiving a threat “securitization.”⁶

There is a general agreement among researchers that there are essentially three kinds of states that are involved in energy security. These are producer states, consumer states, and transit states. Consumers of energy resources and transit states seek sufficient supplies for affordable prices.⁷ Producers of energy resources, for their part, endeavor to ensure the demand for their products; in other words, they want to ensure that customers will purchase their products for adequate prices in the long

3 Martha Brill Olcott, *Turkmenistan: Real Energy Giant or Eternal Potential?* (Cambridge: Harvard Kennedy School, 2013).

4 Tom McDremott and Adam Stulberg, “Global Emergence of Natural Gas, a Complex Systems Analysis,” *Procedia Computer Science* 44 (2015): 66–75.

5 For more on energy security see: Sanam Haghighi, *Energy Security: The External Legal Relations of the European Union with Major Oil- and Gas- Supplying Countries* (London: Hart Publishing, 2007).

6 Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Copenhagen: Lynne Rienner, 1998), 95–119.

7 For the political implications of energy security see: Daniel Yergin, *The Quest: Energy, Security, and the Remaking of the Modern World* (London: Penguin Press, 2011).

term. This assurance allows producer states to formulate their state budgets accordingly.⁸

Energy security studies include a significant discussion on the politicization and weaponization of energy resources.⁹ States that use their energy production as a tool of foreign policy have, according to Bertil Nygren and Karen Stegen, two kinds of energy weapons – the “tap” and “transit” weapons. A state uses the tap weapon when it coerces a consumer state to behave in a certain way by threatening to shut off its energy supplies.¹⁰ The transit weapon is a transit state’s ability to obtain favorable transit fees and behavior from a producer state which otherwise would not be able to export its commodities at all.¹¹ Dmitry Trenin has provided evidence that Russia and Turkmenistan have frequently utilized the tap weapon in their relations with their trading partners.¹²

Looking at the issue from the above-described perspective, this book endeavors to step into the ongoing discussion of the regionalization of energy security. It elaborates upon the concept of the regional security complex created by the Copenhagen School and combines it with a practical study of energy security – all based on the example of Central Asia. It also broadens the academic debate about the ways in which energy resources, especially natural gas, can be and are being politicized and weaponized.

Behavioral patterns of state actors in the formulation of energy policy

The most significant issue in energy security that this book raises is the approach of state actors to energy policy. The literature contains two specific models of states’ energy policy behavior – strategic-oriented energy policy and market-oriented energy policy. Between 2000 and

8 Svante Cornell and Niklass Nilsson, eds., *Europe’s Energy Security: Gazprom’s Dominance and Caspian Supply Alternatives* (Singapore: Central Asia-Caucasus Institute and Silk Road Studies Program, 2008), 57–85.

9 Bertil Nygren, “Using the Neoclassical Realism Paradigm to Predict Russian Foreign Policy Behavior as Complement to Using Resources,” *International Politics* 49 (2012).

10 Karen S. Stegen, “Deconstructing the Energy Weapon: Russia’s Threat to Europe as Case Study,” *Energy Policy* 39 (2011): 6505–6513.

11 Bertil Nygren, “Putin’s Use of Natural Gas to Reintegrate the CIS Region,” *Problems of Post-Communism* 55, no. 4 (2008): 3–15.

12 Dmitri Trenin, “Drivers of Russia’s Foreign Policy,” in: Kaadri Liik, *Russia’s Pivot to Eurasia* (London: European Council on Foreign Relations, 2014), 34–40.

2005 a discussion of the two models was sparked by researchers such as Michael Klare,¹³ Gal Luft and Anne Korin,¹⁴ and Daniel Moran and James Russell.¹⁵ The research in this book confirms the relevance of this discussion and its conclusions to modern state policy making.

The discussion of strategic-oriented energy policy is heavily based on the assumptions of the realist paradigm of political science. The founding father of the modern realist paradigm Hans J. Morgenthau claimed that the real or threatened use of military power “represents the most permanent material factor influencing the political power of a nation.”¹⁶ Morgenthau’s realism thus assumes that there are other material factors besides military power that affect a nation’s political power. He also discusses the other factors, such as geography, natural resources, industry, military preparedness, population, national character, morale, and the quality of diplomatic service and governmental institutions.¹⁷ Control and exploitation of natural resources are crucial for the maintenance of a state’s industry and, as a consequence, for the strength of its military power.

It can be argued that the Central Asian states have remarkably increased their potential state power because of the energy resources located within their territories. An earlier example of this are the states of the Persian Gulf. OPEC’s sharp decrease of its crude oil production in 1973 significantly strengthened its members’ relative positions in the international system. Russia behaved similarly in its relations *vis-à-vis* Ukraine and Belarus during the first decade of the twenty-first century. Still, classical realism is ill-suited for explaining why some other states, such as Canada and Norway, rarely use their energy resources as a tool of their foreign policy.

In contrast to classical realism, neoclassical realism includes and addresses different intra-state elements such as the state’s institutions and ideologies, and the perception of threat shared by the state’s elites. Hence, it tries to combine the assumptions of realism with elements of

13 Michael Klare, *The Race for What’s Left* (London: Picador, 2014).

14 Gal Luft and Anne Korin, “Realism and Idealism in the Energy Security Debate,” in: Gal Luft and Anne Korin, eds., *Energy Security Challenges in the 21st Century: A Reference Handbook* (New York: ABC-CLIO, 2009), 335–341.

15 Daniel Moran and James Russell, *Energy Security and Global Politics: The Militarization of Resource Management* (New York: Routledge, 2009).

16 Hans J. Morgenthau, *Politics among Nations: The Struggle for Power and Peace* (New York: Alfred A. Knopf, 1948), 51–80.

17 *Ibid.*

constructivism and thereby eliminate the shortcomings inherent in both approaches, as explained by Gideon Rose.¹⁸

Neoclassical realism assumes that energy resources play a significant role in the external policies of states and that they are unquestionably a source of political power. The more energy resources a state possesses, the stronger it becomes. According to Anne Korin, there are some commodities, especially energy resources, minerals, water, and foodstuffs that have a strategic value that significantly exceeds their market value. They can be utilized by producer states as foreign policy tools and can even become a trigger for military conflict.¹⁹ Phillippe Billon suggests that compared to other sources of energy, natural gas holds a prominent position as a potential tool because it is technically challenging to transport it from place to place. The conflict potential of this commodity is exacerbated by the problem of logistics.²⁰

The strategic-oriented model of energy policy is deeply rooted in the realist paradigm. It draws upon a form of neorealism that is based on the assumptions of Kenneth Waltz.²¹ It also works with concepts used in the classical study of geopolitics and tries to connect geographical determinants with the situation of the energy industry on the ground. The strategic-oriented model assumes that natural gas is the energy resource that is influenced by geographical reality the most.

Michael Klare was one of the first researchers who claimed that states deal with their natural resources in a strategic way. Strategic-oriented behavior is an activity that does not lead to maximization of profit in the short or medium term. It does, however, seek to achieve that goal in the long term.²² Above all, strategic-oriented behavior downplays economic logic in the process of determining energy policy. According to the strategic-oriented model of energy policy, states perceive their energy sectors as being too critical and too sensitive to be left solely to the whims of market forces.²³

18 Gideon Rose, "Neoclassical Realism and Theories of Foreign Policy," *World Politics* 5, no. 1 (1998): 144–177.

19 Luft and Korin, "Realism and Idealism," 335–341.

20 Phillippe Billon, *The Geopolitics of Resource Wars: Resource Dependence, Governance and Violence* (London: Frank Cass, 2005), 1–28.

21 Kenneth N. Waltz, *Theory of International Politics* (New York: McGraw-Hill Higher Education, 1979), 38–60.

22 Michael Klare, *Rising Powers, Shrinking Planet: The New Geopolitics of Energy* (New York: Henry Holt and Company, 2008), 25–67.

23 For more on the strategic-oriented approach to energy resources see: Klare, *The Race for What's Left*.

The realist paradigm perceives energy policy as existing in a highly anarchical system of international relations that is primarily based on the distribution of power. Power is in this sense based on material factors and especially on the nature of the energy resources. Among others, Martin Jirušek, Tomáš Vlček and Filip Černocho rigorously deconstruct the states' formulation of energy policy. Jirušek designed the models of the strategic-oriented and market-oriented energy policy that are applied and developed in this book.²⁴

Market-oriented energy policy exists in opposition to the previously defined strategic orientation. The market-oriented model is based on the assumptions of neoclassical and neo-institutional economics and the liberal paradigm. According to Morris Adelman, this model assumes that market forces are the only thing capable of allocating energy resources effectively. It sees energy resources as no different than any other goods on the market. This approach is primarily founded on the concept of the "rational actor." Geographical or geopolitical determinants are considered almost irrelevant.²⁵ Lynne Chester even goes so far as to say that even to merely discuss energy security prevents the market from working properly.²⁶ She understands energy security in the context of a negative self-fulfilling narrative. Erin Carter and Pietro Nivola explicitly argue that using energy resources as a tool of foreign policy is ineffective and hardly ever happens.²⁷ In sum, the strategic-oriented and the market-oriented models of energy policy rely on opposing ideal theoretical paradigms. The reality on the ground is usually more complex and subtle, as is shown in this book.

The energy security complex

Barry Buzan, Ole Waever and Jaap de Wilde were the first to elaborate on the concept of the regional security complex in 2004 in their book

24 Martin Jirušek, Tomáš Vlček, Filip Černocho et al, *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015).

25 Morris Adelman, *The World Petroleum Market* (Baltimore: Johns Hopkins University Press, 1973).

26 Lynne Chester, "Conceptualizing Energy Security and Making Explicit Its Polysemic Nature," *Energy Policy* 38 (2012): 887–895.

27 Erin Carter and Pietro Nivola, "Making Sense of Energy Independence," in: *Energy Security: Economic, Politics, Strategies and Implication* (Washington D.C., Brookings Institution Press: 2009), 105–116.

Regions and Powers: The Structure of International Security.²⁸ They describe the regional security complex of the post-Soviet space, with the Russian Federation at its center. Back then, they claimed that Central Asia is either a sub-complex in the framework of a broad post-Soviet regional complex, or a nascent regional security complex of its own. Buzan et al. especially highlight the presence of other great powers in the region, primarily the United States and China.²⁹ In my work, I consider Central Asia a fully-fledged regional security complex, especially when it comes to energy.

Other authors have continued to develop the concept of the regional security complex and applied it to Central Asia. One of them is Ekaterina Klimenko, who regards Central Asia as a fully developed regional security complex of its own and not just a sub-complex of the post-Soviet space.³⁰ Evgeny F. Troitskiy analyzed how the presence of Russia and the United States in Central Asia influenced the formation and establishment of the Central Asian regional security complex from 1990 to 2010. He claims that it was the Central Asian states' interaction with these two great powers that resulted in the formation of this complex.³¹ Marek Musiol analyzed five securitized issues that are linked within its internal structure. These are: water and economic issues; issues of extremism, corruption, and degradation of state institutions; the "new great game" as it relates to geopolitics, oil, gas, and the transit of resources; drug trafficking; and finally, environmental and natural challenges. The geopolitics of oil and gas is the essence of the third issue, the "new great game," and is of the utmost importance for this book.³²

The concept of the regional energy security complex is less developed and less frequently applied than the concept of the regional security complex. In fact, it has only been studied in very few instances. Mikhail Zelensky studied the regional energy security complex of the Baltic Sea Region with a special focus on the impact of the Nord Stream Pipeline 1 on its security architecture. Zelensky's study is quite similar to this one in that it examines the impact of a pipeline construction on the situation in

28 Barry Buzan and Ole Waever, *Regions and Powers: The Structure of International Security* (Cambridge: Cambridge University Press, 2004), 50–70.

29 Ibid: 397–436.

30 Ekaterina Klimenko, "Central Asia as a Regional Security Complex," *Central Asia and the Caucasus* 12, no. 4 (2011): 7–20.

31 Evgeny F. Troitskiy, "Central Asian Regional Security Complex: The Impact of Russian and US Policies," *Global Society* 29, no. 1 (2014): 2–22.

32 Marek Musiol, "Post-Soviet Central Asia as Unique Regional Security Complex," *The Polish Quarterly of International Affairs* 24, no. 4 (2015): 59–68.

a regional energy security complex.³³ For his part, Jack Sharples applied the concept of the regional energy security complex in his study of the bilateral energy trade relationship of Russia and Poland. As transit states of the complex, he added Belarus, Germany, and Ukraine.³⁴

As can be seen from this review of the literature, the concept of the regional energy security complex is quite new and underused in academia in spite of its promising nature, which makes identification of additional closed systems suitable for research. Moreover, the concept appears never to have been consistently applied to the Central Asian region. Therefore, its application to Central Asia is a new step increasing knowledge of both regional energy security complexes in general and of the Central Asian region in particular. This book applies the aforementioned theoretical models to the real situation in Central Asia.

Energy security in Central Asia

Although my research into the Central Asian energy security complex is entirely original, several authors have previously covered energy security in Central Asia from other perspectives. Theoretical concepts of energy security, however, do not seem to play a central part in their studies. They use energy security, if at all, to explain and support various arguments about international economic or political relations between the individual states in the region.

Marléne Laruelle³⁵ and Sebastien Peyrouse³⁶ focused their research on the rising economic and political influence of China and its impact on the energy security of particular states in Central Asia and the region in general. They claim that China's attention, as directed to Central Asia since the beginning of the twenty-first century, will have significant impact on regional economic and political dynamics. Alexandros

33 Mikhail Zelensky, *Changing the Energy Security Balance in the Baltic Sea Region: Building Regional Energy Security Complex and Community. Nord Stream Gas Pipeline Case Study* (Tampere: University of Tampere, 2009).

34 Jack Sharples, "Russo-Polish Energy Security Relations: A Case of Threatening Dependency, Supply Guarantee, or Regional Energy Security Dynamics?" *Political Perspectives* 6, no. 1 (2012): 27–50.

35 Marlène Laruelle and Sebastien Peyrouse, *China as a Neighbor: Central Asian Perspectives and Strategies* (Washington, D.C.: Central Asia-Caucasus Institute and Silk Road Studies Program, 2009).

36 Sebastien Peyrouse, *Economic Aspects of the Chinese-Central Asia Rapprochement* (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2007), 46–69.

Petersen³⁷ and James Coomarasamy³⁸ identify China as the main rival of the United States and Russia in Eurasia, with Beijing gradually becoming the most active player in Central Eurasia. Petersen claims that China's increasing involvement in Central Asia is a bid for dominance in all of Eurasia.³⁹ All the authors mentioned believe that the impetus of China's involvement in Central Asia can be traced back to the issue of energy security of China itself.

This book intends to push the debate on the rising economic presence of China in Central Asia forward, and to broaden it to include the energy security of the most important energy player in Central Asia – Turkmenistan. The energy complex of Turkmenistan has been thoroughly analyzed by Anette Bohr.⁴⁰ She focuses her attention on the connection between Turkmenistan's gas sector and its internal politics. According to her, the gas sector is the backbone of Berdimuhamedow's regime and the prime driver of Turkmenistan's foreign policy. Luca Anceschi,⁴¹ among others, studied the formulation of foreign and energy policies of Central Asian states and how they overlap. He argues that when speaking of Turkmenistan, foreign, domestic, and energy policies are almost inseparable, and that energy security influences all of them more than anything else. Shamil Yenikeeff⁴² and Marta Brill Olcott⁴³ have also significantly contributed to the debate on the energy security of Turkmenistan and other Central Asian states. They regard the pursuit of the security of energy supplies and security of energy exports as the crucial factors determining the behavior of the Central Asian states, as well as of China and Russia.

The academic discussion of the rising economic presence of China in Central Asia and the energy security of Turkmenistan is directly linked to a third issue, the geopolitics of transportation in Central Eurasia. This

37 Alexandros Petersen, *The World Island: Eurasian Geopolitics and the Fate of the West* (New York: Praeger, 2011), 10–36.

38 Jamie Coomarasamy, "China's Westward Pivot: What It Means for Central Asia and Russia," *Mediterranean Quarterly* 20, no. 9 (2014): 48–59.

39 Alexandros Petersen, "Narodnaya respublika prevrashaetsya v imperiyu," *Pro et Contra* 1–2, no. 58 (2013): 10–36.

40 Annette Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism* (London: Chatham House Russia and Eurasia Programme, 2016), 20–35.

41 Luca Anceschi, "Analyzing Turkmen Foreign Policy in the Berdimuhamedov Era," *China and Eurasia Forum Quarterly* 6, no. 4 (2008): 35–48.

42 Shamil Yenikeeff, "Energy Interests of the 'Great Powers' in Central Asia: Cooperation or Conflict?" *International Spectator* 46, no. 3 (2010): 61–78.

43 Olcott, *Turkmenistan: Real Energy Giant*, 62–72.

debate is especially influenced by the works of Frederick S. Starr⁴⁴ and Alexandros Petersen.⁴⁵ Their work is very strongly centered on the issue of energy security, and it incorporates various political and geographical factors. Both Starr and Petersen have always been attracted by the heartland-pivot theory of Halford John Mackinder⁴⁶ and they understand the significance of energy infrastructure in Central Asia accordingly. Stephen Blank⁴⁷ and Richard Pomfret⁴⁸ similarly emphasize the importance of the opening of new energy corridors in Central Eurasia. They consider the renewed interest in Central Asian energy resources since the Soviet collapse as a game-changer in relation to the energy security of all Central Asian states as well as the adjacent great powers – China, Russia, India, Iran, and Turkey.

As stated above, the three most important topics in the ongoing academic discussion of energy security in Central Asia are the rising economic presence of China in the region, the energy security of individual states in the region, and the geopolitics of transportation in Central Asia. This book aims to follow up on all three of these topics. The energy security of particular states of the region is the essence of this book, along with the rising influence of China in the Central Asian economies. The Chinese influence is strongly felt in the new energy infrastructure projects in the region. Moreover, as was mentioned at the beginning of this subchapter, the concept of energy security has so far only played a collateral or explanatory role in the literature. It almost never plays the central role. This book's contribution lies in putting energy security into the central position as it relates to Central Asia.

Research Design

This book examines energy security in the context of the Central Asian regional energy security complex, or ESC, and in the context of the

44 Frederick S. Starr, "Looking West: China and Central Asia," Testimony Before the US-China Economic and Security Review Commission, March 18, 2015.

45 Alexandros Petersen, *Russia, China and the Geopolitics of Energy in Central Asia* (London: Centre for European Reform, 2011), 89–108.

46 Halford John Mackinder, "The Geographical Pivot of History," *Geographical Journal* 23, no.4, (1904): 421–437.

47 Stephen Blank, "Chinese Energy Policy in Central and South Asia," *Korean Journal of Defense Analysis* 21, no. 4 (2009): 435–453.

48 Richard Pomfret, *The Central Asian Economies Since Independence* (Princeton: Princeton University Press, 2014).

construction of the Turkmenistan–China Gas Pipeline (TCGP). It seeks to answer one overarching research question that deals with the environment and the actors of the Central Asian ESC: what is the predominant approach to energy policy among the states that make up the regional energy security complex of Central Asia?

States can display two major behavioral patterns within an ESC from the point of view of energy policy: market-oriented behavior, focused on maximization of profit, or strategic-oriented behavior, focused on maximization of the energy security of the state and other foreign policy and security goals.

If the majority of the states in the Central Asian ESC display market-oriented behavior, that means that the construction of new infrastructure such as the TCGP is dictated by market competition and has limited political implications. If strategic-oriented behavior predominates, the construction of new infrastructure projects is dictated by the need to maximize energy security and hence has clear political implications. This book endeavors to interpret energy-related disputes between Russia and Turkmenistan, and China's rising presence in Central Asia, in terms of those states' approaches to their energy policies. Although at first glance it could seem that it is only logical that authoritarian regimes are naturally prone to favoring strategic-oriented control and management of their respective energy sectors, the academic literature and business practice show that that is actually not the case. This is especially true for China, which displays the strongest pro-market orientation. However, the energy policies of Russia, Turkmenistan, and China have not yet been rigorously studied, which is the reason this book focuses on the region they inhabit and their shared energy security complex.

Theoretical Framework

The previous chapters present the topic of this book's research, its relevance to the most important academic debates about energy security in Central Asia, and the main question to be answered by the research. The following chapter presents the theoretical framework that underlies the research. It creates a theoretical model for analyzing the behavioral patterns of individual states with respect to their energy security. To begin, it describes the Central Asian regional energy security complex in terms of the postulates of the Copenhagen School of security studies and its followers.

Strategic-oriented approach vs. market-oriented approach

In order to answer the research question about the orientation of the Central Asian ESC states' energy policies, this book creates its own models for the study of the natural gas sector. One theoretical model exemplifies the *strategic-oriented approach* to energy policy, and is based on the assumptions and conclusions of the realist school of international relations. To begin, I present the principal features of the realist paradigm, then the strategic-oriented approach to the study of energy policy, and finally, a model for assessing the natural gas sector that I apply in my research. It must be acknowledged that this model expands upon the model used in research undertaken by Martin Jirušek in 2015.⁴⁹

The realist school of international relations, which is the foundation of the strategic-oriented approach to the study of energy policy, is based on three core assumptions. First, anarchy is unequivocally the predominant condition of humanity. Order, justice, and morality are not the rule but rather the exception. Political power is the one decisive factor in every interaction within a system. Second, the most basic element in society is a group. Groups come into conflict with each other by virtue of their individual natures. Groups do not necessarily have to be the nation states that are predominant at present. In the past, for instance, the predominant groups were tribes and empires. Third, what predominantly motivates human beings are considerations of power and security.⁵⁰

The realist paradigm further assumes that energy resources play an indispensable role in the formulation of the external policies of states and are unquestionably a source of international power. The more energy resources a state possesses, the stronger it is. Of course, a state must be capable of extracting and transporting those resources and there must exist a sufficient demand for them.⁵¹ The competition between states in this area reflects human nature, which is aggressive and selfish.⁵² Producer and transit states will try to harness their energy resources and infrastructure and gain more power, while consumers will seek to gain

49 Jirušek, et al., *Energy Security in Central and Eastern Europe*.

50 Robert G. Gilpin, "The Richness of the Tradition of Political Realism," in: *Neorealism and its Critics*, ed. Robert O. Keohane (New York: Columbia University Press, 1986), 287–304.

51 Jeffrey W. Legro and Andrew Moravcsik, "Is Anybody Still Realist?" *International Security* 24, no. 2 (1999): 5–55.

52 John Agnew, *Geopolitics: Re-visioning World Politics* (London: Routledge, 2003), 69–75.

control over the sources of energy. States and state actors perceive interstate relations as a zero-sum game.⁵³

There are two factors that influence international politics in the framework of neoclassical realism the most. These are the actual power of the state relative to other states, and the perception of the state's relative power by its ruling elite. Leaders of states, and not states *per se*, are the principal actors in international relations. Therefore, a system is created by the leaders of individual states.⁵⁴ According to Robert Gilpin, neoclassical realism distinguishes two basic types of international power: national power and state power. National power is often described as the military power of a state, but it is actually an aggregation of various material factors such as gross domestic product, the state's share of world trade, and its number of inhabitants. State power is the ability of the state's institutions to utilize national power to achieve its goals. In other words, a state with less national power may be able to project more state power by improving the functioning of its internal structure and organization. On the other hand, a state with substantial national power may project less state power to support its foreign policy aims if it has a less efficient internal structure.⁵⁵

Understanding the difference between national and state power is of utmost importance. Harnessing the national power of energy resources in order to increase state power is far easier in those states, where state institutions directly control vital enterprises and firmly regulate the energy market. In fact, non-democratic states such as Russia and China effectively utilize their energy resources in their foreign policies, projecting their state power far beyond their national borders, according to Michael Wesley.⁵⁶ To evaluate energy sources solely through the lens of market mechanisms is possible only once they lose their strategic importance. The basic assumptions of the realist paradigm are shown in Table 1.

The realist paradigm and its implications undergird the strategic-oriented model of energy policy. Any application of this model to real-world phenomena assumes that the energy sector is a strategically sensitive area. States perceive international engagement in this area as crucial for

53 Kenneth N. Waltz, *Theory of International Politics* (New York: McGraw-Hill Higher Education, 1979), 38–60.

54 *Ibid.*, 144–177.

55 Robert Gilpin, *War and Change in World Politics* (London: Cambridge University Press, 1983): 1–23.

56 Michael Wesley, *Restless Continent: Wealth, Rivalry and Asia's New Geopolitics* (Sydney: Black, 2015): 210–232.

Table 1: Basic assumptions of the realist paradigm

Power is the one decisive factor in every interaction within an anarchical international system.
States are the principal units of social reality. Individual states are inevitably in conflict with one another because of their nature.
Power and security are the predominant human motivations.
Interstate relations are a zero-sum game.
Military power is the most prominent material factor influencing the political power of a nation. Control and exploitation of natural resources are crucial to maintain a nation's industry, and consequently, the strength of its military power.
The realist paradigm is rooted in the logic of classical geopolitics. State involvement in the energy sector is crucial. Market forces are not seen as reliable in supporting the state's power; thus, it is the state actors who aim to control resources and supply routes.
Energy resources are both reasons for potential conflict and tools for resolving conflicts.
The inner processes of states are important, especially the perceptions of the state's representatives.
There is an important difference between national and state power.

Source: Scheme created for the purposes of this research

their survival. It therefore follows that such a sensitive area cannot be left solely to the influence of market forces. As a result, state actors seek to dominate energy resources (directly or indirectly) through a form of “resource nationalism.”⁵⁷ The strategic-oriented model of energy policy assumes that both producers and consumers desire to gain control over the sources of energy, which creates a significant potential for conflict.⁵⁸

Some states, such as Russia, Iran, and Venezuela, sell their energy resources to preferred customers for significantly lower than market prices. In doing so, their goal is to strengthen their influence in target countries or to strengthen their own security, among other things. According to Carol Saivetz, the setting of the price of natural gas shipped from Russia to some post-Soviet countries in the first decade of the twenty-first century was a blatant example of this behavior.⁵⁹ That is not to say

57 Jirušek, et al., *Energy Security in Central and Eastern Europe*.

58 Klare, *The Race for What's Left*, 50–68.

59 Carol R. Saivetz, “The Ties That Bind? Russia's Evolving Relations with Its Neighbors,” *Communist and Post-Communist Studies* 45, no. 3–4 (2012): 401–412.

that all exporters of energy resources prefer gaining geopolitical power over maximization of profit. However, Martin C. Spechler convincingly shows that the power of an individual state cannot be exclusively based on its economic power but must also rely on other geographical, political, and cultural factors.⁶⁰

If we consider the energy sector in isolation, the last decades have shown that the majority of states exercise control of their national companies that are active in this strategic sector of the economy. Based on the evidence adduced by Anders Aslund in the case of China, Russia, and Turkmenistan, as well as other states of the Central Asian ESC, the state directly or indirectly controls all key energy enterprises.⁶¹ As of 2010, state-owned energy enterprises were estimated to own approximately 70 to 80 percent of the world's natural gas reserves and to control 85 percent of the world's petroleum reserves.⁶²

Market-oriented energy policy is perceived in this book as a complete opposite of strategic-oriented policy. The reality is definitely more nuanced, but to create a workable and effective research framework, I had to make this generalization. In contrast to the strategic-oriented approach to the subject matter, Morris Adelman presumes that it is only the market forces who are able to allocate energy resources effectively; hence, it is quite ineffective to use them as tools of foreign policy.⁶³ Of course, it must be emphasized that both the market-oriented approach and the strategic-oriented approach used in the study of energy policy are merely ideal models for the purposes of academic analysis. In a real-world situation, the two foundations for policymaking are usually mixed in various proportions. In essence, the two models represent the dichotomy between a state-guided and a market-guided energy policy.⁶⁴ This dichotomy is summarized below in Table 2.

60 Martin C. Spechler, "Why Does China Have No Business in Central Asia?" *China and Eurasia Forum Quarterly* 7, no. 2 (2009): 569–84.

61 Anders Aslund, *How Capitalism Was Built: The Transformation of Central and Eastern Europe, Russia, and Central Asia* (New York: Cambridge University Press, 2007): 182–206.

62 Antonio Marquina, "Antonio Marquina on the Deceit of Globalization, Energy Security and Challenges to European Foreign Policy," Theory Talks, January 13, 2009, <http://www.theory-talks.org/2009/01/theory-talk-25.html>.

63 Morris Adelman, *The World Petroleum Market* (Baltimore: Johns Hopkins University Press, 1973).

64 Jirušek, et. al, *Energy Security in Central and Eastern Europe*.

Table 2: Assumptions of the strategic-oriented and market-oriented approaches for the study of policy making

	The strategic-oriented approach	The market-oriented approach
Theoretical basis.	Realist paradigm and classical geopolitics.	Liberal paradigm, neoclassical and neo-institutional economics.
General approach to energy in international relations.	The need for independence from external supplies of energy.	Energy independence is impossible; attempts to achieve it disrupt interstate relations.
Management of energy resources.	Scarcity, which leads to resource nationalism and state interference.	The market ensures efficient and appropriate allocation.
Role of energy policy in international relations.	Used to influence international relations, instrument of international relations.	Politicization of energy affairs leads to poor allocation and less effective allocation.
Limits of energy policy.	Emphasis on securing adequate and secure supply.	Complex view, looking at all resources, and looking at the functioning of markets, infrastructure, and influence.
Nature of the game and distribution of resources.	Zero-sum game, attempts at relative victory.	Non-zero-sum game, attempts at absolute victory.
Style of international relations.	International relations founded on bilateral relations.	Cooperation within international organizations, multilateral relations.
Positioning of actors in the international system.	States are the only relevant actors.	Multiple influential actors including businesses, international organizations, interest groups.
Role of the market.	High risk of market failure.	Supplies allocated effectively without state interference.
Positioning of energy resources.	A strategic interest of the state.	An ordinary market commodity.
Future development.	Conflict over energy resources and transit infrastructure.	Scarcity of resources is best solved by cooperation among participating actors in the system.

Source: Scheme based on Martin Jirušek, Tomáš Vlček, Filip Černoch et al., *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015)

Theoretical model for assessment of the natural gas sector in Central Asia

The model for assessment of the natural gas sector used in this book is based on the assumptions of the realist paradigm, the concept of strategic-oriented versus market-oriented energy policy, and on previous works published by Martin Jirušek and his colleagues. I applied the indicators that define a strategic-oriented energy policy to three case studies of

Table 3: Indicators of a strategic-oriented energy policy

Subtopic	Feature	Indicator
Energy resources	Energy resources perceived as strategically important.	Efforts to take control of energy resources, transit routes, and distribution networks.
	Energy sector crucial for the state's economy.	State's efforts to control the energy sector due to its strategic importance for the state's economy.
Energy actors	State-owned energy actors perceived as an extension of the state's apparatus.	Efforts to convert as much national power as possible into state power. State-owned energy actors are principal defenders of the internal political status quo.
	Reliance on bilateral relations.	Preference for long-term bilateral agreements. Diminished importance and influence of multilateral regimes.
Energy policy	Zero-sum approach.	Efforts to gain a dominant market position. Efforts to eliminate competitors.
	Energy as a tool of state policy.	Active support of state-owned energy enterprises and their activities in foreign countries. The foreign supplier rewards certain behavior. Abuse of infrastructure to exert pressure on other states and state actors.
Energy policy in Central Asia	Dependence on foreign sources seen as undesirable.	Attempts to control the entire supply chain regardless of commercial rationale for it.
	Emphasis on strategic goals over economic logic.	Takes economically irrational steps in order to maintain a certain position in a foreign state actor's market.

Source: Scheme based on Martin Jirušek, Tomáš Vlček, Filip Černož et al., *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015)

the most prominent state actors in the Central Asian ESC involved in the construction of the Turkmenistan–China Gas Pipeline: the People’s Republic of China, Russia, and Turkmenistan. I divided each case study into four subchapters: 1) the energy resources and energy infrastructure of the particular state; 2) the internal energy policy of the state and state actors such as energy enterprises and state institutions; 3) the energy policy course announced by each state actor; and 4) the real energy policy course followed by each state actor with regard to Central Asia. The features of a strategic-oriented energy policy are summarized in Table 3.

For each of the three states I examined, I searched primary and secondary sources for indicators that would show either a strategic-oriented policy or a market-oriented policy. My models were created with the Central Asian natural gas sector particularly in mind. Therefore, applying them to other ESCs has to be preceded by an analysis of the energy interdependencies of the particular ESC. The principal purpose of applying the models to the states and state actors of the Central Asian ESC is to determine the dominant kind of energy policy in the ESC as a whole. The analysis will also indicate the kind of approach taken by the states and state actors involved in the construction of the Turkmenistan–China Gas Pipeline and increase knowledge of its influence on the transformation of the Central Asian ESC.

Construction of the Central Asian energy security complex

Regarding the states and state actors in the energy sector, a regional energy security complex reflects the web of energy dependencies that exist on the ground in reality. I applied this tool in order to answer the research question about the nature of the Central Asian ESC states’ approaches to their energy security. It is very difficult to analyze the behavior of the actors inside an ESC without constructing a model of it in the first place. A further reason for the construction of the ESC model is that it allows the application of other theoretical concepts. These concepts are included in the model of the Central Asian natural gas sector that I have created for this study.

One of the core concepts of the Copenhagen School of security studies is the identification of four levels of international politics. These levels are: the international system, regional subsystems, national units, and sub-national units. According to the Copenhagen School, the most

important level in international relations is the regional subsystem, like the Middle East, Europe, or South Asia. They are important because the majority of threats to national, regional, and international security arise in regional subsystems. The level of security depends on the conditions in the regional subsystems known as regional security complexes.⁶⁵

According to Buzan, regional security complexes (RSC) are defined as distinct and stable patterns of security interaction between actors. They are distinguished from one another by degrees of interaction. The level of interaction between members of the same RSC is high, while between members of different RSCs it is comparatively low.⁶⁶ However, regional *energy* security complexes specifically are much more convenient groupings for the purposes of this study. They are very similar to the more general type, but their primary interactions are based on energy production and energy dependence. State elites usually perceive the latter as undesirable and as a potential threat to their national security. Regional energy security complexes thus represent a geographical area where energy interdependencies are concentrated.⁶⁷ Like Buzan, this book considers regional energy complexes to be mini systems to which we can apply international relations theories, concepts, and models.⁶⁸

Buzan himself identified a regional security complex in the post-Soviet space, which is centered around the Russia Federation. He thought of Central Asia as a sub-complex in the framework of the broader post-Soviet regional complex, and as a nascent regional security complex of its own.⁶⁹ The Central Asian regional security complex fulfills all four criteria set by the Copenhagen School to make it a full-fledged complex. These criteria are: a clear boundary, an anarchic structure, a polarity of powers, and the social construction of amity and enmity patterns.

The regional security complex of post-Soviet Central Asia consists of five states – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The boundaries of this complex are clear-cut and functional. The criterion of an anarchic structure means that the regional security complex must have more than two autonomous units. The Central Asian

65 Buzan and Waever, *Regions and Powers*, 57–70.

66 Ibid.

67 David Lake and Patrick M. Morgan, *Regional Orders: Security in the New World* (University Park: Pennsylvania State University Press, 1997): 20–68.

68 Buzan, Waever, and de Wilde, *Security: A New Framework*, 57–70.

69 Buzan and Weaver, *Regions and Powers*, 57–70.

regional security complex has five. The criterion of a polarity of powers means that there is no one clear hegemonic power in the complex and Central Asia fulfills this criterion. The final criterion is that among the states of the complex, there exist socially constructed amity and enmity patterns. This is also true of the Central Asian region, as will be shown in this book. Therefore, one can justifiably speak of a regional security complex of Central Asia. However, my research dealt primarily with the issue of energy security and therefore I work with the concept of the regional energy security complex (ESC) of Central Asia.

In order to complete the ESC model of Central Asia, it is necessary to expand the regional energy security complex by adding two neighboring great powers: the Russian Federation and the People's Republic of China (PRC). China and Russia are added to the energy security complex because they are the two principal importers of energy resources of the region. China and Russia are also the most important trade partners overall for all Central Asian states, as illustrated in Tables 4 through 10. In all cases, trade in energy resources makes up a significant portion of bilateral trade. For instance, Kazakhstan's two most important trade partners in 2017 were Russia (18.1% of its total trade) and China (18.4%). Uzbekistan's two most important trade partners based on total trade in 2017 were also Russia (20.6%) and China (13.5%). As for Turkmenistan, its main export partner in 2017 was China, which accounted for 71% of its exports.⁷⁰

The Central Asian states are either primary exporters of energy resources – Turkmenistan, Kazakhstan, and Uzbekistan – or transit states – Kyrgyzstan and Tajikistan. Hence, all the states in the regional energy security complex perceive their dependence on one predominant producer or consumer state as a potential threat to their national security.⁷¹ It is precisely the perception of energy dependence as a potential threat that binds the complex together and allows us to examine it as a unit.

70 The International Trade Centre, www.intracen.org.

71 Anita Orban, *Power, Energy and the New Russian Imperialism* (Santa Barbara: Praeger Security International, 2008), 33–166.

Table 4: Proven natural gas reserves, in trillions of cubic meters (2007–2019)

Year	Russia	Turkmenistan	China	Kazakhstan	Uzbekistan
2007	31.1	2.3	2.3	2.0	1.2
2008	31.4	7.3	2.8	2.0	1.2
2009	31.4	7.3	2.9	2.0	1.1
2010	31.5	10.2	2.8	2.0	1.1
2011	31.8	17.5	3.0	2.0	1.1
2012	32.0	17.5	3.2	2.0	1.1
2013	32.3	17.5	3.5	2.0	1.1
2014	32.4	17.5	3.7	2.0	1.1
2015	32.3	17.5	4.8	2.0	1.1
2016	32.3	17.5	5.4	2.0	1.1
2017	38.9	19.5	6.1	2.0	1.2
2018	38.9	19.5	6.1	2.0	1.2
2019	38.0	19.5	6.4	2.7	1.2

Source: Statistical Report of World Energy

Table 5: Production of natural gas, in billion cubic meters per year (2007–2019)

Year	Russia	Turkmenistan	China	Kazakhstan	Uzbekistan
2007	592.0	65.4	71.6	13.8	58.2
2008	601.7	66.1	83.1	16.1	57.8
2009	527.7	36.4	88.2	16.5	55.6
2010	588.9	42.4	99.1	17.6	54.4
2011	607.0	59.5	109.0	17.3	57.0
2012	592.3	62.3	111.8	17.2	56.9
2013	604.7	62.3	122.2	18.4	56.9
2014	581.7	67.1	131.6	18.7	57.3
2015	575.1	69.6	136.1	19.0	57.7
2016	579.4	66.8	138.4	19.9	62.8
2017	635.6	58.7	149.2	23.4	53.4
2018	669.5	61.5	161.5	24.4	56.6
2019	679.0	63.2	177.6	23.4	56.3

Source: Statistical Report of World Energy

Table 6: Trade volumes between Kazakhstan, Russia, and China, 2012–2020 (mil. USD)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
RF import	6,747.2	5,875.3	6,388.5	4,547.5	3,509.2	4,515.0	5,162	5,602	4,899
RF export	17,110.5	17,971.8	13,807.7	10,529.3	9,129.8	11,473.0	12,392	14,065	13,300
CN import	16,484.4	14,373.7	9,799.4	5,480.1	4,214.9	5,777.9	6,272	7,823	9,004
CN export	7,497.7	8,364.5	7,357.2	5,087.8	3,665.7	4,692.2	5,384	6,537	6,346

Source: The International Trade Centre

Table 7: Trade volumes between Turkmenistan, Russia, and China, 2008–2020 (mil. USD)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
RF													
import	100.1	45.0	148.0	142.6	183.8	139.4	90.9	71.3	331.2	83	155.0	151.4	320.3
export	809.0	999.0	717.5	1,116.0	1,211.0	1,430.0	1,138.0	843.9	570.6	343	288.8	543.0	650.0
CN													
import	28.4	38.5	1,045.0	4,693.0	8,673.0	8,893.0	9,516.0	7,828.0	5,563.0	5,933	8,119.0	8,686.0	6,071.0
export	801.9	915.7	525.1	784.1	1,699.0	1,138.0	954.3	815.5	338.5	361	316.7	431.0	444.7

Source: The International Trade Centre

Table 8: Trade volumes between Uzbekistan, Russia, and China, 2012–2019 (mil. USD)

	2012	2013	2014	2015	2016	2017	2018	2019
RF import	1,390.8	1,256.9	869.8	575.8	761.0	1,010	1,636.6	2,067.2
RF export	2,324.7	2,803.9	3,113.6	2,221.9	1,965.0	2,620	3,382.7	3,974.2
CN import	1,091.8	1,938.0	1,597.9	1,267.1	1,607.0	1,400	2,120.9	1,767.4
CN export	1,783.3	2,613.4	2,678.2	2,228.8	2,007.5	2,721	3,539.4	5,052.0

Source: The International Trade Centre

Table 9: Trade volumes between Tajikistan, Russia, and China, 2012–2020 (mil. USD)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
RF import	68.3	37.9	37.3	52.2	26.4	24.6	55.2	44.3	41.0
RF export	679.0	724.0	891.0	763.0	662.0	687.0	967.9	1,009.2	932.6
CN import	108.8	88.8	47.7	52.0	31.3	45.8	57.0	55.4	34.4
CN export	1,747.9	1,869.4	2,468.3	1,795.4	1,725.0	1,301.0	594.1	605.5	438.4

Source: The International Trade Centre

Table 10: Trade volumes between Kyrgyzstan, Russia, and China, 2012–2020 (mil. USD)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
RF import	219.1	152.7	122.3	157.3	145.2	269.0	314.0	270.7	241.6
RF export	1,784.6	1,989.2	1,779.8	1,271.6	799.8	1,360.0	1,239.9	1,362.3	1,316.0
CN import	61.4	39.0	32.8	35.9	79.7	82.9	61.2	81.5	43.2
CN export	1,210.3	1,432	1,098.5	1,029.0	1,464.9	4,460.0	1,942.2	1,733.9	736.8

Source: The International Trade Centre

Methodology and Data

This subchapter explains the methodological framework of this book step-by-step. First, I define my subject matter as the changing energy security of Central Asia after the dissolution of the Soviet Union in 1991. The choice of this broad topic was based on my previous academic work and areas of interest. The topic relates to the subject matter of the four most important academic debates about Central Asia: energy security in general, the formulation of energy policy, regional energy security complexes, and energy security in Central Asia. My analysis draws on the most relevant secondary academic literature in which all four of these debates were conducted.

This monograph aspires to contribute to all four of the aforementioned debates. As for energy security, I examine regionalism in energy security as well as the politicization and weaponization of energy resources. The behavioral patterns of states and state actors in the formulation of energy policy are at the core of the research in this book. I have created models of strategic-oriented and market-oriented energy policy and applied them to the datasets I gathered. The concept of regional energy security complexes is quite new and is still rather underdeveloped in the literature. It seems never to have been applied to the Central Asian region before. Therefore, this book is a step forward that demonstrates both the possibilities and the limits of this type of research and analysis.

Finally, the academic debate on energy security in Central Asia splits into three important subgroups. These are: China's rising economic influence in the region, the energy security of particular Central Asian states, and the geopolitical significance of energy transport in Central Eurasia. This book follows up on all three of these issues. Its argument is novel in that it clearly focuses on the issue of energy security. As it contributes to all of the aforementioned academic debates about energy security in Central Asia, my research should be of interest to both academics and politicians.

This book focuses on the interdependencies in Central Asia in the field of natural gas. This is because natural gas has significant geopolitical implications due to the technical complexity of transporting it. The availability of natural gas is a litmus test for a state's energy independence and an indicator of complex interdependencies between states. From this point of view, Turkmenistan is the most important Central Asian player in natural gas, as measured by its abundant supplies of natural gas and its ability to export it to markets abroad.

Since 1991, the energy security of Turkmenistan has been significantly influenced by the construction of the Turkmenistan–China Gas Pipeline. An analysis of the impact of the pipeline on the energy security of particular states requires a regional approach. The energy security of an energy producer and exporter such as Turkmenistan critically depends on its customers and importers in the region. Therefore, this research works with the concept of the Central Asian regional energy security complex. It includes all five Central Asia states – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan – in the complex, as well as the two most important great powers and energy importers in the neighbourhood – China and Russia. The regional energy security complex is best analyzed with regard to the interdependencies of these countries in the gas sector. This focus helps to facilitate and narrow down the scope of the research here presented.

I have chosen to answer one overarching research question: “What is the predominant approach to energy policy among the states and state actors of the regional energy security complex of Central Asia?” Answering that question requires an examination of the basic behavioral patterns of the states that make up the Central Asian ESC. My research then builds upon the behavioral patterns and analyzes how they influence relations among the states of the ESC.

The process of answering the research question first requires defining and constructing a model of the Central Asian energy security complex, as described in the section on the theoretical framework in Chapter One. The definition of the Central Asian ESC is based on concepts used in security studies. It is then necessary to determine the actual behavioral patterns of the states of the Central Asian ESC, which could be either market-oriented and focused on maximizing profits, or strategic-oriented and focused on maximizing the energy security of particular states of the ESC.

I created a model of strategic-oriented behavior that I subsequently applied to the states and state actors involved in the Central Asian ESC. The creation of this model drew on the concepts used in security studies and the realist school of international relations. I applied it to three of the most important actors in the Central Asian ESC as regards trade in natural gas – Russia, China, and Turkmenistan. The Turkmenistan–China Gas Pipeline construction had the greatest impact on these three states as well. Hence, the core of this book consists of three case studies of energy security and energy policy formulation – of Turkmenistan, Russia, and China. My model assumes that market-oriented energy policy is the exact

opposite of strategic-oriented policy and assesses the natural gas sectors of the three states in that light. Therefore, if a state does not behave in conformity with a strategic-oriented policy, I assume it is behaving in conformity with a market-oriented policy.

I attempt to answer the research question by applying the criteria of the model to assess the Central Asian ESC natural gas sector. The criteria are the following: the state perceives its energy resources to be strategically important; it perceives its energy sector as crucial to its economy; it perceives its state-owned energy actors as extensions of its state apparatus; it prefers to rely on bilateral relations rather than multi-lateral relationships; it perceives the energy sector as a tool for achieving the ends of the state; it perceives achieving energy security as a zero-sum game; it perceives energy dependence as undesirable; and it emphasizes strategic goals over economic logic.

I looked for evidence of each of these criteria as I prepared the three case studies on Russia, China, and Turkmenistan and have summarized my approach in Table 11. It must be stressed that the data could lead to a conclusion that the actors of the ESC were predominantly behaving according to a strategic-oriented energy policy, but at the same time behave according to a market-oriented policy with regard to the construction of the TCGP. Moreover, some actors could be behaving in accordance with strategic-oriented policy and others in accordance with market-oriented policy.

The fact that this book analyzes relatively understudied phenomena meant that it required heavy reliance on primary sources. I gathered most of my primary data during my field trips to Central Asia, Russia, and the United States between 2014 and 2020, as well as from various online databases.

Among the primary data sources belong energy statistics and articles published by relevant international organizations, governmental organizations, and energy-related enterprises. Apart from enterprises directly involved in the energy sector, I worked with primary data produced by the governments and relevant ministries of certain states of the Central Asian ESC. These were the Russian Federation, the People's Republic of China, Turkmenistan, Kazakhstan, and Uzbekistan.⁷²

Additional primary data concerning the global and Central Asian energy sectors can be found in the publications of specialized international organizations and agencies, including the International Energy Agency,

72 A list of the most important primary sources I used can be found in the bibliography.

Table 11: Operationalization of the model for the assessment of the Central Asian ESC natural gas sector

Feature	Feature present	Feature not present
Energy resources perceived as strategically important.	met/mostly met	not met
Energy sector perceived as crucial for state's economy.	met/mostly met	not met
State-owned energy actors perceived as extension of state's apparatus.	met/mostly met	not met
Reliance on bilateral relations.	met/mostly met	not met
Zero-sum approach.	met/mostly met	not met
Energy considered to be a tool of the state.	met/mostly met	not met
Dependence perceived as undesirable.	met/mostly met	not met
Emphasis on strategic goals over economic logic.	met/mostly met	not met
Strategic-oriented policy.	if majority met = confirmed	if majority not met = not confirmed, therefore market-oriented policy

Source: Scheme created for the purposes of this research

the World Energy Council, the United States Energy Security Council, and the US Energy Information Administration. Other key sources of primary data include various media outlets, both international and local. However, the data from those outlets must be analyzed critically and with utmost caution given the high degree of governmental control over the media in the states of the Central Asian ESC. The sources I used included newspaper articles, commentaries, and analyses published in the region's leading media outlets.⁷³

In addition, this monograph draws on a multitude of secondary academic sources, both for the construction of the methodological and theoretical framework of the research and for factual information. The main secondary sources are presented in the State of the Research section of Chapter One. I divided the secondary sources of data into four subgroups according to the issues to which they relate: energy security,

⁷³ My most important media sources were: *Neitralniy Turkmenistan*, *Turkmenistan.ru*, *Fergana.ru*, *Reuters*, *BBC*, *China Daily*, *People's Daily*, *Xinhua News Agency*, *Lenta.ru*, *Vedomosti*, *RBC* and *TASS*.

behavioral patterns of states and state actors in the formulation of energy policy, the energy security complex, and energy security in Central Asia. I worked chiefly with primary and secondary resources in the English or Russian languages because of their ready availability and my familiarity with those languages. Nevertheless, I gathered data without regard to the ideological or political orientation of the sources.⁷⁴

74 A list of the most important authors of the secondary literature and their works is presented in the first chapter of this book in the subchapter on the State of Research.

2. Russia's Energy Policy in Central Asia

The first of my three case studies focuses on Russia's energy policy and its formulation with regard to the Central Asian ESC. This chapter is divided into four main parts: energy resources, energy actors, energy policy in general, and energy policy as regards the Central Asian ESC. The content of these subchapters is based on my evaluation of primary sources and secondary academic sources. The goal of this particular case study is to search for the features identified by the model as it relates to the natural gas sector, i.e. the perception that energy resources are strategically important; the perception that the energy sector is crucial for the state's economy; the perception that state-owned energy actors are extensions of the state apparatus; reliance on bilateral relations rather than multilateral arrangements; the perception that the energy sector is a tool for achieving the state's goals; zero-sum approach to energy policy; the perception that dependence on other states is undesirable; and an emphasis on strategic goals over economic logic. This research is a major stepping-stone in the process of answering the research question about the predominant type of energy policy among the states of the Central Asian ESC. The next step in this chapter is an assessment of the particular indicators gathered in the research.

Energy Resources

Russia's oil and gas industries are among the oldest in the world. The first oil wells on Russian territory were drilled in the 1840s near Baku, now in Azerbaijan. In the second half of the nineteenth century, new oil fields were discovered, especially in the North Caucasus and Central Asia. By

1900, the Russian Empire was producing 40 percent of the world's oil output.⁷⁵ After the Second World War, hydrocarbon extraction extended into the Ural-Volga region. In 1985, Russia's exports of crude oil provided 39 percent of all the hard currency income of the Soviet Union. In 1988, Soviet oil production reached its peak with 12.5 million barrels per day.⁷⁶ However, after the breakup of the Soviet Union, oil production dropped by 50 percent from 1990 to 1995.⁷⁷

At present, Russia's overall petroleum resources are estimated at 80 billion barrels. This represents approximately five percent of the estimated global reserves.⁷⁸ However, Russia's production as a percentage of world output is much higher. As of now, it is approximately 10.9 million barrels per day, representing more than 13 percent of the world's production.⁷⁹ The estimated amount of natural gas reserves in Russia is 32.3 trillions of cubic meters (tcm), which represents 23.7 percent of global reserves. This makes Russia the world's largest natural gas exporter and the second largest natural gas producer after the United States. The overall production in 2016 reached almost 579.4 billion cubic meters (bcm).⁸⁰

The key extraction areas at present are the Volga region and the Timan-Pechora region in northern Russia. The most important natural gas fields in the Timan-Pechora region are Urengoy, Medvezhye, and Yamburg. Other promising extraction sites with mid-term prospects are at Zapolyarnoye, Yamal, and Sakhalin Island in the Russian Far East.⁸¹ The most important gas export pipelines are the Yamal–Europe Gas Pipeline, the Russia–Finland Gas Pipeline, the Soyuz Gas Pipeline, the Bratstvo Gas Pipeline, Blue Stream, and Nord Stream I. There are also new pipeline projects in various stages of implementation.⁸² It is expected that the production of hydrocarbons in Russia will gradually move eastwards and

75 Vagit Alekperov, *Oil of Russia: Past, Present and Future* (Minneapolis: East View Press, 2011), 1–159.

76 Hedvika Kodoušková, Petra Kuchyňková and Anna Leshchenko, *Energetická bezpečnost asijských zemí – Energy Security of Asian Countries* (Brno: Masaryk University, 2012), 141–148.

77 “Crude Oil Production of the Russian Federation,” OECD Data, data.oecd.org/energy/crude-oil-production.htm.

78 “Worldwide Look at Reserves and Production,” *Oil and Gas Journal*, December 1, 2014.

79 “Country Report on Russia,” Energy Information Agency, www.eia.gov/beta/international/analysis.cfm?iso=RUS.

80 Ibid.

81 “Mestorzhdzenia,” Gazprom, www.gazprom.ru/about/production/projects/deposits.

82 *Russia 2014*, (Washington: Energy Information Agency, 2014).

further north into the Arctic regions. Whether that would mean a shift of Russia's export markets from Europe to Asia is still unclear.⁸³

Russia's economy and especially its hydrocarbon complex were heavily damaged by the breakup of the Soviet Union. Russia's energy consumption fell by 14 percent in the first half of the 1990s and only began to rise again from 2000 to 2010. In 2016, natural gas constituted 52 percent of Russia's energy consumption, petroleum constituted 23 percent, coal 10 percent, and renewables 15 percent.⁸⁴ Hence, there was a significant amount of oil and gas available for export. Hydrocarbon revenues provided 50 percent of Russia's federal government revenues and constituted 68 percent of the country's total exports in 2013.⁸⁵

The position of natural gas in the mix of the domestic energy consumption in Russia is being solidified by governmental subsidies. For instance, in 2016 the end-user cost of natural gas on Russia's internal market was USD 112 per thousand cubic meters but on the European market it was approximately USD 550.⁸⁶ Thus, it could be argued that the Russian government is buying the support of its citizens by subsidizing the price of natural gas. The result is that the ruling regime is even more dependent on its energy sector and on natural gas in particular for its energy security.⁸⁷

This subchapter on the energy resources of the Russian Federation shows that its energy sector has been considered one of the key sectors of its economy ever since the late nineteenth century. The Soviet, and now the Russian state perceives the energy sector as one of the central elements supporting its power. The same goes for the Putin regime, which subsidizes energy in order to ensure political support. The Russian state is therefore vitally interested in controlling its energy sector. It considers energy a strategic asset that maintains popular support of the ruling regime.⁸⁸

83 For more on the role of energy resources in state policies see: Philip Andrews-Speed, *International Competition for Resources: The role of law, the state and markets* (Dundee: Dundee University Press, 2008).

84 "BP Energy Outlook – Russia," *BP*, www.bp.com/content/dam/bp/pdf/energy-economics.

85 "Country Report on Russia," Energy Information Agency, www.eia.gov/beta/international/analysis.cfm?iso=RUS.

86 *Russia 2014* (Washington: Energy Information Agency, 2014).

87 For more on foreign policy of Russia see: Dmitri Trenin, "Drivers of Russia's foreign policy," in: Kaadri Liik, *Russia's Pivot to Eurasia* (London: European Council on Foreign Relations, 2014), 34–40.

88 For more on energy security of Russia and Asian countries see: Hedvika Koďoušková, Petra Kuchyňková and Anna Leschenko, *Energetická bezpečnost asijských zemí a Ruské federace* (Brno: Masarykova Univerzita, 2012).

State Actors in the Energy Sector

The current political system in Russia can be described as “neo-tsarism” because in Russia power is personalized, as it is in a monarchy.⁸⁹ Vladimir Putin and his entourage direct both the internal and external policies of their country in a Hobbesian use of the power they wield. They perceive international politics as nothing short of an unending struggle for power, money, and influence, and to them, Russia’s internal politics is no less of a struggle to stay in power – at any cost. To fail in this struggle would cost those in power a lot more than just property.⁹⁰ This attitude was apparent during the early years of the twenty-first century, when Putin and his inner circle subdued and destroyed the oligarchs who had controlled Russia’s energy sector in the previous decade. It became even more obvious during the 2010s as Russia began to act upon its neo-imperial ambitions.

The inception of Putin’s rise to power lay in a program of massive re-nationalization of the energy sector that took place after 2000. Putin installed persons from his inner circle to the top managerial positions in the state-controlled energy enterprises. Over the course of his first presidential term, the country’s oil enterprises were partly nationalized and reorganized. Their number diminished from thirteen to eight. During his second presidential term, the state’s share of ownership of the oil industry rose from 13 percent in 2004 to 40 percent in 2007.⁹¹

Putin’s administration made it harder for foreign investors to be active in Russia. At present, a special government commission examines and approves every purchase of a controlling interest by a foreign investor in companies operating in strategic sectors of the economy.⁹² Also, the government has to approve purchases of more than a ten percent share of large oil and gas fields by law. This requirement was enshrined in the so-called strategic law of 2008.⁹³ All of these factors suggest that the

89 For a thorough account of the transformation of Russia’s economy see: Aslund, *How Capitalism Was Built*.

90 Ibid: 40–42.

91 Daniel Treisman, *Putin’s Silovarchs* (Los Angeles: Orbis, 2007), 141–153.

92 David Wood, “Russia Seeks Global Influence by Exploiting Energy Geopolitics,” *Oil & Gas Journal* 105, no. 6 (2007): 20–24.

93 “Federalnyi zakon ot 29 aprelya 2008 goda N 57-FZ g. Moskva O poryadke osushchestvleniya inostrannykh investitsii v khozyaistvennye obshchestva, imeyushchie strategicheskoe znachenie dlya obespecheniya oborony strany i bezopasnosti gosudarstva,” Law adopted by the State Duma on April 2, 2008.

energy sector is the most valuable asset of Putin's regime and a potential tool of foreign policy.

Russia's oil sector was largely privatized after 1991, while the gas sector remained in the state's hands. There were concerns that the Soviet-era management would stay in power at Russia's state-owned oil companies and create a new ruling class. Privatization of the oil sector was supposed to avert that. Still, transportation of oil products remained in the hands of the state in the form of two monopolies, Transneft and Transnefteprodukt.⁹⁴ Transneft focused on the transport of crude oil while Transnefteprodukt transported oil products.

The situation in the gas sector was quite different. The Ministry for Gas Industry was turned into the giant Gazprom after the fall of the Soviet Union. Gazprom controlled the state's natural gas resources and infrastructure. The first real competition in the sector only began to appear between 2000 and 2010. Gazprom's shares were freely tradable during the entire period of the 1990s and the Russian state controlled only 40 percent of them.⁹⁵ This policy changed with the accession of Vladimir Putin to the presidency. He insisted that the state must control the majority of the shares in Gazprom because of its strategic value. As a result, the Kremlin gained control of the majority of Gazprom's shares in 2005.⁹⁶

If the energy sector of Russia is a weapon of its foreign policy, Gazprom should be seen as its spearhead.⁹⁷ It was the most profitable company in the world in the year 2012. That year, its profits peaked at USD 44.5 billion.⁹⁸ As of 2010, it controlled 66 percent of all the natural gas-related activities in Russia. Moreover, as of 2017 it had approximately 462,000 employees and was one of the most important employers in the country.⁹⁹

Gazprom was created from the Soviet-era Ministry for Gas Industry in the first half of the 1990s. Its first Chairman was Viktor Chernomyrdin,

94 "Istoria," Transneft, transneft.ru/about/story and "Ob organizacii," Transnefteprodukt, transnefteprodukt.transneft.ru/about.

95 For more on Putin's policies in the energy sector see: Marshall Goldman, *Petrostate: Putin, Power and the New Russia* (Oxford: Oxford University Press, 2008), 33–55.

96 "Istoria," OAO Gazprom, www.gazprom.ru/about/history/chronicle/2005.

97 For more on Gazprom's place in Putin's regime see: Niklas Norling, *Gazprom's Monopoly and Nabucco's Potentials: Strategic Decisions for Europe* (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2007).

98 "Gazprom – eto mylnyi puzyr, kotoryi doit gosudarstvennyi byudzheth," *Kommersant*, July 30, 2012, www.kommersant.ru/doc/1991666.

99 "O Gazprome," OAO Gazprom, www.gazprom.ru/about.

who served as Russia's prime minister between 1992 and 1998. The privatization of Gazprom began in 1992. Between 1993 and 2004 the Russian state controlled 40 percent of its shares, private Russian entities another 40 percent, and foreign investors 20 percent.¹⁰⁰ However, this situation changed with the rise of Vladimir Putin, who increased the state's ownership to 51 percent soon after his appointment to presidential office. By the end of the 2010s, Gazprom controlled 70 percent of Russia's natural gas resources and 85 percent of its natural gas production.¹⁰¹ Today it controls and maintains Russia's vast network of 172,000 kilometers of gas pipelines.¹⁰² Gazprom is one of the critical pillars of Putin's power both in Russia and abroad.¹⁰³

In a sense, the situation in the natural gas sector is less liberalized than in the petroleum sector, where Transneft controls Russia's transportation infrastructure. The most important natural gas fields controlled by Gazprom are Yamburg, Medvezhye, and Urengoy. Besides its activities in the natural gas sector, Gazprom owns Gazprom Media, Gazprom Bank, the pension fund NPF Gazfond, 26 cultural centers, sports complexes, and hospitals. In addition, it is the most significant owner of agricultural land in Russia. It is the owner of SIBUR, the largest refinery company in Russia.¹⁰⁴ Finally, and importantly, it extracts petroleum through its subsidiary Gazpromneft, which, under the name of Sibneft, was formerly owned by Roman Abramovich.¹⁰⁵

Russia's political elites hail the transformation of Gazprom under Putin as one of his most significant feats. According to Alexander Prokhanov, head of the pro-Putin Izborskiy Club and one of the Putin regime's most prominent propagandists:

The development of Gazprom, turning it into a state-forming, empire-forming structure, is a big achievement of Putin's. With its help, he has scattered pipelines across Eurasia, connecting them with Europe, Belarus, Ukraine, and the Central Asian republics. Moreover, this strapping of space with steel pipes is

100 OAO Gazprom, "Istoria."

101 Goldman, *Petrostate*, 93–136.

102 "Yedinaya sistema gazosnabzheniya Rossii," OAO Gazprom, www.gazprom.ru/about/production/transportation.

103 For more on Gazprom see: Kevin Rosner, *Gazprom and the Russian State* (London: GMB Publishing Ltd., 2006).

104 Mikhail Zygar and Valery Panyushkin, *Gazprom: novoye russkoye oruzhye* (Moscow: Zakharov Books, 2008), 156–189.

105 "Sibneft menyaet nazvanie i yuridicheskiy adres," OAO Gazprom, www.gazprom-neft.ru/press-center/news/1882.

the prototype of the future great state. Gazprom is the civilizational achievement of Putin's Russia... Gazprom saved the country and laid the foundation for future statehood. Gazprom is a steel bud, from which the flower of the fifth Russian empire will eventually bloom.¹⁰⁶

It is quite ironic that it has been rather China and its national petroleum corporation who has been "scattering pipelines across Eurasia" since 2010.

Another Russian oil and gas giant is Rosneft, which was created from the Soviet-era Ministry of the Oil Industry in 1991. Rosneft was not particularly successful in the 1990s. Its rise to prominence started only at the end of that decade, and its growth is firmly connected with its former president, Sergei Bogdanchikov. Under Bogdanchikov's direction, Rosneft gained control of the Yukosneftegaz company, also known as Yukos, in 2004.¹⁰⁷ This acquisition accelerated the company's growth. Five years later, Yukos' share in the extraction activities of Rosneft was 61 percent for oil and 21 percent for gas.¹⁰⁸

Since 2008, Rosneft has been the largest producer of petroleum in the Russian Federation. Most of its oil resources are located in Western Siberia. The Russian state controls approximately 70 percent of its shares.¹⁰⁹ Rosneft is almost as important to Putin's regime as Gazprom. However, it took much more effort and scheming to make it the oil behemoth it currently is.¹¹⁰

The next big oil and gas enterprise, Lukoil, is relatively independent of the Russian government compared to Rosneft. Lukoil was founded at the beginning of the 1990s by Vagit Alekperov, who to this day is still its president and biggest shareholder. Lukoil was created out of three Western Siberian companies – Langepasneftegaz, Urayneftegaz, and Kogalymneftegaz. These early companies are still commemorated in the first three letters of the name Lukoil.¹¹¹ Lukoil is unusual in the Russian context because it is dominated by its minority shareholders. However, this does not mean that Lukoil is immune to political pressure. Its founder Alekperov, for instance, served as deputy minister for oil production

106 Aleksandr Prokhanov, "Znakomiy kamen rossiyskoi gosudarstvenosti," *Politics.ru*, December 22, 2013.

107 Mikheil Khodorkovsky, "Vokrug YuKOSa," khodorkovsky.ru/yukos/2015.

108 Kodoušková, Kuchyňková, and Leshchenko, *Energetická bezpečnost asijských zemí*, 165–70.

109 "Rosneft segodnya," Rosneft, www.rosneft.ru/about/Glance.

110 Giacomo Luciani, "Is Russia a Threat to Energy Supplies?" *Oxford Energy Forum* 66 (2006): 4–10.

111 "Istoriya Kompanii," Lukoil, www.lukoil.ru/new/history/2015.

in the 1990s. Above all, five of the eleven members of the company's executive board are former politicians, including Igor Ivanov, who was Russia's Minister of Foreign Affairs from 1998 to 2004.¹¹²

Lukoil controls 1 percent of all world petroleum reserves and 2.2 percent of the world's petroleum production. That translates into 17.8 percent of Russia's petroleum production. Its activities are concentrated in Western Siberia, the Ural-Volga region, the Timan-Pechora region, and the Caspian Sea region. It also owns a network of petroleum stations in 26 countries, including some in Europe.¹¹³ Lukoil is handy to the overall interests of Russia's energy sector as it can participate in projects and initiatives abroad that would not be accessible to fully state-controlled enterprises such as Gazprom and Rosneft. Its existence is beneficial to Putin's regime, but it does not jeopardize the position of either Rosneft or Gazprom.

Another formerly valuable player, TNK-BP, was created in 1995 by a governmental decision as TNK (Tyumenskaya neftyanaya kompania) as a merger of two companies, Nizhnevartovskneftegaz and Tyumenneftegaz. After a brief period of acrimonious competition, TNK and BP joined their activities in Russia in 2003 and founded TNK-BP. Since that time, conflicts between Russia's government and TNK-BP arose, but in 2013 TNK-BP was acquired by Rosneft, which consequently became world's largest oil producer.¹¹⁴ With this step, Russia's government squeezed the last significant foreign player out of its energy sector. Moreover, the acquisition of TNK-BP helped Rosneft to strengthen its position in Eastern Siberia and the Far East.

As of 2019, Novatek was the second largest producer of natural gas in Russia after Gazprom. At the beginning of the 1990s, it focused only on the construction of pipeline infrastructure, but it later broadened the portfolio of its activities. At present, it chiefly pursues liquefied natural gas (LNG) initiatives across Russia.¹¹⁵ Novatek is not free of the Kremlin's influence – Gazprom owns almost 10 percent of its shares and Putin's close friend and billionaire Gennady Timchenko owns another 23 percent. There are even hints that Timchenko owes his position in Novatek to Putin's influence. Two of the important oil and gas enterprises

112 "Sostav Soveta direktorov Kompanii, izbrannyyi na godovom obshchem sobranii aktsionerov 23 iyunya 2016 goda," Lukoil, www.lukoil.ru/back/staff_head.asp?dep=0.

113 "Obshchaya informatsiya o Kompanii," Lukoil, www.lukoil.ru/static_6_5id_29_.html.

114 Rupert Neate, "Rosneft Takes Over TNK-BP in \$55bn Deal," *The Guardian*, 21 March 2012, www.theguardian.com/business/2013/mar/21/rosneft-takes-over-tnk-bp.

115 "O kompanii," Novatek, www.novatek.ru/ru/about/company.

in Russia – Lukoil and Novatek – are nominally independent, but they are subject to governmental restrictions and limitations.

This subchapter on the energy players in Russia explains how it happened that Putin’s regime directly or indirectly controls almost all of the country’s energy sector. Both Gazprom and Rosneft are key pillars of the current political regime in Russia. However, even formally independent energy players such as Lukoil and Novatek have strong connections to the ruling power vertical. Those facts lead to the conclusion that the Russian state wants to transform as much of the national power generated by its energy sector into state power as possible. It considers state-owned or state-dependent energy actors to be an extension of the state apparatus. This subchapter describes Russia’s efforts to take control of crucial energy actors as it did in the case of TNK-BP. This concerted effort indicates that Russia sees energy resources as strategically important commodities.

Energy Policy

Russia’s energy policy cannot be understood without paying attention to its geopolitical position. Putin’s regime is tightly focused on maintaining stability and order at home, and it is strictly on guard against external interference. These priorities are summed up in the concept of “sovereign democracy” coined by Putin regime’s ideologue, Vladislav Surkov.¹¹⁶ Putin’s narrative emphasizes the unstable and corrupt era of the 1990s that accompanied the rise of the so-called oligarchs.

One of the most prominent of those oligarchs, Mikhail Khodorkovsky, was sentenced to imprisonment in 2005. His chief sins were the following: he attempted to move the headquarters of the oil and gas producer Yuganskneftegaz from Russia to the United States, to sell shares of Yukos (a merger of Yuganskneftegaz and other oil-related companies) to the US company Exxon, and to build a privately-owned pipeline to China.¹¹⁷ In the same year, Gazprom gained control over the company Sibneft, which belonged to other prominent oligarchs, Roman Abramovich and

116 Vladislav Surkov, “Suverenitet – eto politicheskii sinonim konkurentosposobnosti,” *United Russia*, February 22, 2006, web.archive.org/web/20060418035317/http://www.edinros.ru/news.html?id=111148.

117 Jennifer Rankin, “Russia Ordered to Pay \$50bn in Damages to Yukos Shareholders,” *The Guardian*, July 28, 2014, www.theguardian.com/business/2014/jul/28/russia-order-pay-50bn-yukos-shareholders-khodorkovsky-court.

Boris Berezovsky.¹¹⁸ Russia regained its majority share in Gazprom and nationalized approximately half of the oil sector between 2003 and 2007. This move cemented Putin's regime and assured it a financial base.

The change in Russia's attitude towards its energy policy after the accession of Vladimir Putin was evident already in the concepts of its foreign policy¹¹⁹ and national security policy¹²⁰ published in the year 2000. Both of these documents stressed the pivotal importance of energy in Russia's foreign policy and national security. The Russian energy strategy published in 2003 emphasized its importance even more.¹²¹ The 2003 energy strategy document starts out with a clear statement: "Russia possesses huge deposits of energy resources and a powerful fuel energy complex, which is the basis for the development of its economy and an instrument of foreign and domestic policy."¹²²

The strategy document outlined both western and eastern directions for Russia's energy policy. However, it was clear that Europe would remain Russia's primary energy customer for at least the next twenty years. The blueprint of Russia's foreign policy¹²³ was updated in 2008 and its energy strategy in 2009.¹²⁴ The 2009 energy strategy outlined Russia's plans for its energy policy up to 2030. It had to deal with a changed situation compared to 2003 because of the global financial crisis at that time. Another game changer were the disputes over supplies of natural gas between Russia and various countries from 2003 to 2009. The newly stated objective was to diversify the export markets for Russia's energy resources and to maintain stable market conditions. In other words, to guarantee demand and reasonable prices – that is, energy security.¹²⁵ Table 12 illustrates the development of Russia's macroeconomic situation since the economic crisis of 2009.

118 Nick Paton Walsh, "Abramovich Sells His Last Big Stake in Russia to Kremlin," *The Guardian*, September 29, 2005, www.theguardian.com/business/2005/sep/29/oilandpetrol.russia.

119 "Kontseptsiya vneshnei politiki Rossiiskoi Federatsii," Russian Federation, July 11, 2000, www.ng.ru/world/2000-07-11/1_concept.html.

120 "Kontseptsiya natsionalnoi bezopasnosti Rossiiskoi Federatsii," Russian Federation, January 14, 2000, nvo.ng.ru/concepts/2000-01-14/6_concept.html.

121 "Energeticheskaya strategiya Rossii na period do 2020 goda," Institute for Energy Strategy, May 1, 2003, www.energystrategy.ru/projects/es-2020.htm.

122 Ibid.

123 Ibid.

124 "Kontseptsiya vneshnei politiki Rossiiskoi Federatsii," Office of the President of the Russian Federation, July 15, 2008, kremlin.ru/acts/news/785.

125 "Energeticheskaya strategiya Rossii na period do 2030 goda," Ministry of Energy of Russia, November 13, 2009, minenergo.gov.ru/node/1026.

The energy strategy was once again amended in 2014, with a prolonged timeframe up to 2035.¹²⁶ That update even more openly emphasized the importance of energy policy as a tool for promoting Russia’s foreign policy interests: “As a responsible state, Russia considers its external energy policy not from the narrow point of view of an exporter, intent upon maximizing short-term revenues, but as a tool to solve both national and global problems.”¹²⁷

Table 12: Basic socio-economic indicators – Russian Federation (2007–2020)

Year	GDP (trillion USD)	GDP per capita (current USD)	Inhabitants (thousands)
2007	1.300	9,101	142,805
2008	1.661	11,635	142,742
2009	1.223	8,563	142,785
2010	1.525	10,675	142,849
2011	2.032	14,212	142,961
2012	2.170	15,154	143,202
2013	2.231	15,544	143,507
2014	2.064	14,126	143,820
2015	1.366	9,329	144,097
2016	1.283	8,748	144,342
2017	1.579	10,751	144,497
2018	1.658	11,289	144,478
2019	1.700	11,584	144,406
2020	1.487	10,690	144,100

Source: The World Bank

The instances when Russia has utilized its energy resources as an “energy weapon” show that its announced strategy is not a mere rhetoric but also actual political practice. There are several examples of such behavior: the halting of oil transit through Latvia in 2003; the reduction of natural gas supplies to Belarus during the winters of 2004 and 2006; Transneft’s blockade of transit of Kazakhstan’s oil to Lithuania via Russia in 2006; the cutoff of oil supplies to the whole Lithuania by Transneft

126 “Energeticheskaya strategiya Rossii na period do 2035 goda,” Ministry of Energy of Russia, October 4, 2015, minenergo.gov.ru/node/1913.

127 Ibid.

in 2006; the cutoff of gas supplies to Georgia in 2006; “gas wars” with Ukraine in 2006 and 2009; and the reduction of oil exports to the Czech Republic in 2008.¹²⁸

The national security strategy of Russia published in 2009 identified the competition for energy resources as one of the principal causes of contemporary international conflicts.¹²⁹ Russia’s energy resources are perceived by the country’s government as a tool for strengthening its international stature, but also as a possible source of conflict. Russia considers its energy sector to be a platform for strengthening its great-power status in the Arctic and in Central Asia. It is striving to lessen its dependence on the European Union as a customer and is making plans to divert one third of its energy exports to China.¹³⁰

Russia adopted yet another new blueprint of its foreign policy in February 2013.¹³¹ According to this document, energy policy should aim at preserving Russia’s status as a crucial player in the trade and economic relations between Europe and the Asia-Pacific region. It noted that natural gas consumption between 2003 and 2013 remained the same in Europe, while it doubled in the Asia-Pacific region.¹³² The foreign policy concept stressed the shift of global power to the East. Moreover, it admits a need for integration of Russia and its Eastern Siberian regions into the Far East, and of Russia into the greater Asia-Pacific region.

The Russian political elites perceive state-controlled energy enterprises such as Gazprom, Rosneft, and the independent successors to the former electrical utility, Unified Energy Systems (RAO UES), as tools of Russia’s foreign policy. In 2008, the twenty-five most senior government officials were also board members of leading energy companies.¹³³ Vladimir Putin identified state control over Russia’s energy resources as the key to national power in what is alleged to be his Ph.D-level dissertation.¹³⁴ Although it is doubtful that he is the real author of this text,

128 For more on weaponization of energy by Russia see: Mykhailo Gonchar, *Energy Component in New Generation Warfare: Case of Russia’s Hybrid Aggression against Ukraine* (Kyiv: Centre for Global Studies Strategy XXI, 2015).

129 “Strategiya nacionalnoy bezopasnosti Rossiiskoi Federatsii,” Ministry of Foreign Affairs of the Russian Federation, December 31, 2015, archive.mid.ru//bdomp/ns-osndoc.nsf.

130 For more on Russia’s energy policy see: Orban, *Power, Energy*.

131 “Konseptsiya vneshnei politiki Rossiiskoi Federatsii,” Ministry of Foreign Affairs of the Russian Federation, February 12, 2013, archive.mid.ru//bdomp/ns-osndoc.nsf.

132 Ibid.

133 For more on Putin’s use of the energy weapons see: Bertil Nygren, “Putin’s Use of Natural Gas to Reintegrate the CIS Region,” *Problems of Post-Communism* 55, no. 4 (2008): 3–15.

134 Vladimir Putin, “Strategicheskoe planirovanie vosproizvodstva mineralno-syrevoi bazy regionalnaya v usloviyakh formirovaniya rynochnykh otnoshenii” (PhD. Diss., Sankt Peterburg, 1997),

his choice of topic and how it is addressed is nonetheless important. His dissertation confirms that his worldview springs from the realist paradigm. He prioritizes national security and power over international cooperation and the building of international institutions.

There is ample evidence that Putin's regime has utilized differential energy pricing to obtain influence or legitimacy on many occasions, without regard to market logic or profitability. Domestic energy prices are much lower than world prices because the political elites need to appease the Russian population. The Kremlin has frequently utilized discount prices for energy resources as a "carrot" in Russia's relations with its post-Soviet neighbors.¹³⁵ It possesses two kinds of the so-called energy weapons: the tap weapon and the transit weapon. Using the tap weapon, Russia coerces its targeted customer to behave in a certain way by threatening that if it resists, Russia will cut off energy supplies. The transit weapon means that Russia will buy natural gas (for example) from its supplier only for the price Russia chooses to pay and then ship it onward; otherwise the supplier must pay a transit fee, again set by Russia. Russia deliberately avoids taking on obligations like renouncing price discrimination or allowing third-party access, which are considered basic fair-trade practices in the West.¹³⁶

Russia's western energy markets

Another of Russia's principal aims regarding its energy policy is to prevent the construction of a western-sponsored energy transit corridor to its south. As of now, it is mostly worried about the Southern Gas Corridor proposed by the European Union. This gas pipeline project was originally intended to have three elements: the Turkey–Greece–Italy Interconnector with a capacity of 10 bcm per annum, the Trans-Adriatic Gas Pipeline with a capacity of 10 bcm, and the Nabucco Gas Pipeline with a capacity of 31 bcm per annum. In 2012, however, the planned backbone of the project, the Nabucco Gas Pipeline, had to be scrapped due to a lack of guaranteed gas supplies from non-Russian sources and the growing financial costs.¹³⁷ Moreover, at this time Russia began to

www.dissercat.com/content/strategicheskoe-planirovanie-voisproizvodstva-mineralno-syrevoi-bazy-regiona-v-usloviyakh-for.

135 Nygren, "Putin's Use of Natural Gas," 3–15.

136 Ibid.

137 Ian Taylor, "Europe's Plan for Alternative Pipeline Faces Big Problems," *The Guardian*, January 7, 2009, www.theguardian.com/world/2009/jan/07/nabucco-pipeline-problems.

build the South Stream Gas Pipeline (later also discontinued), which was perceived as a rival project.¹³⁸

The Shah Deniz Consortium, which exploits the central deposits in Azerbaijan, renewed the hopes for a Southern Gas Corridor in 2013.¹³⁹ It proposed three new elements for the project, consisting of an expansion of the existing South Caucasus Gas Pipeline, and the completion of a Trans-Anatolian Gas Pipeline and the Trans-Adriatic Gas Pipeline. If completed, the Southern Gas Corridor will be 3,500 km long and cost USD 45 billion.¹⁴⁰ The primary source for this pipeline system would be the gas from the Shah Deniz field. The proposed gas volumes to be transported were planned to be 16 bcm in 2019 and 31 bcm per year in 2026. The project would cover approximately 20 percent of Europe's annual demand for natural gas.¹⁴¹ The principal driving force behind the renewed Southern Corridor project is Azerbaijan's national energy concern, SOCAR, together with its Turkish counterpart Botas. Together, they control critical stakes in both pipeline projects, along with BP, which is the lead operator of the Shah Deniz gas field.¹⁴²

Azerbaijan's and Turkey's officials believe they can secure additional supplies for the Southern Corridor from Iraq, Iran, and Turkmenistan. In 2014, SOCAR announced that it would be willing to assist Turkmenistan with the development of its gas and oil infrastructure.¹⁴³ Moreover, in the same year Turkey and Turkmenistan signed a framework supply agreement focused on the delivery of Turkmenistan's natural gas to Europe through Turkish territory.¹⁴⁴ Two possible routes are being discussed. The parties could use the proposed Trans-Caspian Gas Pipeline, or they could ship Turkmen natural gas to Turkey through Iran. Russia's plans for the South Stream Gas Pipeline across the Black Sea to Bulgaria and then north into Central Europe (thereby bypassing Ukraine) faced numerous obstacles due to its annexation of Crimea. South Stream was

138 "Gazoprovod Yuzhnyi potok budet vveden v stroi v dekabre 2015-go goda," ITAR-TASS, April 24, 2010, echo.msk.ru/news/674485-echo.html.

139 "Azerbaijani President Approves the Agreement on TANAP Gas Pipeline," *Trend News Agency*, January 18, 2013, en.trend.az/business/energy/2109759.html.

140 Ibid.

141 Julia Kusznir, "The Southern Gas Corridor: Initiated by the EU, Completed by Others? TANAP, TAP and the Redirection of the South Stream Pipeline," *Caucasus Analytical Digest*, no. 69 (2015): 6–11.

142 "Trans-Anatolian Gas Pipeline Project," TANAP, www.tanap.com/tanap-project/why-tanap.

143 "Ashgabat Declaration," European Commission, May 1, 2015, ec.europa.eu/commission/2014-2019/sefcovic/announcements/ashgabat-declaration_en.

144 "Turkmen Gas for Europe," *Nebit-Gaz*, July 29, 2016.

canceled in December 2014, and later proposals to revive it would redirect it from Bulgarian territory through Turkey.¹⁴⁵ This change of stance means that some of Russia's natural gas is now being delivered to the EU via the Turkstream, Trans-Anatolian and Trans-Adriatic natural gas pipelines.

Russia's eastern energy markets

Russia is at present mostly focused on diversifying its energy exports to the Far East, having lost its monopsony over supplies from the Central Asian regional energy security complex. Its cooler relations with European customers due to the Ukraine crisis also contributed to this process. On the one hand, the EU's ban on supplying oil and gas equipment to Russian entities and bank lending with a maturity exceeding 90 days strongly affected Russia's energy industry. As a result, Western investment has drained away since mid-2014. On the other hand, China's oil company, Sinopec, bought a 10 percent stake in the Russian SIBUR petrochemicals enterprise in December 2015. China's Silk Road Fund acquired a 9.9 percent stake in the Yamal LNG project from Novatek in late 2015.¹⁴⁶

The Chinese Bank for Development provided loans of USD 10 billion to Transneft and USD 15 billion to Rosneft in 2009.¹⁴⁷ In order to reach Asian customers, Moscow has prioritized large-scale international projects aimed at the development of its East Siberian and Far Eastern oil and gas deposits. The Eastern Siberia–Pacific Ocean Oil Pipeline and the Russo-Chinese portion of the oil pipeline (from the Skovorodino refinery to China's Heilongjiang province) are among such projects aimed at getting Siberian oil to Far Eastern markets.¹⁴⁸ The situation regarding natural gas exports to the Far East is more complicated.

Russia started planning exports of natural gas to China in the early 1990s. These plans were stalled because of the struggles between TNK-BP and Gazprom over the control of the East Siberian gas deposits,

145 "Moskva i Ankara zaklyuchili soglasenie po Turetskomu potoku," *Lenta.ru*, October 10, 2016, lenta.ru/news/2016/10/10/potok.

146 "Moscow's Need for China Will Not Be Reciprocal," *Oxford Analytical Daily Brief Service*, June 24, 2016.

147 Jean-Marie Holtzinger, "The Russo-Chinese Strategic Partnership: Oil and Gas Dimensions," *Connections* 9, no. 4 (2010): 69–82.

148 Sergei Luyzanin, *Rossiya i Kitai: novyi kontekst otmosheniz* (Moscow: MGIMO, 2015), 16–45.

especially the Kovykta gas field in the Irkutsk region.¹⁴⁹ This dispute was resolved only in 2011. Russian regulators accused TNK-BP's project in the Kovykta field of harming the environment. The accusations forced the company to bring Gazprom into the project in 2006. Five years later, TNK-BP decided to sell its stake in the field to Gazprom.¹⁵⁰ In 2008 Gazprom acquired the Chayanda gas field in an auction conducted without competition after that field was added to Russia's list of national strategic assets in 2007.¹⁵¹ As a result, Gazprom now controls most of Russia's important natural gas assets in Eastern Siberia and the Far East: the Kovykta and Chayanda gas fields, the fields in Krasnoyarsk Krai and on the western coast of Kamchatka, and the Sakhalin II and Sakhalin III projects.¹⁵²

Meanwhile, when the eastern route was stalemated, there appeared plans for the construction of a western route to China. The western route would include the Altai Gas Pipeline, which would stretch from the eastern Siberian gas deposits at Urengoy and Nadym to the western Chinese province of Xinjiang.¹⁵³ Gazprom had long opposed the eastern alternative for gas exports to China until it acquired vital deposits in the eastern parts of Siberia. Therefore, it preferred the Altai pipeline, which would tap supplies from the deposits it controlled in western Siberia. Had the pipeline been built, it would probably have lessened the attractiveness of building the Turkmenistan–China Gas Pipeline. Fortunately, for Turkmenistan, the plans for the construction of the Altai pipeline have been shelved.¹⁵⁴

Before the commissioning of the first line of the Turkmenistan–China Gas Pipeline in 2009, negotiations over pricing between Russia and China failed.¹⁵⁵ At that time, China's negotiators insisted on using European

149 Artyom Lukin, "Russia's Eastward Drive: Pivoting to Asia or to China?" *Russian Analytical Digest* 169 (2015): 2–5.

150 Richard Fletcher, "Gazprom's Kovykta Gas Field Victory Is a Lesson for BP Shareholders," *Telegraph*, March 2, 2011, www.telegraph.co.uk/finance/comment/richardfletcher/8355832/Gazproms-Kovykta-gas-field-victory-is-a-lesson-for-BP-shareholders.html.

151 "Russia Gazprom Secures Chayanda Gas Field," Reuters, April 14, 2010, www.reuters.com/article/gazprom-chayanda-idUSL1434364120080414.

152 "Mestorozhdenia," OAO Gazprom, www.gazprom.ru/about/production/projects/deposits.

153 "Proekt Sila Sibiri mogut otlozhit v polzu gazoprovoda Altai," RIA Novosti, March 18, 2015, ria.ru/economy/20150318/1053274431.html.

154 For more on Russo-Chinese relations concerning Central Asian energy see: Thomas Eder, *China-Russia Relations in Central Asia: Energy Policy, Beijing's New Assertiveness and 21st Century Geopolitics* (Vienna: Springer VS, 2014).

155 Niklas Swanstroem, "Sino-Russian Relations at the Start of the New Millenium in Central Asia and Beyond," *Journal of Contemporary China* 23, no. 87 (2014): 1–12.

gas prices as the starting point of discussions. Gazprom was focused on receiving the same margin of profit as it did on its gas sales to Europe.¹⁵⁶ However, Shanghai is more than 3,000 kilometers further from the extraction point in West Siberia than the European Union border. Hence, if Gazprom had its way, it would have meant a difference of approximately USD 50 per million cubic meters (mcm) compared to the price of gas in Europe due to transportation costs.¹⁵⁷ The situation started to change around 2012 when Gazprom acquired new natural gas deposits and the shale gas revolution in the United States loomed as a threat.¹⁵⁸ In September 2013, the negotiations between Gazprom and the China National Petroleum Corporation (CNPC) were still not concluded, because of concerns regarding the price of gas.

However, things changed after Russia's annexation of Crimea and the imposition of western economic sanctions. In May 2014, Russia and China agreed upon a pricing deal for supplying 38 bcm a year for 30 years.¹⁵⁹ Also in May 2014, Xi Jinping and Putin signed a purchase and sale contract for gas supply via the eastern route – now known as the Power of Siberia Gas Pipeline.¹⁶⁰ When complete, this pipeline will be 4,000 kilometers long and will stretch from Yakutia's Chaganda gas field to Khabarovsk and the LNG terminal in Vladivostok. Its capacity of 61 bcm per year will be divided into three parts – 38 bcm for China's consumption, 9 bcm for Russia's domestic consumption, and 14 bcm for export as LNG to Japan and other Asian states.¹⁶¹ The construction of the Turkmenistan–China Gas Pipeline and Russia's invasion of Crimea obviously significantly weakened Russia's negotiating position vis-à-vis China in the case of the Power of Siberia pipeline.¹⁶² Those events narrowed Russia's maneuvering room and ultimately compelled it to accept the deal with China.¹⁶³

156 Linda Jakobson, Paul Holtom, Dean Knox and Jingchao Peng, "China's Energy and Security Relations with Russia," *SIPRI Policy Paper*, no. 29 (2011): 1–56.

157 James Henderson, *The Pricing Debate over Russian Gas Exports to China* (Oxford: Oxford Institute for Energy Studies, 2011), 37–45.

158 Edward L. Morse, "Welcome to the Revolution: Why Shale is the Next Shale," *Foreign Affairs* 93, no. 3, May 2014, www.foreignaffairs.com/articles/2014-04-17/welcome-revolution.

159 "Sila Sibiri," OAO Gazprom, www.gazprom.ru/about/production/projects/pipelines/built/ykv.

160 For more on natural gas geopolitics see: Amy Jaffe and David Victor, *Natural Gas and Geopolitics: from 1970 to 2040* (New York: Cambridge University Press, 2006), 211–241.

161 Ibid.

162 Stephen Blank, "Does Russo-Chinese Partnership Threaten America's Interests in Asia?" *Orbis* 60, no. 1 (2016): 112–127.

163 Felix K. Chang, "Friends in Need: Geopolitics of China-Russia Energy Relations," *Foreign*

This subchapter focuses on Russia's energy policy. Based on Russian strategy documents and actual practice, it demonstrates that Putin's regime conceives of Russia's oil and gas reserves as a tool of both internal and external policy. The importance of energy in Russia's foreign policy is only increasing as a means of rewarding or punishing the behavior of other states. The Russian government shows a clear preference for bilateral relationships in the energy sector because it finds them easier to dominate than multilateral arrangements. It has also made clear attempts to control entire supply chains and markets regardless of commercial logic in its relations with European markets in the west and Asia-Pacific markets in the east.

Energy Policy in the Central Asian Energy Security Complex

Vladimir Putin returned to the presidency of Russia in 2012, less than a year before his Chinese counterpart Xi Jinping took office as China's President in 2013. The two leaders' foreign policies and energy strategies, and even their concepts of the Eurasian balance of power collide in the Energy Security Complex (ESC) of Central Asia. Putin introduced the idea of the Eurasian Economic Union soon after his election, which in his words can take the place of the Shanghai Cooperation Organization (SCO) in the Central Asian region.¹⁶⁴ He also stressed Russia's support for multipolarity in global affairs, not a bipolarity that would probably favor China and the United States. Xi Jinping replied to these challenges by proposing the Belt and Road Initiative in September 2013.¹⁶⁵

At the time Russia annexed Crimea and the West imposed sanctions, China's economy and political power were gaining momentum and Russia began to lose influence in Central Asia to China. Since that time, it seems that Russia has been more willing to respect China's priorities and interests in Central Asia. This change of attitude may be only a

Policy Research Institute, May 22, 2014, <https://www.fpri.org/article/2014/05/friends-in-need-geopolitics-of-china-russia-energy-relations/>.

164 Gilbert Rozman, "The Intersection of Russia's Turn to the East and China's March to the West," *Russian Analytical Digest* no. 169 (2015): 6–8.

165 "One Belt, One Road," Caixin Online, October 12, 2014, english.caixin.com/2014-12-10/100761304.html.

temporary development if the Eurasian Economic Union becomes more successful.¹⁶⁶

Russia's policy towards Central Asia was splintered among several initiatives after 1991. The most important of them were the Commonwealth of Independent States, the Collective Security Treaty Organization, and the Shanghai Cooperation Organization.¹⁶⁷ This changed in October 2011 when Vladimir Putin announced his vision of building the Eurasian Economic Union in the Russian newspaper *Izvestiya*. In the *Izvestiya* article, Putin emphasized the importance of Central Asia to Russia and its shared identity with the region, connected neither with the West nor with the East.¹⁶⁸

Ukraine was the key to the creation and feasibility of the Eurasian Economic Union.¹⁶⁹ Without Ukraine, it is quite likely that the organization's fulcrum would lie more to the East than was planned in the beginning.¹⁷⁰ According to Putin, the Eurasian Economic Union would be a bridge between two major zones of the world. In his conception, for the first time in three hundred years, the West would cease to be the only pole of attraction or source of values for Russia. In fact, Europe has become just one among several poles of Russia's foreign policy.¹⁷¹ To Putin, the challenges posed by China and the Asia-Pacific region do not mean that Russia has to integrate itself more deeply with its neighbors, but that it has to integrate its regions more thoroughly with itself, especially those beyond the Urals. Otherwise, tension and even separatism could arise.¹⁷²

The relationship between Central Asia and Russia is profoundly influenced by Easternizers,¹⁷³ Eurasianists, and neo-Eurasianists, who perceive Central Asia and Russia as parts of a single politico-cultural unit – Eurasia. Eurasianism as a political ideology was created in the 1920s in Central and Western Europe by prominent Russian émigrés such

166 “Turkmeniya schitaet Rossiyu partnerom, no v ees vstupat ne budet,” RIA Novosti, July 14, 2014.

167 Z. A. Dadabayeva, *Protsessy regionalizatsii v Tsentral'noi Azii: problemy i protivorechiya* (Moscow: Institut ekonomiki RAN, 2014), 51–64.

168 Vladimir Putin, “Novyi integratsionnyi proekt dlya Evrazii – budushchee, kotoroe rozhdaetsya sevodnya,” *Izvestiia*, October 3, 2011.

169 Ibid.

170 Fyodor Lukyanov, “Building Eurasia and Defining Russia,” in: Kaadri Liik, *Russia's Pivot to Eurasia* (London: ECFR, 2014): 18–24.

171 Timofei Bordachev, “Eurasian Russia in the Twenty-First Century,” in: Kaadri Liik, *Russia's Pivot to Eurasia* (London: ECFR, 2014), 25–31.

172 Ibid.

173 “Easternizers” were predecessors to the followers of Eurasianism. They focused more on China and India than Central Asia. Their main protagonist was Konstantin Leontiev.

as Peter Savitsky, Nikolai Trubetzkoy, and Dmitry Svyatopolk-Mirsky. It was a third-way movement, which claimed Eurasia to be a distinct continent with its own culture, space, and destiny. Eurasianists defined this continent not by shared history like Western Europe, but rather by geography. The backbone of Eurasia was defined by the steppe, surrounded as it is by belts of tundra, taiga, and desert. The Eurasianists considered all of Central Asia to be a natural part of Eurasia. They believed that Eurasia was further defined by the dualities of Slav and Turanian, and Orthodox Christian and Muslim.¹⁷⁴

Lev Gumilev, Alexander Panarin, and Alexander Dugin revived the Eurasian idea in Russia after the fall of the Soviet Union. Even though the neo-Eurasianist movement is quite heterogeneous, it has had a significant impact on the formulation of Russia's foreign policy towards Central Asia and on the Kremlin's perception of the region. In the 1990s, Alexander Panarin tried to renew the ideal of a multi-ethnic empire and Eurasian or Russian messianism that was largely forgotten during the Soviet era.¹⁷⁵ Later, after 2000, Aleksander Dugin directly connected the restoration of Russia's great power status with regaining its control over Central Asia. He considered Tajikistan and Uzbekistan to be the linchpins of power in Central Asia.¹⁷⁶ Still, Eurasianism remained a fringe idea until Vladimir Putin began to incorporate elements of it into his foreign policy after he regained the presidency in 2012.

Russia's energy policy in Central Asia was also dominated by repeated proposals to create an international natural gas cartel that would be the "OPEC of gas," with Russia as its leader. Success of such endeavor would justify claims by members of the political elite in Russia that their country is an "energy superpower." Russia deliberately avoided signing the European Energy Charter Treaty. The Energy Charter Treaty was signed in 1994 and came into force in 1998. It was signed by fifty-one EU, Asian, and other European countries. Russia strongly opposes any initiatives that would bolster the rights of participants and investors in the natural gas industry. If Russia were to sign the Charter, it would have to allow third parties access to its pipelines and make it possible for other Central

174 Marlène Laruelle, *Russian Eurasianism: An Ideology of Empire* (Washington: Woodrow Wilson Centre Press, 2008), 1–39.

175 Ibid, 70–107.

176 Aleksandr Dugin, *Osnovy Geopolitiki: Geopoliticheskoe budushchee Rossii* (Moscow: ARTO-GEYA-tsentr, 2000), 202–205.

Asian and private Russian producers to utilize Gazprom's network for their own purposes.¹⁷⁷

Russia's approach to its natural resources follows the realist paradigm, which considers control of natural resources as the key to a state's power.¹⁷⁸ On the one hand, the creation of an "OPEC of gas" would strengthen Russia's control over the energy resources of other state actors that became members. It would enable it to use its energy weapon on a much larger scale. On the other hand, if Russia acceded to the European Energy Charter, it would significantly reduce its control over its own energy resources and as a consequence diminish the state power wielded by Putin's regime.

The Central Asia–Center Gas Pipeline System

Russia has long utilized the "transit weapon" in the Central Asian regional energy security complex.¹⁷⁹ This was possible mainly because producers had to rely on the old Soviet-era gas pipeline system. In practice, Gazprom purchased natural gas in Central Asia for a low price and resold it for a higher price in Europe or used it on its own market while selling its own natural gas for the higher European price. The ability to supply cheap natural gas from Turkmenistan enabled Russia to exert significant leverage over Ukraine. The gas was sold to Ukraine through shady intermediaries and resulted in a massive accumulation of Ukrainian debt to Russia.¹⁸⁰

The Central Asia–Center Gas Pipeline System consists of five separate pipelines that have been mainly used to transport natural gas from the gas fields of south-eastern Turkmenistan. The first pipeline of the system was commissioned in 1966 and the fifth and last pipeline was finished in 1987. Most of it has outlived its projected useful lifetime of 33 years. The system has two corridors. The first consists of four pipelines, CAC-1, CAC-2, CAC-4, and CAC-5, which run from Turkmenistan through Uzbekistan and Kazakhstan into Russia. The second corridor consists only

177 "Energy Charter Treaty," December 2014, International Energy Charter, www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty.

178 For more on Russia's energy security see: Jirušek et al., *Energy Security in Central and Eastern Europe*.

179 Nygren, "Putin's Use of Natural Gas," 3–15.

180 Michael Fredholm, "Natural Gas Trade between Russia, Turkmenistan and Ukraine," *Asian Cultures and Modernity*, Stockholm University, no. 15 (2008): 6–33.

of one gas pipeline, CAC-3, which runs only through Kazakhstan. The projected output of the entire system was originally 90 bcm per year; however, by 2003 the actual output had decreased to 50 bcm.¹⁸¹

There have been many attempts by the West to circumvent Russia's "transit weapon", e.g., the Baku–Tbilisi–Ceyhan Oil pipeline, the Baku–Tbilisi–Erzurum Gas Pipeline, and the South Caucasus Gas Pipeline. However, the most important component of this alternative architecture, the Trans-Caspian Gas Pipeline, has yet to materialize. This is due to a prolonged struggle over the status of the Caspian Sea in international law that was only resolved by the Convention on the Legal Status of the Caspian Sea signed by the five littoral states around the Sea in August 2018.

In the early 1990s, Russia proposed the creation of a regional organization responsible for coordinating the extraction of Caspian energy resources. Russia also supported the prolongation of two Soviet-Persian treaties concerning free navigation and fishing in the Caspian Sea signed in 1921 and 1940. Of course, at the time the treaties were signed there were only two littoral states on the Caspian. That changed in 1991 when three newly independent states began sharing the borders of the Caspian Sea along with Iran and Russia. Russia was strongly against application of the United Nations Convention on Law of the Sea to the Caspian, and it insisted that the Caspian Sea was a "unique water reservoir" in terms of international law.¹⁸² Application of the convention would pave the way for division of the Caspian Sea into specific economic zones controlled by the five littoral states. In Russia's view, if the Sea was a "unique water reservoir," no significant infrastructure project could be agreed upon except by a consensus of all the littoral states. Through this "condominium" approach, Russia sought to prevent the construction of the much-feared southern bypass through the Trans-Caspian Gas Pipeline.

Russia's dependence on Central Asian energy

Russia has utilized its "tap weapon" in its relations with Belarus, Ukraine, and Moldova with varying success.¹⁸³ However, in the relationship between Russia and Turkmenistan, it was Ashgabat that used the "tap weapon" against Russia. Turkmenistan suspended its gas supplies to

181 *Alexander's Gas and Oil Connections*, No. 9, Vol. 4, February 25, 2004.

182 Joshua Kucera, "Is the Caspian Sea Dispute Finally About to be Resolved?" July 20, 2016, www.eurasianet.org/node/79761.

183 Nygren, "Putin's Use of Natural Gas," 3–15.

Russia in 2000 because of lack of progress in price negotiations. As a result, Russia was unable to deliver the amount of natural gas it had promised to Europe and to domestic consumers. Fortunately for Russia, Ashgabat was to some extent constrained by a lack of diversified export infrastructure.¹⁸⁴ The two countries signed a long-term umbrella agreement in 2003 that regulated Turkmenistan's energy exports to Russia for the next 25 years.¹⁸⁵

Nevertheless, Turkmenistan stopped its supply again in 2005 because another round of price negotiations failed. Ashgabat had to accept the same price from Russia as earlier agreed because it still lacked other export opportunities.¹⁸⁶ This changed somewhat in 2006, when gas prices started to rise. Then the entire situation changed significantly in 2009, when there was an explosion on the fourth pipeline of the Central Asia–Center system. Up to then, Gazprom was importing 70 percent of Turkmenistan's natural gas production. Afterward, its imports dropped to 45 percent of Turkmen output. In 2016 it ceased to buy any gas at all from Turkmenistan.¹⁸⁷

Russia has had to adjust its energy policy to different conditions in each state of the Central Asian regional energy security complex. Kazakhstan is more open to foreign partners than others in the complex. International energy companies such as Chevron, ExxonMobil, and ConocoPhillips helped Kazakhstan to break Russia's monopsony over its exports in the 1990s. They secured their stakes in Kazakhstan's upstream production and invested in increasing its oil production, which has now reached 1.7 million barrels per day.¹⁸⁸ As partners in the Caspian Pipeline Consortium, they also helped Kazakhstan access the European market by building a privately owned pipeline from the Tengiz oil field in Kazakhstan to Novorossiysk and by supplying Kazakh oil via tanker ships across the Caspian to the Baku–Tbilisi–Ceyhan Oil Pipeline.¹⁸⁹ The entry of Western companies into the market in the early 1990s enabled Kazakhstan to conduct a more independent, multi-vector foreign policy. However, Kazakhstan's natural gas sector is almost entirely controlled by the state.

184 "Natural Gas Information – 2015 edition," International Energy Agency, 2015, www.ica.org.

185 "Turkmeno-rossiiskii proryv," *Turkmenistan.ru*, April 10, 2003.

186 Leszek Buszynski, "Russia's New Role in Central Asia," *Asian Survey* 45, no. 4 (2005): 546–565.

187 "Gazprom prekratil pokupku gaza iz Turkmenii," *Vesti.ru*, January 4, 2016.

188 "US Increases Kazakhstan's Oil Production Forecast," Kazinform International News Agency, July 14, 2016.

189 "About," Caspian Pipeline Consortium, www.cpc.ru/en/about/Pages/default.aspx.

Kazakhstan's export saw even more opportunities open up after the Atyrau–Alashankou Oil Pipeline to China was commissioned in 2003. Moreover, Kazakhstan joined in the construction of the Turkmenistan–China Gas Pipeline in 2009.¹⁹⁰ At present, Chevron, ExxonMobil, Eni, Shell, Total, Mittal Energy, Sinopec, and the China National Petroleum Corporation (CNPC) are operating in Kazakhstan. Moreover, there are joint ventures with Lukoil and Rosneft. Gazprom controls 50 percent of the shares of KazRosGaz, which has a near-monopoly on the export of Kazakhstan's natural gas production. Kazakhstan's relative openness to foreign participation in its oil industry has enabled it to resist Russia's policies in Central Asia to some extent.

Even though Kazakhstan is perceived as the leading proponent of Eurasian integration – this is even mentioned in its constitution – it has reservations about some Russian goals for the region. Kazakhstan's former president Nursultan Nazarbayev continuously stressed that the Eurasian Economic Union is solely about economic, and not political, unity.¹⁹¹ According to him, there will be no supranational institutions or joint citizenship. Economic, not geopolitical interests are the main driving force behind the project, according to Nazarbayev.¹⁹²

Another critical energy player in the former Soviet Union, Azerbaijan, is even less dependent on Russia than Kazakhstan in energy matters. It significantly lessened its dependence on Moscow by commissioning the Baku–Tbilisi–Ceyhan Oil Pipeline in 2006 and the Baku–Tbilisi–Erzurum Gas Pipeline a year later. It also enthusiastically supports the EU's desire for a southern gas corridor. The only leverage that Russia has in its relation to Azerbaijan, which is not insignificant, is its ability to interfere – for better or worse – in the unsolved Nagorno-Karabakh conflict between Armenia and Azerbaijan.

The US military presence in Central Asia since 2001 has spurred on cooperation between Russia and China, mainly in the framework of the Shanghai Cooperation Organization.¹⁹³ However, the withdrawal of NATO's International Security Assistance Force from Afghanistan in 2014 has inevitably led to increased competition between these two

190 "Flow of Natural Gas from Central Asia," CNPC, www.cnpc.com.cn/en/FlowofnaturalgasfromCentralAsia/FlowofnaturalgasfromCentralAsia2.shtml.

191 Christopher Hartwell, "A Eurasian (or a Soviet) Union? Consequences of Further Economic Integration in the CIS," *Business Horizons* 56, no. 4 (2013): 131–147.

192 "Eurasian Economic Union Bears No Resemblance to the USSR: President Nazarbayev," *Tengri News*, December 22, 2014.

193 "Dukh Shankhaya vzyvaet k Turkmenistanu," *Turkmenistan.ru*, August 16, 2007.

powers, who each have their own interests to protect in the Central Asian region.¹⁹⁴

Russia's annexation of Crimea and the ostracizing of Russia from the international community that followed has strengthened China's position vis-à-vis Russia in Central Asia. China's support for Russia has been cautious but significant. In return, China has obtained Russia's endorsement for its Belt and Road Initiative, advantageous terms on its natural gas purchases, and Russia's consent for strengthening the SCO.¹⁹⁵ Russia is growing more dependent on China's backing and is distancing itself from Europe.¹⁹⁶ The rise of Eurasianism is strengthening the belief that Russia does not belong to Europe but is a distinct civilization between Europe and Asia. Moreover, it is interesting to observe how the Russian media and its political class exaggerate the potential threats to Russia's interests in Europe, while downplaying the threats to Russia's interests in Asia.¹⁹⁷

This subchapter concludes that Russia's energy policy towards the Central Asian ESC has four primary aims. First, Russia wants to preserve as much as possible of the monopsony position with respect to Central Asia's suppliers that it inherited from the Soviet Union by contractually locking in supplies and taking ownership shares in Central Asian producers and processors. It has tried to create a system of dependence with the aim of controlling the entire Central Asian energy market. Second, Russia wants to block all supply routes from Central Asia to Europe and China that skirt Russian-controlled territory. It has done so either directly by raising environmental concerns, or indirectly by proposing its own favored pipelines. Russia's energy policy in the Central Asian ESC reflects a zero-sum approach to international relationships and a desire to eliminate competition in what it views as "its own" markets. Third, Russia wants to construct new pipeline infrastructure to bypass transit states – especially Ukraine – and to deepen Europe's dependence on it for energy supplies.¹⁹⁸ Fourth, Russia wants to preserve Gazprom's monopoly over Russian and Central Asian gas exports by blocking foreign

194 Stephen Blank and Younkyoo Kim, "Same Bed, Different Dreams: China's Peaceful Rise and Sino-Russian Rivalry in Central Asia," *Journal of Contemporary China*, 22, no. 83 (2013): 773–90.

195 Sergej Luzyanin, *Rossiya i Kitai: Novyj kontekst otnoshenij* (Moscow: MGIMO, 2015).

196 Blank, "Same Bed," 112–127.

197 "Vozmozhnost voennykh stolknoveni Rossii s NATO i Kitaem," Levada Center, November 21, 2015, www.levada.ru/2015/11/21/vozmozhnost-voennyh-stolknovenij-rossii-s-nato-i-kitaem-vospriyatie-stran-es.

198 Richard E. Ericson, "Eurasian Natural Gas Pipelines: The Political Economy of Network Interdependence," *Eurasian Geography and Economics* 50, no. 1 (2009): 28–57.

ownership of its gas reserves, production facilities, and transportation infrastructure within Russia. All of this indicates greater concern for strategic issues than for economic logic. It confirms that Russia's energy policy in the Central Asian ESC is strategic-oriented.

Analysis of Indicators

This chapter is a case study of Russia's energy policy with regard to the Central Asian ESC. The goal of this particular case study is to search for indicators of a strategic-oriented energy policy – for elements of the model of this kind of policy. A strategic-oriented energy policy has eight elements: the perception that energy resources are strategically important; the perception that the state's energy sector is crucial to its economy; the perception that state-owned energy actors are extensions of the state apparatus; a reliance on bilateral relations with other countries; the perception that the energy sector is a tool for achieving the aims of state policy; a zero-sum approach to international relations; the perception that dependence on foreign entities is undesirable; and an emphasis on strategic goals over economic logic. The conclusion of this case study is that Russia's energy policy in the ESC of Central Asia is predominantly strategic-oriented, based on the presence of the indicators as listed below.

Perception that energy resources are strategically important

Based on the data I gathered, Russia's current political regime perceives energy resources as strategically important. There were many occasions under Putin when the desire to take control of energy resources or their distribution networks manifested itself. This has been evident in Russia since the Yukos affair in 2003, when Mikhail Khodorkovsky tried to sell parts of Yukos to US investors Chevron and ExxonMobil. Khodorkovsky failed and was arrested. His company was taken over by state-owned Gazprom. In the mind of the Russian leadership, Yukos had to remain under the control of the Russian state because of its strategic importance.

Perception that the energy sector is crucial to the state's economy

Today, Russia considers its energy sector to be the strategically important core of its economy and trade capacities. The analysis above shows that Russia has increasingly tried to gain and maintain control over its energy sector, especially since Vladimir Putin rose to power. Of course, the energy sector has been a crucial part of Russia's economy since the end of the nineteenth century. Its internal importance lies not only in its support of the country's economic growth but also in the ability of the Putin regime to win popular support by using subsidies to keep energy prices low.

Perception that state-owned energy companies are extensions of the state apparatus

It was shown that Putin's regime both directly and indirectly dominates the entire energy sector of the Russian Federation. The regime has been able to increase its power by translating the national power of the energy sector into state power. It is clear that Russia perceives itself as an energy superpower. Based on the findings of the case study, it is also clear that Russia's political elite consider the country's state-owned energy companies to be tools of internal and external policy used by the state. The role of the energy sector as a tool of Russian foreign policy is cited in Putin's foreign and security strategies.

Reliance on bilateral relations

Russia's reliance on bilateral relations in energy policy is especially visible in its strictly negative reactions to any multilateral initiatives such as the European Energy Charter. Based on the accumulated data, Russia has a preference in its energy policy for long-term bilateral deals with foreign countries. This is because in bilateral relations, it is much easier for Russia to play the role of an energy superpower. The case study demonstrated this with several examples of cases where Russia utilized either the tap or the transit energy weapon in its relations with other states.

Zero-sum approach to policy

The case study shows that Russia has repeatedly attempted to preserve its role as the dominant exporter of energy to European markets as well as its role as the dominant importer of energy from Central Asia. Russia has been relatively successful in the European market, but in Central Asia it is gradually being pushed out by China's assertion of its energy interests. Because of its zero-sum approach to policy making, Russia's political elite has been willing to let China encroach on Central Asia in order to preserve Russia's position in the Western energy market.

Perception that the energy sector is a tool for achieving the state's goals

Based on strategic and commercial practice, the case study demonstrates that Putin's regime considers Russia's energy sector to be a tool of its internal and external policy, in that Russia uses its energy supplies and infrastructure as a means of rewarding or punishing the behavior of other states. There is also clear evidence that Russia tries to control entire supply chains and markets regardless of commercial logic, as it has done with both its European markets in the West and its Asia-Pacific markets in the East.

Perception that dependence on other countries is undesirable

Russia has attempted to exploit the monopsony position it inherited from the Soviet Union with its Central Asian suppliers, contractually locking in supplies and taking ownership shares in producers and processing facilities. Thus, it has tried to create a system of dependence for the Central Asian states, with the aim of controlling the entire Central Asian energy market. It has attempted to block any alternative export routes out of Central Asia to preserve its position as a transit state. Russia's energy policy in the Central Asian ESC displays a zero-sum approach to policy and attempts to eliminate competition from other suppliers and transit states. Furthermore, Russia has constructed new pipeline infrastructure to bypass other transit states like Ukraine in order to deepen Europe's dependence on Russia for energy supplies. Finally, Russia has attempted to preserve Gazprom's monopoly over Russian and Central

Asian gas exports by blocking foreign ownership of gas reserves, gas production facilities, and transport infrastructure in Russia. Here again, Russia emphasizes strategic goals over economic logic, which confirms that Russia's energy policy in Central Asian ESC is strategic-oriented.

Emphasis on strategic goals over economic logic

Russia's former economic and political clout in the Central Asian ESC has considerably diminished over the course of the past 25 years. At the beginning of the 1990s, Russia controlled the region's entire transit infrastructure, and so it had enormous leverage over its newly independent neighbors. In that respect, it was crucial for Gazprom to gain control over the Central Asia–Center Gas Pipeline System. However, Russia was simply unable to blackmail all of its partners in Central Asia. The Central Asian regimes no longer consider cooperation with Russia to be the best policy option because of Russia's poor economic performance and its increasingly authoritarian and imperialistic policies.

In general, the aim of Russia's energy policy in the Central Asian ESC has been to ensure its energy security by dominating the energy sector of Central Asia. Steps taken by Russia's government show that its energy policy is not market-oriented and focused on the maximization of profit but instead it is strategic-oriented and focused on its national goals. It has used its energy potential as a tool of its foreign policy, as has been openly stated many times in Russia's strategic foreign and national security policy documents. In the end, it must be stressed that the Kremlin's principal goal is of a purely political nature – the preservation of Putin's regime and its predominant position in Russia's internal and external affairs.

3. China's Energy Policy in Central Asia

The second of my three case studies is devoted to China's energy policy in the context of the Central Asian ESC. This chapter is divided into four parts: energy resources, energy actors, energy policy in general, and energy policy in the ESC of Central Asia. The conclusions of the sub-chapters are based on an evaluation of primary and secondary sources. The goal of this particular case study is to search for the elements of a strategic-oriented energy policy established in the model for the assessment of energy policy pertaining to the natural gas sector. These are: the perception that energy resources are strategically important; the perception that the energy sector is crucial for the state's economy; the perception that state-owned energy actors are extensions of the state apparatus; reliance on bilateral relations; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to policy making; the perception that dependence on other countries is undesirable; and an emphasis on strategic goals over economic logic. This case study is another stepping-stone in the process of answering the research question about the predominant approach to energy policy among the actors of the Central Asian ESC. The chapter concludes with a recap of the particular indicators for which evidence was found in the course of my research.

Energy Resources

China started its oil and gas industry almost from scratch not long after the Second World War. However, the country's overall economic development and especially the advancement of its energy industry was

hampered by a United States embargo that lasted over the course of the 1950s, 1960s, and 1970s. Moreover, the Soviet support of the industry, which was very important in the 1950s, waned over the next decade because of the Sino-Soviet split and the resulting tensions.

The situation began to improve somewhat in the 1970s. China was able to utilize the oil crises of 1973 and 1979 to boost its oil exports. Also, the change in the leadership of the Chinese Communist Party (CPC) represented by Deng Xiaoping's assumption of power in 1978 led to the opening of China's economy and partial economic liberalization. Since 1949, it has been an enormous problem for China to achieve energy self-sufficiency. After Deng Xiaoping's liberalization of the economy, the goal of self-sufficiency in energy was slowly replaced by the goals of ensuring China's energy security and diversifying its sources of energy supplies.¹⁹⁹

Deng Xiaoping's new economic policy was followed by rapid industrialization and a sharp rise in energy consumption. China was self-sufficient in energy until the late 1970s. Its first imports of hydrocarbons began in 1983 from Oman, and the domestic demand for oil had completely outpaced domestic production by 1996. This development was mainly due to a steep rise in the number of passenger cars on the roads in China.²⁰⁰ In 2013, China consumed 10.5 million barrels of oil per day, which made it the second biggest consumer of oil in the world after the United States. In the same year, the production of China's oil industry covered only half of that demand.²⁰¹ The remarkable economic growth that spurred the increased consumption of energy is shown in the Table 13.

China possesses 5.4 tcm of domestic natural gas reserves that are accessible with contemporary technology and 4 tcm more in unconventional resources.²⁰² China's annual domestic production of natural gas was 138.4 bcm in 2016 and its consumption was a far greater 210.3 bcm.²⁰³ There has been a significant increase in the use of natural gas in China in heavy industry and in the production of electricity. Another reason for

199 Erica Strecker Downs, *China's Quest for Energy Security* (Washington: RAND Corporation, 2003), 11–42.

200 Ibid.

201 "China Crude Oil Consumption by Year," *United States Energy Information Administration*, www.eia.gov.

202 "China's Potential Oil, Natural Gas Reserves Rise: Official Data," Xinhua News Agency, June 14, 2016, www.chinadaily.com.cn/business/2016-06/14/content_25707842.htm.

203 "China's 2015 Natural Gas Output Growth Slowest in at Least 10 Years," Reuters, January 19, 2016, www.reuters.com/article/china-economy-output-gas-idUSL3N1532HZ.

Table 13: Basic socio-economic indicators – People’s Republic of China (2007–2020)

Year	GDP (trillion USD)	GDP per capita (current USD)	Inhabitants (billions)
2007	3.552	2,695	1.318
2008	4.598	3,471	1.325
2009	5.110	3,838	1.331
2010	6.101	4,561	1.338
2011	7.573	5,634	1.344
2012	8.561	6,338	1.351
2013	9.607	7,078	1.357
2014	10.482	7,684	1.364
2015	11.065	8,069	1.371
2016	11.199	8,123	1.379
2017	12.143	8,759	1.386
2018	13.608	9,771	1.393
2019	14.280	10,216	1.398
2020	14.720	10,500	1.402

Source: The World Bank

the increased consumption of natural gas is the government’s desire to alleviate air pollution. Still, as of today, natural gas consumption makes up only around 8 percent of all the primary sources of energy consumed in China. China’s essential energy source is still coal, which made up 66 percent of the country’s energy consumption in 2014. The second most important source of energy was oil, which accounted for 19 percent of the overall energy consumption. Hydroelectric energy contributed 6 percent, natural gas 3 percent, and nuclear energy along with renewables 1 percent each.²⁰⁴ Nonetheless, the most important trend is the gradual increase of the share of natural gas in the Chinese energy mix, which has significant geoeconomic and geopolitical implications. The trends in the consumption of natural gas in five of the states that comprise the Central Asian ESC are compared in Table 14.

²⁰⁴ Xin Li, *Natural Gas in China: Regional Analysis* (Oxford: The Oxford Institute of Energy Studies, 2015), 4–15.

Table 14: Consumption of natural gas 2007–2019 (bcm)

Year	Russia	Turkmenistan	China	Kazakhstan	Uzbekistan
2007	422.0	21.3	73.0	9.0	45.9
2008	416.0	21.4	84.1	8.9	48.7
2009	389.6	19.7	92.6	8.3	39.9
2010	414.1	22.6	111.2	8.9	40.8
2011	424.6	23.5	137.1	10.0	47.6
2012	416.2	26.3	150.9	10.8	47.2
2013	413.5	22.9	171.9	11.2	49.8
2014	409.7	25.6	188.4	12.5	48.8
2015	402.8	29.4	194.8	12.9	50.2
2016	390.9	29.5	210.3	13.4	51.4
2017	431.1	25.3	240.4	15.9	43.1
2018	454.5	28.4	283.0	19.4	42.6
2019	444.3	31.5	307.3	17.9	43.4

Source: Statistical Report of World Energy

China’s official five-year plans illustrate its government’s changing energy policy.²⁰⁵ The subchapter on energy in the sixth five-year plan, from 1980 to 1985, emphasized the necessity of energy conservation. It also stressed the need for the available resources to keep pace with consumption.²⁰⁶ The next five-year plan from 1985 to 1990, China’s seventh, focused on rewarding enterprises that were able to conserve energy. The seventh plan’s priorities were the construction and improvement of the infrastructure of the energy industry.²⁰⁷ The eighth five-year plan, from 1990 to 1995, continued to focus on saving energy. Policies aiming at reducing the level of energy consumption were directly connected to policies aiming at controlling population growth.²⁰⁸

The ninth five-year plan, from 1995 to 2000, began to redesign China’s energy mix. It called for an increase in the use of natural gas and

205 International Energy Agency, *Developing China’s Natural Gas Market* (Paris: IEA, 2002), 51–56.

206 “6th Five-Year Plan,” *China Daily*, www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689649.htm.

207 “7th Five-Year Plan,” *China Daily*, www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689653.htm.

208 “8th Five-Year Plan,” *China Daily*, www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689657.htm.

the renewables and a decrease in coal consumption.²⁰⁹ This intention was impacted by the Asian economic crisis of 1997, which led to China becoming a net importer of oil. Moreover, the ninth plan introduced the “Go West” policy, which was focused on the development of the western regions of China and on improving its relations with the neighboring states to its west.²¹⁰ The five-year plan assumed there would be large volumes of gas transiting China from west to east and supplies of electricity going from China in the opposite direction.²¹¹ The tenth five-year plan was published in 2000. It stressed even more the importance of protecting the environment and so ascribed a greater role to renewables and natural gas.²¹² The eleventh five-year plan, 2005–2010, stressed continued liberalization of both trade and energy markets.²¹³ The twelfth five-year plan covered the period between 2010 and 2015. It focused on the development of China’s western regions. Moreover, it emphasized the importance of renewable sources of energy and of enlarging their share in the national energy mix.²¹⁴ The thirteenth five-year plan period continued to stress environmental protection and focused on the western parts of the country.²¹⁵ Environmental protection and energy security are the two most important tasks to more than just China’s energy policy. They also constitute critical overall priorities of China’s government.²¹⁶

This subchapter on the energy resources of China shows that the country has significant domestic energy resources but is an energy importer because of the strength of its economy. The domestic energy sector, however, plays a crucial role because its contribution is fundamental to the national economy. China regards its energy output as a main instrument of maintaining the legitimacy of the CPC. The Chinese state is therefore interested in controlling its energy sector and considers it a strategic asset for maintaining popular support of the ruling regime.

209 “9th Five-Year Plan,” *China Daily*, www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689661.htm.

210 Andrew Moody, “Go West Policy Is An Economic Milestone For Nation,” *China Daily*, September 12, 2011.

211 Hongyi Lai, “Western Development Program: Its Rationale, Implementation, and Prospects,” *Modern China* 28, no. 4 (2002): 432–466.

212 “10th Five-Year Plan,” *China Daily*, www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689665.htm.

213 “11th Five-Year Plan,” *China Daily*, www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689669.htm.

214 “12th Five-Year Plan,” State Council of the People’s Republic of China, <http://english.gov.cn/>.

215 “13th Five-Year Plan,” *Xinhua News Agency*, news.xinhuanet.com.

216 Shi Dan, “China’s Energy Policy and its Development,” in: Antonio Marquina, *Energy Security: Visions from Asia and Europe* (Madrid: Palgrave Macmillan, 2008), 135–46.

China's attempt to enlarge the share of natural gas consumed in its energy mix should not be seen only from the narrow point of view of environmental protection but also as the perceived key to the regime's military and economic power.²¹⁷

State Actors in the Energy Sector

The People's Republic of China was created in 1949, and to this day it is ruled by the Communist Party of China (CPC). The supreme party organ is the National Congress of the CPC, which has been convened every five years since 1960. Between the sessions of the National Congress, the highest authorities in China are the Politburo, the Politburo's Standing Committee, and the Central Military Commission.²¹⁸ The authority of the state is officially vested in the National People's Congress. It plays the role of a parliament and has the right to elect the president, premier and other officials. The president and vice-president wield the executive power in the state. The president appoints the members of the State Council of China, which is China's central government.²¹⁹

China's current political system is plagued by turf wars attributable to a lack of a formal separation of powers in the structure of the government. This political reality has significant impact on the formulation of the country's energy policy towards the neighboring states and regions. The political top brass does not usually decide upon day-to-day matters. It focuses only on strategy and in general waits to take action on initiatives originating at lower levels of government. If there is no clear consensus on a course of action below, the political elite are prone to postpone making a move, rather than to adopt an unpopular measure. This hesitancy makes the government's decision-making process very slow.

In the energy sector, it is the State Council, the Politburo's Standing Committee, and the leadership of the People's Liberation Army who make most of the decisions.²²⁰ State-controlled energy enterprises have

217 For more on China's perception of Central Asia see: Marlène Laruelle and Sebastiene Peyrouse, *China as a Neighbor: Central Asian Perspectives and Strategies* (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2009).

218 "Full Text of Constitution of the Communist Party of China," 16th National Congress of the Communist Party of China, 2002, www.china.org.cn/english/features/49109.htm#4.

219 "Constitution of the People's Republic of China," December 4, 1982, en.people.cn/constitution/constitution.html.

220 "National Energy Administration," National Development and Reform Commission of the People's Republic of China, en.ndrc.gov.cn/mfod/200812/t20081218_252224.html.

substantial influence, which will be addressed in subsequent paragraphs. The energy sector was not well-regulated after 1949. As in other sectors, competences and powers were splintered, although the ultimate authority was vested in the Communist Party of China. However, this changed after severe power outages occurred in the summers of 2003 and 2004.²²¹ Most of China's energy resources are located in sparsely inhabited areas of the northern and western parts of the country, while most of the population lives in the coastal areas of south-eastern China. The distance between them puts enormous pressure on the electricity distribution grid.

The National Energy Office was created in 2003 to address the shortcomings of China's electricity system. This government body was tasked with the preparation of the state's energy policy. It was subordinated to the National Development and Reform Commission (NDRC). This latter commission is the successor body to the former State Planning Commission and is the most important institution involved in the planning of the economic development of the PRC.²²² The National Energy Office was later restructured and renamed as the National Energy Administration. The competencies of the agency were widened, but it is still subordinate to the NDRC.

The National Energy Leading Group was created to coordinate energy policy in 2005.²²³ This kind of body is quite common in China. It stands above the individual ministries and aims at building consensus among the members of the State Council, stakeholders in the economy, and the armed services. Even though the formal structure governing the energy sector of China seems to be very complicated, the most important thing to remember is the overall dominance of the CPC. The Party necessarily has to react to different impulses and initiatives, but its constant priority with regard to energy is maintaining the legitimacy of its rule through sustainable economic growth and energy security.

China's oil and gas enterprises are increasingly involved in the country's energy policy making. The three most important state-owned enterprises are the China National Petroleum Company (CNPC), the Sinopec Group, and the China National Offshore Oil Corporation (CNOOC). The government's Ministry of the Petroleum Industry was

221 "China Strives to Ease Power Shortage in 2004," *China Daily*, December 29, 2003, www.chinadaily.com.cn/en/doc/2003-12/29/content_294277.htm.

222 "Main Functions of the NDRC," National Development and Reform Commission of the People's Republic of China, en.ndrc.gov.cn/mfndrc.

223 "Energy Leading Group Setup," *China Daily*, June 4, 2005, www.chinadaily.com.cn/english/doc/2005-06/04/content_448562.htm.

reorganized into the CNPC in 1988. The CNPC was primarily tasked with managing upstream oil and gas activities on China's mainland and was controlled directly by the State Council.²²⁴ The CNOOC was established in 1982. Like the CNPC, it was also directly controlled by the government and tasked with upstream oil and gas activities in coastal areas.²²⁵ Sinopec was created in 1983, mainly to focus on downstream activities.²²⁶ Both the CNPC and Sinopec were equivalent to government ministries; CNOOC was considered to be a bit lower in the bureaucracy.

All three enterprises were reorganized once more in 1998 because of the adverse effects of low world oil prices and the Asian financial crisis. The CNPC and Sinopec started to undertake more than just upstream activities (i.e. exploration, drilling, and extraction) and then moved into downstream activities (refining, distribution, and marketing) as well. The CNPC was meant to be more active in the northern and western regions of China whereas Sinopec operated in the south and east. The three enterprises were created as joint-stock companies and offered their shares on international exchanges.²²⁷ However, the Chinese state still possesses a controlling stake in all three of them. Since the end of the 1990s, the government has focused more on the formulation of energy policy than on direct control of the companies' operations. Also, any significant investments in the energy groups must still be approved by the NDRC, and in some cases directly by the State Council.²²⁸ Hence, the level of state control of these enterprises is similar to that of Gazprom and Rosneft in Russia.

Since 2010, the CNPC has been the biggest importer and producer of natural gas in China. It imported 76.7 percent of China's total gas imports in that year.²²⁹ Its domestic rivals, Sinopec and CNOOC, contributed 13.5 percent and 9.8 percent of imports respectively in 2010.²³⁰ The CNPC has become more active in the Central Asian ESC and in Russia since 2000. It signed a series of agreements with Sakhalin Energy, Lukoil, and Rosneft on oil trade, petroleum exploration, development activities, and oilfield service and engineering that ran from 2003 to 2006.

224 "CNPC at a Glance," CNPC, www.cnpc.com.cn/en/cnpcatag glance/cnpcatag glance.shtml.

225 "Company Overview," CNOOC, www.cnooc.com.cn/col/col6141/index.html.

226 "About Sinopec," Sinopec, www.sinopecgroup.com/group/en/companyprofile/AboutSinopec Group.

227 Steven W. Lewis, *Chinese NOCs and World Energy Markets: CNPC, Sinopec, CNOOC* (Houston, TX: Rice University, 2007), 39–48.

228 Ibid.

229 CNPC, "CNPC at a Glance."

230 "China's Natural Gas Consumption," Interfax, April 15, 2011.

Moreover, the CNPC and Rosneft created a joint venture, Vostok Energy Ltd., in 2006, which subsequently won an auction for licenses to explore oil and gas deposits in two eastern Siberian fields. The CNPC holds a 49 percent stake in this joint venture. In this way, China is participating in the acquisition and development of eastern Siberian and Far Eastern hydrocarbon deposits by Russia's state-owned enterprises.

The CNPC also concluded a framework agreement with Gazprom to import natural gas to China and an agreement with Rosneft to supply crude oil to China over the Russia–China Crude Oil Pipeline in 2010. The CNPC and Rosneft established a joint venture to develop oil and gas fields in the Far East in 2013. The CNPC also joined in on Novatek's Yamal LNG project, taking a 20 percent stake. Most importantly, the CNPC signed an agreement with Novatek in 2014 to purchase 3 million tons of LNG from the Yamal field over 20 years. All these transactions demonstrate an intention on China's part to assert control over Russia's energy resources in eastern Siberia and the Far East. China's effort accelerated after it commissioned vital oil and gas pipelines between China and Central Asia and after it got control of significant deposits in that region. It seems that China's achievements in Central Asia have given it a better negotiating position vis-à-vis Russia than before.

Beijing is also actively securing supplies of energy from Russia. The CNPC and Transneft signed an agreement in 2008 for the construction and operation of the Russia–China Crude Oil Pipeline. This pipeline starts at the Skovorodino off-take station in eastern Siberia and continues to the Daqing terminal station in China. This pipeline is a thousand kilometers long, but only 63 kilometers of it are on Russia's territory. Its capacity is 15 million tons a year. The construction started in May 2009 and it was completed in September 2010. According to a 2013 agreement, Rosneft was to deliver 30 million tons of oil annually by 2018 with a contract term of 25 years.

In September 2013, the CNPC and Gazprom signed a framework agreement on gas supplies through a newly built pipeline from Russia to China – the Power of Siberia Gas Pipeline. The construction of the pipeline began in 2014. Its total length when completed will be 2,680 kilometers. It will enter China at Heihe in Heilongjiang Province. This pipeline was expected to be commissioned in 2019 and the length of the supply contract is 30 years. By the sixth year of the contract, it will be delivering 38 bcm per year.²³¹ It is remarkable that the pipeline projects in

231 "CNPC and Russia," CNPC, www.cnpc.com.cn/en/Russia/country_index.shtml.

Central Asia were commissioned much earlier than those in Russia. The Kazakhstan–China Oil Pipeline was commissioned in 2009, while the Skovorodino–China Crude Oil Pipeline was commissioned one year later. The Turkmenistan–China Gas Pipeline was fully commissioned in 2014, while the Power of Siberia Gas Pipeline was commissioned only in 2019.

This subchapter on the energy players in China shows that the CPC dominates the entire energy sector of the country. Both the CNPC and CNOOC represent key pillars of the current political regime in China. The corporations influence the formulation of China’s energy policy through their political influence, their financial weight, and their expertise and human resources. The hydrocarbon enterprises derive their political influence from their status as state institutions. Their leaderships are typically well-connected with the government and the CPC on a personal level. But they generate profits and thus are financially independent of the government. The joint-stock companies Petro China, Sinopec Corporation, and CNOOC Ltd., which were all created in 2005, generate approximately 22 percent of all contributions by state-owned enterprises to the state budget.²³² The government supports them in their activities in exchange for their contributions to the national interests outlined in China’s official energy strategy. These facts indicate that the CPC wants to transform as much of China’s energy sector’s national power into state power as possible. As a practical matter, the Chinese government considers its state-owned and state-dependent energy actors to be extensions of the state’s apparatus.

Energy Policy

The core of China’s energy policy is not all that different from that of its Russian counterpart. This is because the system in both countries is authoritarian and its legitimacy relies on guarantees of economic performance and internal stability.²³³ The economic development in both countries is closely linked with the issue of energy security.²³⁴ The biggest

232 Erica S. Downs, “Who’s Afraid of China’s Oil Companies?” in: *Energy Security: Economics, Politics, Strategy, and Implications*, eds. Carlos Pasqual and John Elkind (Washington: Brookings Institution Press, 2010), 73–95.

233 Ole Odgaard, “China’s Energy Security and Its Challenges Towards 2035,” *Energy Policy* 71 (2014): 107–117.

234 Vladimir Kozyrev, “China’s Continental Energy Strategy: Russia and Central Asia,” in *China’s Energy Strategy: The Impact on Beijing’s Maritime Policies*, eds. G. Collins, A. Erickson, L. Goldstein and W. Murray (Annapolis: Naval Institute Press, 2008), 103–121.

difference is the fact that China is predominantly a consumer country, whereas Russia is a major energy exporter. Explicit, comprehensive energy strategies are more often produced by exporter states that are directly dependent on their exports than by consumer states. Consumer states usually start to formulate an energy strategy only in times of crisis, which is what happened in China after the electrical blackouts in 2003 and 2004.²³⁵

China's government and the CPC define China's national interests as preserving and modernizing the CPC, strengthening social and political stability, developing the economy, maintaining the integrity and unity of China as a nation, and strengthening China's influence in its surrounding region. The key to all of those strategic goals is having access to diversified energy resources.²³⁶ Therefore, energy security is playing more and more of a role in China's strategy documents. China lacks any significant historical experience with a disruption of its energy imports. Nevertheless, it considers the threat of such a disruption to be very serious. A disruption of imports could lead to an economic slowdown and weaken the CPC's legitimacy. The Chinese People's Liberation Army perceives the United States to be one of its most critical security threats. The threat from the US is especially real in light of the de facto alliance between the US and the Republic of China (Taiwan). If the PLA were one day to invade Taiwan, there is a high probability of a US-led maritime blockade.²³⁷ Hence, China's energy policy aims to decrease its dependence on imports by ocean-going tankers and increasingly focuses on overland alternatives.

Based on existing bilateral agreements, Russia will supply China with 40 bcm per year through the Power of Siberia Gas Pipeline and with LNG exports.²³⁸ There is also a functioning gas pipeline from Myanmar, the Myanmar–China Gas Pipeline, which supplies China with natural gas from the Bay of Bengal as a strategic backup supply. China's national oil companies own 51 percent of the shares of the Myanmar pipeline.

235 Monir Alam, "China's Changing Strategic Engagements in Central Asia," *The Journal of Central Asian Studies* 21 (2014): 13–36.

236 Hung Ming-Te and Tony Tai-Ting Liu, "China's Foreign Policy in Central Asia," *Oaka* 5, no. 10 (2010): 92–112.

237 For more on the Belt and Road Initiative see: Cristina Lin, *The New Silk Road: China's Energy Strategy in the Greater Middle East* (Washington: Washington Institute for Near East Policy, 2011), 13–19.

238 Simon Kardaś, "The Eastern Partnership of Gas: Gazprom and CNPC Strike a Deal on Gas Supplies to China," *OSW Commentary*, no. 136 (2014): 110–133.

LNG imports are rising quickly. They started in 2006 and reached 20 bcm per year by 2012. The leading suppliers are Australia, Indonesia, and Malaysia. Moreover, China is reputed to own the world's largest reserves of non-conventional gas and methane.²³⁹ On the one hand, the development of those non-conventional deposits could offset China's growing import needs. On the other hand, the environmental protection policies that have been an integral part of China's five-year plans since the early 1990s may inhibit the development of such sources on a massive scale.²⁴⁰ Therefore, there will always be pressure to expand foreign sources of energy, especially given the internal political situation and the desire of the ruling regime to hold on to its power, as is the case in Russia.²⁴¹

China's effort to invest abroad, in part to diversify its energy imports, is often referred to as its "go-out strategy" or "oil diplomacy."²⁴² China's political elite utilize their energy sector as an instrument of foreign policy for gaining direct control of energy resources abroad and thus securing a diversified, long-term supply of energy resources for China.²⁴³ This assertion can be proven by a few historical examples. China's CNOOC attempted to purchase the US oil company Unocal in 2005. Its bid of USD 18.5 billion was USD 1 billion higher than the second bidder, ChevronTexaco. The US government stopped this deal based on strategic considerations.²⁴⁴ CNOOC then attempted to buy the Canadian oil firm Nexen in September 2012. The shareholders even approved the deal, which was worth USD 15.1 billion. Like the United States, the Canadian government prevented the transaction because of Nexen's strategic value to Canada. These two bids to acquire foreign energy companies did not make any sense from a profit- or market-oriented point of view. However, they were fully justified in China's eyes from its own strategic-oriented point of view.

Russia is also wary of China's desire to purchase its strategic energy sector assets. While it was in operation, Yukosneftegaz was the only

239 Odgaard, "China's Energy Security," 107–117.

240 Linda Jakobson, "Does China Have an Energy Diplomacy? Reflections on China's Energy Security and Its International Dimensions," in: *Energy Security: Visions from Asia and Europe*, ed. Antonio Marquina (New York: Palgrave Macmillan, 2008), 121–134.

241 For more on China's energy geopolitics see: Thrassy Marketos, *China's Energy Geopolitics: The Shanghai Cooperation Organization and Central Asia* (New York: Routledge, 2009).

242 Robert Sutter, "Durability of China's Strategy towards Central Asia – Reasons for Optimism," *China and Eurasia Forum Quarterly* 6, no. 1 (2008): 1–21.

243 Peyrouse, *Economic Aspects*, 46–69.

244 For more on the global struggle for energy resources see: Klare, *Rising Powers, Shrinking Planet*, 120–142.

major oil company in Russia that favored cooperation with China's oil and gas enterprises. Russia's parliament prevented another transaction, the sale of Slavneft to China, in 2002. However, while Western and Russian governments are protecting their companies from China's takeover bids, the situation is completely reversed in Central Asia.²⁴⁵ The modus operandi of China's strategy is to tie itself to its partner and client states through a dense network of pipelines and other infrastructure, and the Central Asian governments are not trying to prevent it from doing so.²⁴⁶ China's energy security strategy and the Belt and Road Initiative are associated with the terms "go-west strategy" and "string of pearls strategy."²⁴⁷ The former term mainly refers to China's increasingly assertive role in the Central Asian ESC. Moreover, the go-west strategy aims to increase the level of economic development in Xinjiang and Tibet and hence bring stability to these regions.²⁴⁸

This subchapter focuses on China's energy policy. Based on strategic documents and commercial practice, the CPC considers China's energy sector to be a tool of its internal and external policy. Furthermore, the energy sector's role in external policy is growing as China pursues foreign investment through the "go-out strategy," "oil diplomacy," and the "string of pearls."²⁴⁹ All of these strategies can be contextualized in the broader framework of China's Belt and Road Initiative announced by President Xi Jinping in 2013.²⁵⁰ At the heart of that initiative is a desire to control the material resources that are the basis of China's military and economic power.²⁵¹ China rewards or punishes certain behavior of other states. In addition, there is a clear preference for bilateral relations in the energy sector because like Russia, China finds it easier to dominate bilateral relationships. Furthermore, there are clear examples of attempts to control entire supply chains and markets without regard for commercial logic, as was the case with takeover attempts targeting the

245 Simon Osborne, "China's Increasingly Powerful Role in Central Asia," *FinanceAsia*, October 1, 2012.

246 Georgiy Voloshin, "Hidden Dragon: The Chinese Era in Central Asia," *Global Asia* 9, no. 4 (2014): 86–102.

247 "China Builds Up Strategic Sea Lanes," *Washington Times*, January 17, 2015, www.washingtontimes.com/news/2005/jan/17/20050117-115550-1929r.

248 On the Xinjiang question see: Michael Clarke, *Xinjiang and China's Rise in Central Asia: A History* (London: Routledge, 2011).

249 The "string of pearls" strategy focuses on strengthening China's position in maritime trade and especially on securing its oil and LNG imports.

250 *Caixin Online*, "One Belt, One Road."

251 Collins et al., *China's Energy Strategy*, 81–114.

US company Unocal, the Canadian company Nexen, and the Russian company Slavneft.²⁵²

Energy Policy in the Central Asian Energy Security Complex

Many authors, such as Alexander Cooley,²⁵³ Andrey Kazantsev,²⁵⁴ and Julia Kuznir²⁵⁵ have warned that Central Asia faces a new round in the “great game” for control of its natural resources. However, most of them perceived the West and Russia as the main contenders.²⁵⁶ They conspicuously ignored China, which is now only a step away from taking the region into its zone of influence.²⁵⁷ Besides its own energy security and economic cooperation with other states, China focuses its attention on stabilizing its borders, ensuring its national security, and securing a leadership role in the region for itself.²⁵⁸

China’s energy policy in the Central Asian energy security complex is mainly focused on three regional hydrocarbon exporters: Turkmenistan, Kazakhstan, and Uzbekistan.²⁵⁹ Those countries’ combined natural gas reserves are estimated at 27.8 tcm, which is 13.3 percent of the world total.²⁶⁰ Central Asia’s leaders need China’s investment to satisfy the growing demand of their developing economies. At the time of the

252 For more on China’s energy policy towards Russia see: Amy Jaffe, *China’s Energy Hedging Strategy: Less than Meets the Eye for Russian Gas Pipelines* (Washington: National Bureau of Asian Research, 2015).

253 Alexander Cooley, *Great Games, Local Rulers: The New Great Power Contest in Central Asia* (Oxford: Oxford University Press, 2012).

254 Andrey Kazantsev, *Bolshaya igra s neizvestnymi pravilami: Mirovaya politika i Tsentralnaya Aziya* (Moscow: Fond Naslediye Evrazii, 2008), 88–94.

255 Karen Smith Stegen and Julia Kuznir, “Outcomes and Strategies in the New Great Game: China and the Caspian States Emerge as Winners,” *Journal of Eurasian Studies* 6, no. 2 (2015): 91–106.

256 Lutz Kleveman, *The New Great Game: Blood and Oil in Central Asia* (New York: Groe Press, 2003), 144–165.

257 For more on China’s policies in Central Asia see: Sutter, “Durability of China’s Strategy,” 18–24.

258 For China’s position on Central Asia see: Jan Šír and Slavomír Horák, “China as an Emerging Superpower in Central Asia: The View from Ashkhabad,” *China and Eurasia Forum Quarterly* 6, no. 2 (2008): 75–88.

259 S. V. Zhukov, “Energeticheskiye interesy Kitaya v Srednei Azii,” *Vostok. Afro-aziatskie obshchestva: istoriia i sovremennost* 6 (2007): 1–8.

260 Onur Cobanlı, “Central Asian Gas in Eurasian Power Game,” *Energy Policy* 68, issue C (2014): 348–370.

financial crisis of 2008, China concluded two loans-for-energy contracts with Turkmenistan amounting to USD 8 billion. These loans enabled Turkmenistan to free itself from having to borrow from private lenders and international financial institutions.²⁶¹

In comparison to Western creditors, China did not demand any social or political preconditions for cooperation with its Central Asian partners.²⁶² It later concluded similar deals with Kazakhstan in return for energy resources worth USD 13 billion. China's increasing importance in the region can best be illustrated by the rise in mutual trade. In 2000, China's overall trade with Central Asia was estimated at USD 1 billion. However, in 2010 this figure reached USD 30 billion. It was USD 52 billion in 2013.²⁶³ By the end of the 2010s, China had taken advantage of the global financial crisis and surpassed Russia as the region's leading trading partner.

China's activities in Kazakhstan

In Kazakhstan, China first focused on gaining a position in upstream activities and then moved into downstream activities. The CNPC now operates five oil field development projects in Kazakhstan: CNPC AktobeMunaiGas, North Buzachi, PetroKazakhstan, and the KAM and ADM projects. In the area of transport, China holds interests in the Kazakhstan–China Crude Oil Pipeline, the Northwest Crude Oil Pipeline, and the second phase of the Kazakhstan–China Gas Pipeline. In 1997, the CNPC acquired a 60.3 percent stake in AktobeMunaiGas and obtained a production license for the Zhanzhol, Kenkijak Oversalt, and Kenkijak Subsalt fields.²⁶⁴ It now owns an 85.42 percent share in AktobeMunaiGas.²⁶⁵ AktobeMunaiGas is the fourth largest oil enterprise in Kazakhstan.²⁶⁶ In 2005, the CNPC also acquired PetroKazakhstan, which then owned rights for exploitation of 16 oil fields and operated

261 For energy geopolitics in Central Asia see: Petersen, *Russia, China and the Geopolitics of Energy*, 89–108.

262 Evgeny Petelin, "China's Energy Monologue in Central Asia," *Security Index* 17, no. 4 (2011): 29–46.

263 Sebastien Peyrouse, Testimony before the U.S.-China Economic and Security Review Commission, March 18, 2015.

264 Ibid.

265 "CNPC in Kazakhstan," CNPC, www.cnpc.com.cn/en/Kazakhstan/country_index.shtml.

266 Ibid.

Kazakhstan's largest refinery in Shymkent.²⁶⁷ PetroKazakhstan is an integrated international energy company with upstream and downstream operations in both oil and gas. The company's upstream assets are located in the South Turgai Basin and its downstream assets include the Shymkent refinery. Very conveniently for the CNPC, all the Kazakh oil fields mentioned lie along the route of its oil pipeline through Kazakhstan. The CNPC and Lukoil jointly operate the North Buzachi oil field, located in far western Kazakhstan. Each has a 50 percent stake in the project. The KAM Project mainly consists of the Konys and Bektas oil fields in the South Turgai Basin.

In 1993, there were early plans for an oil pipeline from Kazakhstan to Xinjiang in China. China and Kazakhstan signed a memorandum of understanding on the construction of that pipeline in 1997.²⁶⁸ However, the initial plan was canceled because of the 1998 Asian financial crisis. The project returned to life in 2003 as a consequence of several setbacks of China's energy diversification strategy. First, the US-led war in Iraq meant a loss of significant Chinese investments in that country. Second, internal developments in Russia connected with the Yukos affair spelled the end of the prospects of a Sino-Russian oil pipeline. Third, China was unsuccessful in its bid to buy a share of the vast Kashagan oil field in western Kazakhstan.²⁶⁹ Fourth, China experienced unprecedented electricity blackouts in the summer of 2003.

The Kazakhstan–China Oil Pipeline was built in three stages. The pipeline from Aktobe region to Atyrau on the Caspian Sea was finished in 2003. Its flow was first directed to the west and then reversed into China after the completion of the entire pipeline. Next, in 2006 the pipeline from Atasu to Alashankou in China was commissioned. Finally, the first two sections of a third pipeline from Atasu to Aktobe region were commissioned in late 2009. At the same time, China built several other west-to-east pipelines. The first one was constructed in 2004 to supply gas and it connects the Tarim Basin in Xinjiang with Shanghai. It has a capacity of 17 bcm per year and transports mainly domestic Chinese resources. A second oil pipeline was commissioned in 2011. It connects

267 "Company History," PetroKazakhstan, www.petrokazakhstan.kz/eng/pages/history.html.

268 "Brief Introduction to Relations Between China and Kazakhstan," *China Daily*, 27 May 2005, www.chinadaily.com.cn/en/doc/2003-05/27/content_166588.htm.

269 Abdelghani Henni, "The Mystery of Kashagan," *Society of Petroleum Engineers*, November 24, 2014, www.spe.org/news/article/the-mystery-of-the-kashagan.

to the Kazakhstan–China Oil Pipeline in the border city of Horgos.²⁷⁰ At present, there are three pipelines that export Kazakhstan’s oil to foreign customers. The first one is the old Soviet-built Atyrau–Samara Oil Pipeline leading to Samara in Russia. The second one is the Caspian Pipeline Consortium which since 2001 runs from Kazakhstan along the northern shores of the Caspian Sea to the Russian Black Sea Port of Novorossiysk. It is the only privately owned oil pipeline going through Russia’s territory. The third one, the Kazakhstan–China Oil Pipeline, has been in operation since 2006.²⁷¹

China’s activities in Turkmenistan

China first signaled its interest in the construction of a gas pipeline from Turkmenistan to Xinjiang in 1992. However, cooperation was stalled during the 1990s for three main reasons. Turkmenistan’s President Saparmurat Niyazov was not keen on cooperation with China in the 1990s. Although he later changed his mind, at that time he preferred dealing with Russia or constructing alternative routes to Iran, India, and Azerbaijan. Also, Russia still had considerable influence in all of Central Asia.²⁷² In any event, the CNPC was at that time mainly focused on oil and not natural gas.

This all changed in 2006 after Niyazov’s death and the ascension of Gurbanguly Berdimuhamedow to the presidency of Turkmenistan. The new power broker in Ashgabat was much more open towards China, which resulted in agreements for the construction of a gas pipeline from Turkmenistan to China and other agreements on leasing and production of gas in the Bagtyyarlyk fields on the right bank of the Amu Darya river.²⁷³ Turkmenistan agreed to supply 30 to 40 bcm per year to China in a deal lasting for 30 years.²⁷⁴ Many experts considered the Turkmeni-

270 “Kazakhstan-China Oil Pipeline,” *KazMunaiGaz*, www.kmg.kz/en/manufacturing/oil/kazakhstan_china.

271 Thrassy Marketos, “Eastern Caspian Sea Energy Geopolitics: A Litmus Test for the U.S.-Russia-China Struggle for the Geostrategic Control of Eurasia,” *Caucasian Review of International Affairs* 3, no. 1 (2009): 2–19.

272 Slavomír Horák, “Challenges from the East: China,” in *Putin’s Grand Strategy: The Eurasian Union and Its Discontents*, eds. S. Frederick Starr and Svante E. Cornell (Washington D.C.: Central Asia-Caucasus Institute, 2014), 166–179.

273 “Storony polny reshivosti...,” *Turkmenistan.ru*, July 18, 2007.

274 “CNPC in Turkmenistan,” CNPC, www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.

stan–China Gas Pipeline to be nothing more than a “paper project” until 2008.²⁷⁵ However, the first segment of that pipeline was finished as early as December 2009. It was soon followed by the construction of two other pipeline segments. China simultaneously constructed two west-east gas pipelines on its own territory to transport gas further east.²⁷⁶ Hence, it is now possible to transport natural gas from Turkmenistan all the way to the Pacific coast of China.

China also focused on gaining direct or indirect control of hydrocarbon deposits in Turkmenistan. The CNPC and Turkmengaz signed a technical agreement to extend their cooperation in gas exploration in the Bagtyyarlyk production sharing agreement (PSA) area in 2007.²⁷⁷ Three years later, Turkmenistan announced that a consortium consisting of the CNPC, LG International, Hyundai Engineering, Gulf Oil and Gas FZE, and Petrofac International had won a tender with a USD 10 billion bid to develop the South Yolotan natural gas field. As part of that deal, the CNPC signed a USD 3 billion contract in which it has the right to produce ten bcm per year and keep three bcm per year to fill its gas pipeline to China.²⁷⁸

Moreover, China’s Development Bank provided Turkmenistan with a USD 3 billion loan to develop the South Yolotan gas field and in 2013 lent another USD 4 billion for the completion of the first stage of that project. That same year, China signed an agreement to finance the second phase of the Galkynysh project for USD 4 billion.²⁷⁹ In all of China’s dealings with Turkmenistan, the exploration rights to the Galkynysh deposit were the most valuable prize. Of course, in its dealings with Turkmenistan, China does not focus only on natural gas but also on oil. For instance, the CNPC has operated the Gumdag oil field in western Turkmenistan since 2002.²⁸⁰

275 Michael Klare, *Shrinking Planet: How Scarce Energy is Creating New World Order* (Oxford: Oxford University Press, 2008), 120–142.

276 “West-East Gas Pipeline Project Begins Commercial Operation,” PetroChina, www.petrochina.com.cn/ptr/xwxx/201404/0163d5084c414ee89beb8bed60bb961c.shtml.

277 “Construction Commences on the No.1 Gas Processing Plant of Amu Darya Project,” CNPC, June 30, 2008, www.cnpc.com.cn/en/nr2008/201211/5bb0c4ae7f964968b04a68b08be4629a.shtml.

278 “Asian Companies Entrusted to Develop Super Gas Giant Turkmenistan,” Trend News Agency, January 5, 2010, en.trend.az/business/energy/1610569.html.

279 “China Asserts Clout in Central Asia with Huge Turkmen Gas Project,” Reuters, September 4, 2013, www.reuters.com/article/us-gas-turkmenistan-galkynysh-idUSBRE9830MN20130904.

280 “CNPC in Turkmenistan,” CNPC, www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.

China's activities in Uzbekistan, Tajikistan, and Kyrgyzstan

China's profile in Uzbekistan has stayed lower than in Kazakhstan and Turkmenistan (see Table 8). It focuses only on strategic infrastructure and the development of a few key hydrocarbon deposits. The CNPC signed an oil and gas exploration agreement with Uzbekneftegaz in June 2006 and created the Aral Sea project consortium in August 2006, which includes the CNPC, Uzbekneftegaz, Lukoil, Petronas, and South Korea's KNOOC.²⁸¹ The consortium has signed a PSA with Uzbekistan. The CNPC also provides geophysical prospecting, well drilling, and logging services in Uzbekistan. Moreover, it is a significant petroleum equipment supplier for Uzbekistan.²⁸²

In June 2006, Uzbekneftegaz signed a five-year agreement with the China National Oil and Gas Exploration and Development Corporation for exploration work worth USD 208 million in five blocks in the Ustyurt, Bukhara-Khiva, and Fergana regions. Moreover, the CNPC announced that it would begin developing gas condensate fields in the Karakul block, located in the Bukhara-Khiva region of Uzbekistan, in May 2011.²⁸³ China also finances some critical investment projects in Uzbekistan through the Chinese Export-Import Bank. In exchange, it has obtained easy access to exports of Uzbekistan's natural gas to China since 2012.²⁸⁴

In the area of energy, China also maintains relations with Kyrgyzstan and Tajikistan. However, those relationships do not have the intensity nor the importance of its relations with Kazakhstan, Turkmenistan, and Uzbekistan.²⁸⁵ That might change if Line D of the Turkmenistan–China Gas Pipeline is completed because it traverses the territory of those two states. China has invested in Kyrgyzstan's and Tajikistan's hydroelectric sectors, but it is also active in their other sectors such as industry and agriculture.²⁸⁶ China has also expanded the development assistance it provides to the two countries through the Chinese Export-Import Bank. The Export-Import Bank is aid-dependent Tajikistan's most extensive

281 "CNPC in Uzbekistan," CNPC, www.cnpc.com.cn/en/Uzbekistan/country_index.shtml.

282 Ibid.

283 "China's CNPC to Develop Gas Condensate Fields in Uzbekistan," *Times of Central Asia*, May 12, 2011.

284 Luzyanin, "Rossiya i Kitay."

285 Luca Anceschi, "Integrating Domestic Politics and Foreign Policy Making: The Cases of Turkmenistan and Uzbekistan," *Central Asian Survey* 29, no. 2 (2010): 143–158.

286 Sebastien Peyrouse, "The Hydroelectric Sector in Central Asia and the Growing Role of China," *China and Eurasia Forum Quarterly* 5, no. 2 (2007): 131–148.

creditor, holding 41.3 percent of Tajikistan's external debt in 2014.²⁸⁷ Because of its loans, China enjoys enormous influence on the internal politics of the two states. Their debts constitute a card that can be played in case they attempt to hinder the construction of Line D.

The Belt and Road Initiative

Almost all of China's activities in Central Asia can now be subsumed under the banner of the Belt and Road Initiative (BRI).²⁸⁸ This project has two dimensions. The first one is the Maritime Silk Road, which is an attempt to increase China's control over sea-based transport. The second one is an economic and security program, the New Silk Road project, which is intended to connect China over land with Central Asia and beyond.²⁸⁹ If necessary, it can substitute the existing sea-lanes in the event of a naval blockade against China.²⁹⁰

The Belt and Road Initiative mainly combines and relabels activities that were already being pursued by China after the fall of the Soviet Union. Moreover, it elevates transport initiatives to the level of geopolitical strategy.²⁹¹ To implement the BRI project, China has created the Silk Road Fund with USD 40 billion in capital²⁹² and the Asian Infrastructure Investment Bank with USD 100 billion.²⁹³ These two institutions were launched in June 2015. Their total resources are approximately equal to those of the Japan-backed Asian Development Bank, and they are only slightly less than the resources commanded by the US-backed World Bank. However, they are still two and a half times less than the resources controlled by the International Monetary Fund.²⁹⁴

287 "China Will Lend Tajikistan Grant of \$32.2 Million," Amonatbank, May 20, 2015, www.amonatbank.tj/en/about/press/novosti/121.

288 William T. Wilson, "China's Huge One Belt, One Road Initiative Is Sweeping Central Asia," *National Interest*, July 27, 2016.

289 Peter Frankopan, "The Silk Roads Rise Again," *New Statesman*, October 22, 2015, 30–33.

290 Jamie Coomarasamy, "China's Westward Pivot: What It Means for Central Asia and Russia," *Mediterranean Quarterly* 20, no. 9 (2014): 48–60.

291 Justyna Szczudlik-Tatar, "China's New Silk Road Diplomacy," *PISM Policy Paper* 34, no. 82 (2012): 1–8.

292 "Fund History," Silk Road Fund, www.silkroadfund.com.cn/enweb/23775/23767/index.html.

293 "Operational Policies," Asian Infrastructure Investment Bank, euw.aiib.org/html/aboutus/Operational_Policies/Financing/?show=3.

294 For more on China's New Silk Road projects see: Brugier, Camille, *China's Way: The New Silk Road* (Brussels: European Institute on Security Studies, 2014).

China's goal in this effort is the "de-dollarization" of international trade. To that end, it seeks to conclude agreements with its partners and conduct trade preferentially in yuan. For instance, Gazprom converted its export of oil to China entirely into yuan in June 2015.²⁹⁵ Russia is sympathetic to China's attempts to decrease the role of the US dollar in international trade. However, the two great powers' visions of the future world order clash. China favors a new bipolarity in international relations with two superpowers – the PRC and the United States – while Russia favors multipolarity and a return to a global balance among several great powers.²⁹⁶

The greatest prize of the Belt and Road Initiative is the facilitation of China's trade with the European Union, which amounts to a billion euros a day.²⁹⁷ If China's goods are transported to Europe via the maritime route, it takes 20 to 40 days. Transport via the inland New Silk Road can take only 11 days.²⁹⁸ However, the project represents a real test for China's doctrine of the Five Principles of Peaceful Coexistence, which has significant support among the ruling circles in Beijing. These five principles are: mutual respect for territorial integrity and sovereignty, non-aggression, non-interference in internal affairs, equality and mutual benefit, and peaceful co-existence.²⁹⁹

China has traditionally focused on economic cooperation with Central Asia and let Russia manage the region's security. This division of labor could soon change, however, as China becomes more willing to participate in military operations beyond its borders, for example in Africa.³⁰⁰ In fact, Russia's military cooperation structure, the Collective Security Treaty Organization, proved utterly ineffective in the case of the 2010 crisis in Kyrgyzstan.³⁰¹ Moreover, Russia has proved itself to be unable to control the geopolitics of the region because it could not block

295 Jack Farchy, "Gazprom Neft Sells Oil to China in Renminbi Rather than Dollars," *Financial Times*, June 1, 2015, www.ft.com/content/8e88d464-0870-11e5-85de-00144feabdc0.

296 For more on China's activities in Central and Eastern Europe see: Rudolf Fürst and Filip Tesař eds., *China's Comeback in Former Eastern Europe: No Longer Comrades, Not Yet Strategic Partners* (Prague: Institute of International Relations, 2013).

297 Alessandro Arduino, *China's One Belt, One Road: Has the European Union Missed the Train?* (Singapore: Nanyang Technological University, 2016), 1–20.

298 Ibid.

299 "Backgrounder: Five Principles of Peaceful Coexistence," Xinhua News Agency, news.xinhuanet.com/english/2005-04/08/content_2803638.htm.

300 "Is China Contributing to the United Nations' Mission?" Centre for Strategic and International Studies, chinapower.csis.org/china-un-mission.

301 Lin, *The New Silk Road*, 13–19.

the deployment of US troops in the region after September 2001.³⁰² In the course of the 2000s, China understood that Russia does not have the ability to stabilize Central Asia by itself, nor to prevent its penetration by other great powers.³⁰³ Therefore, it has come up with its own bid for regional hegemony in the form of the Belt and Road Initiative.

It seems that the BRI project will play a critical role in Sino-Russian relations and will gradually overshadow the Shanghai Cooperation Organization, which has been the central platform for collaboration up to the present.³⁰⁴ The SCO member states approved its program of multilateral economic cooperation in 2003.³⁰⁵ The program assumed that by 2010, barriers to trade and investment would be significantly lower and that by 2020 goods, capital, and services would enjoy free movement between its members.³⁰⁶

But all of that has remained on paper only. The SCO has instead focused on security cooperation between its members and on preventing the spread of US influence in Central Asia. Even the proposed SCO development bank did not materialize. Any hopes for deeper economic integration amongst its members were dispersed at the Ufa summit in 2015 when it was agreed that India and Pakistan would join the organization.³⁰⁷ This enlargement of the organization will make any deeper economic integration impossible. It shows that Russia was only buying time and was not really prepared for economic integration in the framework of the SCO out of fear that China's economy would overshadow its own.

China began to support the idea of a land bridge to Europe that would bypass Russia soon after 1991. It paid the Asian Development Bank to lead the project despite Russia's vociferous opposition. Coincidentally, the European Union announced a similar project, the Transport Corridor Europe–Caucasus–Asia (TRACECA) at that time. China perceived the

302 Horák, "Challenges from the East," 166–179.

303 Martin Hála, "Evropa se rozpadá, Eurasie sílí," *Sinopsis.cz*, <https://sinopsis.cz/evropa-se-rozpada-eurasie-sili>.

304 Stephen Aris, "The Shanghai Cooperation Organisation: 'Tackling the Three Evils.' A Regional Response to Non-traditional Security Challenges or an Anti-Western Bloc?" *Europe-Asia Studies* 61, no. 3 (2009): 457–482.

305 Alexander Frost, "The Collective Security Treaty Organization, the Shanghai Cooperation Organization, and Russia's Strategic Goals in Central Asia," *China and Eurasia Forum Quarterly* 7, no. 3 (2009): 83–102.

306 "About," Shanghai Cooperation Organisation, en.sco-russia.ru/docs/about/faq.html.

307 "After BRICS, Putin Hosts Shanghai Cooperation Organization Summit in Ufa," *Radio Free Europe/Radio Liberty*, July 10, 2015, www.rferl.org/a/russia-putin-shanghai-cooperation-organization-summit-brics-ufa/27120442.html.

US-led invasion of Iraq in 2003 as a threat to its energy security. Since then, China has emphasized the importance of its energy security and the development of new import routes.

China's motivation for developing the BRI is threefold. First, Xinjiang has replaced Taiwan as the regime's principal strategic challenge. China feels threatened by the calls for decentralization and self-government for the local Turkic and Muslim populations in the province.³⁰⁸ By closer cooperation with the Central Asian states, China diminishes the possibility that they will support the separatist movement in Xinjiang.³⁰⁹ China also assumes that an overall improvement of the economic situation there decreases the likelihood of a revolt.

Russia has used Xinjiang to gain leverage against China many times in the past. The most recent example of Russia's attempts to undermine China's control of the region took place in the 1960s, when the two states actually went to war against each other. The Soviet Union at that time increased the militarization of its border with China and began to issue Soviet passports to Turkic residents of Xinjiang.³¹⁰ China changed its regional policy from one of "stability above all else" to a strategy of assisting regional economic development in 2010. In 2015, 78 percent of Xinjiang's exports went to Central Asia.³¹¹ Xinjiang ranked twentieth out of China's 29 provinces in terms of its wealth in 2015, according to China's Statistical Office.³¹² Uighur separatism is still a severe challenge to the Beijing government. The threat was made tangible with a terrorist attack on Xinjiang's Kunming train station in March 2013, which left 29 dead and 130 wounded.³¹³

China's second motive for the BRI is to develop a direct trade route to the West. Transcontinental transport goes hand in hand with significant investment in the service infrastructure of freight forwarders, logistics firms, insurers, hotels, supply bases, storage facilities, fuel suppliers, and others. This development represents both opportunities and a possible

308 Yitzhak Shichor, "China's Central Asian Strategy and the Xinjiang Connection: Predicaments and Medicaments in a Contemporary Perspective," *China and Eurasia Forum Quarterly* 6, no. 2 (2008): 55–73.

309 On the Xinjiang question see: Graham E. Fuller and Frederick S. Starr, *The Xinjiang Problem* (Washington: Central Asia and Caucasus Institute – Silk Road Studies Program, 2014), 33–50.

310 Starr, "Looking West."

311 "A Belt and Road Development Story: Trade Between Xinjiang and Central Asia," *Belt and Road*, March 8, 2016, beltandroad.hktdc.com/en/market-analyses/details.aspx?ID=473580.

312 "Xinjiang," National Bureau of Statistics of China, www.stats.gov.cn/english.

313 "Kunming Terrorist Attack Suspects Captured," Xinhua News Agency, March 2, 2014, news.xinhuanet.com/english/china/2014-03/03/c_133157281.htm.

threat to the Central Asian states. The opportunity to develop their economies with this enormous impulse for investment is accompanied by the threat to their independence if most of the enterprises created are owned by China.³¹⁴

Thirdly, China has a strategic interest in developing a route to the West that is free of Russia's influence and can substitute for maritime transport in case of a naval blockade. As of now, China seems like a better partner to the Central Asian states in terms of economic collaboration than either Russia or the West.³¹⁵ Cooperation with the West, especially in energy, requires agreements amongst numerous partners, international oil and gas enterprises, transit countries, and destination countries. On the other hand, cooperation with China mostly necessitates bilateral agreements with its government.

This subchapter concludes that China's energy policy towards the Central Asian ESC is focused on three primary goals. First, China has successfully broken Russia's monopsony position with regard to its Central Asian suppliers. The two most important examples of this are the construction of the Central Asia–China Oil Pipeline and the Turkmenistan–China Gas Pipeline. China sought to replace Russia and control the entire Central Asian market, turning the Central Asian energy producers' "undesirable dependence" on a single foreign market to itself. Second, China has become the region's principal trade partner. This was facilitated by projects associated with the Belt and Road Initiative. Third, China is trying to translate its economic position in the Central Asian ESC into political and security gains. The most important effort at present is to stabilize China's potentially separatist regions in the western part of the country. All of this has been done with an emphasis on strategic issues over economic logic, which confirms that China's energy policy in the Central Asian ESC is mostly strategic-oriented.

Analysis of Indicators

This chapter analyzes China's energy policy in the ESC of Central Asia. The goal of this particular case study is to search for indicators established by the strategic-oriented model for the assessment of energy policy. Consequently, it attempts to determine whether China's energy

314 Vladimir Fedorenko, *The New Silk Road Initiatives in Central Asia* (Washington: Rethink Institute, 2013), 12–15.

315 Xie Tao, "Back on the Silk Road," *Global Asia* 9, no. 1 (2014): 70–76.

policy in the Central Asian ESC is strategic-oriented or market-oriented. There are eight elements of a strategic-oriented policy: the perception that energy resources are strategically important; the perception that the state's energy sector is crucial to its economy; the perception that state-owned energy actors are extensions of the state apparatus; the reliance on bilateral relations rather than multilateral arrangements; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to policy; the perception that dependence on other states is undesirable; and an emphasis on achieving strategic goals instead of on employing economic logic. The conclusion based on this case study is that China's energy policy in the ESC of Central Asia is predominantly strategic-oriented, as shown by the indicators listed below.

Perception that energy resources are strategically important

Based on the accumulated data, China's current political regime perceives energy resources to be strategically important for its existence. The CPC regards the security of energy supplies, as well as the diversification of energy sources, as crucial tasks if it wants to maintain its legitimacy as the governing power. The CPC's perceived need to control energy resources and their distribution networks has manifested itself on many occasions, for example, in its dealings with Unocal, Nexen, and Slavneft.

Perception that the energy sector is crucial to the state's economy

At present, China considers its energy sector to be the strategically important core of its economy and trading power. The case study shows that China has tried to control its energy sector and sources of energy in China and other countries, especially in Central Asia, Southeast Asia, and Russia. China's energy sector and its control of energy resources is significant not only because the sector supports China's economic growth but also because it provides the CPC with the ability to win popular legitimacy.

Perception that state-owned energy actors are extensions of the state apparatus

It was further shown that the CPC either directly or indirectly dominates the entire energy sector of China. As a result, China has been able to transfer a significant portion of its national power into state power. Both the CNPC and CNOOC are pillars of the current political regime in China and directly or indirectly influence the formulation of China's energy policy. Based on the case study, it is clear that China's political elite consider their country's state-owned energy actors to be tools for implementing both internal and external policies of the state. Based on an examination of China's five-year-plans and other policy blueprints, the role of the energy sector in foreign policy is increasing.

Reliance on bilateral relations

China's reliance on bilateral relations with its foreign partners in the energy sector is most visible in its relations with particular Central Asia states and with Russia. Based on the data, China has a preference for long-term bilateral deals. This has been demonstrated by China's penetration of Central Asia since 2000.

Zero-sum approach

The case study shows that China's political elite take a zero-sum approach to its energy relationships. China interprets any success of its potential competitors as a loss for China. At the heart of China's energy policy lies a desire to control the material resources that are the basis of its military and economic power. There are many examples of China trying to gain a dominant position on the Central Asian countries' markets and of its efforts to eliminate competitors.

Perception that the energy sector is a tool of state policy

According to the strategic documents and commercial practice examined in the case study, the CPC's regime in China considers its energy sector to be a tool for achieving the goals of its internal and external policy.

Based on the same evidence, China is rewarding or punishing states for certain behavior. There are clear examples of attempts to control entire supply chains and markets regardless of commercial logic, as is the case of the “Go West” program and the “Western Development Strategy.” The former strategy is focused on stabilizing Central Asia through economic cooperation with China. The Chinese government also wants to stabilize China’s western provinces of Xinjiang and Tibet through economic development, after they were neglected during the era of Deng Xiaoping’s reformist zeal in the 1980s. Moreover, the threat of Uighur separatism is of very great concern to Beijing. Both strategies mentioned above are being subsumed into the newer Belt and Road Initiative.

The perceptions that dependence on other countries is undesirable

China has succeeded in economically penetrating the ESC of Central Asia and partially displacing Russia from the region. It has tried to create a system of undesirable dependence (undesirable from the point of view of Russia and, perhaps, the Central Asian countries and the rest of the world) and aims to control the entire Central Asian energy market. The Central Asian states have been more than willing to cooperate with China, whom they do not perceive as a former colonial power but as a trading partner. China has been able to offer attractive and sophisticated cooperation packages to each state of the region, bundled with promises of investment that are generous in comparison to those of the Western states. China’s approach has been made possible because its political elite control much of its energy sector, in contrast to the Western states. Nonetheless, China’s lavish promises can be illusory, as Indonesia’s government learned in 2015. China actually invested only 7 percent of the planned USD 24.27 billion promised to Indonesia between 2005 and 2014.³¹⁶ It is very telling that the only goal the construction of the Turkmenistan–China Gas Pipeline did not fulfill was creating a profit. It is quite clear that the natural gas transported by that pipeline is more expensive than the domestically produced gas in China. Moreover, the volumes of gas imported via the pipeline could have been easily and

316 Linda Yulisman, “Indonesia to Push China to Realize Investment,” *Jakarta Post*, April 4, 2015, www.thejakartapost.com/news/2015/04/04/indonesia-push-china-realize-investment.html.

more profitably substituted with China's coal. Hence, the construction of the pipeline was primarily a strategic-oriented project.

Emphasis on strategic goals over economic logic

China's strategic-oriented policy with regard to energy resources became evident in 2005. The CNOOC tried to purchase the US company Unocal, bidding 18.5 billion USD for it. Unocal's US rival, Chevron, offered USD 16.4 billion, which most observers considered to be closer to the real value of the company. China's higher bid was perceived as a strategic gambit. However, the United States government opposed the purchase because of possible implications for its national security. In the end, Unocal merged with Chevron. Despite failing to take over Unocal, since that year China has bought up many other crucial enterprises in the energy sector.³¹⁷ The construction of the Turkmenistan–China Gas Pipeline, which started in 2007, must also be perceived as a strategic undertaking by China because its three completed lines fulfill several of China's strategic goals. It gives China more energy security and thus helps to legitimize its undemocratic regime.

317 David Barboza, "Chinese Oil Giant in Takeover Bid for US Corporation," *New York Times*, June 23, 2005, www.nytimes.com/2005/06/23/business/worldbusiness/chinese-oil-giant-in-takeover-bid-for-us-corporation.html?_r=0.

4. Turkmenistan's Energy Policy in Central Asia

The third of the three case studies is devoted to Turkmenistan's energy policy and its formulation in the context of the Central Asian ESC. Like the others, this chapter is divided into four parts: energy resources, energy actors, energy policy in general, and energy policy in the ESC of Central Asia. The content of the subchapters is based on an evaluation of primary and secondary sources of data. The goal of this particular case study is to search for elements of the strategic-oriented energy policy in the country's natural gas policy. These elements are: the perception that energy resources are strategically important; the perception that the energy sector is crucial to the state's economy; the perception that state-owned energy actors are extensions of the state apparatus; a reliance on bilateral relations rather than multilateral arrangements; the perception that the energy sector is a tool for achieving the state's policy goals; a zero-sum approach to policy making; the perception that dependence on other countries for energy is undesirable; and an emphasis on strategic goals over economic logic. This analysis is a stepping stone in the process of answering the research question: what is the predominant orientation of energy policy among the states of the ESC of Central Asia. The chapter concludes with an analysis of the indicators found in the data.

Energy Resources

Turkmenistan's predominant exports are natural gas, petroleum, and cotton. Together they make up more than half of the country's GDP.³¹⁸ Turkmenistan is the fourth largest producer of natural gas in the world

³¹⁸ World Trade Organisation, Turkmenistan.

after Iran, Russia, and Qatar. Turkmenistan's current proven reserves are 17.5 tcm, which is 9.4 percent of the world's total reserves.³¹⁹ It should be stressed that Turkmenistan's proven natural gas reserves have significantly grown during the past two decades in comparison to other post-Soviet states. Ashgabat's natural gas deposits were estimated at 2.3 tcm in 2002, but by the end of the decade they increased to 17.5 tcm. In the course of the same period, Russia's proven natural gas reserves only rose from 29.8 tcm to 32.9 tcm.³²⁰ In 2012, Kazakhstan's proven natural gas reserves were 1.3 tcm and Uzbekistan's were 1.1 tcm.³²¹ This unparalleled increase in the proven reserves of natural gas in Turkmenistan significantly strengthened the country's economic and geopolitical standing and turned it into the second biggest energy exporter in the regional energy security complex of Central Asia after Russia.³²² The development of the energy sector also manifested itself in the size of Turkmenistan's economy as shown in Table 15.

Table 15: Basic socio-economic indicators – Turkmenistan (2007–2018)

Year	GDP (billions USD)	GDP per capita (current USD)	Inhabitants (thousands)
2007	12.664	2,600	4,870
2008	19.272	3,904	4,935
2009	20.214	4,036	5,007
2010	22.583	4,439	5,087
2011	29.233	5,650	5,174
2012	35.164	6,675	5,267
2013	39.198	7,304	5,366
2014	43.524	7,962	5,466
2015	35.800	6,433	5,389
2016	36.180	6,389	5,662
2017	37.926	6,587	5,758
2018	40.761	6,967	5,851

Source: The World Bank

319 "BP Statistical Review of World Energy June 2016," BP plc, www.bp.com, June 1, 2016.

320 James Dorian, "Central Asia: A Major Emerging Energy Player in the 21st Century," *Energy Policy* 34, no. 5 (2006): 1–13.

321 Ibid.

322 Félix Arteaga, "Energy Security in Central Asia: Infrastructure and Risk," *Security and Defence* 1 (2010): 12–23.

Turkmenistan's largest proven reserves are located in the Galkynysh gas field, probably the second largest gas field in the world after the South Pars field in the Persian Gulf, which is shared by Iran and Qatar.³²³ The Galkynysh field includes other fields that were formerly regarded as separate from it. These are the Yolotan, Minara, Osman, and Yashlar fields.³²⁴ Other essential gas deposits in Turkmenistan are the Döwletabat-Donmez field, Korpedzhe field, Malay field, Samandepede field, and Shatlyk field. The production in the Döwletabat-Donmez field began in 1982. It is located on the border with Iran near the town of Seraghs. This is where pipelines I, II, and IV of the Central Asia–Center Gas Pipeline System originate. Its reserves are estimated at 1.6 tcm. The Korpedzhe gas deposit is located in southwestern Turkmenistan. It is the starting point of the Korpedzhe–Kurdkuy Gas Pipeline commissioned in 1997, which serves northern Iran. Its reserves were initially estimated to be 141.9 bcm. The Malay deposit is located on the left bank of the Amu Darya river. In 2009 it was connected to the Turkmenistan–China Gas Pipeline via a separate branch called the Malay–Bagtyyaryk Line. The Samandepede deposit was discovered in 1964 with reserves that were initially estimated at 102 bcm. An on-site processing plant was built there in 2009. The Shatlyk deposit is located in the Amu Darya river basin. The field initiated production in 1973 when it was connected to the Central Asia–Center Gas Pipeline System. At present, it is also connected to the East–West Interconnector Gas Pipeline.³²⁵ There are many other important natural gas deposits in Turkmenistan, but they are all dwarfed by the Galkynysh gas field, which is Turkmenistan's most important economic and geopolitical asset.

Turkmenistan is one of the gas-producing countries that can export a substantial portion of their production because of relatively low domestic demand. However, domestic demand is rapidly increasing, from 4 bcm in 1992 to 29.5 bcm in 2016, in part because the government supplies the population of Turkmenistan with gas free of charge under specific quotas.³²⁶ This still leaves more than half of the country's production

323 Muhammad Quazi, "Central Asia: Crossroads for Global Economic Stratagem," *Journal of Political Studies* 22, no. 1 (2015): 289–301.

324 "Sverhigigantskoe gazovoe mestorozhdenie v Turkmenistane poluchilo nazvanie Galkynysh," *Turkmenistan.ru*, November 20, 2011.

325 Martha Brill Olcott, "International Gas Trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan," *Geopolitics of Natural Gas Study*, Working Paper No. 28, James A. Baker III Institute for Public Policy (2004), https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/Turkmenistan_final.pdf.

326 "Accounting for Gas Consumption According to International Standards," *Nebit-Gaz*, February 2, 2016.

available for export. In contrast, neighboring Uzbekistan consumes almost all of its production domestically. Turkmenistan’s state budget is highly dependent on the export of natural gas, cotton, and petrochemicals. Taxes represent only approximately one quarter of its government revenues.³²⁷ Turkmenistan’s ability to export natural gas is illustrated in Table 16.

Table 16: Turkmenistan’s exports of natural gas, 2008–2019 (bcm)

Year	Russia	China	Iran
2008	39.10	0.00	6.50
2009	10.70	0.00	6.50
2010	9.68	3.55	6.50
2011	10.14	14.25	10.14
2012	9.86	21.29	9.05
2013	9.88	24.41	4.66
2014	9.05	25.49	6.55
2015	2.81	27.75	7.24
2016	0.00	34.20	6.70
2017	0.00	31.70	1.70
2018	0.00	33.30	1.90
2019	0.00	31.60	0.00

Source: Statistical Review of World Energy

Turkmenistan’s gas production reached its Soviet-era maximum in 1989 with 81.4 bcm.³²⁸ Production quickly decreased during the 1990s because of the breakup of the Soviet Union, falling to 13.1 bcm in 1998. This trend somewhat improved after 2000 as production reached 66.1 bcm in 2008. However, production fell once again due to a crisis in the country’s relations with Russia, falling to 36.4 bcm. The situation soon improved thanks to the commissioning of the Turkmenistan–China Gas Pipeline. In 2015, Turkmenistan’s total production reached 69.6 bcm (see Table 4). Moreso than Russia, China stands out as the most promising market for Turkmenistan’s natural gas because it consumes imported gas directly rather than re-exporting it and because its consumption will

327 Annete Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism* (London: Chatham House, 2016), 20–35.

328 “BP Statistical Review of World Energy June 2016,” BP plc, www.bp.com, June 1, 2016.

very likely grow in the short- to mid-term due to Chinese government policies that prioritize environmental protection.

This subchapter on the energy resources of Turkmenistan shows that the energy sector is the backbone of the state's economy. Turkmenistan became one of the most important energy exporters globally in the 2010s because of newly found natural gas deposits. Turkmenistan's political elite understand how important the country's energy sector is. Berdimuhamedow's regime subsidizes domestic energy supplies because the political elite are interested in controlling the energy sector and consider it a strategic asset for maintaining popular support for the ruling regime.

State Actors in the Energy Sector

The key document that establishes the institutional framework for the development of Turkmenistan's energy sector is the Law on Hydrocarbon Resources that was passed in August 2008.³²⁹ It primarily focuses on the powers and responsibilities of the State Agency for Management and Use of Hydrocarbon Resources, controlled by the President of Turkmenistan himself. The Agency is the principal institution for the management of Turkmenistan's oil and gas resources. It has the power to issue licenses for exploration and development of deposits, oil and gas production and transportation, and to conclude agreements on production sharing. It has the last say in setting tariffs for transport through the country's gas pipelines. It concludes agreements with foreign investors and sets rules for their operations in the country.³³⁰

The Agency was officially mentioned for the first time on March 12, 2007, when the legislation establishing it was published. It effectively replaced the Competent Body for the Use of Hydrocarbon Resources, also controlled by the President of Turkmenistan, which was disbanded before the Agency was created.³³¹ The Agency derives revenue from royalties, bonuses, and income from PSAs and other contracts. It transfers 20 percent of its income to the state budget. The rest remains in the budget of the Agency for its operation. The government fully controls the Agency, and only the president, who appoints its director, can overrule

329 "Zakon Turkmenistana ob uglevodorodnykh resursakh," *Turkmenistan.ru*, August 20, 2008.

330 "Gosudarstvennoe agentstvo po upravleniyu i ispolzovaniyu uglevodorodnykh resursov pri Prezidente Turkmenistana," *Nebit-gaz*, www.oilgas.gov.tm.

331 "Ispolzovanie uglevodorodnykh resursov Turkmenistana budet kontrolirovat novyi organ," *Turkmenistan.ru*, March 10, 2007.

its decisions.³³² As of 2017, the Agency was led by President Berdimuhamedow's son-in-law, Döwlet Atabaýew.³³³ These arrangements mean that Berdimuhamedow directly and personally controls Turkmenistan's entire hydrocarbon sector and its enormous wealth. Berdimuhamedow thus holds the essential role in setting the energy policy and strategy for Turkmenistan.

The Law on Hydrocarbon Resources defines the conditions for resolution of a dispute between the Agency and the holder of a license or contract. It provides that disputes should be settled through negotiation if possible, with the involvement of independent international experts as necessary. Only if negotiations fail may the parties avail themselves of dispute settlement procedures agreed upon in their contract. Finally, if a dispute cannot be settled within three months, it can be taken to an international arbitration body.³³⁴ This last option was incorporated into the law because many foreign enterprises such as the Argentinian company Bidas had had a terrible experience with their investments in Turkmenistan. These bad experiences significantly damaged Turkmenistan's business reputation abroad and have since deterred foreign investment so much that its energy sector still suffers. Moreover, it enabled China to gain influence and resources in exchange for investments that can be perceived as disadvantageous to Turkmenistan because of the lack of competition from other significant foreign investors.

There are also other state actors who influence the energy sector in Turkmenistan. Turkmenistan's Ministry of Finance has competency in the area of tariffs. Turkmentransgas and Turkmengaz also must agree upon gas transportation tariffs. Moreover, tariffs have to be approved by the Agency. The Ministry of Finance established a stabilization fund in 2008 that has primary responsibility for balancing shortfalls in state revenues and planning long-term investment strategy.³³⁵ Turkmenistan's Ministry of the Oil and Gas Industry and Mineral Resources sets Turkmenistan's policy in the area of mineral resources and performs analysis and planning. It is also in charge of the state-owned enterprises in the hydrocarbon sector.³³⁶

332 Kate Watters, "The Private Pocket of the President (Berdimukhamedov): Oil, Gas and the Law," *Crude Accountability*, October 2011.

333 Maksat Alikperov, "Turkmenskii gaz – semeinyi biznes. U G.Berdimukhamedova tozhe zavelsya khitryi zyat' – Döwlet Atabaev," *Khronika Turkmenistana*, February 4, 2010.

334 Ibid.

335 "Ministerstvo finansov Turkmenistana," fineconomic.gov.tm.

336 "Ministerstvo nefiti i gaza Turkmenistana," www.oilgas.gov.tm.

The state-owned company Turkmengaz is the most significant enterprise in the country. Its activities center on extraction, production, and export of natural gas. It manages extraction in more than 30 large-scale deposits such as Döwletabat, Shatlyk, Malay, Kerpichli, Gazlydepe, Bagadzha, Garabil, Gurrukbil, and the most massive deposit, Galkynysh.³³⁷ Turkmenneft is also state-owned and focuses on the exploration and development of oil and gas fields in Turkmenistan.³³⁸ Its most important oil fields are Goturdepe, Nebitdag, South Gamyshlydza, Korpedzhe, Akpatlavuk, Keymir, Eastern Keymir, and Eastern Cheleken.³³⁹ Turkmengeologiya is tasked with identifying, exploring, and prospecting new energy deposits.³⁴⁰ Turkmenneftegazstroi deals with the development of oil and gas fields, construction of oil and gas pipelines, and renovation of refining facilities. It took part in the renovation and modernization of refineries in Seydi and Turkmenbashi.³⁴¹ The structure of Turkmenistan's hydrocarbon industry complex as of 2017 very much resembled those of other energy exporting post-Soviet republics.³⁴²

The Law on Foreign Investments of 2008 authorized production sharing agreements between foreign investors and their counterparts in Turkmenistan. It also allowed for the establishment of enterprises wholly owned by foreign investors, branches of foreign legal entities, and for purchase of existing enterprises by foreign investors.³⁴³ However, the investment environment in Turkmenistan is plagued by corruption and barriers to foreign investors.³⁴⁴ Transparency International ranked Turkmenistan 154th out of 168 countries ranked in its Corruption Perception Index in 2015.³⁴⁵ In its 2016 Economic Freedom Index, the Heritage

337 "Gosudarstvennyi kontsern Turkmengaz," www.oilgas.gov.tm/m/page/page/25.

338 "Turkmenistan narashchivaet eksportnyi potentsial uglevodorodnykh resursov," *Turkmenistan.ru*, February 8, 2015.

339 "Gosudarstvennyi kontsern Turkmenneft," www.oilgas.gov.tm/m/page/page/26.

340 "Gosudarstvennaya korporatsiya Turkmengeologiya," www.oilgas.gov.tm/m/page/page/27.

341 "Gosudarstvennyi kontsern Turkmenneftegazstroi," www.oilgas.gov.tm/m/page/page/28.

342 On Turkmenistan's economy see: Jan Šír, "Turkmenistan: A Promised Land for Doing Business? Macroeconomic Reforms under Berdimukhammedow," *China and Eurasia Forum Quarterly* 8, no. 3 (2010): 67–92.

343 "Zakonodatelstvo Turkmenistana ob inostrannykh investitsiyakh," Ministerstvo ekonomicheskogo razvitiya Rossiiskoi Federatsii, www.ved.gov.ru/exportcountries/tm/about_tm/laws_ved_tm/invest_law_tm, March 18, 2008.

344 Gavin Hayman and Tom Mayne, "Energy-related Corruption and its Effects on Stability in Central Asia," *China and Eurasia Forum Quarterly* 8, no. 2 (2010): 137–148.

345 "Corruption Perception Index," Transparency International, www.transparency.org/country/#TKM.

Foundation ranked Turkmenistan near the bottom, number 174 of the 178 countries it ranked.³⁴⁶

The Turkmenistan government used different tools to discriminate against “disfavored enterprises” in the past, such as repeated tax audits, refusals to extend licenses, non-payment of debts, and forced renegotiations of contracts. There are several cases of friction between the government and the Italian company Eni, the Dutch company Larmag, and the Argentinian company Bidas.³⁴⁷ The majority of the hydrocarbon industry is controlled by the state. In 2009, as much as 59 percent of Turkmenistan’s oil and 94 percent of its gas was produced by state-owned entities.³⁴⁸ This shows how important the hydrocarbon sector, especially its gas segment, is for Berdimuhamedow’s regime in Turkmenistan. Moreover, it shows that the creation of profit does not necessarily have priority over the strategic goals of the regime. In other words, Berdimuhamedow considers the natural gas resources of Turkmenistan as too strategic an asset to leave their direction solely to market forces.³⁴⁹

In the oil sector, Turkmenistan has concluded four offshore PSAs with external partners and three onshore PSAs that were active as of 2016. The offshore PSAs are with the Russian company Itera, the Cypriot company Buried Hill, Malaysia’s Petronas Carigali, and Dragon Oil, which is wholly owned by Emirates National Oil Company.³⁵⁰ The CNPC, the Italian company ENI and the Austrian company Mitro International are partners in the three onshore PSAs. Compared to the CNPC, ENI and Mitro operate on proportionally smaller fields in western Turkmenistan. ENI is active at the Nebit Dag field³⁵¹ and Mitro International at the Hazar field.³⁵²

In the production of natural gas, Turkmenistan’s leadership prefers to conclude service contracts with Asian or Arab operators. In the first

346 “2006 Index of Economic Freedom,” Heritage Foundation, www.heritage.org/index/ranking.

347 Watters, “The Private Pocket of the President.”

348 “Ekonomicheskaya strategiya Turkmenistana: opirayas na narod, vo imya naroda,” *Turkmenistan.ru*, April 24, 2010.

349 For more on political developments in Berdimuhamedow’s Turkmenistan see: Slavomír Horák and Jan Šír, *Dismantling Totalitarianism? Turkmenistan under Berdimuhamedow* (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2009).

350 “Status morskikh neftegazovykh kontraktov v Turkmenistane na dekabr 2015 goda,” *Trend.az*, December 24, 2015.

351 “Eni’s Activities in Turkmenistan,” Eni, www.eni.com/enipedia/en_IT/international-presence/asia-ocania/enis-activities-in-turkmenistan.page.

352 “Mitro International Limited,” *Crude Accountability*, crudeaccountability.org/campaigns/turkmenistan/whos-who-in-turkmenistan-petroleum-company-dossiers/mitro-international-limited-austriaturkmennebit-consortium-the-khazar-consortium.

phase of the development of Galkynysh, Turkmengaz signed contracts with Gulf Oil and Gas FZE and Petrofac International LLC, both from the United Arab Emirates, with the CNPC subsidiary Chuanqing Drilling Engineering Company, and with a consortium of LG International Corporation and Hyundai Engineering from South Korea. All these contracts were signed in 2009 and amounted to USD 10 billion.³⁵³ The contracts signaled that at that time, Turkmenistan was willing to entrust the oil and gas field development to less experienced enterprises rather than to allow Western or Russian involvement in its most important natural gas projects.

This subchapter on the energy actors in Turkmenistan explains that Berdimuhamedov's regime directly or indirectly controls almost the entirety of the country's energy sector. The State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan along with the Turkmengaz company are Berdimuhamedov's key vehicles for controlling Turkmenistan's energy sector. The state's grip on the energy sector is strengthened by restrictions on foreign investments and the deliberate diversification of the foreign partners that are allowed into the energy sector. There were several cases of Turkmenistan's authorities blocking Western companies' activities, among the affected were the Italian company Eni, the Dutch company Larmag, and the Argentinian company Bridas. These findings confirm that Turkmenistan's regime wants to transform as much of its national power into state power as possible, especially in the energy sector. The regime considers state-owned or state-dependent energy actors as practical extensions of the state apparatus.

Energy Policy

Saparmurat Niyazov's death on December 21, 2006 was a crucial milestone in the political and economic development of the independent Turkmenistan.³⁵⁴ He had led the country since 1985, when he became the first secretary of the Communist Party of what was then the Turkmen Soviet Socialist Republic.³⁵⁵ The transition of power after Niyazov's

353 Huseyn Hasanov, "Turkmenistan May Expand Galkynysh Gas Field Development," *Trend.az*, November 27, 2015.

354 "Fradkov priletel v Ashkhabad pokhoronit Turkmenbashi," *Gazeta.ru*, December 24, 2006.

355 Igor Yavlinskiy, "Prezident Trukmenii Saparmurat Niyazov: Ya pokinu post glavy gosudarstva eshe pri zhizni," *Izvestiya*, December 21, 2006.

death was exceptionally quick and above all went very smoothly. The State Security Council, an extraconstitutional body dominated by representatives of the country's power structures, appointed the Deputy Chairman of the government and the Minister of Health, Gurbanguly Berdimuhamedow, as Turkmenistan's president.³⁵⁶ To the existing power brokers, a smooth transition seemed like the only way to secure their positions and maintain internal and external stability.

Berdimuhamedow started to build up his power base immediately after his appointment.³⁵⁷ He got rid of the people that had elevated him to the post of president, especially the Head of the State Security Council, Akmurat Rejepow. Rejepow's elimination was likely linked to the construction of the gas pipeline to China. In that regard, there are two plausible theories. The first theory speculates that Rejepow was the principal advocate for the Turkmenistan–China Gas Pipeline. Berdimuhamedow had to eliminate him to control the crucial bilateral relationship with China directly himself. The second theory is that the timing of Rejepow's removal from power and imprisonment indicates that Berdimuhamedow must have promised Vladimir Putin that Turkmenistan would participate in the now mothballed Caspian Coastal Gas Pipeline project. He had to eliminate Rejepow to pursue this goal. It is challenging to verify or disprove these two claims. Nonetheless, their existence supports the idea that Berdimuhamedow's rise to power was directly connected with rivalry and competition for control of Turkmenistan's energy policy amongst the country's ruling elite. In retrospect, it seems that Berdimuhamedow favored closer cooperation with China from the beginning. His rise to power probably played a decisive role in making the Turkmenistan–China Gas Pipeline a reality.³⁵⁸

The transfer of power from Niyazov to Berdimuhamedow was both legally and symbolically confirmed by the adoption of a new constitution in 2008. This document made Turkmenistan's institutional structure more like that of the neighboring states while confirming the supremacy of the president's power vertical.³⁵⁹ Berdimuhamedow proclaimed the "Era of New Renaissance" to succeed Niyazov's socio-economic program, the "Golden Age of the Turkmen," which Niyazov had presented in 2000.³⁶⁰ This "new era" was characterized by large-scale construction projects

356 "Opredelilsya kandidat na post prezidenta Turkmenii," NTV, December 28, 2006.

357 "Berdimuhamedow, Gurbanguly," *Lenta.ru*, September 18, 2016.

358 Based on semi-structured interviews with stakeholders.

359 "Konstitutsiya Turkmenistana," September 26, 2008.

360 "Epokha novogo vozrozhdeniya v ramkakh zolotogo veka," Turkmenistan.ru, August 8, 2008.

such as the seaside resort of Awaza and the slow deconstruction of Niyazov's ideological legacy, especially by de-emphasizing Niyazov's formerly omnipresent "holy book," *Ruhnama*.³⁶¹

The overweening role of the executive and the ill-defined separation of powers among the executive, legislative, and judiciary power is what characterizes the formal political system of Turkmenistan. The new constitution significantly broadened the powers of the State Security Council, the body that orchestrated Berdimuhamedow's succession to the presidency, at the expense of the parliament.³⁶² The constitution also did away with the former legislative body known as the People's Council in an attempt to give more power and credibility to the three traditional branches of government.³⁶³

The transition from Niyazov to Gurbanguly Berdimuhamedow showed that the political system of Turkmenistan had become somewhat stable. Nowadays it is clear that Berdimuhamedow, along with Turkmenistan's state apparatus, directly controls the country's most important asset and source of internal and external policy – the energy sector.³⁶⁴ Berdimuhamedow's regime makes every effort to transform the majority of national power into state power and thus increase Turkmenistan's stature in the ESC of Central Asia. In other words, the regime is able to muster almost the entire state apparatus as well as energy sector in the pursuit of its ends – consolidating and preserving its power and ensuring the prosperity of the ruling elite.

In order to fully understand the energy policy of the country, it is necessary to analyze the clans of Turkmenistan. These informal structures are in fact the real backers of the current regime and the principal motivators of its behavior in the energy sector.³⁶⁵ While Niyazov placed himself above the traditional tribal structures that bind Turkmenistan's society, they are the source of Berdimuhamedow's power and an everyday reality in Turkmen life. Turkmenistan's tribes are informal actors that are based on extensive networks of real and perceived kinship.

There are three factors that explain the importance of tribes in Turkmenistan's internal politics. Tribal structures persist in Turkmenistan

361 "Evolutsiya neiraliteta," interview with Gurbanguly Berdimuhamedow, *Turkmenistan.ru*, December 11, 2010.

362 "Konstitutsiya Turkmenistana," September 26, 2008.

363 "Konstitutsiya Turkmenistana," May 18, 1992.

364 Saltanat Berdikieva, "Turkmenistan's Energy Policy: Risks and Opportunities," *Insight Turkey* 9, no. 3 (2007): 124–128.

365 Nicholas Kunysz, "From Sultanism to Neopatrimonialism: Regionalism Within Turkmenistan," *Central Asian Survey* 32, No. 1 (2012): 1–16.

because the state was formed only recently. The development of the Turkmens' identity as a nation-state was delayed by the annexation of the entire area by the Russian Empire and later the Soviet Union. The clans survived because of shortages of goods and the non-existent or deformed market economy of the Soviet period.³⁶⁶ These social structures are so stable that they still play a very significant role in everyday life. A person's affiliation with a particular tribe is of the utmost importance to his or her social life and career opportunities.

Territory plays an essential role in tribal identity and in inter-tribal relations. The most important tribe is the president's, the Ahal Tekke. This is the same tribe to which Niyazov belonged. However, the difference with Berdymuhamedow is that Niyazov was an orphan and his wife Muza had Russian-Jewish parents.³⁶⁷ Thus, he could afford not to entangle himself in tribal politics. Berdimuhamedow on the other hand was very active in promoting people from his native region of Gökdepe and from his own family. Berdimuhamedow's son Serdar and his grandson often appear in the public media. His son-in-law, Döwlet Atabaew, is the most powerful figure in Turkmenistan's hydrocarbon industry. He has been the head of the State Agency for the Management and Use of Hydrocarbon Resources since 2008.³⁶⁸ There is little difference between Turkmenistan and other Central Asian states when it comes to the fact that place of origin and family ties are critical factors in the network of power.

The Ahal Tekke tribe was the first and most thoroughly Russified clan in Turkmenistan. It constituted the core of Russia's control of the Trans-Caspian region. Other Turkmen tribes stayed under the rule of either the Khiva Khanate or the Bukhara Emirate for a more extended period of time. Ahal Tekke belongs to a larger tribal group, the Tekke, together with the Mary Tekke tribe located in the Mary region. Members of the Mary Tekke control some critical posts in the country.³⁶⁹ However, their position is not comparable in influence to that of the members of the Ahal Tekke. Another important tribe is the Yomut from Turkmenistan's western region, Balkan, which traditionally controlled the country's hydrocarbon industry. The balance of power changed in 2009 when the state-owned oil company Turkmenneft moved its headquarters

366 Kathleen Collins, *Clan Politics and Regime Transition in Central Asia* (Cambridge: Cambridge University Press, 2006), 1–23.

367 "Niyazov, Saparmurat," *Lenta.ru*, September 18, 2016.

368 Maksat Alikperov, "Turkmenskii gaz – semeinyi biznes. U G.Berdymukhamedova tozhe zavelsya khitryi zyat – Döwlet Atabaew," *Khronika Turkmenistana*, February 4, 2010.

369 Kunysz, "From Sultanism to Neopatrimonialism," 1–16.

from Balkanabat to Ashgabat.³⁷⁰ The move signaled a general weakening of the Yomut clan in favor of the Ahal Tekke.³⁷¹

Niyazov did not seem to favor any particular tribe; Berdimuhamedow clearly supports his own tribe, Ahal Tekke. Hence, he has focused on making it secure control of the hydrocarbon industry, the most critical industry in Turkmenistan. Another important tribe are the Saryks, who live in the southeast of the country, near the border with Afghanistan. Another, the Chowdur, live in the area of the Khorezm Oasis. Finally, another important tribe, the Ersari, live in southern Turkmenistan and northern Afghanistan.³⁷²

Turkmenistan's political elite under Berdimuhamedow understand the need for diversification of the country's exports to promote stability and sustainable growth. According to Ashgabat, the ideal situation would be to send an approximately 40 percent share of exports to China, 20 percent to Iran, 20 percent through the future Trans-Caspian Gas Pipeline, and 20 percent via the Turkmenistan–Afghanistan–Pakistan–India (TAPI) Gas Pipeline (under construction).³⁷³ The country can afford such an ambitious diversification of its exports because of its newly explored deposits. Turkmenistan's government plans to produce 250 bcm per year by 2030.³⁷⁴ This expected production would make Turkmenistan one of the most important energy producers in the world.

Northern route

For a long time, the northern connection to Russia via the Central Asia–Center Gas Pipeline System was the only feasible route for Turkmenistan's gas exports out of the country. Therefore, Russia enjoyed a critical leverage over Niyazov's regime, which severely limited its geopolitical maneuvering room. In December 1991, Moscow and Ashgabat agreed

370 Annete Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism* (London: Chatham House, 2016), 20–35.

371 On Turkmenistan's clan structure see: Collins, *Clan Politics*.

372 "Zakon Turkmenistana o gosudarstvennom flage Turkmenistana," *Turkmenistan.ru*, January 24, 2001.

373 "The Southern Corridor of the New Silk Road," CACI FORUM, round table discussion with Turkmenistan's Ambassador to the US Meret B. Orazov, September 18, 2013.

374 "Kak zhiwet strana pri prezidente Berdymukhamedove?" *Neitralnyi Turkmenistan*, November 14, 2010.

that Turkmenistan could export a limited amount of natural gas to Europe at world prices in exchange for convertible currency.³⁷⁵

Exports of Turkmenistan's gas to Russia ceased almost entirely in 2000,³⁷⁶ even though the two countries' mutual interdependence was very strong at that point. In April 2003, the two parties concluded a new 25-year agreement on cooperation in the gas industry.³⁷⁷ The terms of the agreement were influenced by Niyazov's desire to gain Russia's support after his position was weakened by an alleged assassination attempt one year earlier. This shows how the foreign and even the domestic policy of Turkmenistan was and still is intertwined with energy policy.

Niyazov was discontented with the low price that Turkmenistan was obtaining for its natural gas exports to Russia, although it rose from USD 60 per thousand cubic meters to USD 130 in the first half of 2008 and to USD 150 in the second half of that year.³⁷⁸ The price Russia charged abroad was very different. The Ukrainian intermediary RosUkrEnergo was buying gas from Russia in 2006 for 230 USD and selling it on to European markets for USD 250. Russia wanted to deter Turkmenistan from finding new export possibilities for its natural gas, and thus it was willing to increase the price it paid to Turkmenistan to USD 350 in 2008.³⁷⁹

The sudden price increase represented a critical step for the future of Turkmenistan's gas exports northwards. Rising demand in Europe influenced Russia's ability to offer a higher price. However, the advent of the global financial crisis and the consequent slump in European demand was a bitter pill for Turkmenistan to swallow. The crisis was followed by an explosion on the Central Asia–Center Gas Pipeline in April 2009 that significantly limited Turkmenistan's exports to Russia. Turkmenistan blamed the explosion on Russia and without notice started decreasing how much gas it took off the pipeline, which put stress on the system. Russia just blamed the poor technical state of the pipeline.³⁸⁰

The explosion occurred close to the border between Turkmenistan and Uzbekistan. Following it, Russia demanded that Ashgabat either

375 Glenn E. Curtis, ed. *Turkmenistan: A Country Study* (Washington: GPO for the Library of Congress, 1996).

376 Ibid.

377 Farkhod Aminjonov, *Central Asia's Natural Gas: The Pitfalls of Energy Export Diversification* (Bishkek: OSCE Academy, 2013), 1–14.

378 Sergei Blagov, "Russia Bows to Turkmenistan's Gas Pricing Demand," *Eurasianet.org*, September 5, 2006, www.eurasianet.org/departments/business/articles/eav090606.shtml.

379 Aminjonov, *Central Asia's Natural Gas*, 1–14.

380 Aleksey Tikhoretskiy, "Zapakh gaza," *Turkmenistan.ru*, April 17, 2009.

decrease its shipments by 80 percent or reduce the price of its gas by 40 percent.³⁸¹ In any event, exports to Russia remained at a low level. Turkmenistan did not import almost any gas to Russia at all until 2010.³⁸² In this case, Russia managed to decrease the volume of gas it received and the price as well. Although this was a logical reaction to the changing market conditions, Moscow's behavior threatened the energy security of Turkmenistan. By suddenly decreasing the volume and price of its gas imports, Russia became an unpredictable partner for Ashgabat. The Turkmenians understood that a continued exclusive cooperation with Moscow was not going to produce sustainable energy security. This event did not directly cause Turkmenistan's rapprochement with China, which was already in the making. However, it did reinforce it significantly.³⁸³

Back in 2007, Russia wanted to strengthen its grip on Central Asia's hydrocarbons and to counter China's plans for the region, especially the future Turkmenistan–China Gas Pipeline project. Therefore, Moscow came up with the idea of the Caspian Coastal Gas Pipeline. That pipeline would have been in effect the CAC-3 Gas Pipeline, and a part of the Central Asia–Center system. Vladimir Putin undertook a three-day state visit to Turkmenistan in May 2007. During this visit, Putin, Berdimuhamedov, and the Kazakh President Nursultan Nazarbayev held a summit in Turkmenistan's Caspian Sea port of Turkmenbashi to discuss natural gas transportation.³⁸⁴ The presidents declared their intention to build the Caspian Coastal Gas Pipeline. Later on, the three presidents joined with Uzbekistan and declared their intention to upgrade the Central Asia–Center Gas Pipeline System as well.³⁸⁵

If fulfilled, both agreements would have significantly improved Russia's position in the Central Asian ESC. The intentions did not immediately materialize into binding documents. In July 2007 US envoys arrived in Turkmenistan to promote the idea of the Trans-Caspian Gas Pipeline and in August China began the construction of the Turkmenistan–China Gas Pipeline.³⁸⁶ Nonetheless, an agreement to build the Caspian Coastal Gas Pipeline was signed in Moscow on December 20,

381 Olcott, *Turkmenistan: Real Energy Giant*, 62–72.

382 "Gazprom prekratil pokupku gaza iz Turkmenii," *Vesti.ru*, January 4, 2016.

383 Martin C. Spechler, "Russia's Lost Position in Central Asia," *Journal of Eurasian Studies* 4, no. 1 (2013): 1–7.

384 "Prezident Turkmenistana dal vysokuyu otsenku trekhstoronnemu sammitu v Turkmenbashi," *Turkmenistan.ru*, May 15, 2007.

385 "Gazovaya deklaratsiya," *Turkmenistan.ru*, May 15, 2007.

386 "Turkmenistan gotovitsya k torzhestvennomu zapusku gazoprovoda v Kitai," *Turkmenistan.ru*, November 11, 2011.

2007 without much fanfare.³⁸⁷ It bound Russia, Kazakhstan, and Turkmenistan to build a pipeline with a capacity of 20 bcm per year. The construction should have started by the end of 2008, but it was postponed several times.³⁸⁸ There were doubts about Turkmenistan's ability to fill the pipeline from its western regions. The project was entirely halted in 2010 due to significantly decreased European demand.³⁸⁹ The slump in European demand caused Turkmenistan to focus more intently on collaboration with China. Its leaders hoped that China's planned economy would not be so influenced by the economic cycle.

At approximately the same time in 2010, Turkmenistan also canceled a tender for the construction of the East–West Interconnector and claimed that it would instead build it using its own resources.³⁹⁰ It had initially been agreed that Gazprom would be the principal contractor on this strategic project.³⁹¹ This cancelation was another significant loss for Russia's influence in Turkmenistan, which started gradually drifting towards China. The East–West Interconnector was finally commissioned in 2015. It allows Turkmenistan to transport its natural gas where it is needed the most. 773 km long, it runs from the Belek Compressor Station near Turkmenistan's Caspian coast to the Niyazovsk Compressor Station in the east, on the border with Kazakhstan. It has a capacity of 30 bcm.³⁹² The East–West Interconnector has proven itself to be critically important for Turkmenistan's ability to maneuver geopolitically and for its regional stature. It allows natural gas to transit smoothly across the country to serve Turkmenistan's domestic economy. Most important of all, once the Trans-Caspian Gas Pipeline is built it will allow either exports to the East from offshore deposits in the Caspian Sea or the transport of natural gas from Galkynysh to the West.

In conclusion, at the beginning of the 1990s Russia had the enormous advantage of controlling the only hydrocarbon export transportation infrastructure in the ESC of Central Asia. However, it gradually lost its monopoly on transport because of its fixation on preserving the European market for itself. Cooperation with Turkmenistan before 2009 enabled

387 "Caspian Coastal Gas Pipeline Deal May Be in Jeopardy," *Vremya Novostey*, August 31, 2007.

388 "V Moskve podpisano Soglashenie o stroitelstve Prikaspiiskogo gazoprovoda," *Turkmenistan.ru*, December 20, 2007.

389 "Prikaspiiskii gazoprovod zamorozhen," *Petroleum Kazakhstan Analytical Journal*, February 2011, www.petroleumjournal.kz/index.php?p=article&aid1=16&aid2=52&id=136&outlang=1.

390 "Turkmeniya nachala stroit gazoprovod k Kaspiyu," *Turkmenistan.ru*, June 1, 2010.

391 Valentin Yermolenko, "Gazovyi razvod," *Turkmenistan.ru*, April 16, 2009.

392 "Vveden v stroi magistralnyi gazoprovod Vostok – Zapad," *Turkmenistan.ru*, December 24, 2015.

Russia to postpone implementation of high-cost projects in Siberia and the Arctic and to supply Turkmen gas to the European market instead. Moreover, it enabled Russia to strengthen its influence in other post-Soviet countries, most importantly in Ukraine.³⁹³

Nevertheless, Russia did not have any alternative plans when the global economic crisis unfolded in 2009. Overpricing was an irritant in Russia's relationship with Turkmenistan and other natural gas importers. However, Russia's position really started to unravel when China announced its project for the Turkmenistan–China Gas Pipeline. Russia tried to respond with proposals for a Caspian Coastal Gas Pipeline and a reconstruction of the Central Asia–Center Gas Pipeline System, but it was already too late. Moreover, Gazprom lost the tender to build the strategic East–West Interconnector in 2010.

The deterioration of Russia's bilateral relationship with Turkmenistan will have future consequences. Russia lost its control of cheap Turkmen gas, which it had continued to use for its domestic needs while sending its own gas onward to the European market.³⁹⁴ This development will require Russia to develop its eastern Siberian and Arctic deposits, which will be more technologically and financially demanding. Moreover, China not only squeezed Russia out of Turkmenistan but also gained critical leverage in any price negotiations with Russia itself. An example of this is the difficult negotiation process over the construction of the Power of Siberia Gas Pipeline. Finally, Russia's loss of its pre-eminent position in Turkmenistan has geopolitical implications. Ashgabat officially proclaims its intention to diversify its ties with China, Iran, India, Pakistan, and the states along the Southern Energy Corridor. However, Turkmenistan's officials almost never mention upgrading their relationship with Russia.

Eastern route

China plays the leading role in the eastern route out of Turkmenistan. It first proposed this option for Turkmenistan's gas exports in the early 1990s. Niyazov approved the eastern route for Turkmenistan's natural gas during his last visit to China in the spring of 2006. He and China's then-leader, Hu Jintao, agreed that China would purchase Turkmenistan's gas and construct the Turkmenistan–China Gas Pipeline, with a

393 Fredholm, "Natural Gas Trade."

394 Aleksei Topalov, "Turkmenskii gaz oboidet Rossiyu," *Gazeta.ru*, December 24, 2015.

commissioning planned for the end of 2009.³⁹⁵ Turkmenistan committed to supplying China with 30 bcm per year for 30 years.³⁹⁶ However, this agreement should not be perceived as something set in stone. Ashgabat had a similar agreement with Russia, but when cooperation with Moscow began to crumble, the agreement was largely forgotten. The same could happen to the agreement with China if bilateral cooperation with Beijing loses its charm for the power brokers in Ashgabat. The 2006 agreement counted on supplying China with 13 bcm per year from the fields on the right bank of the Amu Darya river under a PSA with the CNPC. Turkmenistan could have obtained 17 bcm annually from other deposits on the left bank of the Amu Darya river.³⁹⁷

Niyazov's foreign policy reflected his unwillingness to allow foreign countries to conclude onshore contracts in Turkmenistan. The only exception to the rule was a production sharing agreement on the Bagtyyarlyk gas deposit with the CNPC which constituted the price for concluding the agreement with China regarding the construction of the Turkmenistan–China Gas Pipeline. The CNPC was the first company ever given the possibility of developing onshore deposits in Turkmenistan.³⁹⁸ This offer demonstrates to the CNPC just how important the Turkmen leadership considers an enhanced cooperation with China to be. If the country's relationship with Russia continued to deteriorate and there was no option to ship natural gas to China, it would threaten the stability of the regime in Ashgabat.

One of Berdimuhamedow's first foreign visits was to Beijing in July 2007. He assured the Chinese side of his support for the 2006 agreement with Niyazov. Moreover, he announced the discovery of new gas deposits on the right bank of the Amu Darya. These newly found deposits increased the geopolitical weight of Turkmenistan and made it the country with the fourth-largest natural gas reserves in the world. Subsequent to Berdimuhamedow's visit, the two countries agreed on increased technological and economic cooperation. China also offered Turkmenistan an interest-free loan for the purchase of Chinese-made drilling rigs used for the development of upstream activities in the gas fields.³⁹⁹

395 "Sotrudnichestvo po gazu s Tsentralnoi Aziei," CNPC, www.cnpc.com.cn/ru/zytrqgdzt/zytrqgdzt_2.shtml.

396 "Kitai i Turkmenistan podpisali dva soglasheniya o sotrudnichestve v gazovoi sfere," *Turkmenistan.ru*, July 17, 2007.

397 "Turkmen, Chinese Leaders Sign Accords, Issue Statement," ITAR-TASS, August 29, 2008.

398 "CNPC in Turkmenistan," CNPC, www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.

399 "Storony polny reshivosti..." *Turkmenistan.ru*, July 18, 2007.

The CNPC organized a ceremony celebrating the start of the construction of the Turkmenistan–China Gas Pipeline in the village of Bagtyyarlyk in Turkmenistan’s eastern Lepab region on August 29, 2007. The pipeline was commissioned in December 2009 and is 1,833 kilometers long.⁴⁰⁰ It starts at the Bagtyyarlyk field and runs for 188 kilometers to the border with Uzbekistan. It then traverses 530 kilometers of Uzbekistan and enters Kazakhstan near the town of Shymkent. It runs for another 1,115 kilometers on Kazakh territory until it reaches China’s border at Horgos. The natural gas then continues on to China’s megalopolises in the east. Line B of the pipeline was commissioned one year after Line A, in 2010. Line A and Line B have a combined capacity of 30 bcm per year.⁴⁰¹ It was thus inevitable that another pipeline would have to be built in order to fulfill Turkmenistan’s agreement to ship 40 bcm annually to China.⁴⁰²

The cooperation between Turkmenistan and China was developing rapidly and well. Both sides agreed to a new framework agreement in 2012. The year 2020 was the endpoint of China’s then-current five-year plan and there was a great pressure to fulfill that target by then. A road map for further development of the Bagtyyarlyk and Galkynysh fields and to add a Line C to the Turkmenistan–China Gas Pipeline with a capacity of 25 bcm was agreed upon in 2013.⁴⁰³

Line C runs parallel to the two previous lines and was commissioned in June 2014.⁴⁰⁴ The parties agreed to construct Line D with another 25 bcm of capacity in September 2013. However, its path will be much different than that of the three previous lines. When completed, it will start at the Bagtyyarlyk field and then run 205 kilometers through Uzbekistan. Subsequently, it will traverse 415 kilometers of Tajikistan and 225 kilometers of Kyrgyzstan before reaching Kashgar on China’s border.⁴⁰⁵ The construction of some segments of Line D began in 2014, and it was still under construction as of late 2021.⁴⁰⁶

400 “Leaders Gather to Inaugurate Turkmenistan-China Gas Pipeline,” *The Canadian Press*, December 13, 2009.

401 “Sotrudnichestvo po gazu s Tsentralnoi Aziei,” CNPC, www.cnpc.com.cn/ru/zytrqgdzt/zytrqgdzt_2.shtml.

402 “Ashgabat, Beijing Stand for Ensuring the Security of Turkmenistan-China Gas Pipeline,” *Tribune Business News*, November 25, 2011.

403 “Turkmen Gas Exports to China to Hit 65 Bcm/Year by 2020,” Reuters, September 3, 2013.

404 “Flow Of Natural Gas from Central Asia,” CNPC, www.cnpc.com.cn/en/FlowofnaturalgasfromCentralAsia/FlowofnaturalgasfromCentralAsia2.shtml.

405 Jack Farchy, “China Seeking to Revive the Silk Road,” *Financial Times*, May 9, 2016.

406 “Chinese Natural Gas Deals in Central Asia Foreshadow Expanded Pipeline Project,” RWR

The construction of the first three lines of the Turkmenistan–China Gas Pipeline had a significant impact on the geoeconomic and geopolitical status quo in Central Asia. Russia was Turkmenistan’s primary trade partner before the crisis in their relations in 2009. China has taken over Russia’s position since then. In fact, China is becoming much more dominant as a trade partner with Turkmenistan than Russia ever was. Turkmenistan supplied Russia with 39.1 bcm in 2008 and sent Iran an additional 6.5 bcm. Exports to Iran have remained much the same up to the present. However, Russia obtained only 10.7 bcm from Turkmenistan in 2009. Turkmenistan’s supplies to China surpassed those to Russia in 2011, when it sent 14.25 bcm to China and only 10.14 bcm to Russia. In 2014, China obtained 25.9 bcm from Turkmenistan, while Russia only received 10 bcm. With the opening of Line C in 2015, China obtained 27.75 bcm and Russia 2.81 bcm. Turkmenistan stopped all gas exports to Russia in 2016. The result was that China entirely supplanted Russia as Turkmenistan’s dominant economic partner in less than eight years’ time.

Nowadays, China does not limit its investments in Turkmenistan to the hydrocarbon sector. It has recently invested in transport and chemicals, telecommunications, construction, and light industry. This investment goes hand in hand with China’s Belt and Road Initiative, which focuses on connectivity and infrastructure development in the Central Asian region and beyond.⁴⁰⁷ It is also linked to the older “Go West” strategy that was aimed at the economic development of China’s western regions and adjacent Central Asian territories.

China’s actions in the Central Asian ESC should be viewed as part of a broader strategic initiative that is not aimed only at generating profits. The price of natural gas imported from Central Asia is higher than of the gas extracted domestically in China, to say nothing about China’s reserves of coal.⁴⁰⁸ China has three chief strategic priorities in the Central Asian region. It wants to stabilize its western regions, including Tibet and Xinjiang, as well as the adjacent Central Asian states and keep them stable. The Line D project of the Turkmenistan–China Gas Pipeline should be seen primarily in this light. Next, China’s opening up to Central Asia is a means of economic diversification and it creates

Advisory, January 23, 2021, <https://www.rwradvisory.com/chinese-natural-gas-deals-in-central-asia-foreshadow-expanded-pipeline-project>.

407 William T. Wilson, “China’s Huge ‘One Belt, One Road’ Initiative Is Sweeping Central Asia,” *National Interest*, July 27, 2016.

408 Andrew Moody, “Go West’ Policy is an Economic Milestone for Nation,” *China Daily*, September 12, 2011.

a bridgehead for links to the resources of the Middle East and the markets in Europe. Part of China's elite believe that having more pipelines is the only thing that can provide China with greater energy security.⁴⁰⁹ This belief is justified when one considers the possibility that maritime routes might temporarily be cut off. Finally, China has gained significant leverage in its relationship with Russia by penetrating Central Asia. This leverage has already become visible during the negotiations over the construction of the Power of Siberia Gas Pipeline.

Southern route

Turkmenistan plays a leading role in the southern route at present. It is attempting to strengthen its geostrategic position through even more energy export diversification. Turkmenistan has understood the importance of Pakistan's and India's energy markets for its future hydrocarbon exports since the early 1990s. That is how the idea of the Turkmenistan–Afghanistan–Pakistan Gas Pipeline was conceived. This project is proceeding in tune with the interests of the United States in the region and was supported early on by the New Silk Road Act passed by the US Congress in 1999.⁴¹⁰

The then-Secretary of State Hillary Clinton proposed a New Silk Road Initiative in 2011. This initiative's goal was to connect Central Asia more closely with the Indian subcontinent through Afghanistan.⁴¹¹ The goal was to increase the prosperity of both regions and to decrease the influence of Russia and Iran in the Central Asian ESC.⁴¹² However, the US approach focused too much on stabilizing Afghanistan and lacked more precise and solicitous consideration of the Central Asian partners, whose benefit was considered more as a means to an end than an independent goal of the US regional policy.

A pipeline to the Indian subcontinent has been in the making since the early 1990s. Niyazov concluded a memorandum of understanding for the construction of a gas pipeline to Pakistan with its Prime Minister,

409 Michael Schoenhals and Xiaolin Guo, *Cadres and Discourse in the People's Republic of China* (Stockholm: ISDP, 2007).

410 "Silk Road Strategy Act of 1999," Library of Congress, www.govtrack.us/congress/bills/106/hr1152/summary.

411 Michael Clarke, "China's Strategy in Greater Central Asia: Is Afghanistan the Missing Link?" *Asian Affairs: An American Review* 40, no. 1 (2013): 1–19.

412 "U.S. Support for the New Silk Road," US Department of State, www.state.gov/p/sca/ci/af/newsilkroad.

Benazir Bhutto, in March 1995. The international consortium for the Turkmenistan–Afghanistan–Pakistan Gas Pipeline was created in 1997 with the US company Unocal at its head. The project was seriously delayed by the unstable situation in Afghanistan, the US embargo against the Taliban, and the events that followed the terrorist attacks in the United States on September 11, 2001.⁴¹³

The pipeline project was resuscitated at a trilateral summit in Islamabad in 2002 as the TAP (Turkmenistan–Afghanistan–Pakistan) Gas Pipeline.⁴¹⁴ India began to show interest in the project in 2005, and since then it has been referred to as the TAPI Gas Pipeline.⁴¹⁵ In 2006, the Asian Development Bank initially estimated the cost of the TAPI project at USD 2.6 billion.⁴¹⁶ However, it boosted its estimate to USD 7.6 billion in 2015. As of 2006, the price was estimated at USD 10 billion because of various delays.⁴¹⁷ The projected capacity of the pipeline is 33 bcm per year. It should start at the Galkynysh field in southeast Turkmenistan and continue through Afghanistan along the road from Herat to Kandahar. Subsequently, it would continue through Baluchistan and Punjab in Pakistan before reaching the border with India at Fazilka.⁴¹⁸ However, it remains to be seen how will this dynamic be influenced by Taliban's seizure of power in Afghanistan in late 2021.

The agreement regarding the construction of the TAPI pipeline was signed by the four participating countries in 2010 at the active urging of Turkmenistan. Its duration was set at 30 years.⁴¹⁹ Moreover, Turkmenistan signed agreements with the two main potential purchasers, the Gas Authority of India, Ltd. (GAIL) and the State Gas Systems of Pakistan, in 2012.⁴²⁰ Those agreements contained a clause stating that if Pakistan

413 Fatima Quamar and Sumera Zafar, "New Great Game: Players, Interests, Strategies and Central Asia," *Research Journal of South Asia Studies* 29, No. 2 (2014): 623–652.

414 "Niyazov i Karzai zayavili o gotovnosti svoikh stran reanimirovat proekt transafganskogo gazoprovoda," *Turkmenistan.ru*, March 7, 2002.

415 "Indiiskii diplomat zayavil, chto ego strana khochet stat odnim iz samykh krupnykh pokupatelei turkmenskogo gaza," *Turkmenistan.ru*, August 16, 2006.

416 "Niyazov i Karzai zayavili o gotovnosti svoikh stran reanimirovat proekt transafganskogo gazoprovoda," *Turkmenistan.ru*, March 7, 2002.

417 Manish Vaid, "TAPI Pipeline Progresses, but Future Uncertain," *Oil and Gas Journal*, May 2, 2016.

418 "TAPI Gas Pipeline," Asian Investment Bank, April 8, 2016, www.adb.org/news/infographics/tapi-gas-pipeline.

419 Oleg Lukin, "Novoe ruslo gazovoi reki," *Turkmenistan.ru*, January 24, 2011.

420 Sanket Sudhir Kulkarni, "The Elephant and the Tiger: Energy Security, Geopolitics, and National Strategy in China and India's Cross-Border Pipelines," *Energy Research and Social Science* 11 (2016): 16–19, <https://doi.org/10.1016/j.erss.2015.09.010>.

blocks gas supplies to India, Turkmenistan is obliged to do the same to Pakistan.⁴²¹ In this way, the negotiators attempted to prevent the Indo-Pakistani conflict in Kashmir from interfering with the implementation of the pipeline project. Turkmenistan signed another agreement with the Afghan Gas Corporation in 2013.⁴²²

One year later, the participating countries agreed to create a consortium that would build and operate the pipeline. Turkmengaz was endorsed as the leader of the consortium, known as the TAPI Pipeline Co. Ltd., in August 2015. Turkmengaz, Afghan Gas Corporation, Pakistan's Inter State Gas Systems, Ltd., and India's GAIL took equal shares in the consortium.⁴²³ In October 2015, the consortium's steering committee adopted a shareholders' agreement setting forth the rights and obligations of the parties involved. Turkmengaz promised to contribute 85 percent of the pipeline's costs. The rest of the costs were to be divided among the other three members.⁴²⁴ Turkmengaz's promise to cover 85 percent of the pipeline's costs directly contradicted Turkmenistan's policy of selling gas at the state border, which had been in place since Niyazov's time. Its willingness to take so much of the costs on itself shows how vital diversification of energy export markets is for the ruling regime in Ashgabat. Without TAPI, Turkmenistan's dependence on China as its main export market will grow unchecked.

Even though the TAPI Gas Pipeline is still a pipe dream for the most part, it is progressing in its own way. The parties have shown a great deal of negotiating skill, especially Turkmenistan, which was able to gain the position of the project's leader. There are three positive implications for the parties. First, with this project Turkmenistan can reduce its growing dependence on China's demand. At present, the relationship is still advantageous for both parties, but that can soon change. There is a possibility that China will either decrease its demand due to an economic downturn or try to use the Turkmenistan–China Gas Pipeline as leverage against Ashgabat. Second, all of the partner countries will gain benefits from the project despite its high costs. This is especially true for Pakistan and India with their increasing energy demand. Finally, the TAPI will create much-desired political ties between Central and South Asia.

421 Ibid.

422 "V Ashkhabade sostoyalos zasedanie turkmeno-pakistanskoi mezhpriavitel'stvennoi komissii," *Turkmenistan.ru*, April 21, 2012.

423 "TAPI Shareholders Agreement Initialed," Asian Investment Bank, October 26, 2015, www.adb.org/news/tapi-shareholders-agreement-initialed.

424 Ibid.

Route through Iran

The question of Turkmenistan's connection with the outside world through Iran is still open. In August 1994, Niyazov met with Iran's President Akbar Hashemi Rafsanjani. They concluded an agreement for a gas pipeline from Turkmenistan to Iran that was meant to be built within seven years. However, both Russia and the United States opposed the deal at the time. Russia was against any possible diversification of Turkmenistan's exports. The United States much preferred the Trans-Caspian Gas Pipeline. There were also significant personal conflicts between Niyazov and the Azeri President Heydar Aliyev. Nevertheless, in 1997 the Korpeje–Kordkuy Gas Pipeline to Iran was commissioned.⁴²⁵ That pipeline however did not represent a decisive step in diversifying Turkmenistan's exports because of its low capacity and solely regional importance.

Nonetheless, since that year Iran has become Turkmenistan's second most important hydrocarbon export partner after Russia. Iran was Turkmenistan's only alternative to the Russian-controlled northern route until 2009. The Korpeje–Kordkuy gas pipeline runs 200 kilometers from the Korpeje field to the Iranian town of Kordkuy.⁴²⁶ In 2010, the two countries opened a second gas pipeline, the Dowletabat–Sangbast Gas Pipeline, connecting the Dowletabat gas field in southern Turkmenistan with Sarakhs in Iran.⁴²⁷ The capacity of each is 12 bcm yearly.⁴²⁸ Even though the combined capacity of those two pipelines is 24 bcm per year, it usually goes partially unused. Iran imports only about 10 bcm a year from Turkmenistan.

Iran has been Turkmenistan's second largest gas export market since 2011 when it surpassed Russia.⁴²⁹ The two gas pipelines from Turkmenistan are important to Iran from a domestic point of view because they help supply some remote areas of the country that are closer to Turkmenistan's gas deposits than to those of Iran. They also show the ambitions of Iran's regional designs and policies and their limits. At present, there is little or no hope that Turkmenistan will be able to transport its natural

425 "Chernomyrdin v Ashkhabade i Dushanbe," *Nezavisimaya Gazeta*, November 14, 1998, www.uni-potsdam.de/u/slavistik/zarchiv/0198wc/k002-13.htm.

426 "Saparmurat Niyazov Inaugurates Gas Compressor Station at Korpeje Natural Gas Field," *Turkmenistan.ru*, September 14, 2005.

427 "Torzhestvenno zapushchen novyi gazoprovod iz Turkmenistana v Iran," *Turkmenistan.ru*, January 7, 2010.

428 Bruce Pannier, "Turkmen Gas Exports to Iran a Boon for Both Countries," RFE/RL, January 6, 2010.

429 "BP Statistical Review of World Energy June 2016," BP plc, www.bp.com, June 1, 2016.

gas further west by utilizing Iran's natural gas grid, because Iran, which produces a considerable amount of gas itself, focuses in the first place on the export of its own resources.⁴³⁰ As yet, there are no signs that Iran would be willing to allow Turkmenistan to re-export Iranian gas through its territory to Europe. On the other hand, Iran has plans to supply India with its domestically produced gas. For that reason, it has been trying to slow down the TAPI Gas Pipeline project.⁴³¹

Western route

Finally, there is the critical issue of Turkmenistan's connection to the west. During the Niyazov era, the relations between Azerbaijan and Turkmenistan were complex. Nevertheless, the Caspian Sea should not be perceived as a barrier but rather as a somewhat functional connection between Central Asia and the Caucasus. The problems with Azerbaijan were primarily caused by disputes over four significant oil and gas deposits in the Caspian claimed by both Turkmenistan and Azerbaijan.⁴³² These disputes impeded both states from the development of their resources in the Caspian.⁴³³ The United States has vigorously promoted the project of the Trans-Caspian Gas Pipeline since the early 1990s. Washington hoped that it would bring more prosperity to the Caspian region, increase the diversity of sources of energy for Europe, and reduce the influence of Russia and Iran in the region.⁴³⁴

In 1998, the US and Turkish governments even proposed that they would partly finance and guarantee the construction.⁴³⁵ However, any prospects of a quick construction of the Trans-Caspian Pipeline were soon torpedoed by Azerbaijan, which found a sizeable offshore field in its own part of the Caspian in the year 2000. Azerbaijan demanded half of the capacity of the proposed pipeline and put Turkmenistan's potential

430 "Prezident Turkmenistana posetit s vizitom Iran i primet uchashtie v sammite glav gosudarstv – eksporterov gaza," *Turkmenistan.ru*, November 22, 2015.

431 "TAPI Stuck as Iran, LNG Provide Better Options," *BMI Research*, March 24, 2016.

432 Gawdat Bahgat, "Pipeline Diplomacy: The Geopolitics of the Caspian Sea Region," *International Studies Perspectives* 3, no. 3 (2007): 310–327.

433 Horák and Šír, *Dismantling Totalitarianism*, 44–68.

434 Nuri Akyol, *A Natural Gas Pipeline Crossing the Caspian Sea Basin – Which Factors Contribute to Its Advancement or Impediment?* (Delft: Delft University of Technology, 2009), 39–74.

435 Stephen J. Blank, *Turkmenistan and Central Asia after Niyazov* (Washington: Strategic Studies Institute, 2007), 26–43.

profits from the operation in doubt.⁴³⁶ The Azeris' demand forced Turkmenistan to negotiate a new gas deal with Russia in 2003. It motivated Turkmenistan to look for alternative export markets that would have a secure, adequate demand. Turkmenistan found such a reliable partner in China in 2006.

However, the ice around the negotiations for a Trans-Caspian Gas Pipeline began to melt after Berdimuhamedow became president. He met with his Azeri counterpart Ilham Aliyev for the first time in the course of the CIS summit in Saint Petersburg in June 2007.⁴³⁷ They agreed to reopen Turkmenistan's embassy in Baku, which had been closed since 2001 when the talks on the Trans-Caspian Gas Pipeline failed due to the personal antipathies between Ilham Aliyev's father Heydar and Niyazov.⁴³⁸ At the same time, Berdimuhamedow restarted discussions about the Trans-Caspian Gas Pipeline and suggested connecting it with the planned East–West Interconnector in 2010.⁴³⁹

In 2011, the European Commission was tasked with leading the negotiations for a deal between Azerbaijan and Turkmenistan that would allow building the Trans-Caspian pipeline as part of the EU's Southern Gas Corridor.⁴⁴⁰ That made it clear that the project has strategic value for the European Union, which is why it supported the project.⁴⁴¹ In the same year, Azerbaijan substituted support for the Trans-Anatolian Natural Gas Pipeline (TANAP) for the ill-fated project of the Nabucco Gas Pipeline.⁴⁴² TANAP will start at Azerbaijan's Shah Deniz II field and pass through Turkey to Europe. Its proposed capacity is 16 bcm per year, and it was commissioned in 2018.⁴⁴³ In 2013, it was agreed that the Trans-Adriatic Pipeline would transport gas from TANAP further into Western Europe. There is an open-door policy for an additional link from Turkmenistan.⁴⁴⁴

436 Ibid.

437 "V Baku sostoyalis peregovory mezhdru Gurbanguly Berdymukhamedovym i Ilkhamom Aliyevym," *Turkmenistan.ru*, May 20, 2008.

438 Ibid.

439 "Turkmeniya nachala stroit gazoprovod k Kaspiyu," *Turkmenistan.ru*, May 31, 2010.

440 "Gas and Oil Supply Routes," European Commission, ec.europa.eu/energy/en/topics/imports-and-secure-supplies/gas-and-oil-supply-routes.

441 "EU-Turkmenistan Relations – Factsheet," European External Action Service, eeas.europa.eu/factsheets/news/eu-turkmenistan_factsheet_en.htm.

442 Kuszniir, "The Southern Gas Corridor," 41–45.

443 "Trans-Anatolian Gas Pipeline Project," TANAP, www.tanap.com/tanap-project/why-tanap.

444 "V Ashkhabade sostoyalis peregovory prezidentov Turkmenistana i Turtsii," *Turkmenistan.ru*, November 8, 2014.

In the future, Turkmenistan can play an essential role in diversifying Turkey's energy sources to deal with its high levels of energy consumption. In 2014, Turkmenistan agreed with Turkey on a memorandum of understanding to supply TANAP with gas.⁴⁴⁵ This document would not exist if both parties did not believe in the feasibility of the Trans-Caspian pipeline. Moreover, Azerbaijan, Turkey, and Turkmenistan established a trilateral mechanism for energy cooperation in 2015 to prepare themselves for the potential construction of the Trans-Caspian Gas Pipeline.⁴⁴⁶

If the Trans-Caspian Pipeline is constructed, it would be a tremendous success for European energy security. It would complement the Southern Gas Corridor and extend it into Central Asia.⁴⁴⁷ The Ashgabat Declaration of 2015 on cooperation in the energy sphere between the EU and Turkmenistan, Azerbaijan, and Turkey can be considered as an essential step in that direction.⁴⁴⁸ The East–West Interconnector in Turkmenistan, commissioned in 2015, is also important in this regard. Combined with the Trans-Caspian pipeline, it would enable natural gas to be sent from the fields of eastern Turkmenistan all the way to Western Europe.

This project would completely bypass Russia and enable Europe to lessen its dependence on Russia for its energy needs. It would also give the Central Asian states maneuvering room vis-à-vis China, whose presence in the region is rapidly increasing. It is clear however that big western oil and gas companies are not going to invest in the Trans-Caspian pipeline unless they obtain big onshore PSAs in both oil and gas. Turkmenistan will be tempted to refocus on the Trans-Caspian project now that the Trans-Adriatic/Trans-Anatolian pipeline has begun delivering gas from Azerbaijan to Italy since December 2020.⁴⁴⁹

This subchapter focuses on Turkmenistan's energy policy. It shows that Turkmenistan is becoming a more assertive player in the areas of energy and foreign policy. This shift began with the succession of President Gurbanguly Berdimuhamedow in late 2006. The subchapter also explains how Ashgabat's energy sector is strongly influenced by the inner

445 "Ashgabat Declaration," *European Commission*, May 1, 2015, ec.europa.eu/commission/2014-2019/sefcovic/announcements/ashgabat-declaration_en.

446 *Ibid.*

447 Jos Boonstra and Jacqueline Hale, "EU Assistance to Central Asia: Back to the Drawing Board?" EUCAM Working Paper No. 8 (2011): 1–43, <https://eucentralasia.eu/eu-assistance-to-central-asia-back-to-the-drawing-board/>.

448 "Turkmen Gas for Europe," *Nebit-Gaz*, July 29, 2016.

449 "TANAP carrying gas in full capacity," *Hurriyet Daily News*, January 15, 2021, <https://www.hurriyetdailynews.com/tanap-carrying-gas-in-full-capacity-ceo-161643>.

Table 17: Turkmenistan's gas export infrastructure

Commissioning	Name	Capacity (bcm/year)
1960s	Central Asia–Center Gas Pipeline System	45
2009–2014	Turkmenistan–China Gas Pipeline – Lines A, B, and C	55
2009	of which: Line A	15
2010	Line B	15
2014	Line C	25
postponed	Line D	25
1997	Korpeje–Kordkuy Gas Pipeline	12
2010	Dowletabat–Sangbast Gas Pipeline	12
2015	East–West Interconnector	30
planned	Trans-Caspian Gas Pipeline	30
cancelled	Caspian Coastal Gas Pipeline	30
planned	Turkmenistan–Afghanistan–Pakistan–India (TAPI)	33

Source: Schema created for the purposes of this book

makeup of Berdimuhamedow's regime and its clan power brokers. The country's energy potential influences the regime's internal and external policies and thus, they are almost inseparable. Berdimuhamedow's regime considers energy to be a crucial tool for pursuing the country's goals, both internally and externally. It can be also concluded that Turkmenistan both rewards and punishes the behavior of other states as needed. Turkmenistan's energy policy toward Russia and China is an example of this. The regime also shows a clear preference for bilateral relationships in the energy sector because it finds it easier to dominate them than multilateral arrangements. This was apparent from all five of the above subchapters, which were devoted to the northern, eastern, southern, Iranian, and western routes for Turkmenistan's hydrocarbon exports. There are also clear examples of attempts by the regime to control entire markets regardless of commercial logic. Nonetheless, Turkmenistan's ability to do so is limited by its real capabilities. Both the existing and proposed gas pipelines are listed in Table 17.

Turkmenistan's Energy Policy in the Central Asian Energy Security Complex

The classic categories of external, internal, and energy policy just do not work in the case of Turkmenistan. These three aspects of government policy only serve the preservation and prosperity of the ruling regime. To a large degree, energy policy shapes the priorities of Turkmenistan's foreign and external policy, and to some extent its domestic policy, and vice versa.⁴⁵⁰ The fact that both the foreign policy and energy policy of Turkmenistan are aimed primarily at preserving the ruling regime supports the argument that its policies with regard to its energy resources are strategic-oriented.⁴⁵¹ Controlling the country's energy resources was and is the key to both Niyazov's and Berdimuhamedow's regimes' control of the country. This was especially true of the regimes' support for building the Turkmenistan–China Gas Pipeline.⁴⁵²

Turkmenistan's relationship with Gazprom

Turkmenistan's relationship with Gazprom was significantly different during the presidencies of Boris Yeltsin and Vladimir Putin. Under Yeltsin, Gazprom was a golden goose that created much-needed revenue and the Russian elite perceived Turkmenistan as a business rival of the giant Russian gas company. Putin turned Gazprom into a foreign policy tool of his regime, and Turkmenistan became a desired zone of Russian influence that needed to be defended. Still, neither Yeltsin's nor Putin's policy led to sustainable amicable relations between the two countries.

Natural gas has been the key to the evolving relationship between Turkmenistan and Russia ever since 1991. Before that, the only feasible route for transport of this commodity out of Turkmenistan was the old Soviet-era Central Asia–Center Gas Pipeline System. Gazprom has controlled that route since 1989. Viktor Chernomyrdin, when he was the Minister of the Gas Industry of the Soviet Union, and his Deputy

450 Yusin Lee, "Opportunities and Risks in Turkmenistan's Quest for Diversification of Its Gas Export Routes," *Energy Policy* 74 (2014): 330–339.

451 Aleksander Maslenikov, "Diverzifikaciya gazovogo eksporta Turkmenistana," in *Centralnaya Azija: rol v perestrojke mirovykh rynkov prirodno gaza* (Moscow: IMEMO RAN, 2014), 115–121.

452 For more on the geopolitical situation in Central Asia after 2000 see: Eugene Rumer, Dmitrij Trenin and Huasheng Zhao, *Central Asia: Views from Washington, Moscow and Beijing* (New York: M. E. Sharp, 2007).

Minister Rem Vyakhirev created Gazprom in August of that year. They both actively opposed the liberalization and privatization of Russia's gas sector, which limited Turkmenistan's maneuvering space within the Soviet Union. Moreover, their ability to maintain government control of the gas sector was strengthened in 1992 when Chernomyrdin became the prime minister and Vyakhirev became the head of Gazprom.⁴⁵³

When the Soviet Union was dissolved, Turkmenistan was producing approximately one-third of the USSR's natural gas output. Niyazov felt entitled to 30 percent of Gazprom's profits. However, Vyakhirev falsely claimed that Turkmenistan's natural gas did not go to Europe but only to Ukraine and Georgia, and therefore Niyazov would have to reach an agreement with those former republics of the USSR. Niyazov went to Kyiv and concluded a barter trade agreement with Ukraine's President Kravchuk in 1992. Gazprom did not oppose this deal because it had the effect of curbing Turkmenistan's access to western markets.

In 1994, a Turkmen businessman with Russian ethnicity, Igor Makarov, created the company Itera, which with Vyakhirev's consent sold Turkmenistan's natural gas to Ukraine.⁴⁵⁴ Makarov's company Omranya had been supplying Turkmenistan with sugar since the early 1990s. However, when Turkmenistan ran out of money, its government offered to pay Makarov for sugar in natural gas. This barter agreement would not have been possible without the consent of Gazprom. At the same time, Turkmenistan and Ukraine had already started to barter foodstuffs for natural gas. Vyakhirev agreed that Makarov could sell gas to Ukraine and that collecting debts from Kyiv would be solely Makarov's responsibility.⁴⁵⁵

This barter system was not entirely new in the trade relationship between Ukraine and Turkmenistan. It was first proposed and managed by a Ukrainian tycoon, Ihor Bakay, and his company Respublika. Respublika's transactions were possible because of an agreement between Ukraine's President Leonid Kravchuk and Niyazov. Ukraine's second President, Viktor Kuchma, who won election in 1994, was strongly pro-Russian and befriended both Vyakhirev and Chernomyrdin. They agreed that Makarov would take over Bakay's business with his US-registered company Itera. Itera soon managed to gain control of the majority of Ukraine's gas market with the help of Gazprom and Ukraine's Deputy

453 Jan S. Adams, "Russia's Gas Diplomacy," *Problems of Post-Communism* 49, No. 3 (2002): 14–22.

454 Irina Malkova and Valeri Igumenov, "Istoriya ottsa Gazproma: ot bezgranichnoi vlasti do zabveniya na pensii," *Forbes*, www.forbes.ru/sobytiya/lyudi/116519-istoriya-ottsa-gazproma-rem-vyakhireva-ot-bezgranichnoi-vlasti-do-zabveniya-na.

455 Jan S. Adams, "Russia's Gas Diplomacy," 14–22.

Prime Minister for Energy, Yulia Tymoshenko. Itera became the second largest gas company in Russia after Gazprom by the end of the 1990s. Its strategy of selling Central Asia's natural gas to Ukraine and other post-Soviet countries paid off.⁴⁵⁶

Chernomyrdin was forced to resign as prime minister because of the emerging economic crisis in 1998.⁴⁵⁷ Without his support, Makarov's ally in Gazprom, Vyakhirev, left his post in 2001. As a result, the company's business with Turkmenistan was taken over by the newly created Eural TransGas in 2002 and later by RosUkrEnergo in 2004.⁴⁵⁸ Eural TransGas was notorious for its opaqueness. Three unemployed persons and one Israeli lawyer registered the company, whose registered headquarters was in a village in Hungary. Kuchma eventually decided to replace Eural TransGas with RosUkrEnergo because of public pressure in Ukraine. The new company is registered in Switzerland and 50 percent of it are owned by Gazprom and 50 percent by Austria's Raiffeisen Investment. At first, RosUkrEnergo controlled only the gas trade between Turkmenistan and Ukraine. However, since 2006, it has handled Ukraine's imports of gas from all of Central Asia as an intermediary.

It soon became clear that RosUkrEnergo is very similar to its predecessor Eural TransGas in its structure and personnel. Ukraine was rocked by a series of scandals connected with the RosUkrEnergo after the Orange Revolution. An infamous Ukrainian oligarch, Dmytro Firtash, was revealed to own 50 percent of the company through Raiffeisen Investment and to have controlled both Eural TransGas and Respublika before that. There were even suspicions that Firtash was only a figurehead for either Kuchma or Yanukovich. When she was prime minister, Julia Tymoshenko, who was familiar with Itera from her time as deputy minister for energy, tried to get rid of RosUkrEnergo and reinstall Itera as the middleman for Ukraine's gas purchases. However, President Viktor Yushchenko dismissed her from office in September 2005 before she could finish that task.

Yushchenko then announced that it was time for Ukraine to stop using barter and pay market prices for gas. Putin reacted by increasing the price charged to Ukraine almost to the same level as that of Germany. He even halted Russia's exports to Ukraine altogether at the beginning

456 Ibid.

457 "Chernomyrdin v Ashkhabad i Dushanbe," *Nezavisimaya Gazeta*, November 14, 1998, www.uni-potsdam.de/u/slavistik/zarchiv/0198wc/k002-13.htm.

458 Dmitrii Simakov, "Itera perestala byt razborchivoi nevestoi," *Vedomosti*, March 1, 2012, www.vedomosti.ru/opinion/articles/2012/03/01/itera.

of 2006. Russia was willing to agree to a discounted price only if RosUkrEnergo could retain its status as intermediary. This demand implies that RosUkrEnergo, and Eural TransGas before it, were connected in some way to the government circles in Putin's Russia.

As already stated, Turkmenistan's number one problem during the 1990s was its dependence on Russia's monopsony purchases of its gas exports and its dictated pricing policy. Niyazov and Vyakhirev agreed to deal with Itera in July 1996. However, Niyazov was soon discontent with the state of affairs. He vociferously complained that he was getting six times less for Turkmenistan's gas than what was the price for which it was being sold on the market in Europe.⁴⁵⁹ He blamed Itera in particular for that. Gazprom replied to Niyazov's complaints by claiming that its usual pipelines were full and thus it would have to send Turkmenistan's gas to Ukraine via a route that was twice as long as usual. Ukraine, however, was not prepared to pay double the price for transit. Niyazov reacted by curbing Turkmenistan's exports. He went to Moscow himself in August 1997 to solve the crisis. However, both Vyakhirev and Chernomyrdin told him bluntly that Russia did not need Turkmenistan's gas. He got no support from Boris Yeltsin either.⁴⁶⁰

Therefore, Niyazov had to back down and continue the disadvantageous collaboration with Itera. To decrease their dependence on Russia, the Central Asian presidents met on January 6, 1998 and expressed a desire to build new gas and oil pipelines.⁴⁶¹ They were especially interested in a proposed oil pipeline from Kazakhstan via the Caspian Sea, Azerbaijan and Georgia to Turkey and on to Europe; a gas pipeline from Turkmenistan via Iran and Turkey to Europe; and a gas pipeline from Turkmenistan to Afghanistan and Pakistan. Russia's Prime Minister Viktor Chernomyrdin reacted harshly to this meeting, insisting that oil and gas export pipelines from Central Asia would be more cost-effective if routed via Russia.⁴⁶²

Russia's grip on Turkmenistan's economy was most evident later that year when Chernomyrdin decided to cut off natural gas imports from Turkmenistan, nearly collapsing its economy. Subsequently, he proposed very protectionist measures in the wake of Russia's financial crisis and even tried to convince Turkmenistan's leaders that "Europe does not

459 Ibid.

460 "Chernomyrdin Reacts Angrily to the Central Asian Summit," Jamestown Foundation, January 9, 1998, jamestown.org/program/chernomyrdin-reacts-angrily-to-central-asian-summit.

461 Ibid.

462 Ibid.

want your gas.”⁴⁶³ However, Turkmenistan began to look vigorously for new export routes. Niyazov got his revenge in December 1999 after Gazprom’s production had started to decrease in the second half of the 1990s. It was then more than clear that Russia could not satisfy European demand without cooperation with Turkmenistan. Vyakhirev was afraid of the planned construction of the Trans-Caspian Gas Pipeline, so he came personally to Ashgabat, where he publicly apologized to Niyazov and Turkmenistan for his previous statements and behavior in a live broadcast. This episode did not help to improve the relationship between Turkmenistan and Russia. On the contrary, it made it almost unrepairable.⁴⁶⁴

The gas issue was so critical for Russia that Putin’s first foreign visit as president of Russia was to Turkmenistan and Uzbekistan in 2000. The issue was soon enmeshed in the internal politics of both countries. Niyazov harbored a growing fear for his life and the stability of his regime. He withdrew Turkmenistan from the visa-free regime with the other CIS states in 1999. However, the issue of Turkmen’s dual citizenship with Russia remained to be resolved. This issue was important primarily because many of the people accused of Niyazov’s attempted assassination in 2002 had dual Turkmenistan and Russian citizenships. Niyazov consented to the new gas deal with Russia in April 2003 in exchange for Russia’s effective abolition of dual citizenship.

Relations between Russia and Turkmenistan significantly deteriorated under Putin. Vyakhirev and Chernomyrdin viewed Gazprom as their business and Turkmenistan as a competitor. However, Putin perceived and still perceives Gazprom as a tool of foreign policy and Central Asia as a region that should be under Russia’s firm control. Putin’s goal was to take all of Turkmenistan’s gas exports and prevent it from gaining direct access to European markets.⁴⁶⁵ Nevertheless, Russia continued to abuse its advantage over Turkmenistan. Turkmenistan tried its best to escape Russia’s stranglehold on its hydrocarbon resources, but after the frustration with the West and failed deals with Iran, it chose to embrace cooperation with China.⁴⁶⁶

463 S. Frederick Starr, “Uzbekistan and Turkmenistan: Staying Away,” in: *Putin’s Grand Strategy: The Eurasian Union and Its Discontents*, eds. S. Frederick Starr and Svante E. Cornell (Washington: Central Asia and Caucasus Institute – Silk Road Studies Program, 2014), 156–166.

464 Dmitrii Simakov, “Itera perestala byt razborchivoi nevestoi,” *Vedomosti*, March 1, 2012, www.vedomosti.ru/opinion/articles/2012/03/01/itera.

465 Zygare and Panyushkin, *Gazprom*, 121–148.

466 Kathleen J. Hancock, “Escaping Russia, Looking to China: Turkmenistan Pins Hopes on China’s Thirst for Natural Gas,” *China and Eurasia Forum Quarterly* 4, no. 3 (2006): 67–87.

No matter what Russia did after Chernomyrdin's fateful, antagonistic decision to cut off imports from Turkmenistan in 1998, Niyazov needed a robust alternative to the natural gas export route to and through Russia. In just one decade, natural gas began to flow from Turkmenistan into China via the Turkmenistan–China Gas Pipeline. Turkmenistan's exports to Russia had been gradually decreasing before that and in early 2016 ceased altogether. In the end, Russia's high-handed approach to its post-Soviet neighbor did not pay off.

The loss of Turkmenistan's resources will have substantial consequences for Russia's economy. Russia's weak and corrupt handling of Turkmenistan's natural gas exports to Ukraine contributed to antagonizing the Turkmen during the so-called "gas wars" between Russia and Ukraine from 2005 to 2010. Russia tried to use the natural resources of its neighbors in the post-Soviet space in a "divide and conquer" strategy. However, its pawns were no longer willing to play the game.

The crisis of 1998 was very similar to the crisis of 2008. In both cases, Russia was reeling from an economic crisis and therefore unilaterally diminished its gas imports from Turkmenistan. The first crisis led Turkmenistan's ruling elite to the conclusion that they needed to find an alternative to their irresponsible Russian intermediary. The second crisis convinced Turkmenistan's elite that Russia was a terminally sick business partner and cemented in place the decision to switch their attention to China.

Turkmenistan's relationship with the China National Petroleum Corporation

The planning of the construction of the first two lines of the Turkmenistan–China Gas Pipeline began in 1998. However, the plans were not translated into reality until eight years later, during Niyazov's third state visit to China on April 3, 2006.⁴⁶⁷ Niyazov then signed an agreement with his Chinese counterpart, Hu Jintao, for China to purchase 30 billion cubic meters of natural gas per year for a period of 30 years.⁴⁶⁸ To all intents and purposes, Russia's economic stranglehold on Central Asia was broken that day, at least on paper. It took three more years before the

467 "Turkmenistan, China Sign Cooperation Deals," Turkmen TV Altyn Asyr, April 4, 2006.

468 "Turkmenistan Seen Cultivating Gas Markets under New Leadership," *Oil Daily*, January 5, 2007.

first branch of the Turkmenistan–China Gas Pipeline was commissioned and the Niyazov–Hu agreement was fulfilled.⁴⁶⁹

The most important parts of the agreement were articles 2, 4, and 11. Article 2 stated that China would purchase 30 bcm of Turkmenistan’s natural gas annually at the border with Turkmenistan for over 30 years. It was to start from the date the pipeline was commissioned, which occurred in 2009. At the time, Turkmenistan was still very intent on preserving its traditional policy of selling its natural gas at its borders.

Article 4 stated that Turkmenistan’s price of natural gas for China would be set at reasonable, fair levels, based on comparable international market prices. Moreover, the payment was to be made in US dollars. Finally, Article 11 specified that the responsibility for implementing the agreement would lie with the Ministry of the Oil and Gas Industry and Mineral Resources of Turkmenistan and the State Development and Reform Commission of the PRC. Any future negotiations would be handled by the Ministry of the Oil and Gas Industry and Mineral Resources for Turkmenistan and the CNPC for China.⁴⁷⁰

It could reasonably have been predicted that this agreement with China would have no more than the same precarious value as the 2003 agreement with Russia. However, in this case the key was that Moscow’s and Gazprom’s reputation with the Turkmenistan elite was as bad as possible, while China and the CNPC seemed more reliable to them. In other words, the key was not in the agreements, which were just an overall framework, but in the securitization of Turkmenistan’s energy supplies. At that time, Ashgabat’s elite considered Russia to be an unreliable and perhaps even dangerous trade partner, while China’s image was that of a reliable and trustworthy partner willing to pay a fair price and not interfere in Turkmenistan’s internal affairs.

Since the beginning of the closer cooperation between China and Turkmenistan, it was clear that Beijing was not looking solely for profit but also for the stabilization of the Central Asian ESC, China’s western provinces, and China’s energy security as well. China’s policy experts assumed that importing energy resources from Central Asia would lessen China’s “Malacca dilemma” – its vulnerability to a naval blockade. The Malacca dilemma is a term coined by the then-President Hu Jintao to describe China’s dependence on the Malacca Straits between Singapore

469 For more on the energy geopolitics of Turkmenistan see: Slavomír Horák, “Turkmenistan’s Shifting Energy Geopolitics in 2009–2011,” *Problems of Post-Communism*, 59, no. 2 (2012): 18–30.

470 “Text of Turkmenistan–China Gas Pipeline Deal,” *Neitralnyi Turkmenistan*, April 4, 2006.

and Indonesia, where some 80% of China's energy imports passed en route from the Middle East, Angola, and elsewhere. The Malacca dilemma could be solved by the "Go West" strategy of importing gas from Central Asia, which is the most accessible land area open to the spread of Beijing's influence beyond its borders.⁴⁷¹

China's strategy was evident in its interactions with Turkmenistan from 2006 onward. Shortly after signing the 2006 agreement with China, Niyazov ordered his Deputy Minister for Oil and Gas Industry, Isanguly Nuryýew, to start preparatory work on the pipeline project.⁴⁷² Zhang Jianhua, a high-ranking representative of the CNPC, arrived in Ashgabat at the head of a Chinese delegation in June 2006 to further discuss the recently signed agreements and prepare for the implementation of the pipeline project.⁴⁷³ At the beginning of 2008, Turkmenistan officially announced that it had earmarked 1300 bcm of natural gas for its new pipeline to China.⁴⁷⁴ Moreover, Nuryýew led a Turkmen delegation to China to discuss the exploration and development of gas deposits in eastern Turkmenistan in the May of 2008.⁴⁷⁵ The busy diplomatic traffic between China and Turkmenistan signaled that both parties were genuinely interested in making the project a reality. The only significant delay was caused by force majeure: the death of the pipeline's most vocal proponent, Saparmurat Niyazov.

After Niyazov's death, Gurbanguly Berdimuhamedow ascended to the presidency as his successor. As part of his presidential election program in January 2007, he pledged to continue the export diversification policies of the late president: "The Great Leader Niyazov set goals connected with new Turkmen gas exports and ways into the world markets. To achieve those aims, the work on developing and broadening the frameworks of mutually beneficial cooperation with foreign partners in the oil and gas sector will continue."⁴⁷⁶ He stated at the time that

471 Hongyi Lai, "China's Western Development Program: Its Rationale, Implementation, and Prospects," *Modern China* 28, no. 4 (2002): 432–466.

472 "Turkmen President Warns Top Officials Over Poor Management," Turkmen TV First Channel, April 14, 2006.

473 "Chinese Delegation to Examine Gas Exports Potential of Turkmenistan," Turkmen TV First Channel, June 14, 2006.

474 "Turkmenistan Details Gas Resources Earmarked for China Pipeline," ITAR-TASS, January 16, 2008.

475 "Turkmen Experts to Visit China Shortly for Gas Talks," Turkmen Foreign Ministry, Press Release, May 26, 2006.

476 "Fresh Start: Turkmenistan to Boost Energy Ties with Foreign Partners," NEFTE Compass, January 10, 2007.

the most promising projects were the TCGP and the TAPI Gas Pipeline.

On the other hand, as the election was being held in February 2007, Berdimuhamedow also attempted to assure Russia that Turkmenistan would continue to fulfill its oil and gas obligations. However, Russia launched a campaign to discredit the TCGP.⁴⁷⁷ Turkmenistan was then exporting 42 bcm per year to Russia via the Central Asia–Center Gas Pipeline System. It also had a gas contract with Iran. However, only half of the 12 bcm annual capacity of the pipeline to Iran was being used because of the two parties’ failure to agree on a price higher than USD 42 per thousand cubic meters. The price for gas exported to Russia at that time was USD 100 per thousand cubic meters.⁴⁷⁸ It did not remain so for long because of the looming global financial crisis.

At this point, a critically important fact must be emphasized: Turkmenistan and China do not share a common border. This necessitated cooperation with other Central Asian states willing to participate in the TCGP project. China was able to bring both Uzbekistan and Kazakhstan to the negotiating table quickly because of an irresistible offer of investments, transit fees, and the opportunity to export their own natural gas to China.⁴⁷⁹ Russia was not able to respond to this package deal because of its unfortunate economic situation at that time. As for the West, it was unable to offer such a package of broad-based cooperation because of the Western countries’ different property and market structures. Central Asians just needed money to keep their energy industries running, and at the time China was the only state that was willing to provide such an array of financing and trade.

China’s generous loan offers were part of its global “loans-for-oil” strategy. Its two state-run banks, the China Development Bank and the China Export-Import Bank, issue specially tailored loans to developing countries in need of cash. In return, China obtains long-term promises to supply oil and gas at stable prices. China had earlier provided similar loans not only to Central Asian states but also to Venezuela, Angola, and Russia. In Turkmenistan, the China Development Bank provided Turkmengaz with loans in 2010 amounting to USD 8.1 billion for the development of the South Yolotan gas field. Turkmengaz is repaying

477 “Turkmenistan Reassures Russia,” *Oil Daily*, February 14, 2007.

478 “Turkmenistan Seen Cultivating Gas Markets Under New Leadership,” *Oil Daily*, January 5, 2007.

479 Sebastien Peyrouse, “Discussing China: Sinophilia and Sinophobia in Central Asia,” *Journal of Eurasian Studies* 7, no. 1 (2015): 429–445.

these loans with supplies of natural gas to China. Ashgabat sought a loan almost immediately after the explosion on the Central Asia–Center Gas Pipeline System in late 2009.⁴⁸⁰ In the same manner, the Chinese Export-Import Bank provided a USD 5 billion loan to Kazakhstan’s government and the CNPC lent another USD 5 billion to Kazakhstan’s oil and gas producer KazMunayGaz.⁴⁸¹ In this way, China is gaining control over the energy resources in Central Asia, and along with that, the security of its energy supplies. This is especially important because of the steeply rising consumption and imports of natural gas in China, as illustrated in Table 18.

Table 18: China’s natural gas consumption, production, and import, 2007–2018 (bcm)

Year	Consumption	Production	Import
2007	70	69	3.9
2008	81	80	4.5
2009	89	85	7.5
2010	107	95	17.0
2011	131	101	31.4
2012	147	108	42.4
2013	168	118	53.0
2014	184	127	59.5
2015	192	132	61.6
2016	209	118	72.8
2017	240	128	92.0
2018	283	138	123.4

Source: The China National Petroleum Corporation

Cooperation with Uzbekistan and Kazakhstan proved to be smooth and fast. Kazakhstan’s Prime Minister Karim Masimov organized a working visit to Turkmenistan in May 2007, where he discussed the pipeline’s

480 Charles J. Sullivan, “Pipeline Politics in the Post-Soviet Space: A View from Ashgabat,” *The Journal of Energy and Development* 34, no. 21 (2011): 121–128.

481 Dennis Shea, “*The Development of Energy Resources in Central Asia*,” Testimony before the House Foreign Affairs Subcommittee on Europe, Eurasia and Emerging Threats, 113th Congress 160, May 21, 2014.

specific route on Kazakhstan's territory.⁴⁸² Uzbekistan's Foreign Minister Vladimir Norov visited Ashgabat on July 26, 2007. Norov announced Uzbekistan's full support for the TCGP project and the part of it running through Uzbekistan's territory.⁴⁸³

Berdimuhamedow met with both of his Central Asian partners in the TCGP in Ashgabat in 2007 – in May with Nursultan Nazarbayev and in October with Islam Karimov.⁴⁸⁴ The stars could not have lined up any better for China's pipeline proposal. Uzbekistan's Karimov was attempting to distance his country from Russia's influence after he had been forced into closer cooperation with it by his bloody repression of a revolt in the city of Andijan in May 2005. Kazakhstan's Nazarbayev was very content with cooperation with China after the commissioning of the Kazakhstan–China Oil Pipeline and welcomed another opportunity to strengthen his bilateral relationship with Kazakhstan's eastern neighbor.

Turkmenistan, however, became the most active and devoted proponent of the gas pipeline project as soon as it had assessed that further cooperation prospects with Russia were futile. Berdimuhamedow undertook a state visit to China on July 17–18, 2007. He subsequently called the Turkmenistan–China Gas Pipeline “the utmost priority” in the bilateral relationship.⁴⁸⁵ Later on, in August, he signed a decree endorsing the appointment of the members of the board responsible for implementing the bilateral agreement for the construction of the gas pipeline. The board was tasked with drafting an action plan by September 1, 2007, that would ensure that gas exports to China would start in 2009 as agreed in 2006.⁴⁸⁶

Berdimuhamedow also had to prepare his domestic audience for the switch in trading partners. He undertook a working visit to the Lebap region in eastern Turkmenistan on August 29, 2007. That was where he announced a comprehensive development program for the right side of the Amu Darya River. Above all, he took part in a ceremony launching the construction of the Turkmenistan–China Gas Pipeline

482 “Kazakhstan Ready to Assist in Construction of Turkmenistan-China Gas Pipeline,” Interfax, May 4, 2007.

483 “Uzbekistan Backs Turkmen-Chinese Gas Pipeline Project,” Turkmen TV Altyn Asyr, July 26, 2007.

484 “Turkmen Leader Meets Uzbek Minister to Discuss Cooperation,” Turkmen TV Altyn Asyr, December 11, 2007.

485 “Turkmenistan Set To Speed Up Implementation Of Gas Export Plans To China,” Turkmen TV Altyn Asyr, July 26, 2007.

486 “Berdimuhamedow Endorses Board To Handle Turkmenistan-China Gas Pipeline Construction Project,” Interfax, August 4, 2007.

in Bagtyyarlyk. On that occasion Berdimuhamedow solemnly provided the President of the CNPC, Jiang Jiemin, with the operating license to explore and extract natural gas in the area and with other documents needed to implement the project. The Turkmen leader stressed that it was the first time that his country had ever provided such a license to a foreign company.⁴⁸⁷

The Bagtyyarlyk area, which includes the Samandepi field of sulfur dioxide gas, became a contracted area for development under a production sharing agreement. This PSA violated the Niyazov-era policy of resource nationalism that allowed signing of major PSAs only for technologically challenging offshore projects.⁴⁸⁸ However, the Bagtyyarlyk PSA was the price that Turkmenistan had to pay for China's involvement in the gas pipeline project. Berdimuhamedow did not forget to stress during the launch ceremony that the seven-thousand-kilometer-long pipeline would not only benefit China and Turkmenistan but also Uzbekistan and Kazakhstan.⁴⁸⁹ This was very important because those two states would not be able to implement a joint project of this scale without China's impetus.

For its part, Russia was not willing to let Central Asia go without a struggle. It tried to counter both China's and the West's initiatives in the Central Asian region. Russia wanted to import as much natural gas as possible from Central Asia and in that way to drain any future supply for diversification of the export routes out of the region. This was behind the May 2007 agreement to construct the Caspian Coastal Gas Pipeline between Russia, Turkmenistan, and Kazakhstan.⁴⁹⁰ However, after the inauguration of the TCGP in Turkmenistan, Russia's media openly speculated that the Caspian Coastal Gas Pipeline project was doomed to fail. The presidents of Russia, Turkmenistan, and Kazakhstan set September 1, 2007, as the deadline for the signature of the necessary documents and the conclusion of the trilateral agreement for the construction of the pipeline. As it turned out, the documents were not ready in time, and the pipeline was actually never built.

487 Ibid.

488 Michael Fredholm, "The World of Central Asian Oil and Gas," *Asian Cultures and Modernity*, no. 16 (2008): 89–97.

489 "Turkmen President Kicks Off China-Bound Gas Pipeline Construction," Turkmen TV Altyn Asyr, August 29, 2007.

490 Stuart Elliot, "Turkmenistan, China Agree to Speed Up Gas Pipeline," *Platt's Oilgram News*, July 19, 2007.

Russia's policy in Central Asia also called for the creation of an "OPEC of gas" with Iran. Russia was interested in a grand bargain that would direct Iran's exports to the East and leave Russia in control of the European markets. It even considered allowing Iran to use the Turkmenistan–China Gas Pipeline to export Iran's gas to China.⁴⁹¹ Steven Martin, who was appointed by the US State Department to the newly established position of coordinator of the United States' Eurasian energy diplomacy at the beginning of 2008, welcomed both the Kazakhstan–China Oil Pipeline and the Turkmenistan–China Gas Pipeline projects because they would loosen Russia's grip on the economies of the Central Asian countries. On the other hand, he kept stressing that the priority of the United States was the Trans-Caspian Gas Pipeline.⁴⁹² The result was that Russia was unable to prevent China's "march to the west," and the United States considered this development to be a lesser evil than Russia's hegemony over the region. These attitudes paved the way for China's economic expansion into the Central Asian ESC.⁴⁹³

Lines A and B of the Turkmenistan–China Gas Pipeline

The implementation phase of the TCGP project followed without problems after the political and technical consultations held on February 22, 2008.⁴⁹⁴ President Berdimuhamedow authorized Turkmengaz to conclude a contract with the Russian joint-stock company Stroytransgaz for a turnkey construction of Turkmenistan's portion of the first two lines of the gas pipeline – the Malay–Bagtyyarlyk Gas Pipeline with a length of 188 kilometers. Stroytransgaz was contracted to construct the pipeline's gas treatment and dehydrating facilities and the gas metering units. Total construction costs were projected to be EUR 395 million.⁴⁹⁵ Turkmenistan's portion of the pipeline commences in the area of the Malay gas field and continues to a gas metering unit in the area of the Bagtyyarlyk settlement on the border with Uzbekistan.⁴⁹⁶ The swift construction of

491 Vladimir Radyuhin, "Russia-Iran Ties on the Upswing," *The Hindu*, January 7, 2008.

492 "Caspian: US Steps Up Diplomacy," *Energy Compass*, February 14, 2008.

493 For large infrastructure projects see: Benjamin Sovacool, *The Governance of Energy Megaprojects: Politics, Hubris and Energy Security* (London: Edward Elgar Pub, 2013).

494 "Construction of Gas Pipeline Between Turkmenistan, China Enters Active Stage," Interfax, February 19, 2008.

495 "Russian Company to Lay 395-Euro Turkmen-China Pipeline," *Neitralnyi Turkmenistan*, February 22, 2008.

496 "Malay-Bagtyyarlyk Gas Pipeline," Stroytransgaz, www.stroytransgaz.ru/en/projects/oilgas_engineering/2612/?sphrase_id=33675.

the pipeline on Turkmenistan's territory showed that it was the party that was the most eager to complete the pipeline project.

As stated earlier, the support and consent of the transit states, Uzbekistan and Kazakhstan, was critical for the success of the TCGP. Building the TCGP was a more significant challenge for China than the Kazakhstan–China Oil Pipeline, which did not have to cross a third country. Uzbekistan and China signed an intergovernmental agreement for the construction of Uzbekistan's portion of the pipeline in April 2007. On July 1, 2008, the construction began near the village of Sayet in the Dzhonodzhor district of Uzbekistan's Bukhara region. Asia Trans Gas, a joint venture of Uzbekneftegaz and the CNPC, has operated the project for Uzbekistan since that time.

In Uzbekistan, the project involved the construction of two branches of the main pipeline and cost USD 2 billion. The pipeline passes through three of Uzbekistan's provinces: Bukhara, Navoi, and Kashkadarya. The China Petroleum Pipeline Bureau, China Petroleum Engineering Construction Corporation, and the Swiss company Zeromax GmbH built Uzbekistan's portion of it. China's enterprises built the section from Gazli to Kazakhstan and Zeromax built the section from the Turkmenistan border to Gazli.⁴⁹⁷ There were no plans to export Uzbekistan's gas through the pipeline in 2008.⁴⁹⁸ However, in May 2009, the Deputy Head of Uzbekneftegaz, Shavkat Mazhitov, announced that contrary to previous intentions, 10 bcm of Uzbek gas per year would also be shipped through the TCGP to China.⁴⁹⁹ The decision to include Uzbekistan as a supplier has had paramount importance for China's energy security because China reduced its dependence on Turkmenistan's imports through the pipeline.

Kazakhstan's Mazhilis (its lower house of parliament) approved a law ratifying the construction and operation of the TCGP on November 25, 2009. However, many legislators voiced concerns about China gaining further influence over the country's hydrocarbon sector. At that time, China controlled approximately 30 percent of Kazakhstan's oil industry.⁵⁰⁰ The legislators' concerns were also linked to the fact that the CNPC had acquired 50 percent of the Kazakh oil company Mangistau-MunaiGas in April 2009 and the China Investment Corporation had

497 "Uzbekistan to Test Uzbek Section of the Turkmenistan-China Gas Pipeline," Trend News Agency, December 10, 2009.

498 "Uzbekistan-China Gas Pipeline Construction Gets Underway," Interfax, July 1, 2008.

499 "Turkmenistan-China Gas Pipeline to Ship Uzbek Gas," Interfax, May 14, 2009.

500 "New China Link Heightens Kazakh Concerns," NEFTE Compass, November 25, 2009.

acquired 11 percent of KazMunayGaz Exploration and Production in September 2009.⁵⁰¹

Notwithstanding these concerns, the project had the unwavering support of President Nazarbayev, who wanted to gain some room for maneuvering vis-à-vis Russia. Kazakhstan's segment of the TCGP, also known as the Kazakhstan–China Gas Pipeline, was built by the Asian Gas Pipeline Company, which was founded by Trans-Asia Gas Pipeline Company Ltd., a company affiliated with the CNPC and Kazakhstan's state-controlled gas transportation company KazTransGaz.⁵⁰² The principal contractors for Kazakhstan's portion of the gas pipeline were China Petroleum Pipeline Engineering and KazStroyService. The startup of the TCGP in Kazakhstan meant that Kazakhstan would not be able to participate in either the Caspian Coastal Gas Pipeline nor the Nabucco Gas Pipeline project. Kazakhstan's Deputy Minister for Energy and Mineral Resources, Aset Magaudov, explained in June 2009 that his country could only participate in one major project at a time – the Turkmenistan–China Gas Pipeline – and did not have sufficient natural gas for other projects.⁵⁰³

The construction of the first two lines of the TCGP, A and B, was incredibly smooth and rapid when compared to similar gargantuan infrastructure projects in the world. Turkmenistan's and Uzbekistan's gas transportation infrastructure that is part of the Turkmenistan–China Gas Pipeline was connected at their shared border in August 2009.⁵⁰⁴ Moreover, a “dress rehearsal” for the launch of the first branch of the TCGP took place on December 16, 2008.⁵⁰⁵ On December 14, 2009, China's President Hu Jintao, Kazakhstan's President Nursultan Nazarbayev, Turkmenistan's President Gurbanguly Berdimuhamedow, and Uzbekistan's President Islam Karimov gathered in the Turkmenistan city of Turkmenabat to celebrate the commissioning of Line A of the TCGP.

In China, the TCGP was connected to the newly built second East-West Gas Pipeline, which provides natural gas to Chinese consumers in

501 “China Secures Gas Supply from Turkmenistan: Who Is True Winner?” *Phil's Stock World*, December 22, 2009.

502 “Russian Plant to Supply Pipes for Central Asia-China Gas Pipeline,” *Interfax*, October 24, 2008.

503 “Kazakhstan Has No Free Gas Reserves to Join Nabucco Project,” *ITAR-TASS*, June 26, 2009.

504 “Soedineny turkmenskii i uzbekskii uchastki gazoprovoda v KNR,” *Turkmenistan.ru*, August 14, 2009.

505 “First Spur Of Turkmenistan-China Gas Pipeline to Be Test Launched December 15,” *Interfax*, December 3, 2009.

14 provinces and autonomous regions all across the country.⁵⁰⁶ Hu Jintao stressed that the newly commissioned pipeline would bring benefits to all participating states, not only because of the sales of natural gas, but also because of transit fees that will represent significant revenue for the parties. Like Hu, Berdimuhamedow praised the economic benefits the pipeline would bring, but added that it would increase stability and security for the region.

Berdimuhamedow announced that a joint commission of Turkmen and Chinese specialists had calculated that the reserves on the right bank of the Amu Darya river amounted to 1.3 trillion cubic meters. He called the TCGP the “construction project of the century.” The cost of the entire pipeline was estimated at USD 8 billion, which was mostly covered by the China Development Bank.⁵⁰⁷ This shows that from the beginning China was not focused only on making profits but also on stability, promotion and direct control of natural resources in the Central Asian ESC. The commissioning of the pipeline was so important to Turkmenistan’s elites that Berdimuhamedow proposed to make December 14 an annual holiday for employees of the oil and gas industry.⁵⁰⁸

The occasion was soured, however, by the ongoing dispute between Turkmenistan and Russia. Turkmenistan’s gas supplies to Russia were stopped in April 2009 by an explosion on the fourth line of the Central Asia–Center Gas Pipeline System, CAC 4.⁵⁰⁹ Turkmenistan and Gazprom each blamed each other for the explosion. Even though the pipeline was quickly repaired, Turkmenistan supplied much less gas than before. It was estimated that Turkmenistan was losing USD 1 billion in gas revenues every month.⁵¹⁰ The most logical explanation for Europe’s lack of demand for Russia’s and Turkmenistan’s gas was the global financial crisis.

Gazprom was trying to secure the European markets for itself but in the process antagonized Turkmenistan. Russia’s officials soon grasped the danger that the newly commissioned Line A of the Turkmenistan–China Gas Pipeline posed to their supplies, but they tried to pretend that everything was going according to plan. Putin claimed in December 2009

506 “Turkmenistan-China Gas Pipeline Enters Operation,” Interfax, December 15, 2009.

507 “Turkmenistan-China Gas Pipeline Launched,” Trend News Agency, December 14, 2009.

508 “Turkmen Leader Suggests Marking Turkmenistan-China Gas Pipeline Opening Day,” Interfax, December 16, 2009.

509 Sergej Zhilcov, “Pipelines in Central Asia and the Caspian Region: Competition Takes New Turn,” *Central Asia and the Caucasus* 15, no. 3 (2014): 1–7.

510 “Leaders Gather To Inaugurate Turkmenistan-China Gas Pipeline,” The Canadian Press, December 13, 2009.

that the construction of the Turkmenistan–China Gas Pipeline did not pose any threat to Russia’s energy cooperation with China.⁵¹¹ Moreover, representatives of Russia’s hydrocarbon sector, such as Yury Shafrannik, the head of Russia’s Oil and Gas Industry Union, claimed that the commissioning of the first line of the Turkmenistan–China Gas Pipeline was a positive thing for Russia but a bad one for Europe. He said the new pipeline would be the swan song for the Nabucco Gas Pipeline project. In the end, Europe would be more dependent on Russia’s supplies than ever, he warned.⁵¹²

China was quickly cementing its position in Central Asia. The second, parallel branch of the TCGP was commissioned on December 25, 2011.⁵¹³ The first two lines of the pipeline stretched seven thousand kilometers – 188 kilometers in Turkmenistan, 530 kilometers in Uzbekistan, 1,300 kilometers in Kazakhstan and over 4,500 kilometers in China.⁵¹⁴ The pipeline already transported 10 bcm of natural gas between December 2009 and May 2010.⁵¹⁵

Kazakhstan’s KazMunayGaz commissioned two compressor stations, No. 4 and No. 8, on Lines A and B of the TCGP in 2015. This improvement would make it possible to increase the capacity of the two lines to 20 bcm per year.⁵¹⁶ KazMunayGaz contracted gas turbines and compressor equipment from leading Western manufacturers Rolls-Royce and General Electric. The vice-president of KazMunayGaz, Kayrat Sharipbayev, stated that the compressor stations were designed with the possibility of a fourth line in Kazakhstan in mind.⁵¹⁷ If built, it would become Line E of the Turkmenistan–China Gas Pipeline.

The presidents of Turkmenistan and China met again on August 28, 2008, when Hu Jintao visited Turkmenistan. They agreed to increase Turkmenistan’s exports to 40 bcm annually and established a Turkmen-

511 “Russia’s Putin Rules Out Cabinet Reshuffle, Sees No Threat to China Energy Ties,” *Interfax*, December 3, 2009.

512 “Russian Official Puts a Brave Face on Turkmenistan-China Gas Pipeline Impact,” *ITAR-TASS*, December 23, 2009.

513 “Uzbekistan Commissions Phase Two of Turkmenistan-China Gas Pipeline Section,” *Interfax*, January 10, 2011.

514 “Turkmenistan Begins Work on Gas Pipeline to China,” *Oil and Gas Journal* 234, no. 10 (2007).

515 “Central Asia-China Gas Pipeline Transmits 10 BCM of Gas Since 2009,” *Interfax*, June 7, 2011.

516 “Ashgabat Hosts a Joint Meeting on Turkmenistan-China Gas Pipeline,” *Tribune Business News*, September 7, 2011.

517 “Kaztransgaz JSC Increases the Capacity of Kazakhstan-China Gas Pipeline,” *KazTransGaz*, www.kaztransgaz.kz/index.php/en/press-center/press-releases/1013-kaztransgaz-jsc-increases-the-capacity-of-kazakhstan-china-gas-pipeline.

istan–China bilateral government commission. Their agreement also included a commitment by China to lend Turkmengaz USD 4 billion at zero interest. This loan was earmarked for the development of the vast South Yolotan gas field, which was needed to ensure Turkmenistan’s ability to deliver supplies to China. Moreover, Turkmengaz and the CNPC signed a framework agreement expanding the companies’ cooperation in the gas sector. An agreement between Turkmenistan and China for a technical and economic partnership was signed as well.⁵¹⁸

The large loans were crucial for Turkmenistan’s energy sector, which did not have sufficient financial sources of its own for such large-scale projects. However, it also meant that by providing the loans, China gained control over critical natural resources in Turkmenistan. This was so important for China that the CNPC obtained sizeable financial support in the form of a USD 2.5 billion loan from the China Development Bank for the construction of the TCGP.⁵¹⁹

Berdimuhamedow soon started to support China on the political level. He gave Hu Jintao Turkmenistan’s highest award, the Order of Saparmurat Turkmenbashi the Great. Moreover, he confirmed Turkmenistan’s support for the One China policy with regard to Taiwan’s status.⁵²⁰ On the other hand, in March 2008, Berdimuhamedow and Baymuhammet Myradow, the CEO of Turkmenistan’s State Agency for the Management of the Hydrocarbon Resources, emphasized that Turkmenistan would pursue a pragmatic energy policy aimed at a diversity of export possibilities. They both considered the construction of the TCGP as only the first step in this strategy.⁵²¹ However, although the gas export route to China became a reality, all other alternative routes are still in the category of pipe dreams.

Lines C and D of the Turkmenistan–China Gas Pipeline

Plans to build a third line of the gas pipeline to China already appeared in 2011.⁵²² It was estimated at the time that this Line C could be commis-

518 “Turkmenistan, China to Expand Gas Sector Cooperation,” *Interfax*, August 29, 2008.

519 “CNPC Seeks Loans to Fund Central Asia-China Gas Pipeline Construction,” *Xinhua News Agency*, July 23, 2008.

520 “Turkmenistan Backs One China Policy,” *Turkmen TV Altyn Asyr*, August 29, 2008.

521 “Turkmenistan Committed to Diverse Gas Export Routes – President,” *Turkmen TV Altyn Asyr*, March 17, 2008.

522 “Uzbekistan, China Ink Agreement on Third Line of Turkmenistan-China Gas Pipeline,” *Interfax*, April 21, 2011.

sioned by 2013. Its construction was aimed at boosting the capacity of the Turkmenistan–China Gas Pipeline to 55 bcm per year by 2016. Line C alone was expected to deliver 25 bcm per year.⁵²³ The first two lines were a significant breakthrough in freeing up the Russia-dominated natural gas markets of Central Asia. However, the construction of Line C signaled a tipping point where China became the most important economic player in the Central Asian ESC and its principal energy importer. Had the line not been built, there would have been a balance among the region’s leading energy import partners. However, its construction set the stage for China to create a new monopsony over Turkmenistan’s and Uzbekistan’s natural gas exports.⁵²⁴

The agreement between Turkmenistan and China to build Line C was reached in the beginning of 2011. Berdimuhamedow went on a state visit to China on November 22–25, 2010 to discuss the project. In a joint statement with Hu Jintao, the two presidents expressed “willingness to take effective measures to ensure the security of significant oil and gas projects of the two countries, such as the Turkmenistan–China Gas Pipeline.” This statement reconfirmed the determination of both parties to create a long-term, stable strategic partnership in energy. They agreed to increase the volume of Turkmenistan’s supplies from 40 bcm annually to 65 bcm. This increase would not be possible without adding a third or even a fourth line to the newly built TCGP system. Moreover, they affirmed that both parties were interested in further cooperation in trade, investment, transport, communications, chemicals, textiles, agriculture, medicine, and high technology.⁵²⁵ This indicates that China regarded natural gas as only the spearhead of a general economic expansion into Turkmenistan.

China and Uzbekistan signed an agreement for the construction of the third branch of the gas pipeline during President Karimov’s state visit to China on April 19–20, 2011. The cost of this branch amounted to USD 2.2 billion, to be financed with loans from the China Development Bank and direct investment from the CNPC. The contractors were the China Petroleum Pipeline Bureau, China Petroleum Engineering and Construction Corporation, and Uzbekneftegaz. In June 2011, the CNPC

523 “China to Get More Central Asian Gas,” *Voice Of The Islamic Republic Of Iran*, March 10, 2011.

524 Lee, “Opportunities and Risks,” 330–339.

525 “Ashgabat, Beijing Stand for Ensuring Security of Turkmenistan-China Gas Pipeline,” *Tribune Business News*, November 25, 2011.

and Uzbekneftegaz signed a framework agreement to supply 10 bcm a year to China through the Turkmenistan–China Gas Pipeline.⁵²⁶

The operator of a portion of Line C on Uzbekistan’s territory is Asia Trans Gas, as is the case with the two previous lines.⁵²⁷ KazMunayGaz and the CNPC signed an agreement for the design, financing, and construction of the third line on October 4, 2011. Uzbekneftegaz and the CNPC had signed a similar deal earlier, on September 21, 2011.⁵²⁸ The operator of the line on Kazakhstan’s territory is the Asia Gas Pipeline Limited Liability Partnership. That company was created on February 15, 2008 based on an agreement between Kazakhstan and China for the construction and operation of the Kazakhstan–China Gas Pipeline. The Asia Gas Pipeline LLP is a joint venture on an equal share basis between KazTransGaz JSC and the Trans-Asia Gas Pipeline Company Limited.⁵²⁹ A committee was also established in connection with the construction of Line C of the TCGP to coordinate the “Turkmenistan–Uzbekistan–Kazakhstan–China Gas Pipeline.” This body was intended to coordinate and prioritize the activities of the actors involved.⁵³⁰

Turkmenistan also began to be more active in another one of China’s multilateral instruments in Central Asia: the Shanghai Cooperation Organization. Berdimuhamedow attended the SCO Summit in Beijing on June 7, 2012. There he met the head of the CNPC, Jian Jiemin. They primarily discussed the progress of the construction of Line C.⁵³¹ As Line C was being built, the output of the Turkmenistan–China Gas Pipeline was also expanded by two projects that started operations in 2012 and 2013. The first of these was the Hanan branch of the TCGP in Kazakhstan, which runs 1,164 kilometers from Aktyubinsk to Chimkent where it joins the main pipeline. This Aktzubinsk–Chimkent Line has a capacity of 6 bcm per year. The Asia Gas Pipeline LLP oversaw the project. The Hanan branch’s primary purpose is to supply gas to Kazakhstan’s domestic consumers in the west of the country. However, it can also be reversed

526 “Uzbekistan, China Ink Agreement on Third Line of Turkmenistan-China Gas Pipeline,” Interfax, April 21, 2011.

527 “Turkmenistan-China Gas Pipeline to Reach Throughput Capacity of 55 BCM by 2016,” Interfax, December 16, 2011.

528 “CNPC, Kazmunaigaz to Build Line C of Kazakhstan-China Gas Pipeline,” *Times of Central Asia*, October 4, 2011.

529 “Asia Gas Pipeline – Project Structure,” Asia Gas Pipeline, www.agp.com.kz/?page_id=1313.

530 “Ashgabat Hosts Joint Meeting on Turkmenistan-China Gas Pipeline,” Tribune Business News, September 7, 2011.

531 “Turkmen President, Head of Chinese Gas Giant Discuss Energy Cooperation,” Turkmen TV Altyn Asyr, June 7, 2012.

to supply China. The second project was the Uzbekistan–China Gas Pipeline, which runs from gas fields in Uzbekistan to the main TCGP. It has a capacity of 25 bcm yearly. The CNPC constructed this pipeline in collaboration with Uzbekneftegaz.⁵³² The Uzbekneftegaz branch is more focused on exporting energy to China than the Hanan branch.⁵³³

Line C, the third branch of the TCGP, was finally commissioned on May 31, 2014. Its total length is 1,830 kilometers and its capacity is 25 bcm per year. The CNPC claimed that China would receive 10 bcm of natural gas from Turkmenistan, 10 bcm from Uzbekistan and 5 bcm from Kazakhstan through the new pipeline. Uzbekistan gradually increased its supplies to China from 6 bcm in 2013 to 10 bcm in 2015.⁵³⁴ The newly built pipeline starts in Gedaim on the border between Turkmenistan and Uzbekistan and enters China at Horgos. From there, it continues on as the third West–East Gas Pipeline.⁵³⁵

The construction of Line C decisively turned the energy initiatives in the ESC of Central Asia to China’s advantage. It shows that China can successfully negotiate complex energy deals with its Central Asian partners and that it can turn them into reality in a short period of time. This ability is something Russia has always been unable and unwilling to do. China also skillfully used the economic crisis of 2009, which hit Russia’s economy hard and more importantly, depressed European demand for hydrocarbon imports from the east.

China created a system of dependence that makes the Central Asian hydrocarbon exporters tied to China’s market, and thereby strengthened its own energy security. The fact that this process was accompanied by a generous “loans for oil” policy on China’s side had two consequences. First, the hydrocarbon infrastructure was mainly constructed with China’s financial resources and thus confirmed Beijing’s indirect control of the region’s energy resources. Control of material resources is the essence of the realist paradigm, and of China’s energy strategy as well. Second, by providing the loans, China strengthened the dependence of Central Asian ESC on its largesse. The Central Asian state actors are now dependent on China not only as a monopsonist consumer of their hydrocarbon

532 “Central Asia-China Gas Pipeline Capacity 55 BCM Per Year by 2015,” Interfax, August 31, 2011.

533 “Trans-Asia Gas Begins Welding Spur of Central Asia-China Gas Pipeline,” Interfax, September 8, 2011.

534 “Third Branch of Central Asia-Centre Gas Pipeline,” *12news.uz*, June 2, 2014.

535 “Line C of the Central Asia-China Gas Pipeline Becomes Operational,” CNPC, June 3, 2014, www.cnpc.com.cn/en/nr2014/201406/16f4f5d0b0414501afe67fedab39286a.shtml.

exports, but also as a critical financial lender. The situation may soon turn into political dependence as well.

The route proposed for Line D of the Turkmenistan–China Gas Pipeline, from Turkmenistan through Tajikistan and Kyrgyzstan to China, validates the idea that the TCGP has significant geostrategic importance for China. If Line D is commissioned, all the Central Asian states' economic interests will be tied up with those of China. Beijing would further cement its rising power over the ESC of Central Asia. The commissioning of Line D would represent the point where China would push Russia out of the region and assume total hegemony, which would be of an economic character at first but would soon move into the political sphere as well.

China's National Development and Reform Commission approved a pre-feasibility study for the fourth branch in June 2013.⁵³⁶ It planned to complete the construction of Lines A, B, C and D by the end of the Five-Year Plan period of 2016–2020, but that was not the case with Line D.⁵³⁷ The US-supported Central Asia-South Asia (CASA)-1000 project for transmission of electrical power can be considered a predecessor to the construction of Line D. The idea for this project emerged in 2005. The principal goal was to supply Kyrgyzstan's and Tajikistan's hydroelectric power to Afghanistan and Pakistan.⁵³⁸ The US wanted to stabilize the region by supporting a mutually beneficial economic project that would create positive regional partnerships.

Plans for Line D had already appeared before Line A was commissioned in 2009. Kyrgyzstan's President Kurmanbek Bakiyev attempted to include his country in the TCGP project during a meeting with Hu Jintao on August 15, 2007. He proposed that part of the pipeline should traverse Kyrgyzstan's territory.⁵³⁹ Kyrgyzstan's officials started to promote the possibility of building one of the branches of the TCGP through their territory in 2009. According to the Kyrgyz, building another branch of the pipeline from Turkmenistan through Uzbekistan and Kyrgyzstan to China would facilitate and improve bilateral relations between

536 "China And Tajikistan Plan Construction of Fourth Link of Central Asia-China Gas Pipeline During Year," Albawaba, March 11, 2014.

537 "CNPC Trans-Asia Gas Pipeline Company Limited Signs Agreement with Tajiktransgaz on Establishing a Gas Pipeline Company," Albawaba, March 11, 2014.

538 "Afghan Woes Risk Regional Energy Plan," Oxford Research Daily Brief Service, October 19, 2015.

539 "Kyrgyzstan Wants China to Use Its Territory as Transit Point for Turkmen Gas," Interfax, August 15, 2007.

Kyrgyzstan and Uzbekistan, which were not ideal because of border tensions and occasional ethnic clashes.⁵⁴⁰

China's next president, Xi Jinping, undertook a state visit to Kyrgyzstan on September 11, 2013. On that occasion, Kyrgyzstan's Minister of the Energy Industry, Osmonbek Artykbaev, and the Chairman of China's State Committee for Development and Reforms, Xiu Shaoshi, signed a loan agreement to fund cooperation in the construction and operation of the Kyrgyzstan–China Gas Pipeline.⁵⁴¹ The portion of Line D of the Turkmenistan–China Gas Pipeline on the territory of Kyrgyzstan would run 220 kilometers through the regions of Chon Alay and Alay and then continue on to Kashgar in China.

Kyrgyzstan announced that China's investment in building the pipeline would be very beneficial to Kyrgyzstan. However, no offtake of gas is being planned for Kyrgyzstan.⁵⁴² On December 16, 2015, Kyrgyzstan and China signed an agreement for the construction of Kyrgyzstan's section of the Turkmenistan–China Gas Pipeline Line D. China's Prime Minister Li Keqiang and his Kyrgyz counterpart Temir Sariyev were both present. Kyrgyzstan's section will be 215 kilometers long with an annual capacity of 30 bcm.⁵⁴³

The construction of Line D of the TCGP was not only supported by Kyrgyzstan but also by the other transit country, Tajikistan. The CNPC's subsidiary Trans-Asia Gas Pipeline Company signed an agreement with Tajiktransgas⁵⁴⁴ for the creation of a joint venture that would manage construction and maintenance of Line D.⁵⁴⁵ Tajikistan would only be a transit state in this project and would be prohibited from importing Turkmenistan's natural gas for its own use.⁵⁴⁶ China's government signed intergovernmental agreements for this construction with its counterparts

540 "Construction of Turkmenistan-China Gas Pipeline Via Kyrgyzstan to Bring Tashkent and Bishkek Together," *Tribune Business News*, May 4, 2012.

541 "Kyrgyzstan, China Sign Agreement on Construction of Central Asia-China Gas Pipeline Through Kyrgyzstan," AKI Press News Agency, September 11, 2013.

542 "Kyrgyzstan to Benefit from Central Asia-China Gas Pipeline Project," AKI Press News Agency, September 11, 2011.

543 "The Kyrgyz Government and CNPC Subsidiary Sign Agreement to Build the Kyrgyzstan Section of Line D of the Central Asia-China Gas Pipeline," Albawaba, December 19, 2015.

544 The Government of Tajikistan created the Tajiktransgas joint-stock company in 2009. It is primarily responsible for the gas supply in Tajikistan. The government controls one hundred percent of its shares.

545 "China And Tajikistan Plan Construction."

546 "OAO Tadjiktransgaz," Informatsionno-poznavatelnyi portal o Tadjikistane, www.tajik-gateway.org/wp/?page_id=26489.

in Uzbekistan, Tajikistan, and Kyrgyzstan during Xi Jinping's state visits to Central Asia's capitals in September 2013.⁵⁴⁷

The ceremony marking the start of the construction of Line D in Tajikistan took place in the Rudaki district near Dushanbe on September 15, 2014. At the event, the President of Tajikistan, Emomali Rakhmon, said: "We are witnessing an event of enormous political, economic, historical importance – the ceremony of the start of the construction of the Tajik section of the Central Asia–China Trans-Asia Gas Pipeline."⁵⁴⁸ Line D will be the shortest of the four lines of the pipeline system from Central Asia to China. It is approximately 1,000 kilometers shorter than its predecessors. The construction in Tajikistan was planned to continue for three years. The pipeline will travel under water in 24 places, and 76 tunnels will have to be carved out during its construction. The cost of Tajikistan's portion of the project will be USD 3.2 billion according to 2014 estimates.⁵⁴⁹ Moreover, Tajikistan's gas reserves may soon be the ultimate prize. There are some estimates that it possesses 1.14 tcm of natural gas reserves which would give Tajikistan the second-largest reserves of natural gas in Central Asia. The CNPC started to explore Tajikistan's oil and gas deposits in 2013.

The CNPC and Uzbekneftegaz agreed to give priority to the construction of Line D in 2014 along with the construction of a natural gas-consuming chemical plant. The CNPC stated that when fully functioning, the four lines of the TCGP together would transport 85 bcm of natural gas per year to China.⁵⁵⁰ Uzbekistan's portion of Line D would be approximately 200 kilometers long and would connect existing pipeline infrastructure in Uzbekistan with Tajikistan. Its cost was estimated at USD 800 million.⁵⁵¹ Its construction would be the second most expensive oil and gas project in Uzbekistan after Lukoil's USD 2.6 billion natural gas processing plant at the Kadyr gas field near Bukhara.⁵⁵² There is

547 "CNPC Subsidiary Sign Agreement with Tajiktransgaz for Construction of D Branch of Central Asia-China Gas Pipeline," AKI Press News Agency, March 11, 2014.

548 "Presidents of China, Tajikistan Inaugurate Start of Construction of Tajik Section of Central Asia-China Gas Pipeline," AKI Press News Agency, September 15, 2014.

549 Ibid.

550 "Tashkent-Beijing Alliance Will Strengthen," Oxford Research Daily Brief Service, September 24, 2014.

551 Demir Azizov, "Date of Construction of Uzbek Section of Gas Pipeline to China Announced," Trend.az, February 12, 2015.

552 "Uzbekistan Economy: State Energy Companies Plan Infrastructure," EIU Viewswire, April 10, 2015.

also an option to carry Line D through Afghanistan, but it has not materialized yet.⁵⁵³

In 2015, Uzbekistan postponed the construction of Line D on its territory to 2019. The reason for the postponement was of a technical nature, according to Uzbekistan's officials.⁵⁵⁴ Moreover, Kyrgyzstan also suspended the construction of Line D on its territory in May 2016,⁵⁵⁵ but it says that as soon as China clarifies the costs of the project, work can continue.⁵⁵⁶ The construction of some segments of Line D started in 2014. Other parts of it were still under construction as of 2022.

Under the agreement between the CNPC and Turkmengaz, Turkmenistan is obliged to send 65 bcm annually to China by late 2021.⁵⁵⁷ However, this obligation may be affected by a decrease in China's demand for natural gas due to an economic slowdown and other factors. The increase in China's demand averaged 16 percent between 2010 and 2013. However, it declined to 6 percent in 2014. This development was caused by high city-gate prices charged to the gas distributors in China and by environmental policies focused on cutting emissions from coal-fired power stations rather than promoting a switch to natural gas as an alternative fuel.

Another critical factor is price competition with LNG sold to China on spot and long-term contracts. The price of Central Asian gas is indexed to oil and includes high fixed transportation tariffs to and across China.⁵⁵⁸ This notwithstanding, it still seems at present that the construction of the TCGP is of strategic importance for China and it is not being constructed solely for its ability to create profits. If China's demand for natural gas falters, it would significantly alter China's policy towards Turkmenistan and especially its position on the construction of Line D.

The plans for the Turkmenistan–China Gas Pipeline and its implementation have been decisive in shaping Turkmenistan's natural gas infrastructure since 2006. The head of Turkmengaz, Ashirguli Begliyev, stated at the annual Oil and Gas of Turkmenistan Conference in 2015

553 "China Seeking to Build Gas Pipeline from Turkmenistan to China Through Tajikistan and Afghanistan," Bakhtar News Agency, July 7, 2012.

554 "Uzbekistan Postpones Construction of Fourth Branch of Central Asia-China Gas Pipeline," Trend News Agency, December 23, 2015.

555 "Construction Of Kyrgyzstan-China Gas Pipeline Postponed for Indefinite Period," Kyrgyzstan News Agency, May 25, 2016.

556 Casey Michel, "Line D of the Central Asia-China Gas Pipeline Delayed," *Diplomat*, June 1, 2016, <https://thediplomat.com/2016/05/line-d-of-the-central-asia-china-gas-pipeline-delayed/>.

557 "Turkmenistan Increases Gas Export to China," Trend News Agency, May 8, 2015.

558 "The New Reality for Central Asian Gas," *Petroleum Economist*, June 20, 2015.

that Turkmenistan would be able to produce 230 bcm per year by 2030 and export 180 bcm. He announced that work on the second and third stage of the Galkynysh gas field was underway and when finished, it would produce 93 bcm annually. According to Begliyev, Turkmengaz is developing more than 30 other gas fields throughout the country. Turkmenistan's production of natural gas reached 66.8 bcm in 2016, of which 40.9 bcm was exported.

Moreover, Begliyev is not only planning the export of natural gas but also a construction of several gas-consuming chemical plants with a total value of USD 30 billion. These projects include the production of synthetic liquid fuels, glycols, polymers, methanol, caustic soda, sodium sulfate, ammonium sulfate, iodine, urea-formaldehyde, and melamine-formaldehyde resins.⁵⁵⁹ Above all else, Ashgabat continuously emphasizes its intention to diversify its energy exports, as its officials did at the Oil and Gas of Turkmenistan Conference that took place in 2013 in Dubai.⁵⁶⁰

To have more room for maneuvering, Turkmenistan started the construction of the East–West Interconnector on May 31, 2010. The pipeline was commissioned on December 29, 2015 and runs from the Mary province in the east of Turkmenistan to the Balkan province in the west.⁵⁶¹ The pipeline's length is 773 kilometers and its capacity is 30 bcm per year. The construction costs were USD 2.5 billion.⁵⁶² The primary purpose of the pipeline is strategic, to broaden Turkmenistan's choice of gas customers. It can be used to support the country's exports to China from its offshore deposits in the Caspian Sea or to divert gas from its eastern onshore deposits to the West.

The CNPC has been active in Turkmenistan since 2002.⁵⁶³ Based on preliminary agreements between China and Turkmenistan, the natural gas for the TCGP was to be supplied from the Samandepe and Altyn Asyr gas deposits as well as from newly developed gas fields.⁵⁶⁴ The two deposits mentioned above are part of the PSA for the development of

559 "Turkmenistan Plans to Increase Gas Exports," Trend News Agency, November 18, 2015.

560 "V Dubae proshla Mezhdunarodnaya konferentsiya Neft i gaz Turkmenistana – 2013," *Turkmenistan.ru*, March 15, 2013.

561 "Turkmeniya nachala stroit gazoprovod k Kaspiyu," *Turkmenistan.ru*, May 31, 2010.

562 "Major Events in Caspian Countries' Oil and Gas Industry," Trend News Agency, December 29, 2015.

563 "CNPC in Turkmenistan," CNPC, www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.

564 "Gurbanguly Berdimukhamedov i Khu Tszintao vmeste otkroyut gazoprovod Turkmenistan – Kitai," *Turkmenistan.ru*, September 23, 2009.

the Bagtyyarlyk-Amu Darya Natural Gas Project.⁵⁶⁵ This project consists of two blocks, A and B, and is the CNPC's largest gas cooperation project outside of China.⁵⁶⁶ The first phase of the project covers an area of 983 square kilometers. The integrated project includes exploration of new blocks, prospecting and exploration of new fields, rejuvenation and adjustment of mature fields, and construction of a processing plant and its supporting facilities.⁵⁶⁷

The CNPC Amu Darya River Company is the exploration and production operator and the processing contractor in the Bagtyyarlyk PSA contract area. It constructed Gas Processing Plants No. 1 and No. 2 in Block A and Block B respectively.⁵⁶⁸ The Gas Processing Plant No. 1 became operational on December 14, 2009 and started to supply natural gas to China. The CNPC Amu Darya began the construction of the Gas Processing Plant No. 2 on the right bank of the Amu Darya river in December 2011. It was commissioned on May 7, 2014.⁵⁶⁹ The ceremony was attended by President Berdimuhamedow and representatives of the CNPC, the contractor in the Bagtyyarlyk area. The two plants have a combined capacity for an output of 15 bcm per year.⁵⁷⁰ These successful projects boosted Turkmenistan's export capabilities and confirmed China's dominant position in the country's upstream oil and gas industry.

Turkmenistan and China hoped to increase gas exports even further by developing the sizeable Galkynysh gas field. In September 2013, they celebrated the commissioning of the first phase of that field in the presence of both of their presidents. The production capacity of this complex is 30 bcm annually.⁵⁷¹ The CNPC launched the second phase of development in the Galkynysh gas field at the beginning of 2013. At present, the Galkynysh gas field and the nearby Yashlar gas field, are

565 "Work Continues on Schedule in Turkmenistan-China Gas Pipeline," Trend News Agency, January 7, 2009.

566 "China Receives 330 Mln Cubic Meters of Gas from Turkmen Wells," Interfax, February 24, 2010.

567 "Amu Darya Natural Gas Project Phase I," CNPC, www.cnpc.com.cn/en/Project/Amu_Darya_I.shtml.

568 "No. 2 Gas Processing Plant of Amu Darya Project Becomes Operational," CNPC, www.cnpc.com.cn/en/No2GasProcessingPlantofAmu_DaryaProject/Features.shtml.

569 "Turkmenistan Finds New Gas Field on Right Bank of The Amu Darya River," Interfax, March 11, 2011.

570 "No. 2 Gas Processing Plant of Amu Darya Project Becomes Operational and the EPC Project on the Galkynysh Gas Field Starts," CNPC, May 5, 2014, www.cnpc.com.cn/en/nr2014/201405/c491b93a6d3146ec94b5a2a26ab05dbc.shtml.

571 "Glavy Turkmenistana i KNR prinyali uchastie v tseremonii otkrytiya pervoi ocheredi gazovogo mestorozhdeniya Galkynysh," *Turkmenistan.ru*, September 5, 2013.

estimated to hold 26.2 tcm of natural gas. The second phase of the project is expected to be completed in 2021. Its processing capacity will be around 30 bcm yearly.⁵⁷²

Both the first and second phases of the Galkynysh development are being paid for by loans from the China State Bank.⁵⁷³ In that way, China is seeking to gain at least indirect control over this critical gas deposit. Turkmengaz signed service contracts for the first phase of the development in the Galkynysh gas field worth a total of USD 9.7 billion in December 2009. The contractors are Gulf Oil and Gas FZE, Petrofac International LLC, the NPC Chuanging Drilling Engineering Company, and a consortium of LG International and Hyundai Engineering.⁵⁷⁴ Petrofac provided engineering, procurement, construction, and commissioning services for the gas processing plant and associated infrastructure at the Galkynysh gas field between 2010 and 2013. Its principal partner in that USD 3.4 billion project was Turkmengaz. Galkynysh was Petrofac's largest project up to that date.⁵⁷⁵ Turkmengaz likely chose to employ less experienced operators from the Persian Gulf because it did not wish to give Western or Russian operators access to this strategic asset.⁵⁷⁶

It should be noted that neither China nor Turkmenistan was able to provide all the necessary equipment for the construction of the TCGP and other gas infrastructure. The metallic components were usually imported from the former Soviet Union. Between 2008 and 2009, the Russian United Metallurgical Company delivered 260,000 metric tons of pipes with a diameter of 1,067 mm for Line A and Line B. It was also tasked with furnishing supplies for Line C. It delivered 125,000 tons of 1,218 mm pipe.⁵⁷⁷ An additional 200,000 tons of 1,218 mm pipe for the Line C were supplied by the Chelyabinsk Tube Rolling Plant in 2013.⁵⁷⁸ Ukraine's Sumy Frunze NPO has been providing processing heaters,

572 Maslenikov, "Diverzifikatsiya gazovogo eksporta Turkmenistana."

573 "Will China Get All Turkmen Gas?" Trend News Agency, April 20, 2015, <https://www.azernews.az/analysis/80656.html>.

574 "China Implements Several Major Projects in Turkmenistan," Tribune Business News, August 1, 2012.

575 "Galkynysh Gas Field Processing Facility, UAE," Petrofac, www.petrofac.com/en-gb/regions/cis/projects/galkynysh-gas-field-processing-facility.

576 "CNPC and Turkmengaz Ink an Agreement on Boosting Natural Gas Shipments to China and a Gas Field EPC Contract," CNPC, September 6, 2013, www.cnpc.com.cn/en/nr2013/201309/1b81b6a8106947d4a1c55b6699a9d03d.shtml.

577 "OMK to Supply Large-Diameter Pipe for Central Asia-China Gas Pipeline," Interfax, January 30, 2013.

578 "ChelPipe to Supply 200.000 Tonnes of Pipe for Central Asia-China Gas Pipeline," Interfax, February 7, 2013.

flare installations, air coolers, and other equipment for the Bagtyyarlyk gas and oil complex in Turkmenistan since 2013. Its principal partner in Turkmenistan is the Petro Gas LLP Corporation from the United Kingdom.⁵⁷⁹

The high technology for the pipeline was supplied mostly by Western enterprises. Rolls-Royce provided the gas turbine-driven pipeline compressors on all three lines of the TCGP.⁵⁸⁰ The Czech Republic's Rimera Group supplied equipment for the construction of compressor stations on the first two lines of the pipeline. It signed a contract with the China Petroleum Engineering and Construction Corporation, a subsidiary of the CNPC.⁵⁸¹ Honeywell supplied its Experion Process Knowledge System and Safety Manager technology to all three lines of the TCGP.⁵⁸² The involvement of these Western companies shows that neither China nor Turkmenistan is in a position to implement such massive infrastructure projects without at least some technical cooperation with the West.

This subchapter concludes that Turkmenistan's energy policy in the Central Asian ESC is in no small degree linked to its other external and internal policies.⁵⁸³ That means that the boundaries between internal, external, and energy policies are blurry and difficult to distinguish.⁵⁸⁴ However, the *raison d'être* of Turkmenistan's external policy is obvious, and the regime's behavior is quite predictable when viewed from the realist point of view. The goal is the preservation of the regime, consolidation of its power, and the prosperity of its membership, as is the case in most if not all authoritarian regimes.

The construction of the three lines of the Turkmenistan–China Gas Pipeline heralded tremendous success for Turkmenistan's energy policy. The preliminary agreement was concluded with China in 2006, and in

579 "Ukraine Begins to Supply Equipment for Base Field of Turkmenistan-China Gas Pipeline," Cihan News Agency, September 25, 2014, <https://www.thefreelibrary.com/Ukraine+begins+to+supply+equipment+for+base+field+of+Turkmen-China...-a0383752814>.

580 "Rolls-Royce to Supply Compressor Units for Central Asia-China Gas Pipeline," Interfax, September 11, 2011.

581 "Rimera to Deliver Equipment Worth 5.27 USD for Turkmenistan-China Gas Pipeline," AKI Press News Agency, March 11, 2014.

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only six years natural gas from Turkmenistan was flowing into Hong Kong.⁵⁸⁵ More than 140 bcm of natural gas in total were transported to China via Lines A, B, and C between late 2009 and March 2016.⁵⁸⁶ China is now Turkmenistan's largest trading partner.⁵⁸⁷ It seems that the Beijing-Ashgabat axis is gradually developing from energy-based cooperation into a political partnership. Turkmengaz estimates that the share of natural gas in China's energy mix will rise from 4 percent in 2015 to 11 percent by 2040. That should make Turkmenistan extremely important to China's economy and its energy industry. Turkmengaz also estimates that rising gas demand in India and other states will significantly improve Turkmenistan's standing in the world.⁵⁸⁸ On the other hand, in one decade Russia lost a beneficial energy partner that had been connected to and dependent on its energy infrastructure since the 1950s. The massive increase in Turkmenistan's exports of natural gas is shown in Table 19. The slump in exports caused by the switch from Russia to China as key export partner in 2009–10 is clearly visible in Table 19.

Russia tried to come up with a counteroffer to China's in the form of the Caspian Coastal Gas Pipeline. However, that project failed for three principal reasons. First, Turkmenistan is still very sensitive about Russia's neo-imperial ambitions because of its experience with the Soviet Union. Ashgabat was wary of Russia using its gas to play geostrategic games at the same time when representatives of Gazprom and the government in Moscow mocked their Central Asian suppliers. Second, Russia was not a reliable energy partner for Turkmenistan because of repeated clashes over pricing of energy exports. This problem was compounded by the global financial crisis when European demand significantly decreased. Third, Russia was simply unable to compete with China's economic and financial might when Beijing decided to "march westward." These issues explain Turkmenistan's emphasis on strategic security over economic logic and confirm that its energy policy in the Central Asian ESC is mainly strategic-oriented. Turkmenistan's strategic approach to its energy policy was exemplified by its enthusiastic embrace of the Turkmenistan–China Gas Pipeline.

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Table 19: Export of Turkmenistan's natural gas (1998–2017)

Year	Export Value (bil. USD)	Percent of Total Exports
1998	0.000	0
1999	0.424	47
2000	0.869	64
2001	1.590	80
2002	1.770	79
2003	1.810	77
2004	2.330	73
2005	3.120	72
2006	3.570	73
2007	4.240	74
2008	5.520	67
2009	0.768	39
2010	0.898	40
2011	4.770	72
2012	7.630	81
2013	8.070	78
2014	8.600	81
2015	7.170	80
2016	5.260	74
2017	5.920	83

Source: UNCTAD – United Nations Conference on Trade and Development

Analysis of Indicators

This chapter is a case study of Turkmenistan's energy policy in the ESC of Central Asia. Its goal is to search for indicators of the elements of a strategic-oriented energy policy, as set by a theoretical model, with regard to the natural gas sector. Consequently, it attempts to find out whether Turkmenistan's energy policy in Central Asian ESC was strategic-oriented or market-oriented. According to the model, there are eight elements of a strategic-oriented energy policy: the perception that energy resources are strategically important; the perception that the energy sector is crucial to the state's economy; the perception that state-owned energy actors are

extensions of the state apparatus; a reliance on bilateral relations rather than multilateral relations; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to international relations; the perception that dependence on other states is undesirable; and an emphasis on achieving strategic goals over economic logic. Based on the indicators listed above, the conclusion of this case study is that Turkmenistan's energy policy in the ESC of Central Asia is predominantly strategic-oriented. It must be stressed that Berdimuhamedow's regime is very closed and thus all of Turkmenistan's internal processes are rather untransparent. Almost all details regarding Turkmenistan's agreements in the energy sector are classified. Nonetheless, based on available data, it is possible to arrive at the conclusion that Turkmenistan's energy policy in the Central Asian ESC is strategic-oriented.

Perception that energy resources are strategically important

Based on the accumulated data, Berdimuhamedow's regime perceives Turkmenistan's energy resources and especially its natural gas reserves to be strategically important. There were many occasions under Berdimuhamedow's rule when his regime's desire to take or maintain control of energy resources and their distribution networks manifested itself. There were several cases of friction between the Ashgabat government and the Italian company Eni, the Dutch company Larmag, and the Argentinian company Bidas. Furthermore, the desire for control is especially visible in the governmental policy that limits the number of onshore PSAs and the regime's overall lack of trust in Western energy operators.

Perception that the energy sector is crucial to the state's economy

Turkmenistan considers its energy sector to be the strategically important backbone of its economy and Berdimuhamedow's regime. The case study shows that Turkmenistan has tightly controlled the energy sector since the fall of the Soviet Union. The energy sector's internal significance lies not only in its support for economic growth in Turkmenistan, but also in its ability to win popular support for Berdimuhamedow's regime by supplying cheap energy to the country's inhabitants.

Perception that state-owned energy actors are extensions of the state apparatus

It was shown that at present Berdimuhmedow's regime either directly or indirectly dominates the entire energy sector of Turkmenistan. That means that Berdimuhamedow's regime has been able to increase its power by transforming a significant portion of the country's national power into state power. The state's grip on the energy sector is strengthened by restrictions on foreign investment and a deliberate diversification of the foreign partners that are allowed into the energy sector. Turkmenistan perceives itself as one of the most important energy players in Eurasia. Based on the findings of the case study, it is clear that Turkmenistan's political elite consider the State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan, and the state-owned company Turkmengaz as tools for achieving the internal and external goals of the state.

Reliance on bilateral relations

Turkmenistan's reliance on bilateral relations in its energy policy is most visible in its dealings with actual or potential energy partners. Its relationships with both Russia and China are predominantly bilateral. The same is true of its relations with would-be energy importers such as India, Pakistan, and Azerbaijan. The evidence suggests that Turkmenistan gives preference to long-term bilateral deals with energy partners, but is also willing to cut off those relationships if that is more to its benefit. The case study illustrates this kind of behavior with several cases in which Turkmenistan utilized its "tap" energy weapon in its relations with Russia.

Zero-sum approach

The case study shows that Berdimuhamedow's regime has repeatedly attempted to maintain and even enhance Turkmenistan's international standing. Because of its zero-sum approach to policy making, Turkmenistan's political elite were willing to make a U-turn in their policy on China because they perceived Russia to be an irresponsible partner. Before 2008, Russia was reluctant to increase the price it paid Turkmenistan for its gas and exercised a monopsony over its gas production. The tipping

point at which Ashgabat shifted its allegiance to China was the decline in Europe's demand for its products after the outbreak of the global financial crisis and lower demand from Russia in particular.

The process of constructing a gas pipeline to China started earlier than the 1998 financial crisis, but perhaps if Russia had behaved differently, it could have maintained a stronger trade position with Turkmenistan than it did. In the short- and mid-term periods, China now seems like a more responsible and reliable partner. This is because Turkmenistan now has a higher level of interdependence with China than it does with Russia. Beijing pays a fair price according to Ashgabat, and it plans not only to maintain its demand but also significantly increase it in the decades to come. Notwithstanding this, Turkmenistan's ruling elite seem to understand that China may one day become as problematic a partner as Russia. China could also meddle in the internal politics of Turkmenistan and thus endanger Berdimuhamedow's regime and its clan-based backers. Hence, the only way for Turkmenistan to genuinely sustain its energy security is to broaden its room for maneuvering by diversifying its export routes. Therefore, the country wants to move forward with the Trans-Caspian Gas Pipeline project and the TAPI Gas Pipeline to India and Pakistan.

Perception that the energy sector is a tool for achieving the state's goals

Based on both strategic documents and commercial practice, this case study shows that Berdimuhamedow's regime considers the energy sector of Turkmenistan to be a tool of internal and external policy. The political elite perceive energy policy to be a tool for achieving its three overarching goals: self-preservation, power consolidation, and the prosperity of the members of Berdimuhamedow's regime. Moreover, energy policy and the energy sector are even more crucial to attaining these goals than Turkmenistan's foreign policy in general because Turkmenistan does not possess any other significant assets. Its energy potential alone makes it one of the key state actors in the ESC of Central Asia. Robert Gilpin has concluded that the control of natural resources is the core of the realist paradigm. That means that a country's military, economic, and political power is dependent on its control of energy resources. If it lacks energy resources, its power is weak, if it has any at all. Hence, energy policy is the main component of Turkmenistan's internal and external policies.

The ruling elite of Turkmenistan are well aware of the importance of energy resources, and thus they prioritize energy policy above external policy. Based on this, it can also be concluded that Turkmenistan rewards or punishes certain behaviors of other states. There are also clear examples of attempts to develop energy projects regardless of commercial logic.

Perception that dependence on other countries is undesirable

China teamed up with Russia after 9/11 in an attempt to squeeze the United States out of the Central Asian regional energy security complex. However, when the US left the region after the termination of the mission of the International Security Assistance Force in Afghanistan in 2014, China was unwilling to allow Russia to return and restore its sphere of influence. Russia had already proved unable to maintain its zone of privilege in Central Asia. Turkmenistan joined in and accelerated this development, which meant the gradual weakening of Russia's influence in the ESC of Central Asia and the rise of China's. Beijing's approach, however, goes beyond controlling natural gas supplies. It started by penetrating Central Asia with large infrastructure projects that involve almost every regional actor, then began to gain control over vital natural resources in the region, and finally started to invest in industries and infrastructure other than energy.

The only way for Turkmenistan out of greater dependence on China is to pursue alternative export routes for its natural gas – above all the TAPI Gas Pipeline and the Trans-Caspian Gas Pipeline. However, it would be almost impossible to build those pipelines without the support of Western corporate interests and their investment. We have defined energy security as an adequate supply of energy resources for an adequate price. The only way for Turkmenistan to strengthen its energy security and obtain an adequate price for its energy exports is to diversify its energy exports as much as possible. This approach would enable it to have a better negotiating position vis-à-vis all of its trading partners and thus more room for maneuvering in pricing negotiations. Moreover, it would enable Turkmenistan to adjust the amounts and destinations of its gas exports not only according to demand in particular markets abroad, but also according to political developments. In this sense, a more independent energy policy also means a more independent foreign policy.

Emphasis on strategic goals over economic logic

Turkmenistan's overarching goals are the preservation of the Berdimuhamedow regime, consolidation of its power, and the prosperity of its membership. Of these, the preservation of the ruling regime definitely has priority. The principal tool and source of the power behind Turkmenistan's internal and external policy is its energy sector, especially the hydrocarbon sector. Turkmenistan abruptly switched from cooperating with Russia to cooperating with China – contrary to economic logic but consonant with the regime's interest in self-preservation. Regardless of economic considerations, Turkmenistan is seeking new routes to diversify its energy exports. However, Turkmenistan's political elite understand that its new and growing dependence on China can one day threaten the goal of preservation of Berdimuhamedow's regime as much or more than its former dependence on Russia.

5. Conclusion

Findings of the Research

This book examines the energy security in the Central Asian regional energy security complex (ESC) in the context of the construction of the Turkmenistan–China Gas Pipeline (TCGP). It seeks to answer one overarching research question, which deals with the environment and actors inside the Central Asian ESC. That question is: “What is the predominant approach to energy policy among the states of the regional energy security complex of Central Asia?” I address this research question from the perspective of security studies and the realist paradigm. Based on this approach, I created a model of a strategic-oriented energy policy and applied it to case studies of three key states that are involved in the Central Asian ESC: Russia, China, and Turkmenistan. The construction of this model was the main predicate for classifying the individual states’ policies. The model represents a system of certain elements that identify a particular kind of policy.

The research question seeks to identify the predominant approach to energy policy among the states of the ESC of Central Asia. There are two major behavioral patterns that states of the ESC might display in terms of their energy policy. These are either market-oriented behavior focused on maximization of profit or strategic-oriented behavior focused on maximization of the energy security of particular states inside the ESC. A strategic-oriented energy policy is defined by the following indicators: the perception that energy resources are strategically important; the perception that the energy sector is crucial to the state’s economy; the perception that state-owned energy actors are extensions of the state apparatus; a reliance on bilateral relations in lieu of multilateral arrange-

ments; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to policy making; the perception that dependence on other countries is undesirable; and an emphasis on strategic goals over economic logic.

Perception that energy resources are strategically important

Based on a thorough analysis of the accumulated data, the studies conclude that Putin's regime, the regime of the Communist Party of China, and Berdimuhamedov's regime all perceive energy resources as strategically important. On many occasions, they manifested an intention to take control of energy resources and their distribution networks. That was true of the Yukos and Sibneft affairs in the case of Russia; the Unocal, Nexen, and Slavneft affairs in the case of China; and the Larmag and Bidas affairs in the case of Turkmenistan. Russia is predominantly interested in the security of its energy supplies and the diversification of its energy exports. China is vitally interested in both objectives. Turkmenistan is predominantly interested in diversifying its energy exports.

The perception held by the majority of the states in the ESC of Central Asia that energy resources are strategically important definitely lays the groundwork for international tensions, and even armed conflict. This is best illustrated on the case of the Turkmenistan–China Gas Pipeline. All three actors approached the construction of that pipeline from a strategic orientation. Therefore, I conclude that this element of my model of a strategic-oriented policy is completely met in all three cases, Russia, China, and Turkmenistan.

Perception that the energy sector is crucial to the state's economy

The strategic importance of energy translates into a perception in all three countries that the energy sector is crucial to the state's economy. The study shows that all three countries try to control their respective energy sectors either directly or indirectly because they perceive them to be the backbone of their economies. The internal significance of controlling the energy sector lies not only in its support for economic growth but also in allowing the three highly autocratic regimes to win popular support by subsidizing energy prices and offering supply quotas.

Therefore, I conclude that the energy policies of Russia, Turkmenistan, and China in the ESC of Central Asia have profound impact on the internal politics of those states. The success or failure of their energy policies in the ESC of Central Asia strengthens or endangers the internal political status quo in each country. This element, that the energy sector is perceived as crucial to the state's economy, is completely met in the cases of Russia and Turkmenistan. It is also extremely important for China, but its economy is much more complex than those of Russia and Turkmenistan. Therefore, I consider this element of my model to be only partly met in the case of China.

Perception that state-owned energy actors are extensions of the state apparatus

Putin's regime, the CPC regime, and Berdimuhamedow's regime dominate the energy sectors of their countries, as the evidence adduced in this book shows. The principal vehicles for their dominance are Gazprom and Rosneft in Russia, the CNPC and CNOOC in China, and the State Agency for the Management and Use of Hydrocarbon Resources and Turkmengaz in Turkmenistan. All three political regimes have been able to increase their power by transforming a significant portion of the national power represented by their countries' energy sectors into state power.

The perception that state-owned energy actors are extensions of the state apparatus means that they are governed not by market-oriented policies but strictly by strategic-oriented policies. That is why the political elites of Russia, China, and Turkmenistan consider their country's state-owned energy actors to be tools for executing both the internal and external policies of the state. This element of my model is completely met in all three cases.

Reliance on bilateral relations rather than multilateral arrangements

The case studies show that in all three cases Russia, China, and Turkmenistan rely on bilateral relations in their energy policy. This was illustrated by their use of the "tap" and "transit" weapons against their energy and trade partners. The preference for bilateral deals is most evident in the

case of Russia because of its strong opposition to any multilateral cooperation format in the sphere of energy. The same is true of Turkmenistan, which has the fewest options because of its geographical location, geopolitical position, and self-imposed isolation.

As for China, its entire push into the ESC of Central Asia since 2000 has been based strictly on bilateral dealings. However, its bilateral dealings can be seen in the broader framework of its regional initiatives such as One Belt One Road and more specifically the Turkmenistan–China Gas Pipeline and the Kazakhstan–China Oil Pipeline. Therefore, I conclude that this element of my model is fully met in the cases of Russia and Turkmenistan, but only partly met in the case of China.

Zero-sum approach

The study shows that Russia's, China's and Turkmenistan's political elites behave according to a zero-sum approach to policy making because they interpret any success of their potential competitors as a loss of their own. At the heart of the energy policies of the three states lies control of the material resources that are the basis of their military and economic power. Because they perceive energy policy as a zero-sum game, Russia's political elite were willing to let China enter the Central Asian ESC as a means of preserving Russia's position as Western Europe's predominant energy supplier. China's thrust westward into Central Asia has also been motivated by a zero-sum understanding of energy policy. It fears that if it does not fill the void left by the fall of the Soviet Union, other states will. Based on its zero-sum approach, Turkmenistan's political elite have been willing to make a U-turn towards China in its foreign energy relationships because they perceived Russia as an untrustworthy partner. Therefore, this element of my model is completely met in all three cases.

The construction of the TCGP is the best example of the zero-sum approach to energy policy by all of the states involved, as was shown in all three case studies. The construction of the TCGP strengthened China's position vis-à-vis Turkmenistan and Russia. Turkmenistan strengthened its position vis-à-vis Russia, but its position vis-à-vis China weakened because it is now deeply dependent on China's imports of its natural gas. The construction of the TCGP represented the most unfavorable outcome for Russia because its position weakened with regard to both China and Turkmenistan.

Perception that the energy sector is a tool for achieving the aims of the state

Based on an analysis of strategy documents and commercial practice, the political elites of Russia, China, and Turkmenistan use their energy sectors as a tool of their internal and external policy. They effectively reward or punish certain behavior of other states in the energy sector with the aim of controlling foreign resources or markets. Keeping in mind the conclusion of this book that the strategic-oriented approach prevails in the ESC of Central Asia, it can be argued that Russia, China, and Turkmenistan utilize their energy sector not only to attain their economic goals but also their political aims.

There are also clear examples of attempts to control entire supply chains and markets regardless of commercial logic. This was true of Russia's attempts to monopolize European markets in the West and Asia-Pacific markets in the East. It was also true of China with regard to the Central Asian and Russian markets. As for Turkmenistan, its attempt to diversify its energy export routes has a similar goal. However, in Turkmenistan it is clearly not the same attempt to control an entire supply chain or a foreign market regardless of commercial logic, as is the case in China and Russia. Therefore, this element of my model is fully met with respect to China and Russia and only partly met with respect to Turkmenistan.

Perception that dependence on other countries is undesirable

The research further proves that there is a network of dependence in the sphere of energy among the states of the ESC of Central Asia. In their pursuit of dominance of the ESC of Central Asia, Russia, China, and Turkmenistan make it clear that they all believe that total dependence on other states for supplies and markets is generally undesirable. Russia attempted to exploit its inherited monopsony position with Central Asia's natural gas suppliers, contractually locking in supplies and taking ownership shares in upstream and processing. Thus, it tried to create a system of dependence with the aim of controlling the entire Central Asia market. Arguably, while this situation was advantageous from Russia's point of view, it was undesirable from the point of view of the Central Asian countries. Russia's policy emphasized its strategic goals over economic logic, which confirms that Russia's energy policy in the Central Asian ESC is strategic-oriented.

Nevertheless, China has succeeded in penetrating the ESC of Central Asia economically and partially displacing Russia from the region. It tried to create a system of dependence with the aim of controlling the entire Central Asian market which again, from the point of view of the Central Asian states, is undesirable. China was able to offer sophisticated cooperation packages to each regional state, bundled with generous promises of investment that Russia and the Western states could not match. Turkmenistan accepted gladly and accelerated China's entry into the ESC, which effectively weakened Russia's position in the ESC of Central Asia. The only way out of Turkmenistan's increasing, undesirable dependence on China is for it to pursue alternative export routes – most of all the TAPI Gas Pipeline and the Trans-Caspian Gas Pipeline. A more independent energy policy would allow Turkmenistan to practice a more independent foreign policy. Based on the foregoing analysis, I conclude that Russia, China, and Turkmenistan fully meet this element of my model of strategic-oriented behavior.

Emphasis on strategic goals over economic logic

The strategic approach to energy policy predominates in the three members of the Central Asian ESC compared to the market-oriented approach. The traditional aim of Russia's energy policy in the Central Asian ESC was to ensure its energy security by dominating the energy sector of Central Asia. It attempted to use its own energy potential as one of its crucial foreign policy tools, as has been stated many times in its foreign policy and national security blueprints. It must be stressed that Moscow's principal goal has a genuinely political nature – the preservation of Putin's regime and its position in Russia's internal and external affairs.

The construction of the TCGP, which started in 2007, must also be perceived as a strategic undertaking by China. The construction of the first three lines has certainly fulfilled several of China's strategic goals. It gives China more energy security and thus legitimizes its political regime.

Finally, Turkmenistan's overarching goals are preserving and consolidating the power of the Berdimuhamedow regime and ensuring the prosperity of the members of its ruling elite. The main priority, however, is the preservation of the regime in power. The principal tool and driver of Turkmenistan's internal and external policy is the energy sector, and especially the hydrocarbon sector. Turkmenistan abruptly switched its

cooperation from Russia to China. This was contrary to economic logic but was completely in line with the interest of the current regime in its self-preservation. Contrary to economic logic, Turkmenistan is seeking new routes to diversify its energy exports. Thus, all three states show an overwhelming preference for strategic goals over economic logic in their relations with the ESC of Central Asia. The results of my application of the model of strategic-oriented policy behaviors, as applied to the ESC of Central Asia, are summarized in Table 20.

Table 20: Model for assessment of the natural gas sector in the ESC of Central Asia

Feature	Russia	China	Turkmenistan
Energy resources perceived as strategically important.	completely met	completely met	completely met
Energy sector crucial to state's economy.	completely met	mostly met	completely met
State-owned energy actors perceived as extension of state's apparatus.	completely met	completely met	completely met
Reliance on bilateral relations.	completely met	mostly met	completely met
Zero-sum approach.	completely met	completely met	completely met
Energy as a state's tool.	completely met	completely met	mostly met
Undesirable dependence.	completely met	completely met	completely met
Emphasis on strategic issues over economic logic.	completely met	completely met	completely met
Strategic-oriented behavior.	predominant	predominant	predominant

Source: Scheme created for purposes of this book

I conclude that the strategic-oriented approach to energy policy predominates in all three countries: Russia, China, and Turkmenistan. This means that the majority of the states of the Central Asian ESC display a strategic-oriented approach to their energy policies. Therefore, the construction of new infrastructure projects can be understood as a means of maximizing energy security, which is a matter of clear political importance. Energy-related disputes between Russia and Turkmenistan, and China's rising presence in Central Asia, can be explained by their

preference for strategic-oriented rather than market-oriented energy policies.

The research has shown that the trio of states has predominantly behaved in accord with the strategic-oriented approach to energy policy in connection with the construction of the TCGP. The near-total absence of a market-oriented approach to energy policy in the Central Asian ESC may seem peculiar at first glance. However, that is mostly due to the specifics of the Central Asian ESC and the states that constitute it. They are highly autocratic political regimes that exercise robust control of their respective energy sectors and have adopted a zero-sum worldview. If a similar research project were to focus on another region, for example the European Union, it is quite possible that the predominant approach to energy policy would be very different.

Discussion

This book puts forward a theoretical model for analyzing and classifying energy policies of various state actors. In part, it adapted models created by other theoreticians of international relations. This theoretical model was applied to energy policies of the countries of the ESC of Central Asia and their transformation since the fall of the Soviet Union until 2020. My application of the model confirms its viability and its analytical benefits for the classification of the strategic-oriented and market-oriented approaches to energy policy, especially in a closed system like an energy security complex. This is the theoretical contribution of this book.

That said, the use of this model is limited by the fact that it deals with only two ideal types of energy policy: strategic-oriented and market-oriented. Moreover, this book mostly focuses on the hydrocarbon sector of the ESC of Central Asia. The dichotomous approach is mostly possible in countries with hypertrophic hydrocarbon sectors like Russia and Turkmenistan. In countries with more complex energy sectors, a more nuanced approach would be necessary.

There is space for improvement of this model that will permit its wider application. An improved model would also take into account other types of energy besides hydrocarbons, which would really help to test the model's broader applicability. Other researchers should feel free to apply it to other ESCs. I think it would be beneficial to apply the model to ESCs where the majority of states appear to prefer a market-oriented approach to energy policy.

Both the theoretical model for classification of energy policy that I present and the case studies in this book are framed by another crucial theoretical concept – the regional energy security complex. The novelty of this approach lies not only in the adaptation of the concept of the regional security complex to energy, but also in what is likely its first application to the energy sector of the Central Asian region. The regional security complex concept has been applied to the Central Asian reality in the past, but not the more nuanced and precise concept of the regional energy security complex (ESC). As my work shows, the application of the concept of the ESC is more than suitable for this particular region, which is interlinked by a complex web of energy dependencies.

All in all, my application of the model indicates the viability and usefulness of the ESC concept for use in analyzing the Central Asian reality. The ESC is an isolated system in which other theoretical instruments can be employed as well. This is both its principal benefit and a limitation of the ESC concept. The chief purpose of the construction of a model of an ESC is creating a closed system where researchers can apply other theoretical instruments. A regional ESC is defined by an intense network of positive and negative energy dependencies. However, the interactions inside the system and the energy dependencies of its members can be analyzed by additional theoretical tools. In my case, that meant that the construction of a model of the ESC of Central Asia is only a precursor to further research on the classification of the energy policies of the states of the Central Asian ESC.

The ESC is a flexible framework. As such, it allows for application to other regions and various types of energy resources. This monograph shows that it is best applied to analysis of the regional impact of large-scale energy projects that significantly transform the network of energy dependence of a group of states and state actors. The most logical choice of targets are regional groupings based on export and import of natural gas, because of the geographical and political difficulties of transporting it. Nevertheless, a network of energy dependencies can also be found in connection with other types of energy, such as petroleum and nuclear energy.

The two aforementioned theoretical tools, the ESC and the model of a strategic-oriented energy policy, allowed me to deliver an analysis of the changes in energy security in Central Asia and beyond. The results of my analysis will be of value to anyone who is dealing with Central Asia, Russia, or China, and to those dealing with energy security issues on an academic or state administration level. My findings are just a stepping

stone in the direction of a better understanding of the complex situation of Central Asian energy and the formulation of energy security policies in the region. Other researchers who follow in my footsteps can prove the viability of this particular branch of research.

My experience suggests that the principal theoretical contribution of this book lies in the creation of a robust model for classifying the energy policies of various state actors. I have shown the benefits and profitability of my model by successfully applying it to the newly defined regional energy security complex of Central Asia.

The contribution of this book, then, is in its practical significance for various political stakeholders and decision-makers. This book has shown that Russia, China, and Turkmenistan are pursuing strategic-oriented energy policies and a strategic-oriented approach to energy resources in general. This has implications for all their international counterparts who must deal with the instrumentalization or weaponization of their energy resources. My findings can be the foundation for the formulation of state-level policies and strategies for dealing with energy security, and with Central Asia, Russia, and China.

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