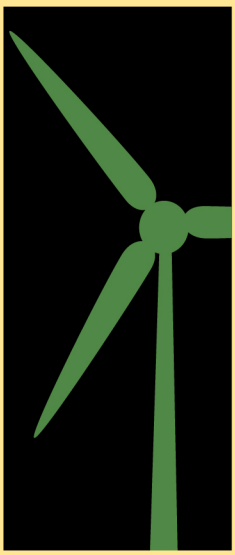
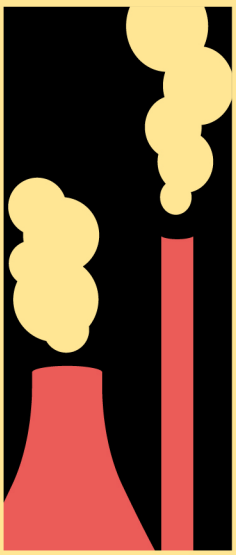
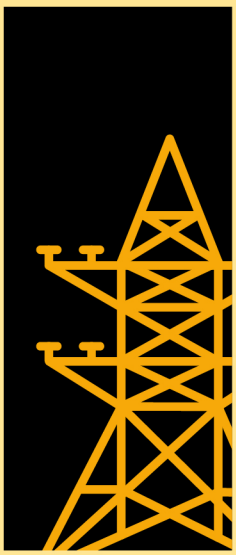
weg
World Experience for Georgia

Risks of Corruption in the Energy Sector of Post-Socialist Import-Dependent Countries


Risks of Corruption in the Energy Sector

of

Post-Socialist

Import-Dependent

Countries

Supported by a grant from the Foundation Open Society Institute
in cooperation with the Eurasia Program of the Open Society Foundations.

Authors
Murman Margvelashvili
Corruption in Electricity and Gas Sectors
Lessons from Post-Socialist Countreis

Country Case Studies
Armenia *Vahagn Khachaturyan*
Bulgaria *Martin Vladimirov*
Kyrgyzstan *Mukanova Nuripa*
Moldova *Sergiu Tofilat, Tudor Soitu*
Ukraine *Sergii Balan, Serhiy Yevtushok*

Editors
Murman Margvelashvili
Tutana Kvaratskhelia
Svetlana Savitskaya *(editor of the article: Risks of Corruption in Electricity and Gas Sectors Lessons from Post-Socialist Countries)*

Design & Illustrations Ellene Jorjoliani ©Weg

Contributors
Irakli Urgebashvili, Tamar Margvelashvili

Organizations Engaged

Foreword

Corruption has been widely viewed as a damaging phenomenon affecting various aspects of the political and economic life of societies. However, despite its strong political, economic, or social implications, corruption in the energy sector (Energy Corruption), to our knowledge, has not become a topic of wide discussion and in-depth analysis for academia or practitioners.

This is partly due to the technical complexity of the energy sector as a policy area, partly due to the legitimate active involvement of government in monopolistic operations and strategic issues inherent to this sector, as well as the concentration of financial and political interests with few stakeholders.

The energy sector has crucial importance for the overall development of energy-dependent countries and unless properly governed, it can undermine their independence, security, and progress. All these factors merit a closer look into the potential cases of energy corruption, especially in developing and energy-dependent countries, in order to identify vulnerabilities and provide better protection from illicit internal and external influence.

This publication draws on the examples from *energy-dependent post-socialist countries* to illustrate typical forms of energy corruption observed at various stages of reforms in the energy sector - from a state-owned socialist system to competitive energy markets. The illustrative cases prepared by experts from Armenia (AM), Bulgaria (BG), Kyrgyzstan (KG), Moldova (MD), and Ukraine (UA) describe the forms of Energy Corruption in different segments of the sector at various institutional and political levels. The framework paper prepared by the WEG in discussion with other authors attempts to draw general conclusions, identify systemic features and typology, to develop conclusions and practical recommendations.

With this publication, we hope to contribute to the discussion of Energy Corruption in academic and policy circles, to facilitate an informed action by policymakers, businesses, civil society organizations, donor agencies, and international partners, in order to overcome the challenges posed by corruption in the energy sector *(This report focuses on the electricity and natural gas sectors; it does not touch the issues of oil and gas extraction and export, which is more typical for the energy rich countries.)*

The factual correctness and interpretation of circumstances presented in country cases is the responsibility of respective authors.

Table of Contents

COUNTRY CASE STUDIES

ACRONYMS

(AM)	Armenia
(BG)	Bulgaria
(GE)	Georgia
(KG)	Kyrgyzstan
(MD)	Moldova
(UA)	Ukraine
WEG	World Experience for Georgia
IFI	International Financial Institute
SOE	State - owned Enterprises
NIS	National Integrity System
PSO	Public Service Obligation
DSO	Distribution System Operators
GSE	Power Transmission Company of Georgia
PPP	Public-Private Partnerships
PPA	Power Purchase Agreements
MoU	Memorandums of Understanding
IGB	Interconnector Greece-Bulgaria
ENA	Armenian electricity networks
HPP	Hydro Power Plants
OECD	The Organisation for Economic Co-operation & Development
CSO	Civil Society Organisations
KPIs	Key performance indicators
OGP	Open Government Partnership
TI	Transparency International
EITI	Extractive Industries Transparency Initiative

Executive Summary

The Energy sector is highly vulnerable to corruption due to a high degree of state involvement, technological and policy sophistication, and the high value of transactions. At the same time, Energy is a vital sector of strategic importance, where bad governance may entail immense social, economic costs, undermine the trust in government, breed energy poverty, and undermine national security.

Corruption in the energy sector thrives in areas where the deficit of governance and transparency provides to public officials the monopolistic discretion of actions without adequate accountability, thus allowing them to advance private interests at the cost of the public good. This is a collective systemic phenomenon predominantly pursued by elite networks. Vague and inconsistent energy legislation, weakness of public control allows impunity of officials interfering in energy markets and abusing the of regulatory power and are the main enablers of energy corruption.

The key actors that can be involved in energy corruption are business and political elites affiliated with various parties or governments. The corruption can extend to Energy Regulatory Agencies, Energy Market Participants, State-owned Enterprises (SOEs) who can get involved in colluded political and business interests entangled by a system of open or hidden mutual benefits. These elite networks are usually well-adapted to the existing conditions and interested in preserving the status quo or even creating more loopholes and grey areas for more corruption. They are the key factor to be considered while planning anticorruption activities.

The forms of Energy Corruption are diverse ranging from customer-level petty corruption to grand political corruption affecting the geopolitical interests of countries. The most common types of energy corruption include:

Corruption at the Distribution level where inadequate metering and billing allows manipulation of consumption data, customer-technician collusion, or diversion of volumes of electricity or gas from residential customers to businesses for extra profit (UA).[1] Supply monopoly and unjust inflated tariffs may allow the distributors/suppliers to charge extra amounts to customers (KG). Political cover and regulatory abuse are essential enablers of such corruption assuring its perpetuation.

Corruption in the Corporate Governance of energy companies is in many ways similar to that in other sectors of the economy. It is manifested in fraudulent procurement of services, improper spending, asset write-offs, inflated investments, and other corrupt practices used for money embezzlement. However, the specifics of the energy sector is in the possibility of compensation of these illicit costs through customer tariffs for private companies affiliated with high-ranking officials or oligarchs. This form of corruption is especially damaging to state-owned enterprises (SOEs) that are used as the main tool of energy corruption by elite networks (AM, KG, MD).

Major energy infrastructure projects procured by state agencies are an attractive target for grand corruption. The revenue streams derived through kickbacks, fraudulent procurement, and embezzlement compromise the project quality and thus affect customers (KG). Most dangerously, large-scale projects may serve the strategic geopolitical interests of foreign countries at the cost of their priorities (BG).

Public - Private Partnerships (PPP) in Renewable Energy Projects is related to state concessions to developer companies and can be abused through non-competitive

[1] *Abbreviations are indications to the case studies from Armenia (AM), Bulgaria (BG), Georgia (GE) Kyrgyzstan (KG) Moldova (MD) and Ukraine (UA).*

selection, disproportional benefits provided to favorite companies connected to elite networks (GE, AM).

Energy Imports through offshore intermediate companies established jointly with state companies of exporting countries (Gazprom, Inter-RAO UES, SOCAR, Azerenergy) is a common method of cash generation (MD, BG, GE).

Tariff populism – is a form of political corruption where consumer tariffs set by regulatory agencies are artificially lowered for populistic election purposes. This results in a waste of public resources for the political gain of elite groups and diverts public attention from the inability to provide economic growth and decent incomes (KG, GE, partly UA).

Russia – is a dominant neighbor well known for its use of energy as a tool to exert its political influence in its neighborhood. Domestic corruption is an enabler of Russia's efforts to tie the energy-dependent countries into long-term unequal contracts, engage them in strategic infrastructure projects of own interest and gain influence through ownership of critical energy infrastructure cash diversion through offshore joint ventures. Russia actively supports the breakaway regions in Moldova (Transnistria), Ukraine (Donetsk), and Georgia (Abkhazia) through free energy supply and directly or indirectly protects corruption in their energy systems.

Typical enablers of Energy Corruption or the "red flags" that signal the creation of opportunities for energy corruption include:

- Deficiency in metering and billing systems that allow petty corruption and larger energy diversion fraud in distribution companies.
- Ad hoc legislation changes – signaling inconsistency in legislation and creating special conditions for some private interest.
- Abuse of regulatory power and independence by ruling elites starting with political appointments to the Regulator and continued through informal business and political influence on Regulatory decisions for the sake of private gain.
- Nontransparent non-competitive selection of contractors or project developers indicating favoritism and colluded interests in government-funded energy projects.
- Behind-the-door agreements, Confidentiality clauses, and "Commercial Secrets" in government-brokered international and PPP agreements that show the collusion with counterparts or inability to defend the public interest.
- Unmerited appointments to SoEs of elite network affiliates to state-owned enterprises and revolving doors where formal officials end up in energy companies they used to regulate and oversee.

The above occurrences often take place in combinations, indicating the general conditions of governance and accountability in the sector. These signals should be reacted upon by civil activists and international partners.

Attempts for controlling Energy Corruption are complicated by asymmetries of power, information, motivation, and resources of the actors involved.

- Motivating citizens is complicated, as the damage from corruption is redistributed to a big number of citizens and can be perceived as insignificant at an individual level.
- Energy Corruption provides income to influential representatives of elite networks while citizens opposing corruption are less organized, less informed, less resourceful, and influential individually.
- Energy corruption often has a delayed effect on public good (through future public spending, deterioration of infrastructure, etc.) while the benefit to incumbents is immediate.
- There is a fine line between corruption and other motives like the lack of skills and capacity, insufficient courage, and strength to oppose the illicit pressures, negligence,

or other factors that may result in damage to the public interest. This however has secondary relevance once the damage to the public interest is obvious.
- The low sensitivity to corruption may result from a desire of success reporting. Project sponsors like government officials or IFIs may tend to diminish the size of problems or potential damage in projects. Officials may tend to present the agreements on energy imports as a great success irrespective of their real merits.

Fighting Energy Corruption is a continuous process of improving the legal and institutional framework and opposing the attempts of creating new opportunities and cases of corruption. The number of revealed cases does not reflect the actual spread of corruption, but rather the prevailing tendency. The success can be achieved through a combination of:

- *Quality legal and regulatory framework. Robust national strategies, priorities, and action plans to create the accountability framework for policymakers and protect them from political and corrupt pressures.*
- *Market competition and quality regulation, sound business practices and commercial actors introduced through privatization to strategic investors, and management of state-owned enterprises by leading international companies.*
- *Monitoring and control of enabling environment and specific corruption cases.*

The above requires Strengthening Public and Parliamentary control, empowering energy regulators, and ensuring their integrity, Strategic capacity of the government and energy ministries.

Along with general anti-corruption activities and international initiatives (TI, OECD, OGP, EITI) the specific approach is needed for the energy sector for strengthening accountability frameworks through proper metering and billing, transparency of energy data, quality regulatory practices, and limiting government interference in markets. Civil society should cooperate with political actors and international partners to build the capacity and tools for control of energy corruption. The most effective way of controlling energy corruption is in implementing and maintaining energy reform in line with best international practices and EU legislation with the support of the international community.

Risks of Corruption in Electricity and Natural Gas Sectors

Lessons from Post-Socialist Countries

Murman Margvelashvili

Introduction

In this report, we explore the common features of alleged energy corruption in post-socialist energy import-dependent countries. Armenia, Bulgaria, Georgia, Kyrgyzstan, Moldova and Ukraine have suffered from problems of systemic corruption, with patronage networks exerting significant influence over state institutions.[1] They have shown the signs of state capture when powerful individuals, institutions, and companies can shape national policies and the legal environment for personal benefit, and have not managed to establish fully independent judiciary or well-functioning anti-corruption institutions.[2]

Thirty years since their independence, most of these countries are still heavily dependent on the Russian energy supply and have Russian ownership of critical energy assets, which limits their strategic autonomy and complicates reforms. With this strong influence of Russia, the risks associated with state capture, are becoming much higher and have "strong geopolitical ramifications".[3]

The energy-dependent post-socialist countries have similar challenges of balancing their energy dependence with the national security and development needs. Their energy sectors are at various stages of transformation from vertical state owned energy utilities into liberalized energy markets.[4] They are all experiencing geopolitical pressures from Russia, which uses energy supply as a tool for advancing its political agenda. In the process of political and economic transition, these countries, with relatively weak governing structures, are susceptible to energy corruption,[5] which exacerbates the transition and dependence risks further and may pose serious threats to their national security.[6]

Energy is a vital sector of strategic importance, where poor governance may entail immense social, economic and political costs, undermine the trust in government, and breed energy poverty.[7] Compared to other spheres of the economy, the energy sector requires higher state involvement as it exploits natural fossil and renewable resources, uses the massive technologically complex monopolistic infrastructure and has strong relations to foreign policy. Public officials in charge of the energy sector are entitled to control natural resources including land, water, wind and solar energy, oil, coal and gas reserves. They lead international energy relations and environmental policies; they govern state enterprises, determine consumer tariffs, and can impact the current and future budget spendings and revenues. If misused this power can affect a country's security, economy, geopolitics, environment and wellbeing of citizens for a long time beyond their term in office. This makes it a desirable target for manipulation by colluded business and political elites and external state or non-state actors. Unless controlled, this power can be used for private gain and inflict a great damage to the public good. Unfortunately, the public and parliamentary control over the energy sector is arduous, due to complex technologies, sophisticated policies, and high political and economic stakes.

Mismanagement of the energy sector may be equally damaging, whether it comes from corruption, negligence, incompetence, conceding to the pressures of internal or external political and business actors, or a combination of thereof. Therefore, establishing the proper transparency system and informed civic control becomes even more important. Many similarities across

[1] *https://www.transparency.org/en/news/cpi-2019-eastern-europe-central-asia.*
[2] *https://images.transparencycdn.org/images/2015_StateOfCorruption_AMAZGEMDUA_EN.pdf*
[3] *knowledgehub.transparency.org/assets/uploads/kproducts/Regional-profile-Eastern-Partnership-countries_2020_PR.pdf*
[4] *In this paper we will be discussing the electricity and gas sectors - the main non-market subsectors with higher state involvement.*
[5] *UK Department of International Development "why corruption matters: understanding causes, effects and how to address them, Evidence paper on Corruption", 2015*
[6] *Here we do not discuss the cases of corruption in resource-rich countries, particularly in Russia. However, we cannot disregard the spillover effect once these countries use the corruption for asserting own interests in other countries.*
[7] *Energy Poverty: Guidance for State Policy and Public Discourse in the Time of Reforms. World Experience for Georgia, 2019*

countries indicate that cross-country experience sharing and comparison can be a strong contribution towards raising the awareness and capacity of societies to cope with the energy corruption.

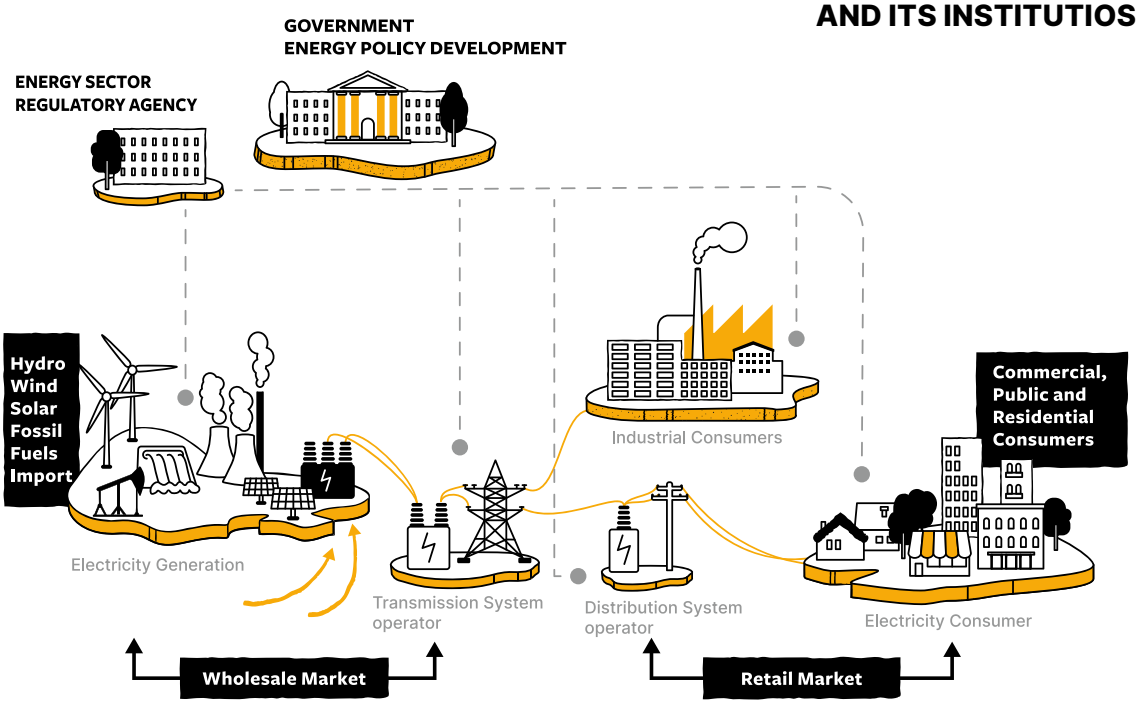
The case studies from Armenia (AM), Bulgaria (BG), Kyrgyzstan (KG) Moldova (MD) and Ukraine (UA) provide a range of examples of alleged energy corruption and jointly provide a set of typical instances that can be met in most countries. We attempt to place these cases in the systemic context of energy sector structure and energy reforms to facilitate better understanding and coordinated action for good governance, transparency and accountability in the energy sector of national and international stakeholders, primarily civil actors and international development institutions.

The Energy Sector and Its Main Actors

Organization of the Energy Sector

The electricity system consists of three main subsectors: 1. Power Generation (from renewable, fossil or nuclear sources); 2. Transmission and Dispatch - for transportation of energy through high voltage networks, and 3. Distribution - for delivery of energy to final consumers. In a perfect market-based system, the competitive operations such as power generation, import, trading and supply of energy are organized through wholesale and retail markets to supply the energy to big and small consumers - industries, commercial and public entities, and households.[1] On the other hand, operations and maintenance of huge transmission and distribution networks is a naturally monopolistic activity and needs to be regulated by state. The competitive commodity trade, and monopolistic network businesses should be strictly separated (unbundled) to avoid the situations where network companies could be tempted to provide preferences to own generators or suppliers and thus distort the market. The sector should be regulated by regulatory commissions whose role encompasses the licensing, oversight of competitive markets and market participants, tariff setting and balancing the interests of consumers and energy companies. The government should be involved predominantly in defining the policies and strategies, while creating favourable conditions for their implementation.

ORGANIZATION OF THE POWER SECTOR AND ITS INSTITUTIOS



The energy sectors of all post-Soviet/socialist countries included in this report were initially comprised of state-owned, vertically integrated energy companies incorporating the complete value chain from energy production to its supply to final consumers. There was no separation of network and commodity activities and the distribution system operators were at the same time suppliers (energy traders) in their respective areas. In the early '90s in post-socialist countries,

[1] *The natural gas sector has the similar structure with power generation replaced by gas production.*

this was often a highly corrupt operation, with illicit transactions ranging from meter tampering and fraudulent procurements to massive embezzlement of economy-wide significance. In the first years of independence, the energy connections between different republics broke up and the governance standards deteriorated even further, bringing the energy sectors nearly to a collapse.

With the support of international partners, the countries started the rehabilitation and reorganization of energy sectors towards a liberal market model. The best practice reform to the market model entails the following elements: 1. Unbundling (dismantling) of the national energy companies into separate entities responsible for generation, transmission and distribution of energy; 2. Privatization of generation and distribution companies to attract private investors and commercial operations; 3. Establishing the wholesale and later retail energy trading platforms; 4. Creating national energy regulatory agencies (Regulators) as powerful independent bodies. Governments should gradually reduce their involvement in the energy markets and focus on developing policies, strategies, and creating the conditions for their implementation.

The liberal market and independent transparent regulation are supposed to open up opportunities for private investment while minimizing the costs to the state and the customers. This would also inevitably minimize corruption risks and incentives.

The energy sector reforms have brought about the improved energy supply as well as higher transparency and accountability in the sector. However, different countries have achieved a varying degree of success in this transformation. The EU members (BG) or members of Energy Community (MD, UA), supported by the European Commission or the Energy Community Secretariat, are implementing reforms by adopting the EU energy legislation package - the EU Energy Acquis. Others are moving in the same direction with the support of the international donor community and International Financial Institutions (IFIs), the Energy Charter, and others. In most countries, the governments retain a strong grip over the sector operations and the vulnerabilities to corruption are still widespread.

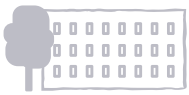
Key Actors in Energy Sector

While analyzing corruption and its enablers in the energy sector, it is important to understand the roles of its key **stakeholders** who may have legitimate, yet illicit interests and motivations. Such key actors include:

Political Actors and Parties can initiate and support energy reforms or establish sufficient oversight of the energy sector to assure its good governance and development. But they may also be tempted by the whopping amounts of cash flowing in this sector or may be inclined to assert their power through appointing favourable leads in its different companies and agencies. They may also be tempted to choose political populism over unpopular reforms and attempt to exploit the sector as a cash cow for their individual or group interests. The technical complexity and policy sophistication of the energy sector creates a capacity barrier for parliaments to engage in its qualified monitoring and oversight. They often choose to delegate the responsibility to the government without sufficient control.

Governments may be willing to defend the national interests from powerful national or foreign actors, seek to achieve transparency and good governance, work to establish competitive energy markets and concede

control to an independent Regulator. Yet they may lack the motivation and capacity to lead appropriate reforms, become submissive to illicit political and business influences, engage in shadow transactions and hinder reforms. They may hold the power to create grey areas and loopholes in legislation and allocate national resources to their own benefit, against the long-term national interests.



Regulatory Agencies (Regulators) are supposed to be independent, professional bodies with the highest regulatory and oversight authority. They should assure transparency and competition in energy markets, set fair tariffs, and balance the interests of consumers and the industry. Their autonomous budgets, along with terms of service, which differ from political cycles, are designed to provide the highest degree of independence, assure sector stability and investor confidence. However, once subordinated by political or business elites, energy regulatory agencies may become the key instruments of high-level corruption and facilitators of illicit corrupt transactions.

Market Participants in the energy sector are supposed to conduct their operations in compliance with sound business and industrial practices, to bring investment, technologies and private initiative. The ownership by strategic investors and genuine business operators should entail the increase in efficiency, reduction of cost, and improved quality of service to customers as well as long-term stability and development, since the investment recovery period in the energy sector is significant. However, if market participants are owned by the state, oligarchic networks or foreign state energy companies and their conduct may vary greatly from the best commercial and industrial practices.

Under state ownership, the energy companies may fall victim to short-term political or illicit business interests of the ruling elites (see below). The local oligarchs may choose to extract their value and deteriorate their enterprises instead of investing in long-term development. The companies owned by foreign energy-exporting states (notably Russia or Azerbaijan) may have a much wider political and economic agenda, asserting and extending their influence over the political and economic agenda of other sovereign nations.

State-owned Enterprises (SOEs) are electricity and gas transmission companies, energy corporations or funds controlled by governments. Incorporated under corporate law, they are supposed to be governed as commercial entities. However, they are often utilized as instruments for implementing government policies and may become facilitators of dubious transactions. For instance, they may be forced to incur losses from tariff subsidization or Public Service Obligation.[1] They may be involved in dubious energy import schemes, directly or through intermediary offshore joint ventures. SOEs are vulnerable to the traditional forms of corruption like fraud, embezzlement, nepotism; sometimes, top management positions in SOEs are granted to former officials or elite network representatives.[2]

Elite Networks are networks of colluded political and business elites entangled by a system of mutual benefits that are common in developing countries. Intertwined political and business interests are cemented by large cash or noncash transactions, mutual favors and benefits, making them an enabler of informal illicit transactions. Oligarchs and business tycoons connected to political elites acquire favorable contracts, exclusive import rights, ownership of profitable companies, access to best projects and sites, and they can twist the legislation and policies in their favor. In return, politicians may get personal or party income, post-office employment and other benefits. The business and political roles are not clearly differentiated, indirectly public

[1] *Public service obligations in the energy acquis mean „obligations which the undertaking..., if considering their own commercial interests, would not assume or would not assume to the same extent or under the same conditions"(Energy Community)*

[2] *See OECD Guidelines on Corporate Governance of State Owned Enterprises External Link*

officials may be involved in business transactions while oligarchs influence policy decisions (e.g. Firtash or Akhmetov in Ukraine, Ivanishvili in Georgia). These influential stakeholders are usually well-adapted to the existing system and interested in preserving the status quo. They oppose reforms and transparency but often initiate non-transparent legislative changes to create new opportunities for their private dealings.

These networks easily cross state borders and may have closer connections with foreign countries than the governments or industry representatives have. They may preserve their influence during political changes and even after revolutions. Different elite groups may compete for redistribution of political power and economic resources. If not restrained by legal mechanisms and public control, operations of such networks may lead to state capture, when all economic and political resources are privatized by political and business groups, who use the public power to take control over most lucrative state resources like land and extractives, state property and finances.[1]

These systems of interconnected interests can easily obscure the illicit dealings, channeling them partly through hidden internal interdependencies of informal transactions, proxy representatives and offshore accounts. These networks create a structural fabric of where energy corruption thrives. Being the conductor of private non-state interests, these networks may constitute a national security challenge by affecting a wide range of country interests from economic to geopolitical matters.

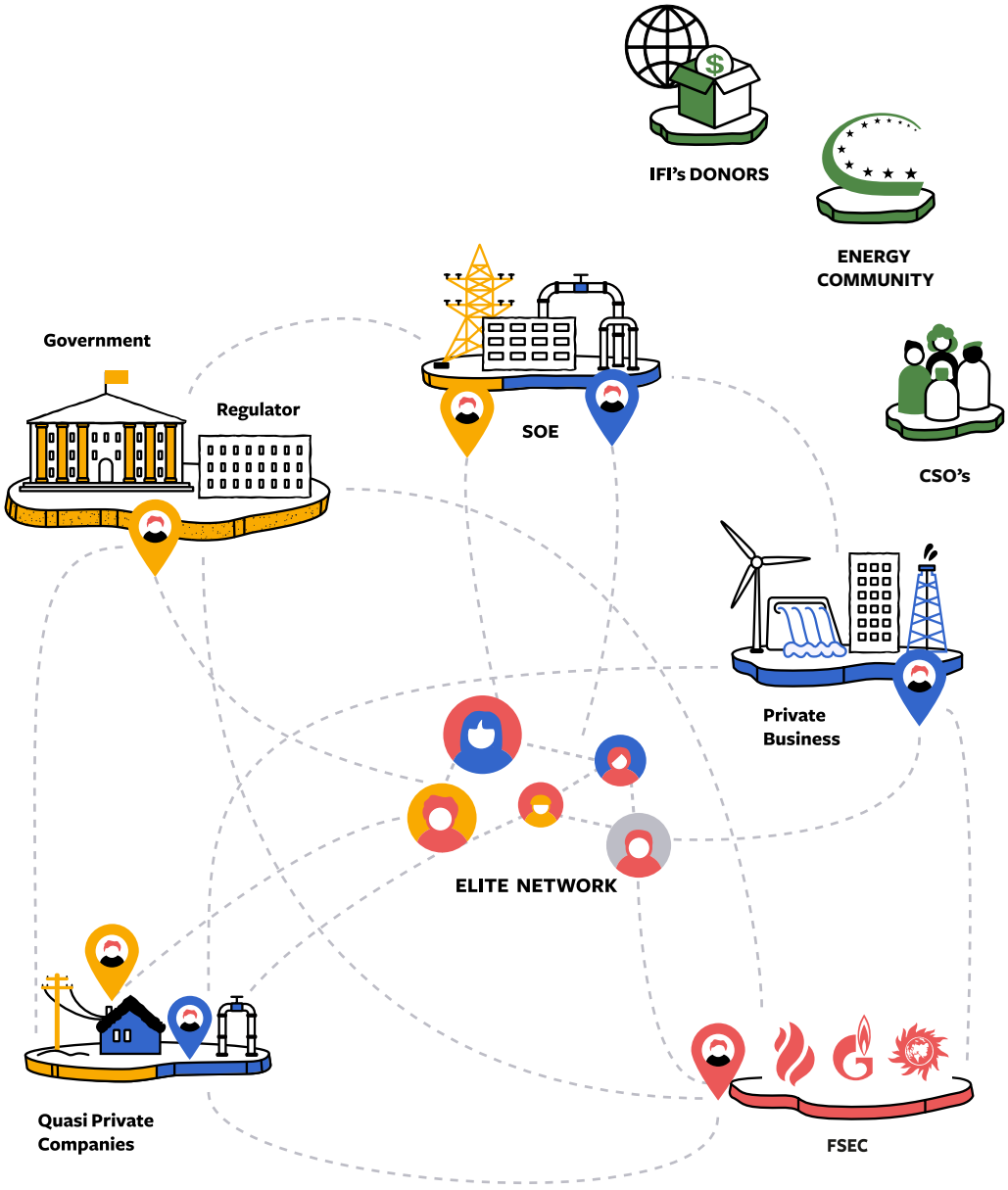
Establishing as much detail about the networks as possible is important for designing advocacy campaigns.[2]

Development Agencies and International Financial Institutions. The international community, Development Agencies and International Financial Institutions (IFIs) are the main external drivers of sector development and powerful allies in the fight against corruption. They create political momentum, provide financial support and technical assistance for energy sector development and reforms. However, if insufficiently controlled, the development assistance in the form of loans or grants from IFIs may also be diverted to private interest and thus become an enabler of corruption, specifically when supporting infrastructure projects associated with the interests of elite networks. In this case, some of the funds allocated may be channeled as a revenue stream to elite networks or used to support less beneficial and less environmentally sound projects.

Civil Society Organizations and Academia. Along with the state actors, civil society and academia are crucial non-state actors playing an important role in promoting the public interest. Civil society should possess a solid expertise and have good networks needed to address issues of societal concern like environment, human rights, and corruption. Civil society is one of the pillars comprising the National Integrity System (NIS), which, along with the judiciary, legislature, executive, private sector, media, etc., encompasses the principle governance institutions required for effective control of corruption. That being said, it is important to note that civil society must adhere to the same high standards of integrity and professionalism as they demand from their government. Regrettably, this is not always the case: some NGOs work without accountability or transparency;[3] sometimes civic actors may cover up dubious policies or projects; or their professionalism and motivation may be in breach of high ethical standards, making them complicit in corrupt acts.

[1] *Нисневич Ю. А. Политика и коррупция, монография. Издательство Юрайт, 2018*
[2] *Sarah Chayes, The structure of corruption. A Systemic Analysis Using Eurasian Cases. Carnegie Endowment for International Peace, 2016.*
[3] *Jeremy Pope, Transparency International. TI Source Book 2000. Confronting Corruption: The Elements of a National Integrity System. p. 29*

KEY STAKEHOLDERS IN ENERGY SECTOR



Cases of Alleged Energy Corruption from Developing Import-Dependent Countries

Below we briefly summarize the illustrative cases of alleged corruption from six energy-dependent countries that are described at length further in this paper. These country cases paint a diverse picture of Energy Corruption at various levels of institutional hierarchy, characteristic to different stages of sector reforms and involving the actors described above.

Armenia (AM)

The Armenia case illustrates the improper use of political position by ruling elites to acquire ownership of energy assets while rendering the control of the energy sector to Russia. Their involvement in illicit transactions has resulted in excessive energy prices and damage to public interests. This includes the examples of questionable privatization of hydropower assets and abuse of regulatory power for the benefit of affiliated businesses; cash diversion from energy utilities for the needs of unrelated industries, funds or investments; cover-ups of non-payments for energy consumption by their related enterprises, inappropriate write-offs and losses that have finally accumulated in inflated energy tariffs.

The case also describes the aggressive stance of the Russian Gazprom in asserting the asset ownership as well as dominance over the state sovereignty in external energy relations and natural gas policies. The Armrusgazard example features the questionable business practices of the company established jointly with Gazprom and implies clearly that commercial operation may not be the main purpose for such undertakings. The dominance over the strategic gas pipeline project, privatization of strategic energy assets and depriving the country of the sovereign right for external energy policy are the results of Russia's involvement.

The AM case indicates that even a sound tariff methodology cannot protect the interests of consumers once the integrity and independence of the Public Service Regulatory Commission are compromised in favor of political elites.

Bulgaria (BG)

The Bulgarian case (BG) illustrates how deficiencies in energy governance and regulation have led authorities to concede to Gazprom's pressure and compromise national energy security priorities, as well as give up on guaranteed transit revenues and engage in the construction of the TurkStream pipeline through Bulgaria. This project compromises the country's economic and energy security interests and weakens its bargaining power in negotiations with Gazprom. The project has also strengthened state-capture networks in Bulgaria and has had adverse effects on EU supply diversification by forcing out alternative Liquefied Natural Gas (LNG) and Azerbaijan gas supplies from the region. The project has also become an effective instrument to feed Russian and local pro-Russian oligarchic networks, which capture political figures, state-owned energy enterprises and regulatory institutions to expand Russian economic and political influence.

The controversial TurkStream project has successfully diverted the focus of successive Bulgarian governments away from diversification of natural gas supply, the liberalization and integration of energy markets.

It has circumvented EU public procurement and gas market competition rules. The state-owned gas transmission operator has signed a non-transparent **transit contract** with **Gazprom** without any clear rules for the enforcement of the contractual obligations of Gazprom. As a result of the above, Russia ships the gas, builds the pipeline and finances it through proxy entities. Besides, Russia has

been using Saudi, Belarussian and European companies to evade US sanctions against its TurkStream project.

The case demonstrates the signs of inefficiency, inconsistency, and bad governance, bordering on corruption and state capture. Bulgarian decisions do not rest on data-driven policy analysis, nor reliable and transparent financial, socio-economic and geopolitical forecasts. Instead, the construction of the Russian-led pipeline has been justified by unsubstantiated pledges of energy security and economic growth, and not supported by cost/benefit analysis. There is ample and mounting evidence that the project costs are disproportionately high compared to the benefits of Bulgaria's energy security. Benefits from the project in the short run seem to accrue to the Russian side, while the benefit to the Bulgarian public is uncertain.

The persistence of Bulgarian officials to carry on with the TurkStream's construction bypassing the established rules has raised questions about their motivation and the possible influence of non-public interests.

As a result of the Russian influence on the development of TurkStream, the pipeline project is likely to perpetuate the dependence of South-East Europe on Russian gas amid enormous and unnecessary infrastructure spending, diverting the countries' scarce resources away from productive investments.

Kyrgyzstan (KG)

The case of Kyrgyzstan (KG) demonstrates the extent to which inefficient state governance of the energy sector, combined with illicit group interests and tariff populism, can negatively affect the sector, deplete the infrastructure and cause inappropriate public spending. Such bad practices endure government changes.

The established corruption-prone system has involved artificially lowered tariffs, leading to infrastructure deterioration and the need for external borrowing, which in turn creates opportunities for embezzlement.

This also includes quasi-commercial electricity supply companies exploiting their monopoly position in certain regions, guaranteed through political affiliations. These companies derive their illicit markups under political cover and the consent of the regulatory agency. This system inflicts financial and moral damage to the sector, discredits the idea of reforms and privatization, which becomes associated with benefits for ruling elites rather than citizens. The tariff populism, although aggravating the financial and technical condition of the sector, helps to avoid public discontent and enables the preservation of the corrupt system in place for extended periods.

The system of colluded political and business interests, abuse of regulatory authority, nepotism, patronage and fraud, create conditions for embezzlement of enormous sums from infrastructure projects. It results in the deterioration of state-owned energy assets and poor energy supply to consumers. It also leads to excessive foreign indebtedness and loss of sovereignty over critical energy assets through debt-to-equity swaps with foreign states (E.g. China in the case of Bishkek CHP). The case also demonstrates that declarative condemnation and even prosecution of individual corruption cases may have little effect unless supported by systemic changes of the enabling environment.

Moldova (MD)

The Moldova case (MD) describes how the consecutive governments have conceded to persistent and elaborate actions by Russian Gazprom for gaining control over the Moldovan gas sector and exploiting it as a source of cash for the support of breakaway Transdniestria administration, as well as own illicit interests.

For decades, the Moldovan authorities have chosen to conform with Russia's expansive energy policy rather than challenge it by diversifying gas and electri-

city supplies. The transfer of Moldovan gas assets to Gazprom was enabled through deliberate acts of undervaluation of strategic gas transmission and distribution assets and inflating their indebtedness to Gazprom in violation of the Moldovan legislation and business practicality, which finally resulted in the transfer of ownership. Fraudulent business practices in the Gazprom-controlled companies have become commonplace, while the attempts to investigate the companies have been effectively blocked by corrupt political involvement. Neither Gazprom nor the Government of Moldova, as shareholders of Moldovagaz, have taken measures to prevent or investigate illicit actions committed by the company's management.

Another corrupt practice described in the MD case is electricity import at inflated prices conducted through intermediary offshore companies related to past or current top officials. This gives a typical example of illicit practice conducted by a state-owned energy company characteristic to many countries, which is enabled by the absence of proper regulation of energy import. The new guidelines and oversight mechanisms established with the help of the Energy Community Secretariat feed some optimism towards resolving this matter. Such a precedent may be helpful to other countries experiencing similar problems in energy imports.

The MD case study also mentions several unsuccessful attempts of prosecution of alleged Energy Corruption and thus emphasizes the importance of systemic solutions and public participation in defending public interests.

Ukraine (UA)

The Ukraine case illustrates corrupt practices enabled by privatization to oligarchs, accompanied by loopholes in legislation, weak regulation and poor governance in the gas sector. Implementation of the Public Service Obligation (PSO) in the conditions of poor metering, cross-subsidization of customer tariffs and unrealistic consumption norms, have allowed the regional monopolistic distribution companies owned by the oligarch Firtash to derive huge profits through the diversion of significant amounts of gas, manipulation of customer databases and unauthorized gas withdrawal from transmission networks.

The weak performance of the regulatory agency and the government have allowed the oligarch-owned distribution companies to actively defend their monopoly and illicit actions in gas distribution regions for an extended period of time. The case study shows how the errors in the implementation of reforms caused by political populism, lack of political will, low professional expertise of public officials, combined with the weak institutional capacity of judicial and regulatory bodies, may fail to withstand powerful business actors and create a favorable environment for corruption.

The UA case also describes how the state-owned Naftogas was forced to supply gas at regulated low prices under the PSO regime and incurred financial losses limiting its capacity to invest in gas production, thus affecting the energy security of Ukraine. A joint venture created with Gazprom for gas imports has generated enormous revenues just due to its position and connections. This is a typical example of a special purpose intermediary import company created for cash generation that can be seen also in other countries.

The progress achieved in 2020 by unbundling Naftogaz and lifting the PSO regime for households has brought the Ukrainian gas sector closer to European standards and eliminated the described major imperfections. However, this case still provides a useful example for other countries to avoid similar mistakes.

A more detailed description of the above instances of alleged corruption can be found in the respective case studies presented below in this publication. Similarities across countries indicate the systemic nature of Energy Corruption and the possibility to develop typical solutions across various countries.

Typical Forms of Energy Corruption

The state of Energy Corruption reflects the general conditions of governance and transparency in a country and is closely interlinked with corruption levels in other spheres. The forms and instances of Energy Corruption are diverse, depending on socio-economic or political factors and the stage of energy reform. Nevertheless, the structure of the energy sector and similarities across countries allow for developing a general typology of energy corruption. Below, based on the above country examples, we list some typical forms of Energy Corruption.

Distribution Level Corruption

Meter Tampering. In its simplest form, this is a theft of energy through manipulation or by-passing of meters when customers and technicians split the proceeds against the interests of a company. It is enabled by a poor network, inadequate metering and payment discipline once distribution companies are not established as sustainable businesses. Its elimination requires substantial investment in metering and the network systems, as well as strong political will to establish a proper payment discipline. This requires support from the government and energy regulators who should encourage improvements and promote the idea of energy as a commercial commodity, against a habitual public expectation of receiving energy services irrespective of payment. Privatization to strategic investors and the support of international development agencies and financial institutions may be decisive factors of success.

> **There is anecdotal evidence from Georgia, that in the first years of independence, the daily cash collected by technicians was brought to one table in the central office of Tbilisi Electricity Distribution Company and was divided in bulk equally between the incumbents of the municipality, technicians, company management and energy supplier.**

Energy Diversion. A more elaborate form of distribution level corruption happens once there is a difference in tariffs between customer categories, such as residential and commercial customers. Lower tariffs and so-called "social" consumption norms for households create incentives for energy distributors to manipulate the consumption data and divert the energy from subsidized residential consumers to non-subsidized businesses by creating fake residential accounts, inflating consumption numbers and actually selling the energy at a higher price to businesses. Such type of manipulation may acquire a large scale and requires the consent of higher management and owners of energy companies.

> **In Kyrgyzstan, the commercial tariff for electricity is three times higher than the residential tariff. Therefore, reallocation of electricity consumption from households to commercial entities creates extra profit for Distribution System Operators (DSOs), which mostly belong to state officials or related persons. Intended further reduction of the residential tariff, including abolishing of its stepped structure, can create additional inefficiency and incentives for corruption (KG).**
>
> **In Ukraine, the flaws in metering and improper enforcement of the PSO regime have allowed the oligarch-owned regional gas distribution companies to literally rob the state energy company without adequate response from the Regulator and the government until the PSO regime in the gas sector was finally abolished in 2020 (UA). However, the PSO regime was preserved for district heating companies. Moreover,**

the sharp rise in gas prices in the Fall of 2020, forced the Ukrainian government to resort to regulated prices for household, but not under the PSO regime.

This type of Energy Corruption is typical for the initial stages of energy reforms when good business practices and proper regulatory oversight are not in place yet. It leads to cash shortages, deterioration of energy assets and the need for increased government subsidization. It cannot be sustained for long without political cover-up and regulatory negligence. The reluctance in the enforcement of improvements can be indicative of collusion between the energy companies and public bodies or the lack of capacity and motivation of the latter.

Public awareness campaigns with examples from successful countries should be invoked to assure the public understanding and acceptance of proper metering and collection practices.

Monopoly Supply in Retail

The supply of energy is a competitive business in liberalized markets. However, if the supply monopoly is protected from competition, it can provide huge profit margins. Supply companies, operating exclusively in some regions, can capitalize on their position and intentional deficiencies in regulation in order to derive huge undeserved profits (KG, UA, AM). In such cases, the business risks are minimal, protected by a political cover, while profit margins can be exceptionally high. Unless addressed through opening up the market to competition or proper regulatory intervention, this indicates towards colluded interests of business and political elites. The owners and ultimate beneficiaries of such businesses are usually the affiliates of elite networks. The monopoly right for retail supply at an inflated margin in a certain region is a cash-generating mechanism for extorting cash from the energy sector and consumers protected by political connections. It can survive government changes and be transferred from one ruling elite to another.

In Kyrgyzstan, the private supply intermediary companies connected to officials have benefitted from monopolistic rights to supply some regions. These companies enjoy the triple benefit of using the state infrastructure for free, getting cheap electricity from state enterprises, and selling electricity at an inflated price to consumers in their regions.

In Ukraine, the gas distribution companies owned by an oligarch have enjoyed monopolistic supply rights in their operation area. They have concealed customer information, manipulated non-metered consumption to benefit from cross-subsidized tariffs between customer categories. Both instances indicate political cover, regulatory negligence, and insufficient public control.

These situations should be eliminated by opening up the retail market and allowing competition, enforcing the proper metering and elimination of cross-subsidization between customer categories, which happens as part of energy reform; competent regulatory oversight and government support for enforcement of regulations are essential.

The absence of these factors may be considered as an indication of corrupt linkages to these institutions.

Corruption in the governance of energy companies is in many ways similar to that observed in other sectors of the economy. Fraudulent procurement of services, improper spending, asset write-offs and other corrupt practices are used for money embezzlement and cash generation, like in other parts of the economy. More specific forms are the energy theft from the network and its sale to hidden customers (UA), excessive reported network losses (MD-Moldovagas, UA), inadequate network investments and other expenses. Corporate corruption damages energy corporations the same way as in other businesses. However, in tariff-regulated or state companies these losses can be passed over directly to the customers via tariff (AM) or to the state budget. Some companies cannot be shut down due to their critical role in supplying consumers and may use this as leverage for continued abuse of their position at the cost of state-owned companies or state budget (UA, KG, AM, MD).

It is most damaging when this type of corruption acquires the grand scale, as in the case of Moldovagaz, where the fraudulent management led to debt accumulation and finally shift of its control over to Gazprom. The company continues debt accumulation while diverting significant sums out of the company and increasing the leverage for Gazprom (MD).

Corporate corruption may flourish in state-owned enterprises (SoE), where these SoEs are engaged in non-transparent and commercially unviable transactions draining their resource under political cover. The reluctance of energy ministries or regulators to enforce transparency or stop corruption may be considered as an indicator of their involvement in the wrongdoing.

> **In Armenia, overpriced purchases have been made in the energy system for years, with these costs always being passed on to customer tariffs; this includes unfinished construction work categorized as an investment made and included in the tariff; LLCs operating in the energy sector affiliated with high-ranking officials, received orders for millions of dollars in supplies of goods or services, providing those goods at much higher prices than the market. The estimated losses for the population from these practices total at least $250 million per year, which translates to 2.5% of Armenia's GDP.[1]**
>
> **In Moldova, inflated losses in the gas network (3.4% versus benchmark level of 1%), obvious embezzlement through buying insurance ($4.5mln for insurance of $70mln asset) or currency exchange at the inflated rate were allegedly used for money embezzlement and diversion to corrupt channels, and not properly reacted upon by the Moldovagaz Distribution company owners - Gazprom and the government of Moldova.**

To address these problems, strict regulatory measures and political will should be applied. For instance, suspension of licenses and the introduction of state management might be enacted in UA for not complying with the regulation by the gas distribution companies. In the case of SoEs, the introduction of Management by respectable international utility companies proved to be effective in establishing corporate governance in Georgia.

> **The high standards of corporate governance and operations were established in the early 2000s and the lasting improvement achieved in the state power transmission company of Georgia (currently GSE) under the management by Irish company ESB.**

This type of corruption is most characteristic to SoEs and quasi-commercial companies owned

[1] *https://hetq.am/hy/article/68827*

by unqualified elite network representatives. This can be eliminated by privatization to strategic investors and the introduction of management consulting companies (in critical assets) who are capable of establishing sound business practices.

Risks of Corruption in Public Procurement of Major Energy Projects

Major energy infrastructure projects can be an attractive target for political and grand corruption, especially in environments with weak governance and transparency. Public officials may use for the private benefit the discretion on project and contractor selection and oversight. The illicit incomes can be received through kickbacks and favors funded through embezzlement or fraudulent procurement in the project, which finally compromises its quality. A vague notion of "strategic" projects is sometimes used for lobbying such projects, even when there are no strategies in place. Most dangerously, large-scale projects may serve the strategic geopolitical interests of foreign countries. The signs of potential corruption include non-transparent decisions made behind closed doors, neglect of project alternatives and cost-benefit analyses, non-competitive award procedures, flawed tendering, and further excessive cover-up of particular projects.

> **The construction of the Datka-Kemin transmission line and the Bishkek CHP in Kyrgyzstan was implemented at highly inflated costs. The Kyrgyz Republic prosecuted the case of corruption where hundreds of thousands of dollars were embezzled by a network of government officials during the construction and modernization of a thermal power plant and other infrastructure projects. The total amount of diverted loans in 2011-2018 is assessed as at least $150 million.**
>
> **A comparison with other European pipelines shows that construction costs for the Bulgarian leg significantly exceeds the average costs for other construction activities of TurkStream, despite Bulgaria's pipeline being smaller in diameter than the other projects. This is likely due to corruption premiums for well-connected private interests capturing the energy sector's decision-making. Further, a convoluted and concealed procurement procedure in Bulgaria allegedly led to various backroom deals, which delayed the completion of the Bulgarian section of TurkStream by over a year and ended up with all its construction contracts subcontracted to various Russian firms, including Gazprom-owned IDC.**

The major infrastructure projects are usually funded by development banks or banks of donor countries who may also suggest their technology and contractors. Since the host governments issue sovereign guarantees protecting the lenders[1] from project risks, this reduces the incentive for the lenders to strictly control the integrity of project implementation. Some of them (e.g. Russia and China) may benefit further from debt-to-equity swaps or subcontractor rents (KG, MD, BG). "As well-intentioned as they may be … Loans or grants from international financial institutions may also constitute important enablers, especially when they support infrastructure projects that are known to be contracted out to network-affiliated businesses".[2]

Controlling the integrity of public procured infrastructure projects is complicated due to the involvement of powerful actors and high political and financial interests. Accountability framework in the form of clear and strict procedures for public procurement, robust strategies and action plans are needed to help curb such practices.

[1] *Except in BG case where financing and construction are both done by Russian affiliated companies*
[2] *Sarah Chayes, The Structure of Corruption: A Systemic Analysis Using Eurasian Cases - Carnegie Endowment for International Peace, 2016 https://bit.ly/3aTlZnU*

Public-Private Partnerships (PPP) for Renewable Energy Projects

Various forms of Public-Private Partnership are used for the support of renewable energy (hydropower, wind and solar) projects developed by private investors. This may include the provision of feed-in tariffs, land ownership or leasing, grid connection preferences, financial guarantees, equity partnerships, simplified administrative procedures, etc.[1] Unless there are clear policy objectives, rules and transparency requirements, these tools may be used discretionally and become an instrument for corrupt manipulations. Noncompetitive project awards, followed by disproportionate support, and favoritism can be considered as indicators of ill practice.

> **In Georgia, the entire hydropower sector was declared a strategic priority under the government program "Renewable Energy 2008".[2] The program allowed the government to arbitrarily draw memorandums of understanding (MoUs) and power purchase agreements (PPA) selectively through direct negotiation with developers and without clear guidelines on the terms to be offered. This opportunity was taken to its extreme by successive governments who awarded more than 180 projects in this manner, many of them under confidential terms and conditions. The cases of selective transfer of land at a symbolic price, pardoned penalties, unenforced environmental procedures and deadlines have caused public distrust and triggered the strong popular opposition to hydropower projects. An analysis of awarded MoUs has revealed[3] favoritism towards particular companies, thus indicating the likelihood of corruption. The IMF has raised an alarm over the overwhelming liabilities taken by the state budget through the signed MoUs and PPAs, blocking the government from taking more sovereign guarantees to new projects[4] Similar developments, although to a lesser extent, can be observed also in the AM and KG cases.**

This type of corruption should be countered by introducing strict PPP legislation and procedures, including competitive project awards, cost-benefit analyses, and guidance for the level of concessions provided. The value of public resource committed should be clearly communicated to the public and policymakers to incentivize the proper public control.

[1] *https://ppp.worldbank.org/public-private-partnership/sector/energy*
[2] *Resolution of the Government of Georgia #107 of the national programme "Renewable Energy 2008";*
[3] *Green Alternative, Risky business: hydropower plant construction in Georgia , https://bit.ly/3qYB50W*
[4] *Georgia: Fiscal Transparency Evaluation, IMF 2017 https://bit.ly/3pX1lYc*

Tariff Manipulations

Consumer tariffs set by regulatory agencies should reflect the fair price for energy supply, including operational costs, maintenance and investment in transmission and distribution companies, generation of fuel and power import costs. However, in some cases tariffs may be manipulated for illicit political or business purposes.

Tariff Subsidies: Populism at the Cost of the Poor

Tariff populism is a widespread phenomenon observed in many post-socialist countries. Even after decades of independence, subsidization of consumer energy tariffs is still practiced by ruling elites for electoral purposes or fear of public discontent with high energy prices and social problems. The socialist heritage of heavily subsidized energy prices makes it difficult to establish the healthy practice of cost-reflective tariffs and targeted monetary subsidization of vulnerable customers. Tariff reforms often stumble and even get reversed due to internal political considerations (KG - 2010, 2014, UA 2021).[1]

Counterintuitively, the tariff subsidization is anti-social and damaging to the public interest. Indeed, to artificially sustain the low energy prices the mechanism of tariff subsidization uses some public resource and redistributes it predominantly to the rich big consumers rather than to the poor. This is achieved at the cost of budget allocations or financial losses of SoEs providing energy at low cost (natural gas in UA, KG).[2] It discourages private investment in energy efficiency and renewable energy, and eventually undermines the energy security of a country.

> **Georgia – in order to comply with the pre-election promises in 2013 the newly elected Georgian Dream government renegotiated the agreements with Inter Rao UES and with SOCAR Georgia Gas to provide minor tariff reductions. Although the reductions fell far short of the promised halving of tariffs,[3] nevertheless they helped the government to keep the face. The cost of this action still needs to be evaluated.**
> **In December 2020 GNERC increased tariffs for households and businesses but introduced cross-subsidization when the increase for businesses was triple of that of the residents.**

Tariff subsidies should be gradually phased out and the public attention should be refocused on income growth rather than tariff reduction. Socially vulnerable customers shall be separated from others and provided direct monetary support.[4]

As a temporary measure, the EU and Energy Community legislation allow the "Public Service Obligation" (PSO) regime, which envisages temporarily preserving the low regulated tariffs for residents and small businesses. Nevertheless, this should be done as a temporary measure and as the UA case suggests, should be done with caution.

Tariffs for Illicit Income

On the opposite, sometimes tariffs can be increased for well-connected companies to cover mismanagement or corporate corruption and provide illicit income at the cost of consumers. In this case, the political power of elite networks is used to enforce regulatory decisions in favor of well-connected companies to compensate for their inappropriate costs and fraudulently diverted sums through tariffs. This assures unjustified revenues to the corrupt owners of energy

[1] *In populistic move in January 2021 the market prices for gas in Ukraine were reduced by 30% below the cost levels.*
[2] *According to International Energy Agency (IEA), Gas subsidy amounts to above $200 mln. "In Depth Review of Georgia's Energy Sector" IEA 2020 https://webstore.iea.org/georgia-2020*
[3] *https://www.youtube.com/watch?v=EnITVW5yxdw*
[4] *"Regulatory Impact Assessment of Proposed Energy Law On Vulnerable Customers In Georgia", WEG, 2019*

companies and penalizes consumers.

> **The Armenia case study describes how the electricity distribution company benefitted from the inclusion in customer tariffs of inflated costs, overpriced unrelated purchases, inflated losses and other expenditures. Experts assert that today's tariffs are highly inflated and losses for the population from these corrupt practices amount to at least $250 million per year – with production at approximately 7.8 billion kWh per year, which translates to 2.5% of Armenia's GDP (AM).**
> **As a positive example, the Moldovan Regulator has rejected undue expenses from the tariff of poorly controlled Moldovagaz (MD).**

Achieving independence, integrity and professional capacities of regulators along with civic control (e.g. energy ombudsman) is an essential factor in preventing corrupt revenues through tariff manipulation.

Intermediaries in Energy Import

Energy import is one of the areas most vulnerable to grand corruption. Import is often implemented by intermediary companies established jointly with state companies of exporting states (Gazprom, Inter-RAO UES in case of Russia; or SOCAR and Azerenergy from Azerbaijan). Energy import implies large amounts of easy income for the well-positioned companies.

The intermediary companies connected to both the exporting and importing sides are allegedly charging unjustified markups and generate a big profit, which is split between the parties. Such companies allow business and political elites on both sides to capitalize on their connections for profit-making, at the cost of higher prices for energy consumers. Import prices are sometimes declared "a commercial secret", which is hardly legitimate, as these are quasi-commercial state-owned actors in the non-competitive environment on both sides. These offshore joint ventures are created even though direct trading relations could be possible.

> **Swiss-based trader RosUkrEnergo, founded in 2004, served as an intermediary for the supply of all Russian gas coming to and through Ukraine in 2004-2009. Founded by the Russian Gazprombank and Ukrainian Centragas Holding owned 90% by oligarch Dmytro Firtash,[1] it provided huge profit to the latter, thereby enabling expansion of his oligarchic power.**
>
> **In Moldova, the political party that controlled the Ministry of Economy has put its intermediaries in the energy import industry and gained illicit profits that were embezzled by offshore companies, increasing thus the price for the final consumers. This was addressed through the intervention of the Energy Community Secretariat who provided guidelines for procurement of electricity abroad, with the mechanism of local and international observers involved in the process.[2]**
>
> **In Georgia, both SOCAR and Azerenergy have established joint ventures with the participation of offshore companies as intermediaries for the import of, respectively, gas and electricity.**

This is a persistent form of energy corruption as it involves the state companies of exporting countries who may insist on obscure import arrangements. Nevertheless the public pressure and requirements of transparency and competitiveness can finally avert the situation.

[1] *Five Stories About How Putin, Organized Crime and Oligarchs Tried to Destroy Naftogaz and Ukraine, Novoye Vremia, 2019 https://bit.ly/3bEgQ2g*
[2] *Energy Community Guidelines for the annual procurement of electricity, January 2017, https://bit.ly/3qY7mFE*

Russia - Exporting Energy and Corruption

Russia is a dominant neighbor in the region well known for using its energy exports as a tool of foreign policy to maintain, increase and exert its political influence in its perceived sphere of influence, the so-called near abroad or the 'post-Soviet/Socialist space.[1] Russia seeks to tie the energy-dependent countries into long-term unequal contracts (BG, AM, MD) and engage them in the implementation of strategic infrastructure projects of their own interest (BG, MD, AM). Russian state energy companies (Gazprom, Rosneft and RAO UEAS) have pursued the aggressive acquisition of critical energy infrastructure through debt accumulation, debt-to-equity swaps and political pressure (AM, MD).[2] Directly or through affiliates they also export corruption by generating and splitting illicit margins. They seek to exert their influence over governments and consistently damage the interests of neighbouring states.[3] Their time horizon stretches well beyond the often short-sighted political or private interests of government officials in power in the neighboring countries. Through the control over national energy assets and local connections, Russia is extending its political leverage and may acquire overwhelming power over the political will of incumbent governments who may choose to concede to Russia's interests over taking the fight. Many examples illustrate the typical activities of Russia and its state companies:

- Starting from 1993 Gazprom pushed through the controversial gas supply contracts with Moldova and self-proclaimed Transnistria. The increase in import prices, unjust payment terms and excessive penalties didn't meet adequate opposition from MD officials and resulted in huge debts and following debt-to-equity swaps, where Gazprom acquired control over Gazsnabtranzit and Moldovagaz. The Kremlin administration attempted to reproduce a similar scenario in Ukraine 20 years later, soon after the Russian aggression in Donbass.
- Bulgarian consecutive governments have failed to protect the country's energy security and allowed the delay in construction of the vital Interconnector Greece-Bulgaria (IGB) while conceding to the construction of the extension of Turkstream by Russian-related companies and thereby giving up on transit contract with guaranteed revenues.
- Through a series of maneuvers, Russia acquired the ownership of Armenian electricity networks (ENA) and gas networks (Armrusgazard), enforced the limitation on a gas pipeline to Iran and made Armenia sign an agreement depriving it of independent gas policies, all to assure Gazprom interests are secured until the end of 2043.
- Russia actively supports and subsidizes the Breakaway regions in Moldova (Transnistria), Ukraine (Donetsk), and Georgia (Abkhazia) through energy supplies while undermining the energy security of these countries. Russian aggression has deprived Georgia and Moldova of the control of their major power generating assets, and Ukraine of its essential coal reserves. Russia creates and protects the specific grey zones for illicit energy transactions in these regions, allegedly benefitting from the status quo. The Moldovan government failed to prevent the gradual takeover of the Moldovan gas sector by Gazprom, making Moldovan consumers finance separatism in their own country by purchasing energy from Transnistria and accumulating gas debts[4] (MD). The Abkhazian de-facto government benefits from free electricity supply from Enguri HPP. The absence of metering and respective payment leads to excessive consumption and create opportunities for wholesale and retail diversion of energy resource in Abkhazia. Free electricity is actively used for cryptocurrency mining in Abkhazia and Transnistria.[5] The situation compromises the quality of supply to consumers and does not allow the development or restoration of power generation.

[1] *Energy as a Tool of Foreign Polity of Authoritarian states in Particular Russia EU Commission 2017 https://bit.ly/3dNzqYl*
[2] *In of Georgia and Armenia there is a recent slight reversal in the attitude to ownership of Inter RAO UES who sold some of the assets to supposedly well connected business undertakings*
[3] *Costantino Grasso, the Dark Side of Power: Corruption and Bribery within the Energy Sector, December 2017*
[4] *https://bit.ly/3f6P5Ti*
[5] *https://bit.ly/3dNx4sx , https://anticoruptie.md/en/investigations/economic/the-cryptorepublic*

The national governments may not be strong enough to withstand the external pressure and may prefer to conceal the gravity of problems rather than attempt to resolve them. There is a need for support from a wider society to develop a strategy in dealing with Russia's dominant power in these regions. A wider discussion and attempts to reach out to citizens may be needed.

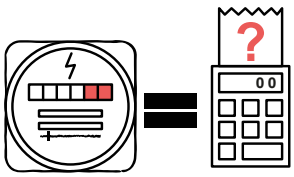
Transparency, rule of law and clear regulations mandating competitive energy imports as well as public awareness and parliamentary oversight are the measures to withstand Russia's ability to influence officials.

Enablers of Energy Corruption
Red Flags for Monitoring

There is a set of typical enablers of Energy Corruption that is relatively universal and creates grey areas for illicit transactions. Reformist stakeholders should be alert to these enabling factors and undertake measures for their prevention.

Deficiencies in metering and billing system

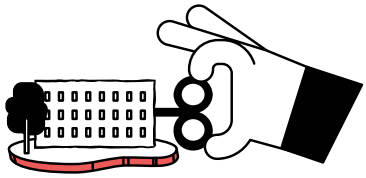
Accurate metering, billing and collection are crucial for proper control of energy and financial flows. This is a basis of transparency and accountability. The absence of such a system leaves room for manipulation and corruption. This is the ground zero requirement for eliminating corruption in the energy retail and distribution networks, as well as in the transmission and wholesale trade.



The absence of proper metering should not be tolerated as an acceptable condition under any circumstances and regulators should take all necessary measures to enforce an investment in metering, billing/collection systems and networks.

Compromised Regulation

Most forms of Energy Corruption cannot happen without the consent or participation of a Regulator. The governments and/or business tycoons often try to abuse regulatory independence and secure the decisions in favor of their own political or business interests. This can include approval of unjustifiably high or populist-low tariffs, non-competitive market preferences, network or other conditions and waivers. It is imperative to protect regulatory independence from political and business interests and to assure its high professional standing, which is the basis of its strength. Major problems arise when governments interfere in regulatory decisions or fill the Regulators with political appointees. This violates the balance of power and creates incentives for political and grand corruption.

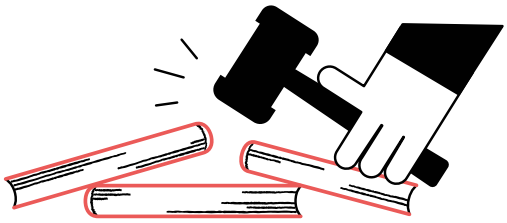


Regulatory independence and qualifications are key leverage points for controlling energy corruption. Political appointments and government involvement in regulatory functions should be closely monitored and strongly opposed. The awareness and capacity for civic control should be developed in this regard.

Ad hoc legislation changes

Singular, non-systemic changes of legislation for a particular case, enacted in favor of concrete groups or entities is a widespread enabler of corruption used by elite networks to assure their private interests in the energy sector. Even if implemented for seemingly legitimate reasons such legislative changes may open loopholes for corruption and create dangerous precedents for violating the systemic structure of the legislation. A consistent system of good quality legislation (e.g. EU or EnC Energy Acquis) that assures the mechanisms for market competition, operation and oversight of natural monopolies, is the best safeguard against illicit activities. Compromising this integrity through legislative changes for the benefit of some political or business groups and in favour of a particular case may undermine such a

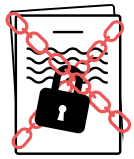
system. This highly damaging practice leads to systemic erosion of transparency and accountability and invites more corruption in the future.



Strong civic and political control needs to be established to defend legislative integrity against non-systemic changes. This requires professional, knowledgeable stakeholders including civic actors, as well as awareness and support of politicians, businesses and the international community, the Energy Community Secretariat and IFIs.

Confidentiality and "Commercial Secrets"

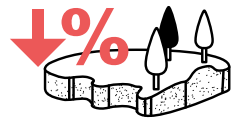
Concealing the information under "confidentiality" clauses is a common tool used by public servants seeking to avoid accountability. Examples include undisclosed electricity and gas import or transit agreements signed by SOEs with Gazprom RAU UES (MD, BG, AM), SOCAR or Azerenergy (GE) and their intermediary companies; undisclosed MoUs and PPAs signed with hydropower project developers (GE). Not all undisclosed agreements can be qualified as manifestations of corruption, however, a clear and legally sound justification is needed to avoid dangerous precedents.



Therefore, clear legal definitions and guidelines should be in place in the national legislation defining the legitimate conditions for applying confidentiality in agreements by public entities. This should be widely discussed among civil actors and politicians and benchmarked against the best international standards of transparency and governance.

Nontransparent award procedure of energy projects.

Policymakers tend to justify non-competitive awards and preferential treatment of particular energy projects by their strategic importance. However, granting projects on a non-competitive basis implies favoritism and entails corruption risks. A common explanation used by the public officials is that such "strategic" projects address urgent needs and in general, are favorable for the public. Such an explanation diverts the focus from possible alternatives or adequacy of costs that would be clear in case of a proper strategic analysis and a competitive award procedure. Such a practice is indicative of possible illicit interests involved.



Development of robust energy strategies and action plans based on thorough analytical capacity rather than personal opinions should be demanded. Transparent and competitive public procurement and PPP procedures should be established and strictly overseen.

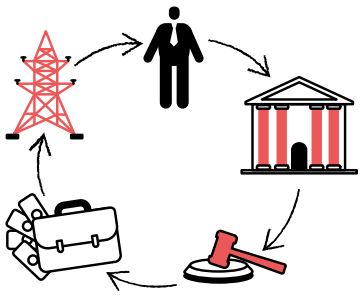
Behind-the-door agreements signed with the participation of ministries and SOEs with foreign counterparts have a high potential to damage public interest once signed in a noncompetitive, non-transparent environment with dominant monopolistic suppliers of foreign countries. Indeed, foreign quasi-commercial state companies like Gazprom, SOCAR, or their affiliates may try to leverage their position and political backing from home governments and compel public officials to agree to less favorable contract terms and influence their strategic decisions in their own interests.

Clear regulations and transparency requirements should be established for international import and transit agreements signed by state entities.

Unmerited appointments

Elite network appointees in-state energy entities, often unqualified, are furthering the corrupt influence of these networks, thereby undermining the proper management of SOEs or public agencies. This is especially dangerous in regulatory commissions.

Revolving doors: when former public officials are getting employed by companies which they used to supervise. This can happen with national or foreign-affiliated companies and may be indicative of favours and services provided while in office.



Such cases should be made a topic of public discussion to discourage further occurrences.

The above factors are manifestations and enablers of Energy Corruption at the same time. They rarely happen individually, rather they often take place in various combinations, indicating the general quality of governance and accountability in the sector. These are the signals that should be monitored and reacted upon by civil activists and international partners.

Objectives

One can easily agree that corruption in the energy sector can be well described by the renowned formula of Klitgaard, which says that corruption occurs when an agent has the monopoly of power over a service or a client, has the discretion to make decisions, and is not accountable: Corruption = Monopoly + Discretion – Accountability.[1] This implies that the conditions for Energy Corruption can be eliminated through removing or controlling the monopoly, the discretion of public officials and increasing their accountability while countering their activities in the opposing direction. This can be achieved through:

1 **Reducing government involvement** in energy markets, energy trade and public procurement. Award of projects and power purchase agreements should be conducted on a transparent competitive basis (e.g. through independent PPP agencies) with the minimum government involvement; government involvement should be minimized in the operations of SOEs and the latter subordinated to the best industrial standards; the policy actions should be conducted after proper analysis of alternatives,cost-benefit analyses and regulatory impact assessments.

2 Truly **independent and professional regulation** not subject to illicit business or political influences is key for controlling energy corruption. This should be achieved by effective public control over appointments, proceedings and independent reviews of regulatory activities as well as their professional development and integration in international professional associations and partnerships.

3 **Stable, transparent and consistent primary and secondary legislation** including laws, rules, procedures and regulations. The consistent, clear and tested system of the EU Energy Acquis introduced consistently with relevant secondary legislation (bylaws) can provide clear guidance and framework for sector activities, as well as build trust and confidence of market players and investors in the sector.

4 **Robust sector and subsector strategies and action plans.** Intensive internal analytical work and its public outreach is a tool for reducing the discretion on priorities, projects and measures. Consideration of alternatives and scenarios of development is also an educational tool for policymakers as well as sector specialists, and a way of achieving a higher level of energy security more efficiently.

5 **Improved governance and transparency of SoEs**. The political interference in SoE operations should be limited to reduce the risks of Energy Corruption. Robust industrial and business practices should be introduced, e.g. through the invitation of international management consulting firms. Reporting and accountability procedures should be considered through transparently selected supervisory boards.

A comprehensive approach is needed and the improvements in different areas should complement each other to enhance the efficiency of the effort. **Energy sector reform** in line with the EU Energy Acquis and best international practices is the most consistent way of achieving these conditions. It should be supported by all progressive stakeholders who should coordinate their efforts to minimize the obstacles to changes and maximize the scope and pace. Once implemented properly and secured from erosion and backslide, energy reform is likely to achieve all the above conditions. Continuous, routine work on compliance in line with the best industry

[1] *Robert Klitgaard. Controlling Corruption, University of California Press, 1988.*

practice, analysis of the legitimacy of state actions and policies should be performed by a qualified, well-informed and highly motivated civil society. They should be well aware of the existing elite networks, their influence, roles and relations, their interactions with neighbors in the region. Political parties, parliamentary oversight and the international community supporting the development of these countries should be involved and coordinated.

The support of donors and IFIs, as well as partner countries, is a crucial factor in addressing energy corruption. The regular process of public consultations should be conducted by these important stakeholders to exchange information and gradually increase the awareness and qualification of civil society to address energy corruption. However, the final success of these undertakings also largely depends on the strength of the existing elite networks and their unity in defending the status quo.

The importance of systemic work against the corruption-enabling environment does not diminish the importance of identifying and condemning concrete cases. **Public control and journalistic investigations** of corruption cases should be intensified. The scope of investigative journalism should be extended to cover the cases of deliberate erosion of the legal environment and the creation of grey areas and loopholes for corruption. The results of journalistic investigations should be widely publicized to create public pressure and to ensure the uncompromised handling of such cases by the relevant authorities.

For practical purposes of public oversight, we suggest that corruption in the energy sector should be alleged once a combination of the following wrongdoings is identified by civil society and journalists: 1. A non-competitive decisionmaking under the monopoly and discretion of public officials;[1] 2. Potential detrimental effect on public interest relative to other opportunities; 3. Concealed information and the lack of credible explanation from the officials involved.

This definition encourages further scrutiny into enablers and consequences of energy corruption, opens doors for discussion while avoiding outright accusations. It also includes cases where the motives of wrongdoing or inaction are resulting from insufficient capacity or motivation.

Systemic Traps in Fighting the Energy Corruption

The analysis of country cases indicates some common features of Energy Corruption that may be characteristic of the phenomenon of corruption in general and be reflective of underlying systemic structures and relations. Some of these factors are listed below.

Dynamic Balance

The actual level of Energy Corruption in a country results from opposing tendencies: emerging corrupt activities by officials and their affiliates, public condemnation[2] and prosecution or simply expiration of cases. There is a systemic *positive feedback loop,*[3] where new acts of corruption open up new opportunities for more corruption and unless acted upon may create public and cultural acceptance (tolerance), while the persecution and condemnation would discourage its new occurrences.

It is important to maintain a continuous and active process of monitoring and challenging the cases of Energy Corruption to avoid its inevitable growth and associated harm to society.

[1] *This can be a decision both for some action or inaction – not reacting to a certain event.*
[2] *UK Department of International Development "why corruption matters: understanding causes, effects and how to address them, Evidence paper on Corruption", 2015*
[3] *This misconception is often exploited by anti-western propaganda which uses the revealed cases e.g. in EU countries to imply that it is widespread.*

The number of revealed cases of corruption does not reflect its actual spread, but simply indicates the prevailing trend: the absence of identified and condemned or prosecuted cases may be simply a symptom of weak anticorruption activity and high public tolerance rather than the absence of corruption. This should not be the reason for the inactivity and consent of civil society. On the opposite, the widely publicized cases of punished corruption may indicate the effectiveness of control rather than the high level of corruption in the sector.[1]

Private Benefit vs Public Loss

Stakeholder mobilization for anti-corruption efforts is challenging in the energy sector since the incremental corruption damage to an individual customer may seem insignificant, while its proceeds may deliver colossal gain to a small group of beneficiaries. For instance, an unjustified increase in energy tariff (AM) may be insignificant for individual customers, but in total it may generate tens of millions of profits to particular energy companies. It is difficult to initiate common action against the abuse of the common good. **Continuous awareness-raising and civic education are needed to overcome this challenge.**

Asymmetry of Power and REsources

Energy Corruption provides income to influential people, who are well-positioned, better informed and resourced to defend their interests, versus unorganized and less informed citizens who pay the actual cost of corruption but individually have much less influence. The fight against the Energy Corruption led by NGOs and civic activists is often sporadic, focusing on individual cases rather than on enabling factors. It depends on donor funding and is often conducted with insufficient information and technical expertise.

To address this asymmetry, the circle of interested stakeholders should be broadened to include wider society, businesses, opposition politicians. The support of international partners and the momentum of political processes, e.g. the EU association process, should be used as a driving force.

Variety of Motives

There is a fine line between corruption and other motives like the lack of skills and capacity, insufficient courage and strength to oppose the illicit pressures, negligence, or other factors that may result in damage to the public interest. The differences are especially hard to tell once there is vague guidance from legislation, ambivalent rules, strategies, and plans, or poorly defined responsibilities of officials. However, concrete legal qualification given to wrongdoing is of secondary importance, once it has harmed the public good.

The public reaction should be equally strong irrespective of these specifics, leaving the legal treatment of the matter to the judiciary.

The Time Lag: Future Costs Versus Today's Gains

Illicit transactions (e.g. embezzled loans, unjust PPAs) often entail medium and long-term liabilities but are usually not reflected immediately on the current budget or the lives of the citizens. This helps the corrupt deals to avoid immediate focus and scrutiny from the public and parliamentary bodies who are predominantly focused on urgent problems. Citizens may be less attentive to future societal damage, while for the participants of corrupt deals the benefit is of

[1] *This misconception is often used by anti-western propaganda when identified cases of corruption are generalized to discredit the whole society.*

immediate and sizeable interest. A typical example can be a PPA with an inflated price that can help mobilize higher financing and represents a financial asset itself.

Strict procedures and oversight by civil society and international agencies over the allocation of sovereign guarantees are necessary to counter this tendency[1].

Visibility and Success Stories

Government officials as well as IFIs providing financial and technical assistance are genuinely interested in project implementation, which can be reported as a success story. This may sometimes weaken their attention to project shortcomings and make them blind-eyed to deficiencies in strategic justification, technical quality, and observance of environmental and social standards[2]. Project sponsors may tend to diminish the size of problems, inefficiencies, or potential damage to the public interest. There is a similar tendency in relations of public entities with monopolistic quasi-commercial suppliers (Gasprom, InterRao, or SOCAR in the case of Georgia) where the achieved agreements are presented to the public as a great success.

The public should be aware of this tendency and request independent assessment and scrutiny of such projects and agreements.

These and similar "systems traps"[3] should be taken into account while discussing Energy Corruption and designing the actions for its elimination.

[1] *IMF assessment of fiscal risks of PPAs issued to hydropower developers in Georgia is an example of such international involvement. https://bit.ly/3pXXQRk*
[2] *More than 140 HPP projects in Georgia presented as a huge success, in reality have not delivered the expected results. Civil society widely criticizes the government and IFIs for disregarding the strategic priority of projects, their technical and environmental performance, as well as the failure to enforce the adequate oversight.*
[3] *Donella Meadows "Thinking in Systems – The Primary"*

Conclusions & Recommendations

Corruption in the energy sector is a common phenomenon observed in all developing, energy importing countries included in this publication. The overall extent of Energy Corruption depends on the quality of governance, accountability practices, institutional development of the energy sector, and public tolerance of corruption. Regardless of the form and scope of energy corruption, it undermines energy security, sustainable development and the national geopolitical interests of the countries. Different types of Energy Corruption may coexist and create a complex system of favors and benefits feeding the interests of elite networks.

The similarity between cases in different post-socialist countries allows for identifying the common taxonomy of Energy Corruption and the possibility of experience sharing between the countries.

Given the complexity and a wide scope of energy as a policy area, corruption in the energy sector doesn't involve only individual public officials. This is a systemic phenomenon enabled by the general conditions of governance, transparency and public tolerance, and conducted predominantly through the activities of elite networks of colluded business and political actors, who create and utilize the conditions of governance deficit.

Confronting Energy Corruption is a continuous task that entails fighting against specific cases and simultaneously stamping out the corruption-enabling environment. This requires an in-depth knowledge of specifics of the energy sector and understanding of its policies.

The effects of Energy Corruption are multiple and diverse. They can range from increased energy costs and deteriorated service to consumers to significant budgetary loss, hindered economic development, environmental damage, and ultimately to undermined state sovereignty and national geopolitical interests. Energy Corruption erodes the trust and morale of societies, discourages economic cooperation and democratic development. The multiple damages to public interest may occur simultaneously and have a cumulative effect.

Thus, addressing Energy Corruption can generate multiple benefits. It is also a systemic undertaking complicated by asymmetries of power, information, motivation and resources of the actors involved. Its success can be achieved through a combination of:

- **Quality legal and regulatory framework**. Energy reforms in line with the EU Energy Acquis and/or the best industrial practices are a systemic solution to most corruption problems. Such reforms envisage the establishment of good governance, transparency, accountability and market competition in the sector.
- **Introducing sound commercial practices** through privatization to strategic investors, and management of state-owned enterprises by leading international companies that can bring genuine commercial interests, high industry standards, investments and new technologies to the sector.
- Formulation and strict adherence to **national priorities and country strategies** in order to create the accountability framework and protect policymakers from political and corrupt pressure while pursuing national interests. This entails the development and incorporation of adequate analytical and research capacity.
- Monitoring and control of specific corruption cases and enabling environment; monitoring and reacting to the "Red Flags" as indicators of the corruption-enabling environment; developing anti-corruption monitoring tools.

The momentum created by the EU Association Agreements, popular movements and election campaigns should be utilized to overcome the potential obstruction of these networks against transparency and energy reforms.

The following objectives should be pursued to successfully control energy corruption:

Reinforce general anti-corruption activities and initiatives

- Reinforce transparency and good governance practices and anticorruption activities including advocacy, investigative journalism, the establishment of parliamentary and civil society oversight to limit the possibility of the most common forms of energy corruption. Utilize the existing tools and anti-corruption initiatives, such as TI1, OECD2, OGP, EITI.

Create accountability frameworks

- **Proper metering and billing** at all levels is the foundation for sector development and accountability. Investment in metering and data systems should be expediently enforced wherever still imperfect.
- **Transparency of energy data, statistics and corporate information** (where appropriate) should be enhanced. The Energy Transparency Index[3] or similar benchmarking tools can be used for cross-country comparison and encouragement of data availability. Confidentiality of data should be reduced to a necessary minimum.
- **Strategies and action plans**, policy guidelines should be developed to limit the arbitrariness in decision making; an accountability framework should be developed to enable public and parliamentary monitoring and control.
- **Legislation** should be rectified to create clear rules and procedures, systems of monitoring and oversight, delineation of responsibilities between policy and economic actors, to minimize loopholes and grey areas enabling illicit activities.

Actions aimed at establishing the conditions for arbitrary decision making, unbalanced rights and responsibilities, vague provisions allowing free interpretation should be considered as **deliberate acts of creating opportunities for corruption.**

Enable public and parliamentary control

- **Capacity building of parliament and society** should be intensified to allow their meaningful engagement in controlling Energy Corruption and promoting transparency, accountability, good governance and sound regulation. Reputable organizations should be fostered. Public awareness about technical, organizational and economic issues should be increased to gain wider popular support for reform and anticorruption activities.
- Conduct an annual **independent energy policy review** to monitor:
  - Achievement of stated priorities and strategic objectives, annual and program budgets, sector financial performance, operation of SOEs and other indicators;
  - The integrity of legislative framework, legislative initiatives and specifically their effect on transparency, accountability and good governance;
  - State capture diagnostics for assessment of capture risks and key governance deficits in the energy sector.

Empower energy regulators and ensure their integrity

- Minimize political interference with regulatory commissions;
- Minimize the likelihood of political appointments and maximize professional standing and regulatory independence of regulators;
- Refrain from amendments and deviation from established standards of the international legal system. Engage the regulators in international professional networks and exchanges.
- Increase their administrative and financial capacity, and remove political appointments that do not comply with conflicts of interest and technical

[1] https://www.transparency.org/en/corruptionary
[2] https://www.oecd.org/corruption-integrity/about/
[3] https://dixigroup.org/en/comment-cat/2020-years-2/

qualification standards.
- Establish regulatory independence and integrity as an untouchable high standard in society.

Improve the strategic capacity of the government and energy ministries

- Sound energy strategies developed with the participation of policymakers, using quality data and research, based on sound analytical methods and capacity may lay the foundation for sound policies capable to withstand external political and corrupt pressures.

Improve the management of SOEs

- Management of SOEs should be upgraded to the best industry standards to create safeguards from corrupt influences of political and business elites;
- Introduce corporate governance standards for the energy sector SOEs in line with the best international principles, such as the OECD Guidelines on Corporate Governance of State-Owned Enterprises;
- Conduct a corporate governance assessment study and consider involving the leading international energy companies to manage and upgrade the SOEs to the best industry standards.

Promote competition in the energy markets

- Conduct the privatization of less critical assets and companies in generation and distribution to strategic international investors and reputable companies capable of introducing investment and new technologies, engaging in genuine market competition and assuring market liquidity.
- Open up the transparent market for energy traders and suppliers, establish the competitive procedures for energy import, transit and power exchange.

Strengthen cooperation with international partners

- Increase involvement of international development agencies and the Energy Community Secretariat in setting up proper safeguards against energy corruption.

These objectives can be most efficiently achieved through reforming the energy sector in compliance with the well-established system of energy legislation, notably the EU Energy Acquis.

Civil society

Civil society should play a greater role in monitoring and preventing Energy Corruption. Some specific objectives for anti-corruption activities include:

- Introduce **Energy Corruption into a wider public discourse and political debate, highlight it as a systemic issue**. Include academic, research institutions and think tanks in the discussion. Support the exchange and networking of progressive stakeholders. Involve businesses, politicians, a wider circle of NGOs, youth and young entrepreneurs. Use the debate in the pre-election period to widen the circle of informed stakeholders. The phenomenon of Energy Corruption and its enabling environment has to be widely acknowledged as harmful and dangerous. The emphasis should be placed on the elimination of enablers and monitoring of the red flags.
- **Shift the burden of proof to the incumbents.** Once there is a likelihood of damage to public interest combined with concealed information and lack of credible explanation from public bodies, it should be named corruption unless proven otherwise.
- **Increase the CSO capacity to engage in the discussion of regulatory and strategic issues, which are part of the energy reform.** Establish cooperation and **networking between the NGOs** specialized in various areas to cover the interdisciplinary field of energy policy. Include the NGOs analysts and scholars working on policy, environmental, economic, social and security issues.

- Support privatization to strategic international investors capable of bringing the needed investment, technologies and sound business practices to energy markets.
- **Widen the scope of investigative journalism** to cover the cases that create enabling environment while continuing to investigate concrete instances of Energy Corruption.
- **Build coalitions and networks.** Energy Corruption is in most cases conducted through elite networks, therefore there is a need for a strong and consistent opposition, which can involve a wide group of international and local stakeholders.

Donors, IFIs and the international community

- **Strengthen coordination** with the goal to improve the governance and accountability in energy sectors of the receiving countries.
- **Increase** the knowledge and analytical **capacity** of CSOs, think tanks and anti-corruption NGOs to be able to understand and counteract the energy corruption. Increase an emphasis on systemic analysis of energy legislation, development of sound strategies and their enforcement in each country. Develop a set of indicators for monitoring Energy Corruption.
- Require the funded projects to be awarded through **transparent competitive procedures** and be supported in line with **sound strategies and policies**. Establish tighter safeguards and scrutinize supported projects to exclude a corrupt component.
- Support projects for attracting the leading international industrial companies to the **management of SOEs** and bringing them to high standards of industrial corporate governance.
- Support international cooperation and exchange on energy corruption, the development of anticorruption assessment and monitoring tools.

To advance the work on Energy Corruption it is recommended to develop monitoring, assessment and research tools with a focus on the energy sector

- Develop a methodology for the assessment of Energy Corruption that will enable an in-depth analysis of legal, regulatory and policy framework and practices, will identify the governance deficiencies, loopholes and grey areas in the sector. **Develop KPIs and tools for parliament and society oversight** over the energy sector governance.
- Conduct a detailed inventory of the energy sector in each country concerned. The framework for such an inventory can be based on the previously developed list of corruption enablers and monitoring tools.
- Conduct a legal study of commercial secrets and confidentiality clauses in the energy sector; define a clear framework and best international standards for engagement of state entities in commercial transactions.
- Scrutinize intermediary companies working in energy imports in order to understand their relevance, markup and commercial practices.

Country-specific recommendations can be found in the country case studies presented below in this publication.

Bibliography

Chayes, S. (2016). The Structure of Corruption: A Systemic Analysis Using Eurasian Cases. Carnegie Endowment for International Peace, Publications Department. Retrieved from https://carnegieendowment.org/2016/06/30/structure-of-corruption-systemic-analysis-using-eurasian-cases-pub-63991

Daly, J.C.K. (2020). Despite Illegality, Crypto-Currency Mining Flourishes in Abkhazia. Eurasia Daily Monitor, 17(121). Retrieved from https://jamestown.org/program/despite-illegality-crypto-currency-mining-flourishes-in-abkhazia/

DiXi Group. (2020). Energy Transparency Index 2020: International Edition. Retrieved from https://dixigroup.org/en/analytic/energy-transparency-index-2020-international-edition/

Dreammeter. (2013, August 7). Interview with the former Prime Minister of Georgia, Bidzina Ivanishvili [Video]. Youtube. https://www.youtube.com/watch?v=EnITVW5yxdw

Energy Community. (2017, January 5). An important step towards transparent procurement of electricity in Moldova. Retrieved from https://www.energy-community.org/news/Energy-Community-News/2017/01/05.html

Ferguson, G. (2019). Global corruption: Law, theory & practice. University of Victoria.

Grasso, C. (2017). The Dark Side of Power: Corruption and Bribery within the Energy Sector. In R. Leal-Arcas, J. Wouters (Eds.), Research Handbook on EU Energy Law and Policy (pp. 237-256). Edward Elgar Publishing.

Gulca, I., & Necșuțu, M. (2019, March 5). The Cryptorepublic. Anticoruptie. https://anticoruptie.md/en/investigations/economic/the-cryptorepublic

Hellman, J. S., Jones, G. & Kaufmann, D. (2000). "Seize the State, Seize the Day" : State Capture, Corruption, and Influence in Transition. World Bank Policy Research Working Paper No. 2444. Retrieved from https://openknowledge.worldbank.org/handle/10986/19784

International Energy Agency. (2020). Georgia 2020 Energy Policy Review. Retrieved from https://webstore.iea.org/georgia-2020

International Monetary Fund. (2017). Georgia : Fiscal Transparency Evaluation. Retrieved from https://www.imf.org/en/Publications/CR/Issues/2017/09/27/Georgia-Fiscal-Transparency-Evaluation-45274

Klitgaard, R. (1988). Controlling Corruption. University of California Press. Retrieved from https://www.jstor.org/stable/10.1525/j.ctt1pnj3b

Korteweg, R. (2018). Energy as a tool of foreign policy of authoritarian states, in particular Russia. European Union. Retrieved from https://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU(2018)603868

Lovei, L., & McKechnie, A. (2000). The Costs of Corruption for the Poor—The Energy Sector. Viewpoint. World Bank. Retrieved from https://openknowledge.worldbank.org/handle/10986/11437

MacLachlan, K. (2019, November 18). Corruption as statecraft: Why urgent steps must be taken to guard against this form of hybrid warfare. Transparency International, Defence & Security. https://ti-defence.org/corruption-statecraft-urgent-steps-taken-guard-against-hybrid-warfare/

Maina, W. (2019). State Capture: Inside Kenya's Inability to Fight Corruption. Africa Centre for Open Governance. Retrieved from https://africog.org/wp-content/uploads/2019/05/STATE-CAPTURE.pdf

Meadows, D. H. (2008). Thinking in Systems: A Primer. Chelsea Green Publishing.

Moise, G.M. (2020). Corruption in the oil sector: A systematic review and critique of the literature. The Extractive Industries and Society, 7(1), 217-236. https://doi.org/10.1016/j.exis.2020.01.002

Mungiu-Pippidi, A., & Johnston, M. (Eds). (2017). Transitions to Good Governance: Creating Virtuous Circles of Anti-corruption. Edward Elgar Publishing.

NV. (2019, March 12). Five Stories About How Putin, Organized Crime and Oligarchs Tried to Destroy Naftogaz and Ukraine. Retrieved from https://nv.ua/biz/naftogaz-vs-gazprom/five-stories-about-how-putin-organized-crime-and-oligarchs-tried-to-destroy-naftogaz-and-ukraine-50011464.html

OECD. (n.d.). OECD Work on Anti-corruption and Integrity. Retrieved from https://www.oecd.org/corruption-integrity/about/

Oliver, C. (2020). How Bulgaria became the EU's mafia state. POLITICO. Retrieved from https://www.politico.eu/article/bulgaria-how-it-became-mafia-state-of-eu/

Pope, J. (2000). Confronting corruption: The elements of a national integrity system. Transparency International. Retrieved from https://bsahely.com/2016/10/04/confronting-corruption-the-elements-of-a-national-integrity-system-the-ti-source-book-2000-by-jeremy-pope/

Power. (n.d.). CurbingCorruption. Retrieved March 21, 2021, from https://curbingcorruption.com/sector/electricity-and-power-starting/

Rocha Menocal, A. & Taxell, N. (2015). Why corruption matters: understanding causes, effects and how to address them. Evidence paper on corruption. UK Department for International Development. Retrieved from https://www.gov.uk/research-for-development-outputs/why-corruption-matters-understanding-causes-effects-and-how-to-address-them-evidence-paper-on-corruption

Rose-Ackerman, S. & Palifka, B. (2016). Corruption and Government. Causes, Consequences, and Reform. Second Edition. Cambridge University Press.

Rothstein, B. & Varraich, A. (2017). Making Sense of Corruption. Cambridge University Press.

Scharbatke-Church, C., & Chigas, D. (2019). Using Systems Thinking to Understand and Address Corruption in the Criminal Justice System in Fragile States. In J. Ellis (Eds.), Corruption, Social Sciences and the Law: Exploration across the disciplines. Routledge.

Stefanov, R. & Vladimirov, M. (2015). Bulgaria and the South Stream Pipeline Project: At the Crossroad of Energy Security and State Capture Risks. Center for the Study of Democracy. Retrieved from https://csd.bg/publications/publication/bulgaria-and-the-south-stream-pipeline-project-at-the-crossroad-of-energy-security-and-state-captur/

The Presidential Office of Ukraine. (2021). At the initiative of the President, gas tariffs for the population will be reduced. Retrieved from https://www.president.gov.ua/en/news/z-iniciativi-prezidenta-tarifi-na-gaz-dlya-naselennya-bude-z-66025

Transparency International. (n.d.). What is corruption? Retrieved from https://www.transparency.org/en/what-is-corruption#define

Transparency International. (2014). State capture: An overview. Retrieved from https://knowledgehub.transparency.org/helpdesk/state-capture-an-overview

Transparency International. (2015). The state of corruption: Armenia, Azerbaijan, Georgia, Moldova and Ukraine. Retrieved from https://www.transparency.org/en/publications/the-state-of-corruption-armenia-azerbaijan-georgia-moldova-and-ukraine

Transparency International. (2019). Western Europe and EU: Stagnating anti-corruption efforts and weakening democratic institutions. Retrieved from https://www.transparency.org/en/news/cpi2018-western-europe-eu-regional-analysis

Transparency International. (2020a). CPI 2019: eastern Europe & central Asia. Retrieved from https://www.transparency.org/en/news/cpi-2019-eastern-europe-central-asia

Transparency International. (2020b). Overview of corruption and anti-corruption in Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. Retrieved from https://knowledgehub.transparency.org/assets/uploads/kproducts/Regional-profile-Eastern-Partnership-countries_2020_PR.pdf

Transparency International , The TI Source book 2000 https://bsahely.com/2016/10/04/confronting-corruption-the-elements-of-a-national-integrity-system-the-ti-source-book-2000-by-jeremy-pope/ p. 29

United Nations. (2004). United nations convention against corruption. Retrieved from https://www.unodc.org/unodc/en/treaties/CAC/

World Experience for Georgia. (2019a). Energy Poverty: Guidance for State Policy and Public Discourse in the Time of Reforms. Retrieved from http://weg.ge/sites/default/files/weg_2019_web.pdf

World Experience for Georgia. (2019b). Regulatory Impact Assessment of Proposed Energy Law on Vulnerable Customers in Georgia. Retrieved from http://weg.ge/sites/default/files/aid-o_aa-i-13-00018_usaid_energy_program_ria_of_proposed_energy_law_on_vulnerable_customers_in_georgia.pdf

Нисневич Ю. А. Политика и коррупция, монография. Издательство Юрайт, 2018

Country Case Studies

Risks of Corruption in Energy Sector in Armenia

Vahagn Khachaturyan
Economist

Introduction

Country Profile

Armenia is a parliamentary democratic republic with a population about 2.9 million. For about two decades, the country was governed by an authoritarian kleptocratic regime that managed to seize and maintain political and economic power through falsification of electoral processes and results as well as the capture of the state – putting the country's economy, policies and institutions in service of the interests of oligarchic clans.

In late 1990s and early 2000s, Armenia carried out privatization of state companies and property, including energy assets. Most parts of the privatization processes served the interests of companies, while causing significant damage to the country's economy as well as to the national security and sovereignty.

Armenia became an upper middle-income country in 2018.[1] Yet, the country still faces several development challenges, including the economy's heavy dependence on commodities, persistent poverty, and unemployment – which was 18.5% in 2019.

Since January 2015, Armenia has been a member of the Eurasian Economic Union. In November 2017, the country also signed a Comprehensive and Extended Partnership Agreement with the European Union.

The Velvet Revolution in Spring 2018 ousted the former regime – widely seen as corrupt – and brought aspirations for change in the values and philosophy of governance to a more people-centered approach. At present, the new Government of Armenia (GoA) is taking some bold initiatives to solve multiple political, economic, and social problems created by the previous regime.

Energy Sector

Sources of energy produced in Armenia mostly come from natural gas and nuclear fuel imported from Russia, while the main domestic energy source is hydropower. Imports of oil and gas cover 75% of Armenia's fuel needs. The current energy policy focuses on development of local, mainly renewable, energy sources trying to replace the nuclear power plant.

Production of electricity mostly meets domestic demand, which is about 6,5001 GWh annually. The total operating capacity of all generation units is about 2,400 MW. Domestic electricity demand is covered 37% through nuclear, 31.5 % through thermal, and 31.5% through hydropower generation.

The transmission operator is a state-owned company High-Voltage Electric Networks (HVEN) CJSC, which holds all the related assets within the country, though does not operate the system. The transmission system of Armenia is connected with Georgia, Turkey and Iran.

Distribution is done by Electric Networks of Armenia (ENA) CJSC, which holds and operates all the distribution assets within the country. The system serves about one million customers.

[1] *https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups, https://blogs.worldbank.org/opendata/new-country-classifications-income-level-2018-2019*

Metering and collection are close to 100%.

The power system is dispatched by an **Independent System Operator**, which is a separate, government-owned company called Electro Power System Operator (EPSO) CJSC. The data collection and control system has been installed on power generation units and 220 kV substations.

The **regulatory body** in the sector is the Public Services Regulatory Commission of Armenia (PSRC), which issues licenses for wholesale power market participants, including import and export transactions, sets the tariffs for generation, transmission, and distribution, including end-user tariffs and service fees, sets tariffs for imported electricity, sets the market rules and distribution rules, and provides concessions for vulnerable customers.[1]

Armenia's power market is not competitive. There is only one power Distribution Company, which does not leave any choice for the customers. There are no clear rules guaranteeing third party access to transmission and distribution networks. There are no market rules for balancing deviations between contracted and delivered amounts of power. There are no strict regulatory mechanisms to protect vulnerable customers, hence GoA uses targeted social support schemes to protect such customers. Attempts have been made over the past three years to amend the Energy Law to improve the framework for competitive market tools, but so far nothing has changed.

Alleged Corruption in the Energy Sector

The energy sector, with its colossal circulation of money (gas supply ~ $ 500,000 million and electricity ~ $ 350 million a year) and significant so-called "losses" (~ $ 80 million a year),[2] has always been considered to be "a dark area" for the public because of its closed nature and lack of information.

About 2.4 trillion AMD (~4,78 billion USD $, between 1988-2019, or 24% of total investments.) investment has been made in the sector between 1988-2019 (~ 24% of total foreign investment flows in the real sector)[3] only partially served their purpose and some part is believed to be stolen through corruption schemes.

One of the major problems of the energy sector relates to the tariff setting. Armenia has one of the highest shares of inexpensive hydroelectricity generation, the lowest share of expensive natural gas generation, and a high share of inexpensive nuclear power generation, and yet, it has **the highest electricity tariff** among comparable countries. Given the background of questionable privatization of energy assets, closed decision-making processes, and unexplained losses, tariff-setting is viewed as a problematic policy arena.

According to a World Bank report, the Armenian energy sector has a growing financial gap that was due to (a) incurring expenses and lending/borrowing for non-core business activities; (b) non-payment by ENA; and (c) below-cost recovery tariffs. The current reality reflects persistent inefficiencies in the government, weak rule of law, poor regulatory quality, and alleged widespread corruption in the sector.[4]

[1] *www.arlis.am/DocumentView.aspx?DocID=91484*
[2] *www.armtimes.com/hy/article/138444*
[3] *Foreign investment in January-December 2019, Statistical Committee of the RA, external link*
[4] *The World Bank. (2016). Supporting Effective Fiscal Management in Armenia.*

Case Description

Given the risks of corruption in the country and questionable privatization of energy assets, high tariffs for energy services are largely believed to be calculated and applied in a way to benefit energy companies rather than the state or its consumers, and to be based on political expediencies and corrupt deals. Such public distrust is supported by a number of cases, as described below.

Electrical Networks of Armenia

Electricity distribution and supply are ensured by ENA, which is comprised of four companies. ENA's privatization has been one of the longest and most scandalous deals, lasting about 2.5 years and carried out under direct pressure from Moscow.[1]

Once Armenia decided in April 2000 to disqualify a Russian Gazprom-related company ITERA from bidding for ENA, because it did not meet the requirements of the announced international tender,[2] Gazprom demanded immediate payment of Armenia's $16 million gas bill and threatened to stop gas supply completely unless Armenia cleared its debt in less than a month. Rosatomenergo, a Russian company running a group of nuclear power plants that hoped to join ITERA in buying ENA, accused the Armenian government of discriminating against the Russian businesses. The Russian Ambassador to Armenia declared that the decision to prohibit ITERA from participating in the tender contravened the Russian-Armenian agreement on deepening economic cooperation. Ultimately, pro-Russian forces in the parliament managed to sabotage the passage of relevant laws, which in fact terminated the privatization process.

The process recommenced in 2001 with some looser tender requirements. The new tender revealed that the Western investors lost their interest in ENA. Eventually, in August 2002 during the second round of tenders, ENA was sold to the only bidder – the British-registered Midland Resources Holding. However, the latter appeared to be a proxy and in merely three years it "sold" ENA to its Russian owner – Unified Energy Systems joint stock company (RAO UES).

Since 2005, the tariffs on electricity have been changed several times – rising from 25 AMD ($0.054) per kWt/hour in 2005 to 40 AMD ($0.084) per kWt/hour in 2020. PSRC failed to conduct due calculations and ensure justifications for the increases requested by ENA.[3] ENA's losses included unreturned debts from: forced financial transfers to Nairit and Vanadzor chemical plants; transfers to Yerevan Thermal Power Plant, Vorotan Cascade and High Voltage Electric Networks;[4] payments to foundations controlled by high-ranking officials;[5] and unpaid bills by

[1] *Law about "Program of Privatization of State Property of the Republic of Armenia in 1998-2000" (HO-192, adopted on 26 December, 1997). The Law was about privatization of 7 distribution networks - "Yerevan electrical network" CJSC, "Northern electrical company" CJSC, "Southern electrical company" CJSC and "Central electrical network" CJSC – that later merged to become ENA; Government Decision N272-A from March 20 2003 on Creditory Dept of Electric Networks of Armenia at arlis, "Has the Commission Sponsored ENA?", Hetq, 29 May 2006, Transparency International Anticorruption Center, "Privatization and Foreign Investment in the Republic of Armenia in 1997-2020" (Yerevan, 2020)*

[2] *The first stage was for pre-qualification. The tender process should have been in line with the requirements of the agreement signed between the Ministry of Finance and Economy of Armenia, the Ministry of Energy, the Ministry of Privatization, the "Raiffeisen Investment" AG and "BSA" Ltd on 17 December, 1998, within the framework of technical assistance provided by the World Bank according to SAC-II agreement. According to Jamestown Foundation after failing Telecom privatization and the travails of privatization of the Armenian Brandy Company, the tender for privatization of ENA being watched as a test of the country's ability and willingness to privatize the badly run state property.*

[3] *armtimes.com; lragir.am; 168.am/2016/09/07/684544; www.tert.am; www.1in.am/1948525;*

[4] *The total debt of these plants to energy companies is estimated at approximately 22.4 billion AMD. See World Bank, 2014. "Armenia Power Sector Policy Note," December; Washington, DC. p. 43*

[5] *World Bank, 2014. "Armenia Power Sector Policy Note," December; Washington, DC, p 43.*

customers from the circles of high ranking officials who have not paid electricity bills for years.[1] PSRC accepted ENA's unexplained technical losses (12-18%), inflated purchases, and irrelevant credit funds within the structure of the tariff. In Armenia, until 2016, the electric power transmission and distribution losses were high at 11-14% of electricity output.[2]

In June 2015, PSRC approved the application of ENA to raise electricity tariffs by 16% starting on August 1, 2015. This decision led to widespread discontent and civic unrest known as "Electric Yerevan,"[3] which along with tariff issues brought to the public agenda the inefficiencies of ENA.[4] The protests managed to reverse the price hike and prompted the sale of ENA from RAO UES to the Tashir Group - a Russian company owned by a person of Armenian origin, Samvel Karapetyan. Starting on April 14, 2017, Tashir Capital and Liormand Holding Limited own 70% and 30% of ENA, respectively.

Dzora Hydro-Power Plant

Dzora Hydro-Power Plant (HPP) CJSC, with a capacity of 26.4 MW and an estimated cost of about 2 billion AMD ($4 million) was subject to privatization according to the 2001-2003 privatization program. However, the very first amendment this program removed the property from the list. In May 2001, the GoA removed it also from the balance of the Ministry of Energy and transferred its management to the Ministry of Defence, at the time headed by Minister Serzh Sargsyan. In December 2010, the government allowed Dzora HPP to sell the power plant to Dzoraget Hydro LTD, a company that had been operating for only two months.[5] To lay the groundwork for this sale, the tariff for a unit of electricity generated by the Dzora HPP – which had provided more than $2.5 million in profit to the defense system in 2006-2010 – was reduced in 2009 from 13.9 AMD to 2.7 AMD, potentially in order to create grounds for selling a non-profitable company at a price below the estimated.

In 2011, the government made changes to legislation, which raised the threshold for "small HPPs" from 10 to 30 MWt, according to which Dzoraget was recategorized as a small HPP. As a result of this change, the price of its electricity output climbed from 3.42 AMD to 25.4 AMD per kWh (including VAT) – generating about 1.5 billion AMD ($3.1 million) in profit for the company while imposing additional costs for ENA, which were transferred to consumers through a tariff increase. In 2011-2018, the HPP operated with large profits, generating a cumulative revenue of more than $29 million.[6]

It was later revealed that Dzoraget Hydro was linked to Mikael Minasyan, the son-in-law of then-president Serzh Sargsyan. Currently there is a pending criminal investigation of the abuse of power by the head of PSRC and two other members of the commission in relation with the decisions made on Dzoraget – reduction of tariff, sales, increase of the category threshold that made the tariff to increase and generated extra profits.

[1] *hetq.am/hy/article/68827*
[2] *psrc.am, worldbank, azatutyun, a1plus.am, lragir.am*
[3] *https://en.wikipedia.org/wiki/Electric_Yerevan*
[4] *Civilnet, "Electric Yerevan. One year after", 23 June, 2016*
[5] *azatutyun.am/a/30773179.html*
[6] *https://www.azatutyun.am/a/30169793.html*

High Voltage Electrical Networks

High Voltage Electrical Networks CJSC (HVEN), which owns the 110-220kV electricity transmission energy network, is responsible for transmission of electricity in Armenia, sale of electricity to the distribution company (or immediately to consumers) and export of electricity. HVEN is also authorized to build wind power plants and generate electricity from wind.

In 2005, HVEN funded the construction of an Iran-Armenia gas pipeline – and the cost of one of its sections - 6.1 billion AMD (13.6mln USD) - – was included in the tariff, approved by the PSRC. Presumably under pressure from Gazprom, the Iran-Armenia pipeline ended up having a diameter of only 700 milimeters, which meant that it could no longer serve as an alternative to a Russian gas pipeline, as had been originally envisioned. Still, in 2015, this pipeline too was sold to Gazprom.[1] In 2015, it was revealed that back in 2007, HVEN have sold a 40km of the section of pipeline to the firm Armrusgazard for $40 million and even received a $30 million advance payment.[2] Based on the sale of this section of the pipeline, HVEN recovered the costs of its initial investment in the construction of pipeline and, based on this cost recovery, could have removed it from tariff charges[3] -- however this was not done.

In 2017, the GoA handed over oversight of HVEN to Tashir Capital CJSC[4] and in April 2018 approved HVEN's 25-year trust management program.[5] After the 2018 Revolution, the Minister of Energy announced that the GoA was terminating this trust management agreement because some provisions in the agreement were not favorable for Armenia.[6] Meanwhile, Tashir Capital CJSC claimed that it has itself abstained from taking over HVEN management, because it was not considering it as a source of profit, but rather as a means to influence the tariff.[7] In June 2018, the GoA annulled its own decrees related to HVEN trust management and approving the trust management program.

Armrusgazard (Gazprom Armenia)

Armrusgazard CJSC – which became known after 2013 as Gazprom Armenia – was established[8] in 1997 as a joint venture between the GoA (45% share), Gazprom (45%) and ITERA International Energy, LLC (10%). Over several years, GoA shares decreased to 20% and in 2013, through a highly suspicious process the government sold the rest of the shares to Gazprom.

Three major gas agreements outlining the deal were signed on December 2, 2013 during the visit of Russian President Vladimir Putin to Yerevan. His visit was accompanied by civic unrest, with about 1,000 people detained by police. Agreements were ratified by the National Assembly on December 23, 2013 in the midst of a rally by oppositional political parties and civil society groups.

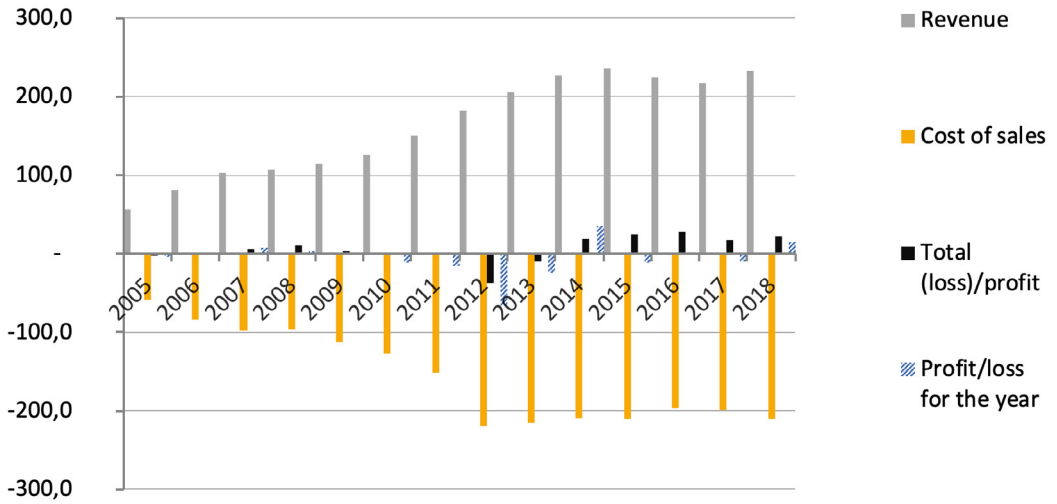
After signing the Armenian-Russian gas agreements, not only did Armrusgazard became an entirely Russian property, but Armenia also committed to assure Gazprom rights and interests

[1] *Sargis Harutiunyan, "Iran will export gas to Georgia via Armenia" 11 January 2016.*
[2] *Astghik Bedevyan, "Meghri-Kajaran section of Iran-Armenia pipeline is being sold to "Gazprom Armenia", 3 June 2015.*
[3] *Astghik Bedevyan, "Meghri-Kajaran section of Iran-Armenia gas pipeline is being solde to "Gazprom Armenia", Radio Liberty, 3 June 2015, https://www.azatutyun.am/a/27051397.html*
[4] *GoA Decree №1035-A from 24 August, 2017.*
[5] *GoA Decree №463-A from 12 April, 2018.*
[6] *Ruzanna Stepanyan, "The government is terminating the agreement with "Tashir capital" about HVEN", Radio Liberty, 30 Maj 2018, https://www.azatutyun.am/a/29259393.html.*
[7] *Hovhannes Movsisyan, "Tashir Capital" answers the government: they themselves refrained from HVEN management", Radio Liberty, 31 May 2018, https://www.azatutyun.am/a/29261946.html.*
[8] *GoA Decree №373 from 9 September, 1997.*

in Armenia until the end of 2043 plus fixed gas prices for 5 years.[1] The agreement also deprived Armenia of an ability to carry out its own policies in areas such as gas acquisition, transportation and other works until the end of 2043.[2]

Over 2005-2018, the revenue of Armrusgazard / Gazprom Armenia quadrupled (*Figure 1*). For several years, Gazprom has sold gas to Armenia at relatively low prices, while domestic prices in Armenia have been much higher. Accounting for the fact that up until 2014, Armrusgazard CJSC was making losses or had very little profit, one may conclude that the difference between low import prices and high tariff of gas supplied to consumers was used to compensate for costs associated with inefficient management.

Figure 1. "Armrusgazard"- "Gazprom Armenia" CJSC profits over 2005-2018, AMD billion



Source: Annual financial statements of ArmRusGazProm CJSC

As the figure above reveals, beginning in 2014 the total profit of Gazprom Armenia CJSC sharply increased. In 2005-2013 the company had a gross loss of 31.9 billion AMD ($82.6 million USD) compared in 2014-2018 to a gross profit of 111.7 billion AMD ($232.7 million).[3]

Cross-Case Analysis

Comparison with similar post-Soviet countries indicates that energy tariffs in Armenia are relatively high.[4] Such comparison using 2016 data particularly shows that the electricity tariffs in Armenia should be in the range of 34-35 AMD instead of 48.98 AMD per kWh/hour or even lower, if the analysis accounts for Armenia's relatively cheap nuclear energy production and the low production and distribution losses in Armenia. The 14-15 AMD difference between these two figures, or approximately 40% markup over the expected tariff, can be seen as the "corruption mark-up" effectively charged to the population.[5]

According to expert estimates, between 2013-2019, an average of $100-120 million per year

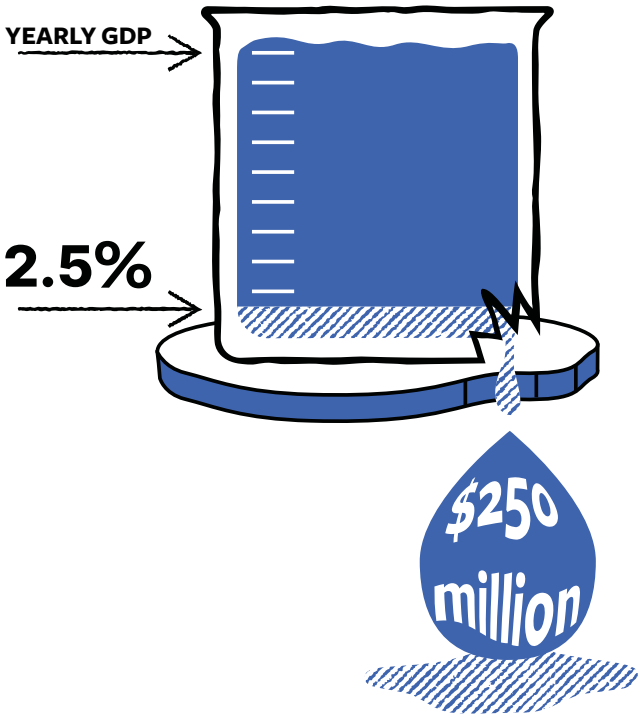
[1] *"High level Armenian-Russian negotiations held at the Presidential Palace", 2 December 2013.*
[2] *Daniel Ioannisyan, "The gas agreement ends, the monopoly - no", Union of informed citizens, 21 December 2018.*
[3] *In some years the difference between gross margin and the profits was due to other general, administrative and financial costs.*
[4] *http://www.psrc.am/images/News/PSRC_Consulting_Services_Part_1_Report__ARM.pdf*
[5] *https://hetq.am/hy/article/68827*

was stolen from payments for electricity used for personal and industrial purposes by the citizens of Armenia. The calculations were made based on the PSRC annual reports on the electricity sector,[1] whereas the electricity supplied by ENA was separated from the total amount of electricity produced (5.6 billion kWh out of 7.6 billion kWh per year on average).

Schemes involving alleged corruption have operated as following:

- For years overpriced purchases have been made in the system, with these costs always being passed on through tariffs;
- Various large-scale projects or costs related to other assets were presented as expenses but not actually carried out – yet the funds were "written off".
- In one instance, an asset was "written off" as useless property, but was then easily repaired and sold at a high price; that cost was again included in tariffs.
- In another case, unfinished construction work was categorized as an investment made and included in the tariff.
- Several LLCs operated in the energy sector that were affiliated with high-ranking officials. These companies received orders for millions of dollars in supplies of goods or services, supplying those goods at much higher prices than the market.
- Bribes paid to the government officials by the energy companies in order to receive favored treatment and passage of laws that allowed companies to profit handsomely at the expense of money received from the population through unreasonably high tariffs;

According to some estimates, today's tariffs, losses for the population from these corrupt practices total at least $250 million per year – with production at approximatley 7.8 billion kWh per year – which translates to 2.5% of Armenia's GDP.[2]



[1] *Calculation is based on the data available on http://www.psrc.am/public/pages/27 and https://hetq.am/enarticle/68827.*
[2] *https://hetq.am/hy/article/68827*

Enabling Environment

A key factor that contributes to corruption risks in the energy sector has been the lack of transparency of decision-making.

Transparency of Decision-Making Processes

Decision-making processes related to the energy sector have been generally closed and inaccessible for the public scrutiny. Public contracts are generally non-transparent in Armenia and there is no legal requirement to publish them. For example, the increase in Gazprom gas prices set out in a 2008 contract[1] was not revealed to the public for five years, until the signing of intergovernmental agreements during the visit of President Putin in 2013.

Information about beneficial owners is also not sufficiently transparent. While information about founders of limited liability companies (LLC) is accessible at www.e-register.am – free of charge for journalists and costing about $6 for any citizen – information about shareholders of closed joint stock companies (CJSC) is kept at the Central Depository of Armenia and is not accessible at all.[2] According to recent reforms, the government is taking steps to ensure transparency of beneficial ownership, however at the moment it is somewhat accessible only for the mining sector.

Methodology of Tariff Calculation

One of the reasons for the existence of potential corruption schemes is the methodology of calculation of tariffs, which is prescribed by the Energy Law.[3] This methodology, developed by PSRC, is based on the principle of calculating the expected profit margin and providing that necessary income to the company.[4]

The tariff structure is as follows:

- Large generation tariffs are differentiated by capacity charge and energy price. The current average wholesale tariff, inclusive of Value Added Tax (VAT), is about $0.049/kWh (23.5 AMD/kWh);
- renewable energy is regulated by a price cap tariff methodology with an annual recalculation formula that adjusts for inflation and exchange rates;
- transmission tariffs for wholesale market and export (although fixed on the same basis) are about $0.02/kWh (1.0 AMD/kWh), inclusive of VAT;
- EPSO tariffs are defined as monthly service fees and as a separate electricity price for export;

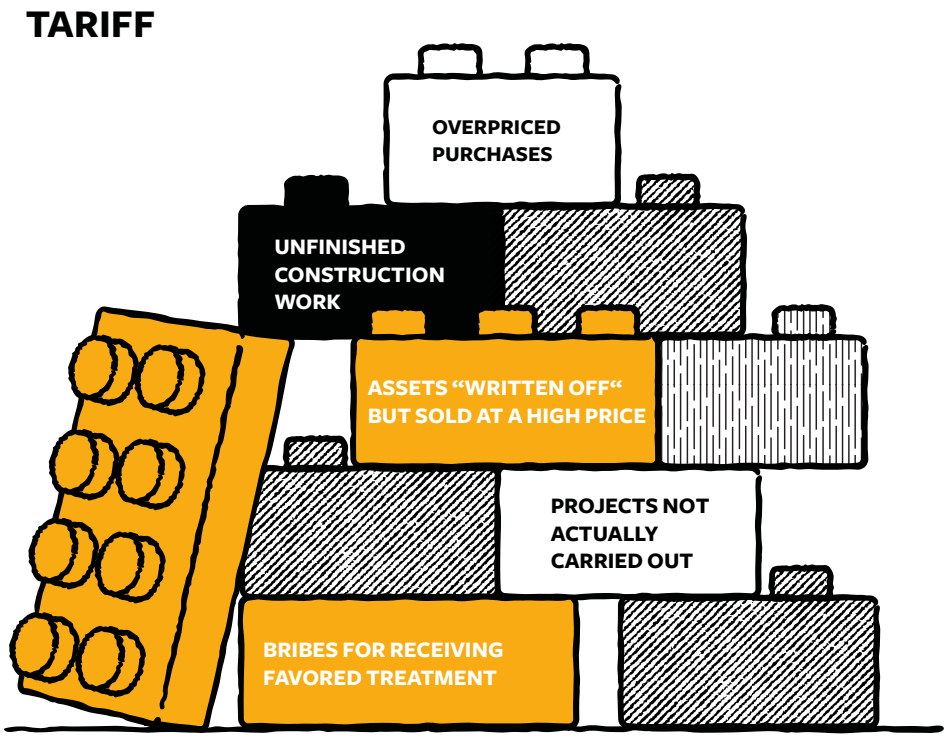
[1] *"Gazexpert" OJSC was created by according to decisions №39 from 9 April 1997 and №53 from 12 February 1998 of the board of directors of "Gazprom" public shareholding company. On 12 May 1999 it received state registration number №028081. By the decision of the main shareholder in 2006 the company was renamed "Gazprom Export" Ltd. "Gazprom" is the 100 percent owner of "Gazprom Export" Ltd https://www.gazpromexport.ru/en/about/history/.*
[2] *Central Depository of Armenia, https://cda.am/am*
[3] *http://www.parliament.am/law_docs/210301HO148eng.pdf*
[4] *RA PSRC Decision N 145-A from April 30 20013; RA PSRC Decision N79 on License Conditions from November 1 2002, Attachment 2*

- Distribution tariffs are not set yet. The absence of a proper legal framework artificially restricts consumers' rights to import electricity from neighboring countries;

- End-user tariffs are differentiated by voltage levels for day and nighttime tariffs. There are no capacity charges, peak tariffs, or service fees. As a result, customers have no responsibility for defined capacity charges for large generation;

- The average difference between day and night tariffs is insignificant: for high voltage customers (i.e., 35 to 110 kV), it is only 12% and, for middle (6 to 10 kV) and low voltage (0.22 to 0.4 kV) customers, it is only 26%.[1]

The current methodology of tariff-setting allows businesses to make money through various corrupt ways, e.g. include charging for unfinished works, inflating service costs, and billing for personal expenses. As the methodology does not motivate cost-savings, there is no decrease of tariffs over time and the PSRC appears to simply agree with any tariff proposal submitted by a company.



For many years this methodology has allowed the PSRC to approve any applications submitted by energy companies. Though the PSRC argued that it has maintained a balance between consumer interests and companies, in fact it mostly satisfied the claims of companies, while the rejection of a few applications mostly to perpetuate the appearance of "independent" decision-making. The Commission instead appeared interested in raising prices and strengthening the position of monopolies – whether in energy, water supply, or telecommunications. Criticism of such practices over the years has not received much attention. Even proposals made by an ad hoc committee of the National Assembly, charged with studying the gas supply system in 2016, remained unimplemented.[2]

[1] *http://www.psrc.am/am/announcements/announcement/2142-1*
[2] *http://www.parliament.am/committees.php?do=show&ID=111172&showdoc=2394&cat_id=215&month=all&year=2019&lang=arm*

Assessment and Possible Remedies

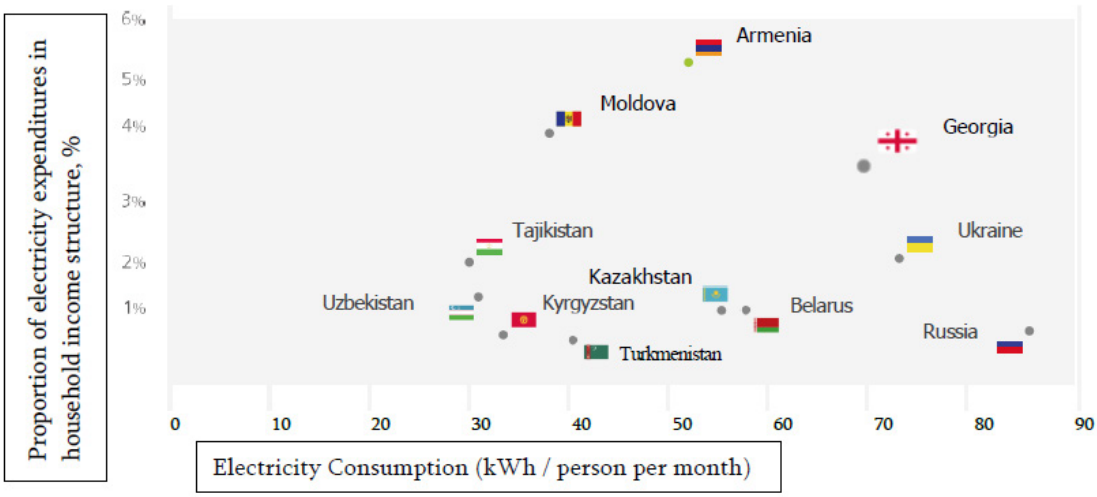
High tariffs have serious economic and social implications. Given the weak social-economic situation in the country – with poverty rates of 23-25%[1] – the excessive unjustified payments for services and so-called transaction costs (including bribery for non-payment of electricity consumption) have created serious limitations for the competitiveness of the economy, the social well-being of the population, and the prospects for further development of the energy system.

- High electricity tariffs reduce the household income available for spending on food and other necessities and contribute to an increase in poverty.[2] Using Armenian household expenditure data, the World Bank (2014)[3] has found that:
- energy spending is already estimated at 10% of total household expenditures, which is considered the "energy poverty level" internationally;[4]
- As a result of 2013 gas and electricity price hikes, energy expense share increase was highest for the poor (by 13.6 %);
- The tariff hikes are estimated to have increased poverty by 3%.

Another study (2013) finds that the poverty rate in Armenia was projected to increase by 6% as a result of energy tariff increases.[5]

Compared to others in the region, the share of electricity expenditures in Armenian household incomes tops 5%, which is the highest among Commonwealth of Independent States (CIS) countries (where the average is 2%), conditioned with the relatively low income of the population (*Figure 2*).[6]

Figure 2. Share of electricity expenditures in household income structure (kWh / person per monthly)



[1] *https://www.armstat.am/file/article/f_sec_4_2019_5.pdf*
[2] *It should be noted that the household welfare will also decline as a result of reduced consumption of electricity (due to higher tariff).*
[3] *https://openknowledge.worldbank.org/bitstream/handle/10986/21874/94187.pdf?sequence=2&isAllowed=y*
[4] *The term energy/electricity poverty refers to households spending more than 10 % of their budgets on energy/electricity.*
[5] *Ruggeri Laderchi, Caterina, Anne Olivier, and Chris Trimble, 2013. "Balancing Act: Cutting Energy Subsidies While Protecting Affordability," p. 20 .The World Bank, Europe and Central Asia Reports, Washington, DC.*
[6] *http://www.psrc.am/images/News/PSRC_Consulting_Services_Part_1_Report__ARM.pdf, p. 15*

While there have not been more recent studies conducted, the picture likely has not changed significantly, given the fact that: a) the level of poverty in Armenia has not changed significantly during the period mentioned and b) the share of utility expenditures as a proportion of household budgets remains the same.

The tariff methodology based on net profit margin does not provide sufficient incentives to the utility companies to minimize their expenditures or optimize costs. On the contrary, the guaranteed return principle may provide an incentive for overspending and inappropriate investment especially if there is also a possibility of corruption in procurement. The investments are not properly controlled by the regulatory commission, which tends to encourage tariff increases and may take part in profits.

Certainly, there may be objections and examples of a number of countries where this method, called "RAB-based regulation"[1] (regulatory asset base regulation) is used. This method is applicable in countries with non-corrupt, transparent, and strictly controlled mechanisms.

Taking into account the huge political changes that are taking place in Armenia after the 2018 Revolution, one of the main goals of which is to eradicate corruption, the "price cap"[2] method (used in Poland, Sweden, Turkey and a number of other countries) could be used more effectively. It is necessary to move beyond the principle of profitability of the business of the regulated company (rather than the profitability of the assets) in order to keep the companies from unjustified investments. This will contribute to the reduction of prices of the services provided by these companies. In fact, there is currently a similar agreement in force between the ENA and the PSRC.[3]

The energy system needs to be radically changed and the authorities need political will to do so.

- The first task should be change to the legal framework governing the energy sector. The goal should be to make the Armenian energy sector more secure in terms of its independence, diversity of sources, competitiveness and efficiency.
- Second, there should be investigations into potential corruption cases. It should be noted that in some instances, such as the Dzoraget HPP and small HPPs, criminal cases have already been initiated, and these cases consider compensation for the large-scale damage caused to the state.[4]

It should be noted that the GoA has presented to the public a plan for a new strategy for the development of the energy sector, which aims to ensure energy services that are free, competitive, non-discriminatory; inclusive, diversified, more independent; predictable and transparent; accessible, fair to all, sufficiently accessible to the vulnerable; as well as to attractive investors. The strategy envisages that by 2028 all consumers will be connected to the automated electricity metering system, which will allow them to read the data of their commercial metering devices remotely, making this data available in real time to both consumers and new retailers and market operators. creating a favorable environment for the liberalization of the retail market in the way of digitalization of electricity trade. It is also planned in the system to conduct a detailed cost analysis on a monthly basis – with robust monitoring and application of effective internal control mechanisms. [5]

[1] *http://www.rosseti.ru/eng/clients/rab/what/*
[2] *https://www.moneyexpert.com/gas-electricity/what-is-the-energy-price-cap/, external link*
[3] *https://www.24news.am/index.php/news/9952*
[4] *https://www.azatutyun.am/a/29926242.html*
[5] *Draft strategic program for the development of the energy sector of the Republic of Armenia until 2040*

Recommendations

In order to eliminate corruption risks in the Armenian Energy System, price a fair tariff, implement credit and investment programs effectively, and fully implement the functions of the power system, it is necessary for the following actions to be taken by the National Assembly of the Republic of Armenia, government and the PSRC:

- to apply a new tariff calculation methodology, which ultimately will ensure a more affordable tariff and reduce corruption risks (e.g. shifting from ex-post adjustment (analysis based on the company's past actual costs) to ex-forecast (ex-ante) regulation; setting the tariff and / or its separate components (cost level, profitability rate, investments) for 3-5 years);
- to separate ownership of generation, transmission and distribution capacities in the energy sector to prevent concentration, stimulate competition, and guarantee economically justified prices and tariffs for energy services;
- to ensure compliance of procurement to the requirements of state procurement regulations;
- to apply salary restrictions to senior management of public service companies, and align them with those of high-ranking state officials of the Republic of Armenia;
- to introduce market mechanisms in the field of electricity sales and liberalize the electricity supply market, enabling consumers to choose their electricity supplier and the respective tariff system;
- to substantiate and ensure transparency of energy companies' incomes and expenditures, including the those related to assets in the territory of Armenia;
- to strengthen the capacity of the PSRC or create an alternative government unit which will provide regular data for the calculation of natural monopoly tariffs;
- to accelerate the transparency of and public access to beneficial ownership of companies, including information about shareholders of CJSCs;
- to ensure accessibility of all public contracts and other relevant documents related to the energy sector as well as transparency of the work of PSRC;
- to include in contracts investment-related sections fixing the amount of investments, purpose and the timetable;
- to improve analysis and verification of justifications for changes in tariffs proposed by companies, including through development of financial models of companies and introducing the practice of digitization of their revenues and expenses in different tariff scenarios; conducting loss calculations based on methodologies proved to be effective in other countries;
- ensure the organization of independent evaluation of PSRC decisions on a regular basis with mandatory publication of evaluation results.

Reforming the energy sector in Armenia has the potential to not only curb corruption risks in the system but also to bolster Armenia's resilience and economic development, to protect the environment, to reduce dependence on external energy sources, and to strengthen national security.

Bibliography

Bedevyan, A. (2015, June 3). Meghri-Kajaran section of Iran-Armenia pipeline is being sold to "Gazprom Armenia". Radio Liberty. Retrieved from https://www.azatutyun.am/a/27051397.html

Harutiunyan, S. (2016, January 11). Iran will export gas to Georgia via Armenia. Radio Liberty. Retrieved from https://www.azatutyun.am/a/27051397.html

IEA Statistics. (2018). Electric power transmission and distribution losses (% of output) – Armenia. Retrieved from https://data.worldbank.org/indicator/EG.ELC.LOSS.ZS?locations=AM

Ioannisyan, D. (2018, December 21). The gas agreement ends, the monopoly – no. Union of informed citizens. Retrieved from https://uic.am/5276

Movsisyan, H. (2018, May 31). "Tashir Capital" answers the government: they themselves refrained from HVEN management. Radio Liberty. Retrieved from https://www.azatutyun.am/a/29261946.html

Olivier,A, Ruggeri L. C. & Trimble C. P. (2013). Balancing act: cutting energy subsidies while protecting affordability. World Bank Group. Retrieved from http://documents.worldbank.org/curated/en/204171468029978923/Balancing-act-cutting-energy-subsidies-while-protecting-affordability

Statistical Committee of the Republic of Armenia. (2019). Foreign investment in January-December 2019. Retrieved from https://www.armstat.am/file/article/sv_02_20a_420.pdf

Stepanyan, R. (2018, May 30). The government is terminating the agreement with "Tashir capital" about HVEN. Radio Liberty. Retrieved from https://www.azatutyun.am/a/29259393.html

The President of The Republic of Armenia. (2013, December 2). High level Armenian-Russian negotiations held at the Presidential Palace. Retrieved from https://www.president.am/en/press-release/item/2013/12/02/President-Serzh-Sargsyan-meeting-with-the-President-Vladimir-Putin

World Bank. (n.d.). World Bank Country and Lending Groups. Retrieved from https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

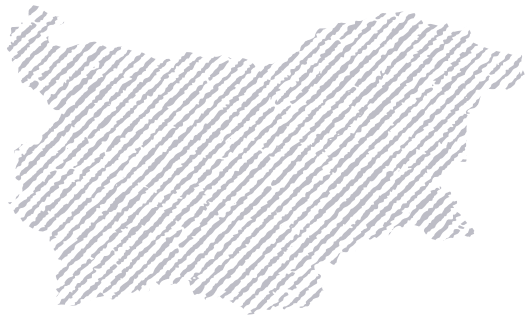
World Bank. (2014). Armenia Power Sector Policy Note. Retrieved from http://hdl.handle.net/10986/21874

World Bank. (2016). Republic of Armenia Programmatic Fiscal Work: Supporting Effective Fiscal Management. Retrieved from http://hdl.handle.net/10986/25771

World Bank Data Team. (2018, July 1). New country classifications by income level: 2018-2019. Retrieved from https://blogs.worldbank.org/opendata/new-country-classifications-income-level-2018-2019

What is the energy price cap? (n.d.). Moneyexpert. Retrieved on 2021, March 30, from https://www.moneyexpert.com/gas-electricity/what-is-the-energy-price-cap/

State Capture Redux: TurkStream and the Triumph of Energy Dependence in Bulgaria



Martin Vladimirov
Senior Analyst at the Economic Program of
the Center for the Study of Democracy

I would like to thank Ruslan Stefanov, Director at the Economic Program of the Center for the Study of Democracy, for his insightful comments and editorial support.

Introduction

The Russian economic influence in Europe is centered on energy. The Kremlin has sought to play European governments on one another, undermine or avoid common EU energy rules, manipulate and monopolize energy markets.[1] It has sought to exploit governance loopholes and lock in governments and local oligarchic networks in corrupt large-scale energy projects. The pinnacle of this strategy in South East Europe (SEE) has been the development of the TurkStream gas pipeline project. More than a decade after its launch, the project is close to being completed. The project would have a significant strategic impact over Bulgaria as it will reduce the country's energy security and raises profound concerns about potential conflict of interest and alleged corruption. It aims to ship 15.7 billion cubic meters (bcm) per year of Russian gas from Turkey through Bulgaria, Serbia, Hungary and Austria. The project is a more limited version of the now-cancelled South Stream pipeline that had the objective to transport 63 bcm/yr of Russian gas via the Black Sea, and then on the same route in SEE.

Over the last decade, the project has successfully diverted the energy policy attention of SEE governments away from the diversification of natural gas supply and the liberalization and integration of energy markets. To enable the construction of the pipeline, Russia has often taken advantage of widespread governance deficits in energy decision-making and political corruption. Russia has leveraged limited diversification and liberalization, as well as the lack of independence of regulators and deficiencies in the management of state-owned enterprises. The two pipeline projects have benefitted from and contributed to further **capturing of energy policy-making institutions** and to the entrenching of **oligarchic networks of influence** consisting of both Russian and local private interests with close ties to the government. These networks have pushed for the development of the project with the expectation that companies linked to them would receive public procurement contracts.

Completing the TurkStream pipeline will have a range of **negative impacts on regional and European energy security:**

- preserving the dependence on Russian gas amid enormous and unnecessary infrastructure spending feeding corrupt pro-Russian oligarchic networks;
- further amplifying Russian malign influence through the reinforcement of the state capture of key institutions in the countries along the route of the pipeline;
- blocking of the liberalization and diversification of gas markets, including by preventing cheaper LNG supply to compete with Russian gas in Europe.

TurkStream in the European and Bulgarian Energy Security Framework

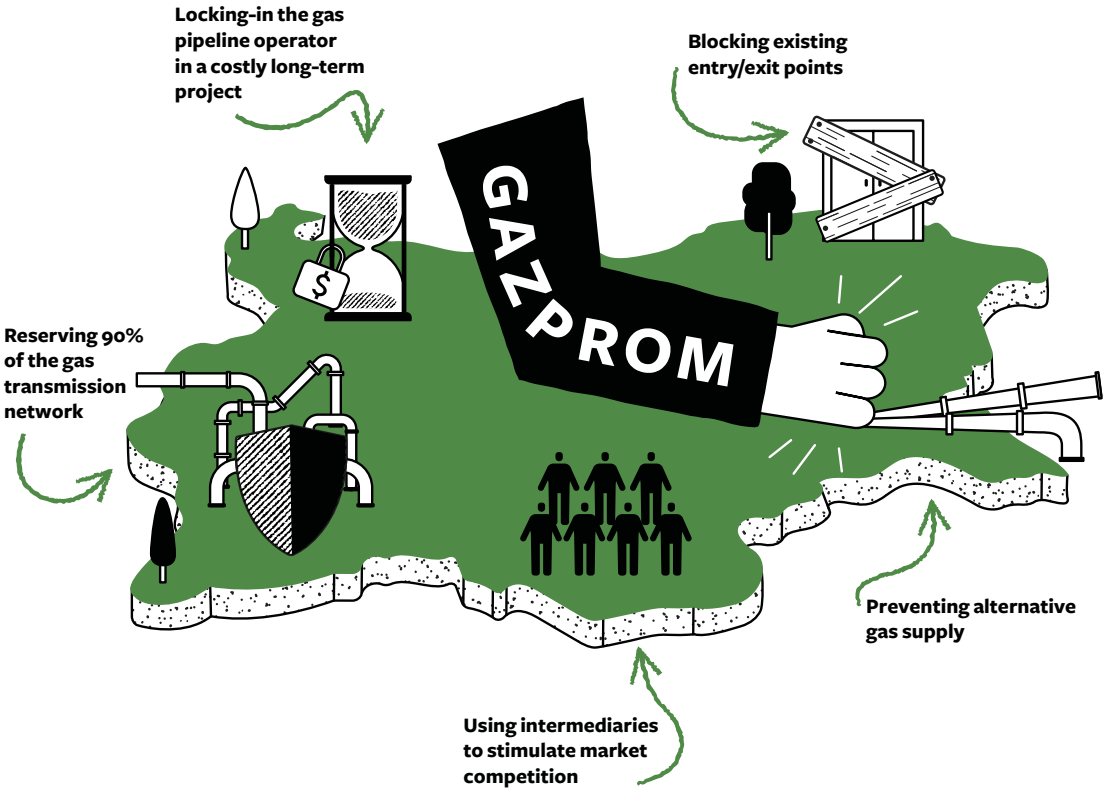
The Russian energy and foreign policy campaign of circumventing Ukraine and expanding Europe's dependence on Gazprom has proven successful. Despite the EU push for energy supply diversification, the share of Russian gas in the European gas market steadily rose to 34% in 2019, up from below 30% a decade ago. While alternative supply is much more readily available, most of Central and Eastern Europe remains excessively dependent on one supplier: Gazprom. The Russian company has been able to retain clients through lower prices, in spite of price convergence in the global market, and more flexible contractual terms. Gazprom has also success-

[1] *Vladimirov, Martin and De Jong, Sijbren. 2017. "Deciphering Gazprom's Pipeline Agenda in Europe", Atlantic Council. March 14, 2017. Russia cancelled the project in December 2014 due to its inconsistency with the EU energy and competition law.*

fully countered efforts for diversification with large-scale pipelines that would lock-in European dependence on Russia at a time when natural gas is being increasingly relied upon to phase out coal and nuclear.

Gazprom's initial objective of circumventing Ukraine as the main transit country has been supplemented by its aims to consolidate market share in Europe amid strong competition from LNG and stagnating gas demand caused by improvements in energy efficiency and the advance of renewables.[1] As part of promoting both Nord Stream and TurkStream, Gazprom has locked its main clients in Western and Central Europe into new contracts, preempting their search for alternative suppliers once existing long-term agreements expire in the early 2020s.

The strong support of Germany and other Western European governments for the implementation of Nord Stream's second string has in practice made TurkStream inevitable and any coordinated EU response against the project unlikely. While they might not be commercially viable (the total investment by Gazprom to implement the projects is estimated at $115 billion[2,3]), the two pipelines could be seen instead as a strategic investment in expanding Russia's political influence in Europe.



Source: CSD

Nord Stream II has created a precedent, in which a politically-driven pipeline that does not contribute to the diversification of the European energy supply receives a de-facto exemption from the EU energy competition rules. The EU push for diversification away from excessive Russian gas dependence that started in 2009 fell prey to the private interests of well-connected large European energy companies that have benefited from the construction of Gazprom-led pipelines. Paradoxically, the U.S. has remained the most consistent adherent to a common European energy security policy despite the Russia-infused disinformation campaign in Europe claiming that the U.S. is only pursuing the business objectives of its LNG exporters. In 2019 and 2020,

[1] *Ibid*
[2] *Krutihin, Michail. 2019. "Непокоренная Европа: какую цену придется заплатить России за «Северный поток-2". Forbes. 4 November, 2019*
[3] *Cost information for Nord Stream II and TurkStream can be found on the projects' websites*

the U.S. government expanded the scope of sanctions against companies participating in both Nordstream II and TurkStream, which is likely to delay or even block the final steps in the implementation of the two projects.[1] EU governments hosting the pipelines have protested the sanctions.

In this context, the development of the Bulgarian section of TurkStream is also closely related to weakness of the country's overall energy security policy.[2] Despite three gas crises in 2006, 2009 and 2015, successive governments have not implemented the badly-needed measures to improve the security of supply. As of 2019, Bulgaria still depended on Russian gas imports for 81% of its consumption. Bulgaria is also 100% dependent on the imports of Russian oil, which has also translated into Russian dominance in the fuel market, as the country's only refinery is owned by Lukoil who also has almost monopoly status in distribution and storage. Although the Bulgarian electricity generation mix is diversified, the country's only nuclear power plant, Kozloduy, producing around a third of the nation's electricity, uses only Russian nuclear fuel.

Bulgaria has failed to achieve its energy security objectives. Despite strong political and financial support from both the EU and the U.S., the Interconnector Greece-Bulgaria (IGB) project, initiated in 2009, has stalled for more than a decade. The IGB pipeline has been purposefully sabotaged and delayed in the past decade including by companies close to Russia in Bulgaria that have launched a series of attacks in courts and through regulators to make the project non-viable.[3]

Instead of working on supply diversification via alternative sources, the construction of TurkStream has been consistently justified by many policymakers as a way of enhancing the country's security of gas supply, despite the overwhelming gas dependence on Russia. As Bulgaria was one of the worst affected EU members from the Russian-Ukrainian gas supply crisis of 2009, TurkStream is presented in the public space as a viable option for avoiding a future cut in gas deliveries. Yet, in fact the project simply replaces one transit country, i.e. Ukraine, with another – Turkey, which has had a difficult and often unpredictable relationship with Russia over geopolitical rivalries in the Middle East.

TurkStream is also at the core of the controversial concept for the development of a Balkan Gas Hub (BGH) that the Bulgarian government claims would transform the country into a major gas transit and trading center in the Southeastern European region.[4] The Bulgarian government tries to portray the hub to its European and U.S. partners as a diversification tool which would serve as a trading point for Russian (via Turkish Stream), Azeri, and LNG gas sourced from the global gas market (via the Trans-Adriatic pipeline and the IGB), as well as for potential domestic production from Black Sea offshore reserves. However, the hub concept has little to do with the actual formation of a liquid gas market exchange but rather with the construction of new gas transmission infrastructure mirroring the South Stream route, as well as the expansion of the existing capacity.[5]

[1] *Forrest, Brett. 2020. "Secretary of State Pompeo Lifts Sanctions Exemption from Nord Stream 2 Pipeline", The Wall Street Journal. July 15, 2020*
[2] *Ognian Shentov, Alexander Stoyanov, and Maria Yordanova, eds. 2014. Energy Sector Governance and Energy (In)Security in Bulgaria. Sofia: Center for the Study of Democracy.*
[3] *Center for the Study of Democracy. 2018. Energy Security in Southeast Europe: the Greece-Bulgaria Interconnector. Policy Brief No.81*
[4] *Bulgarian National Radio. 2020. "Borissov Conducts Airborne Inspection of the Balkan Stream Gas Pipeline", September 23, 2020,*
[5] *Stefanov, Ruslan and Vladimirov. 2020. The Kremlin Playbook in Southeast Europe: Economic Influence and Sharp Power. Center for the Study of Democracy, Sofia*

TurkStream: Economic or Political Project?

From its onset, the TurkStream pipeline has been designed to serve the Russian energy interests in the region and to further entrench existing state capture networks by providing well-connected companies with business opportunities at premium returns.[1] With varying degrees of willingness, Bulgaria has subscribed to the South Stream gas pipeline concept from its very beginning. Once the project collapsed amid disputes over the EU energy and competition law, Russia hastily announced in December 2014 the creation of a replacement pipeline that would have only two lines, each with 15.75 bcm/year capacity, for transporting Russian gas via the Black Sea to Turkey. The new initiative followed a similar logic as South Stream but on a diminished scale.[2] TurkStream's second line was planned to continue to Europe either via Bulgaria or Greece to reach Serbia, Hungary and Austria. Gazprom announced that the European stretch of the new pipeline network will be implemented by the host governments entirely (with the exception of Serbia where Russia owns 51% of the project construction company).

The new pipeline project allowed Russia to pitch Greece against Bulgaria in competing for the continuation of the pipeline from Turkey. Gazprom initially intended to secure the gas transit through Greece, and then through Northern Macedonia, Serbia, Hungary and Austria. This strategy was seen as a way for the Kremlin to punish Bulgaria for the demise of the South Stream project and exploit the only other available route for Russian gas supply through SEE. The new Russian strategy also became possible by the change in leadership in Athens. The 2015 government of the leftist SYRIZA[3] demonstrated a strong pro-Russian attitude in hopes of using TurkStream's Greek extension to defy EU austerity.[4] However, Greek-Russian relations cooled with the Russian interference in the name dispute with North Macedonia. Eventually, Gazprom decided in favor of the TurkStream's continuation through Bulgaria. The context of Russia's decision to cooperate with Bulgaria was a confirmation of the political rather than economic motivation of the Russian gas strategy in Europe.

In January 2019, the Bulgarian gas transmission system operator (TSO), Bulgartransgaz, decided to build the Bulgarian leg of TurkStream after the shippers (Gazprom and the Hungarian-Swiss trader MET) committed to purchase 100% of the offered capacity on both the Turkish-Bulgarian and the Bulgarian-Serbian borders for a 20-year period.[5] Bulgartransgaz estimates the costs of the new infrastructure at around €2.4 billion with most of the funding to come directly from the construction contractors. The latter will be compensated from the future transit revenues from TurkStream, with 4.1% interest rate to be covered additionally by Bulgartransgaz. In addition, Bulgartransgaz would have to spend another €750 million in operational costs over the next 20 years of the transit contract signed with Gazprom. Gazprom will be paying transit fees worth around €170 million per year,[6] which is 70% more than the current annual transit fee revenues that Bulgartransgaz is receiving from shipping Russian gas along the Transbalkan pipeline. The total transit revenue for the whole contractual period would be around €3.6 billion, which means

[1] Stefanov, Ruslan and Vladimirov. 2020. The Kremlin Playbook in Southeast Europe: Economic Influence and Sharp Power. Center for the Study of Democracy, Sofia
[2] The new pipeline, which would consist of only two pipeline strings with half the capacity planned for South Stream, would again pass through the Black Sea but would instead link directly to Turkey. The first line of TurkStream would deliver gas directly to the Turkish market, while the second would continue towards Europe either via Bulgaria or Greece.
[3] As a declaration of his foreign policy intentions Tsipras first had his first meetings with the Ambassadors of Russia and China in Athens, even before his official inauguration.
[4] When in opposition, SYRIZA has argued for unilateral Greek exit from the EU sanctions against Russia.
[5] It is likely that MET took part in the market test on behalf of Gazprom to formally show that it is not only the Russian company that is going to transit gas through Bulgaria. Bulgartransgaz did not release a breakdown of the volumes booked by the three companies.
[6] Bulgartransgaz signed a 20-year transit contract with the following prices: €0,48/MWh for entry at the Bulgarian-Turkish border and almost €0,82/MWh on the Bulgarian-Serbian border. The TSO offered on the Turkish border around 290 GWh/d from 2019 to 2021 and 511 GWh/d for the rest of the period.

that the project would break even only after around 15 years.[1]

By committing to transiting Russian gas coming from Turkey, the Bulgarian government is forced to replace its ship-or-pay transit agreement with Gazprom valid until 2030 with guaranteed revenues of more than EUR 700 million until 2030 in exchange for the new TurkStream transmission contract. Hence, the actual profit from the new pipeline infrastructure could be lower than the one from the existing agreement where the Bulgarian transmission operator has only small operational costs in maintaining the pipeline. In November 2018, the Bulgarian government amended the natural gas section of its strategy to justify at very short notice the construction of new gas infrastructure – namely the Bulgarian section of TurkStream.[2] The strategy was amended without public discussion in order to accommodate the impending cancellation of Gazprom's transit contract with Ukraine providing gas to Bulgaria through the Transbalkan pipeline. Bulgaria agreed to the new project, surrendering any attempt to demand compensation from Gazprom for transit fees due during the next decade under the existing contract valid until 2030.[3]

Figure 1 Comparative Costs for European Pipelines

Project	country/project	Diameter (mm)	Cost (mn euros/km)
South Stream	*Russia, South Stream*	*1420*	*7.4*
OPAL	*Germany, Nord Stream*	*1420*	*2.1*
NEL	*Germany, Nord Stream*	*1420*	*2.3*
Gazelle	*Czech Republic, Nord Stream*	*1420*	*2.4*
Balkanstream (TurkStream)	*Bulgaria, TurkStream*	*1200*	*3.9*

Source: CSD

Although the pipeline routes for TurkStream and South Stream on Bulgarian territory are almost the same, the lower capacity of the former project partially explains the reduced cost structure. However, as visible from Table 1 above, the construction costs for the Bulgarian section of TurkStream (called Balkanstream by the government) exceed the average costs for the implementation of even bigger diameter pipeline projects across Europe similar to the case of the Bulgarian section of South Stream. As with most Gazprom-led projects, this could be related to a corruption premium, which would be allocated to a group of well-connected private interests that have captured the decision-making of energy sector institutions, including the state-owned gas transmission operator Bulgartransgaz and the energy ministry.[4] In the case of South Stream, roughly half of the construction contracts worth €3.6 billion were allocated to five Bulgarian companies with limited or no previous gas pipeline experience, and which were allegedly under the control of a Bulgarian oligarch with close ties to key government institutions.[5]

[1] *CSD estimates based on the projected construction and exploitation costs, and the transit revenues based on the capacity booked by Gazprom on the Turkish and Serbian borders.*
[2] *Updated 2020 Energy Strategy of Bulgaria. Ministry of Energy. To read the full document*
[3] *Indeed, Sofia cannot rely on the ship-or-pay clause because Bulgaria forfeited its chances for a fair trial in case of irreconcilable differences with Gazprom by agreeing, in 2006, that arbitration would be carried out at the International Commercial Arbitration Court at the Russian Federation's own Chamber of Commerce and Industry.*
[4] *Center for the Study of Democracy. Bulgaria and the South Stream Pipeline Project: At the Crossroad of Energy Security and State Capture Risks. Sofia: CSD, 2015*
[5] *Ibid*

Effects on Energy Security and Governance

The Gazprom-led TurkStream project is contributing to the increase in Russian economic influence in Bulgaria. Russia has now locked the state-owned gas transmission system operator, Bulgartransgaz, into a 20-year shipping contract with Gazprom, which would strain Bulgartransgaz's, and indirectly the state's, financial resources. TurkStream would also crowd out alternative gas projects as most of the domestic gas pipeline capacity would be booked by one supplier.

During the negotiations on TurkStream, the Russian government occupied the driver's seat and directed the dialogue, whereas Bulgarian politicians viewed an agreement as a gracious favor from Russia to Bulgaria rather than a mutually-beneficial deal between equal partners. Under continuous pressure from Russia in the form of high-level political statements accusing the government of dragging its feet on the project, Bulgaria rushed through all the needed procedures to start construction in October 2019. Bulgartransgaz wanted to complete the new infrastructure by 31 December 2019, so that the first volumes of Russian gas can start flowing in early 2020 but slow procurement procedures marred with irregularities and alleged backroom dealings inadvertently delayed the process (see shaded Box below). Now the project is expected to be commissioned no earlier than 1 January 2021.

Tellingly, Bulgaria laid down the first pipes of TurkStream before the country finally commenced construction of the strategically important IBG interconnector with Greece, supported by the EU. Unlike in 2014 when Bulgaria was gearing up to start constructing South Stream, with TurkStream the European Commission did not intervene or express any opinion about the legality of the project. The way Bulgartransgaz structured the project, as an expansion of the existing domestic gas network without Gazprom ownership and with guarantees for nominal access to the grid by alternative companies, allowed the government to avoid EU scrutiny.

The tender for choosing the construction contractor to build the Bulgarian section of the pipeline has been marred in problems similar to those of the cancelled South Stream project. Despite Bulgarian authorities' claim that they precisely followed EU public procurement rules, no major company with experience in Europe applied. Unlike in the case of South Stream, however, where the European Commission launched an infringement procedure against Bulgaria for violating the EU competition and public procurement laws, with TurkStream there has been no reaction from EU authorities to demand more transparency in the implementation of the project.[1] The fact that the construction and ownership of the project is in the hands of the state-owned gas operator left little room for EU pressure. Similarly, TurkStream has not provoked a strong reaction from the U.S. in pressuring the government to stick to a strategy of energy diversification.

[1] *Vladimirov, M. and Stefanov, R. 2018. "Bulgaria: State capture unplugged". In: Shentov, O., Stefanov, R. and Vladimirov, M. (Eds.) 2018. The Russian Economic Grip in Central and Eastern Europe. Abingdon: Routledge: 125-126.*

Governance Deficits in the Project Implementation

The implementation of the TurkStream project so far has revealed a number of management deficiencies in Bulgarian energy governance, such as the lack of a detailed cost-benefit assessment of the project, public discussion, or consistency with long-term energy policy and security objectives. The Gas Hub concept, for which a feasibility study was developed, has been used to justify large infrastructure spending without realistic considerations of national and regional gas market dynamics. Many details of the project's implementation, including the terms of compensation and cancellation of the contract in case Gazprom does not ship any gas are currently unspecified, while sensitive issues have not been resolved and are potential points of conflict likely to affect Bulgaria in the future. The concerns about the management of the project were further substantiated by the lack of transparency in the public procurement procedures for the choice of an engineering, procurement and construction (EPC) contractor, as well as governmental and parliamentary actions related to amendments of the national gas strategy.

The tenders for capacity bookings on the new pipeline and for the choice of contractor have been pre-designed in such a way as to comply with EU rules on paper without guaranteeing real competition for bidders. Bulgarian authorities have circumvented EU rules on energy market competition by providing nominal third party access to the pipeline and a separation between the gas supply and gas transmission ownership. Although Bulgartransgaz claims that at least 10% of the technical capacity on the Turkish-Bulgarian border and 20% on the Bulgarian-Serbian one would be allowed to be booked via tenders for shorter-term contracts, it is unlikely that a third company would be able to transport non-Russian natural gas as the TurkStream pipeline capacity on the Turkish side would be 100% booked by Gazprom. The reason is that unlike Bulgaria, Turkey does not need to comply with the EU energy rules.

Public Procurement Deficiencies in the TurkStream Project Implementation

The completion of the Bulgarian section of the TurkStream natural gas pipeline was delayed for more than a year as a result of a public procurement procedure marred by lack of transparency and alleged conflicts of interests. The tender for the choice of a construction company to build the pipeline began shortly after Bulgartransgaz completed a market test for the booking of capacity in the new infrastructure. Although the contract with the contractor was slated to be signed by 1 March, 2019 as to allow enough time for the project to be operational by the end of 2019, the procedure dragged on for seven months as the only two candidates – the Saudi Arabian company Arcade and an Italian-Russian consortium – jockeyed to win the bid.

Although Bulgartransgaz originally chose the Saudi company as the winner in the tender procedure, the state-owned company reported that ARKAD failed to submit the necessary financial documentation on time and was disqualified by the transmission operator.[1] The state-owned gas network operator said it had refused a request by ARKAD for a change in the terms of the draft version of the contract, while the Saudi company claimed that excessive red tape had prevented it from finishing the paperwork on time. Bulgartransgaz interpreted the delay as an informal withdrawal from the contract's obligations and eliminated ARKAD on 28 May 2019.

Without waiting for a decision from the anti-trust commission (CPC), Bul-

[1] *News.bg, "Смениха Саудитския Изпълнител На 'Турски Поток' у Нас с Руска Компания в Сянка (The Saudi Contractor for TurkStream Has Been Changed with a Russian Shadow Company)," 2019.*

gartransgaz replaced ARKAD with the Italian-Russian consortium, Gas Development and Expansion in Bulgaria, which offered a price €5000 lower than the one of the Saudi firm and 31.15% lower than its initial offer, without a change to the rest of the terms. Such a change in the pricing parameters of a public procurement tender is unprecedented but, according to Bulgartransgaz, absolutely legal.

The consortium consists of the Bulgarian subsidiary of the Luxembourg Company Completions Development and the Italian pipeline contractor Bonatti, each holding 50%. It is believed that the offshore-registered entity is directly linked to the Russian pipeline-maker TMK and is responsible partially for the financing of the project.[1] Corporate documents showed that the pipeline

company also allegedly begun delivering steel pipes for the project to the port of Burgas as early as February 2019, long before the EPC contract had been signed – raising suspicions that the outcome of the tender was known well in advance.[2] TMK's owner, Dmitry Pumpyansky, is on the U.S. sanctions list of 96 oligarchs in the US CAATSA legislation. ARKAD filed a complaint to CPC after its disqualification, which was supported by the competition regulator, prompting the Russian-Italian consortium to file a claim with the Supreme Administrative Court.

Despite the claims of a regular, transparent public procurement procedure, the Prime Minister, Boyko Borissov, explained publicly that the government directly intervened to negotiate with Russia and Saudi Arabia to solve the dispute between the two bidders.[3] On the basis of this intervention, by September 2019, the Russian-linked consortium withdrew its claim from the court. Ultimately, Bulgartransgaz signed an EPC contract with ARKAD.

The convoluted and opaque procurement process for this project reveal once more the prevalence of Russian economic and political influence in Bulgaria. Even after the choice of the Saudi company for the bid, it became obvious that the company required the support of the same suppliers and subcontractors that would have taken part if the Russia-led consortium had won the tender. Not surprisingly, at the end of February 2020, a Russian company, Infrastructure Development and Construction (IDC), which is responsible for constructing the Serbian section of the pipeline, and which was not previously mentioned in any of the two consortia bidding for the project, registered a Bulgarian subsidiary and begun working on a 100-km pipeline stretch in Bulgaria.[4] The inclusion of a new company not previously mentioned in the composition of the winning consortium appears to be in direct contradiction with EU rules on public procurement, raising questions about corruption risks and Russian political pressure on EU bodies.

The direct participation of a Russian company in the project came following a stern accusation from Russian President Vladimir Putin in December 2019 that Bulgaria is slowing down the project. A similar criticism came from the Serbian gas supplier, Srbijagas, and its CEO, Dusan Bajatovic, a key intermediary for Gazprom interests in the region, who insisted that Serbian companies will help Bulgaria implement the project on time. Bulgartransgaz has not officially confirmed the participation of IDC and has not published the contract on its website, though this would be mandatory according to public procurement law. To avoid the open tender procedure, the TSO may be concluding only subcontracting agreements for the hiring of equipment and workers.

In October 2020, ARKAD released another batch of contracts revealing that the Saudi company

[1] *Reuters. 2019. "Bulgaria signs up Saudi-led group for TurkStream gas pipeline extension". September 18, 2019*
[2] *Stanchev, Ivaylo. "Как Русия си взе газопровода и 3 млрд. Лева" (How Russia took its gas pipeline and BGN 3 billion). October 16, 2020.*
[3] *Stanchev, Ivaylo. "Руска фирма все пак може да строи „Български поток" (Russian company would build Balkan Stream in the end). February 25, 2020.*
[4] *SEGA. 2020. "Руска фирма влиза в строителството на Балкански поток" (Russian company enters the construction of Balkan Stream). February 25, 2020*

has subcontracted all of the actual construction activities to several Russian firms including IDC that has listed Gazprom as its ultimate owner. ARKAD has also used as a subcontractor the Belarussian state-owned pipeline-builder, Beltruboprovodstroy, previously reflagged by EU countries as a national security risk. It became also known that Russian citizens and former Gazprom officials are in control of the management of the consortium building the TurkStream pipeline on Bulgarian territory although the bid for the construction has formally been won by ARKAD[1]. Thus, in effect Russia ships the gas and builds the pipeline through proxy entities. Moreover, the documents reveal that the whole scheme had been pre-planned already in 2019 before the start of the construction works.

In addition, it is believed that the funding for the construction work in Bulgaria is ultimately ensured by a financial vehicle indirectly controlled by Gazprom, as is the case in the Serbian-section of the project.[2] This means that Gazprom might also be one of the ultimate financial beneficiaries from the construction of the pipeline as it would reclaim the paid transit fees from Bulgartransgaz as per the construction contract. Suspicions that Russia could also be financially involved in the construction increased after two Russian banks including the European branch of VTB and the Moscow-based multilateral International Bank for Economic Cooperation have been part of a group of lenders offering a €400 million loan to Bulgartransgaz, in order to finance the TurkStream construction. Thus it appears that Russian interests benefit from TurkStream via construction, financing, and usage of the pipeline.

[1] *Stanchev, Ivaylo. "Как Русия си взе газопровода и 3 млрд. Лева" (How Russia took its gas pipeline and BGN 3 billion). October 16, 2020.*
[2] *Gazprom has a 51% stake in the company implementing the Serbian section – Gastrans. In addition, the debt financing part of the implementation would be secured by the Serbian office of the Luxembourg offshore company, Completions Development.*

Indirect Impact on the Bulgarian Gas Market

More broadly, TurkStream has significantly delayed the renegotiation of the Bulgarian long-term gas supply contract with Gazprom, which expires on 1 January 2022. Bulgaria was the last country to start talks with Gazprom following an agreement between the Russian company and the European Commission that the former will accept contractual amendments with eight Central European states that have been the victims of Gazprom's monopoly pricing over the last decade. The formal negotiations between Bulgargaz and Gazprom began in August 2019, a year and a half after the EU announcement.[1] Even then, the Russian company did not agreei to Bulgarian demands for significant price reductions based on a changed pricing formula that incorporates a predominant hub indexation vis-à-vis crude oil derivatives. Bulgargaz sent two letters to Gazprom threatening an arbitration procedure if Gazprom did not accept Bulgarian demands.[2] The renegotiation process occurred against the backdrop of TurkStream construction, which could have weakened Bulgaria's hand, as it has an interest in completing the project for political reasons and apparently in support for lucrative contracts for Russian and domestic companies.

In the end, Bulgargaz received a renegotiated long-term contract from Gazprom on 3 March 2020. The day was likely chosen by the Kremlin to increase political impact. It is the national holiday when Bulgaria celebrates its independence from the Ottoman Empire, gained after a war with Russia in 1878. The agreement was hailed by Bulgarian Prime Minister Boyko Borissov as a symbolic political gesture by Russia acknowledging the historically-close ties between the two countries. The reality is that although Bulgargaz gained a 40.33% price reduction (down to €13.44/MWh), Bulgaria will continue to pay higher prices than a number of EU countries with similar dependence on Russian gas, including Lithuania, Latvia, Estonia, Czech Republic, Slovakia and Germany. Considering the even steeper fall in gas prices over the last six months, the price gap between Bulgaria and the rest of Central Europe is likely to have increased to over 15%. Over the course of the talks, it appeared that Bulgaria was purposefully not willing to use the strong bargaining chip of the Gazprom-European Commission agreement to improve the terms of its supply contract with Russia, likely due to fear of a backlash from Gazprom derailing completion of the pipeline. A large-scale energy infrastructure project such as TurkStream has given Russia enormous economic and political leverage over strategic decision-making even when the results of this policy is a missed opportunity to diversify supply and shrink the gas price gap between Bulgaria and the rest of Europe.

Although there is no direct evidence about the use of bribery for securing Bulgarian support for TurkStream, successive cabinets in the past decade have consistently backed Gazprom's interest in the project even when those interests ran counter to Bulgarian objectives. The lack of such evidence may be attributed to inaction by the Bulgarian prosecution and law enforcement, which spurred nation-wide protests in the summer of 2020.[3] Turk Stream has been presented as one of the poster projects of these anti-corruption protests.[4] There is also no logical explanation as to why successive Bulgarian governments have amended energy laws, meddled in the investment and operational decisions of the state-owned gas companies, and designed non-competitive public procurement and capacity booking tenders. These actions have helped to cement Gazprom's monopoly position in the Bulgarian energy market.

[1] According to the agreement between the Commission and Gazprom, a client of the Russian supplier can ask for a contractual renegotiation with a simple notification letter. In case of a dispute, a Commission-organized arbitration would mediate between Gazprom and the gas buyer.
[2] Author's discussions with sources in Bulgargaz close to the negotiations with Gazprom.
[3] Ingilizova, Svetoslava. (2020). "Tsvetanov for FAKTI: the corruption is in the large-scale infrastructure projects". 3 August 2020.
[4] Mediapool. (2020). "Hristo Ivanov to Borissov: Belene and TurkStream are corruption grease". 2 April 2020.

Conclusions & Policy Recommendations

Analysis of the management of the Bulgarian section of the TurkStream gas pipeline reveals many signs of inefficiency, inconsistency, and bad governance -- bordering on corruption and state capture. Bulgarian decisions do not rest on data-driven policy analysis, nor on reliable and transparent financial, socioeconomic and geopolitical forecasts in line with European priorities and market trends. Instead the construction of the Russian-led pipeline has been justified by unsubstantiated promises of energy security improvements and populist rhetoric about reindustrialization and economic growth. The Bulgarian public has not been in a position to make informed choices about the sustainability of the project, as a comprehensive cost/benefit analysis has never been publicly provided. There is ample and mounting evidence though that the costs of the project are disproportionately high compared to the benefits to Bulgaria's energy security. Benefits from the project in the short run seem to accrue to the Russian side, while the expected return to the Bulgarian public in the long-run is dependent on more and more risks and uncertain conditions. The project does not address any of the severe immediate problems of Bulgaria's energy system: energy poverty, energy intensity, and rising indebtedness. Hence, the stubborn persistence of the Bulgarian government, cabinet members, and members of parliament to carry on with TurkStream's construction, and the many bizarre maneuvers to circumvent established rules, raise questions about their motivation and the possible influence of non-public interests in the project's decision-making.

Addressing these deficits requires a number of actions to be implemented by both national champions of reform and international partners. This report recommends the following non-exhaustive list of critical measures:

1 The EU should enhance its energy security policy so that it does not become the easy prey of divergent national interests and private companies. The concentration of oil and gas production – as well as mineral resources used in renewable energy technology – in the hands of authoritarian countries such as Russia and China have significantly increased energy security risks and may undermine the viability of the European energy transition.

2 EU regulations on state aid, public procurement and competition should be upheld in all cases, to include intergovernmental agreements. Violations of these standards should be investigated, with the public kept regularly informed.

3 Bulgaria should introduce prioritization and selection of large investments projects in the decision-making process, based on clear and transparent procedures and fact-based analyses, synchronized with the EU priorities on energy security and supply source diversification.

4 Bulgaria should renegotiate its long-term natural gas contracts with Gazprom in order to abolish destination and take-or-pay clauses, and reduce the duration of these agreement to a maximum of 2 years in order to give gas companies in Bulgaria more flexibility.

5 Bulgaria should expand the regional natural gas interconnectors, storage facilities, and regasification terminals in Southeast Europe increasing the liquidity and competitiveness of the market.

6 Southeast Europe governments, in coalition with civil society and international partners, need to design and implement strategies to counter state capture in the energy sector. A key element should be implementation of regular state capture assessment diagnostics that would measure the level of capture risks in strategic economic sectors, identify key governance deficits that allow excessive market concentration, and expand fair market competition.

7 Civil society actors and investigative journalists should expand their capacity to investigate high-level cases of state capture in the energy sector, given its strategic significance and complexity. Public procurement and large infrastructure projects are worth regular monitoring.

8 Bulgaria should introduce compulsory corporate governance standards for energy sector state-owned enterprises, following the best international principles such as the OECD Guidelines on Corporate Governance of State-Owned Enterprises.

9 Improve the independence of the energy and competition regulators by increasing their administrative and financial capacity, and removing political appointments that do not comply with conflicts of interest and technical qualification standards.

10 An interparty committee of the Bulgarian parliament should commission an external independent energy policy review annually, to include the following: a) an assessment of energy policy performance vis-a-vis the stated priorities for the year, the programming budget, and progress toward strategic goals; b) an evaluation of the financial status of state-owned energy enterprises and an identification of the risks to the sector's development, including required state guarantees and risks of hidden privatization; c) an outline of the priority areas for development of the energy policy for the next year.

Bibliography

Bulgarian National Radio. (2020, September 23). Borissov Conducts Airborne Inspection of the Balkan Stream Gas Pipeline. Retrieved from https://bnr.bg/post/101344934/borisov-inpektira-po-vazduh-stroeja-na-gazoprovoda-balkanski-potok

CSD. (2014). Energy Sector Governance and Energy (In)Security in Bulgaria. (O. Shentov, A. Stoyanov & M Yordanova, Eds.). Retrieved from http://old.csd.bg/artShow.php?id=16984

CSD. (2018). Policy Brief No. 81 Energy Security in Southeast Europe: the Greece-Bulgaria Interconnector. Retrieved from https://csd.bg/publications/publication/policy-brief-no-81-energy-security-in-southeast-europe-the-greece-bulgaria-interconnector/

Forrest, B. (2020, July 15). Secretary of State Pompeo Lifts Sanctions Exemption from Nord Stream 2 Pipeline. The Wall Street Journal. Retrieved from https://www.wsj.com/articles/secretary-of-state-pompeo-lifts-sanctions-exemption-from-nord-stream-2-pipeline-11594822171

Ingilizova, S. (2020, August 3). Tsvetanov for FAKTI: the corruption is in the large-scale infrastructure projects. FAKTI. Retrieved from https://fakti.bg/video/498104-cvetanov-pred-fakti-korupciata-e-v-golemite-infrastrukturni-proekti-video

Mediapool. (2020, April 2). Hristo Ivanov to Borissov: Belene and TurkStream are corruption grease. Retrieved from https://www.mediapool.bg/hristo-ivanov-kam-borisov-belene-i-turski-potok-sa-koruptsinonni-tlastinki-news305670.html

Reuters. (2019, September 19). Bulgaria signs up Saudi-led group for TurkStream gas pipeline extension. Reuters. Retrieved from https://www.reuters.com/article/us-bulgaria-gas/bulgaria-signs-up-saudi-led-group-for-TurkStream-gas-pipeline-extension-idUSKBN1W31E7

Stanchev, I. (2020, October 16). How Russia took its gas pipeline and BGN 3 billion. Kapital. Retrieved from https://www.capital.bg/biznes/energetika/2020/10/16/4127009_kak_rusiia_si_vze_gazoprovoda_i_3_mlrd_leva/

Stefanov, R., & Vladimirov, M. (2015). Bulgaria and the South Stream Pipeline Project: At the Crossroad of Energy Security and State Capture Risks. Retrieved from https://csd.bg/publications/publication/bulgaria-and-the-south-stream-pipeline-project-at-the-crossroad-of-energy-security-and-state-captur/

Stefanov, R., &Vladimirov, M. (2018). Bulgaria: State capture unplugged. In: O. Shentov, R. Stefanov, & M. Vladimirov (Eds.). The Russian Economic Grip in Central and Eastern Europe. (pp. 125-126). Routledge

Stefanov, R., & Vladimirov, M. (2020). The Kremlin Playbook in Southeast Europe: Economic Influence and Sharp Power. Center for the Study of Democracy. Retrieved from https://www.ceeol.com/search/book-detail?id=909162

Vladimirov, M., & De Jong, S. (2017, March 14). Deciphering Gazprom's Pipeline Agenda in Europe. Atlantic Council. Retrieved from https://www.atlanticcouncil.org/blogs/new-atlanticist/deciphering-gazprom-s-pipeline-agenda-in-europe/

Risks of Corruption in the Energy Sector: Kyrgyzstan Case

Mukanova Nuripa
Energy Expert, Kyrgyz Republic

Introduction

The Kyrgyz Republic (KR) is one of the five Central Asian countries, with a population of 6.3 million. Over two-thirds of the population live in rural and often isolated areas. After obtaining its independence in December 1991, the country went through a difficult and a long transition to a market economy that caused disruptions in the economy and increase of poverty. In March 2005 and April 2010, Kyrgyzstan faced two big challenges – the so- called Tulip Revolution and April political unrest- due to misconduct of elections in February 2005, public dissatisfaction with the absence of social and economic improvements, prevailing corruption and increasing a family-clan perception of nepotism. In 2010, the country adopted a new constitution, and became a parliamentary democracy.

Kyrgyzstan ruling system is still mix of Presidential and Parliamentarian system, though a clear split is made between legislative, judiciary and executives bodies.

Kyrgyzstan is considered a lower middle-income country dominated by gold and minerals extraction and reliance on remittances from migrants working abroad. Worker remittances account for about 30% of GDP and gold exports over 10% while the shadow economy is estimated at 23-40% of GDP. The poverty level is high at approximately 23%. Under Transparency International's Corruption Perception Index, KR has moved from 150 (out of 179 countries) in 2007 to 132 (out of 180 countries) in 2018.

High external debt of around 56% of GDP and general government debt of 70% of GDP increases the country's economic vulnerability. The policy of actively attracting external borrowing has led to Kyrgyzstan owing $3.95 billion (53.5% of GDP) to 21 lenders, both multilateral donors and individual countries; the largest debt is owed to Eximbank of China at $1.52 billion. The largest increase in loans (by $192 million per year) has occurred in the last five years during the presidency of Almazbek Atambaev. The majority of debt is used for energy sector and road construction.

The main domestic energy resources of KR are hydropower and coal. Kyrgyzstan's total hydropower potential is estimated at 140-170 TWh of which less than 10% is exploited. Large Hydro power plants (HPPs) accounts for 32% of total energy supply and 91.5% of electricity supply, the remainder being supplied by coal-fired power stations.

Underpriced electricity, tariffs, high losses, and poor management have made the power sector financially unsustainable. In spite of initial progress towards unbundling and privatizing energy assets starting in 2001, Kyrgyzstan has ended up with a highly inefficient and bureaucratic system of state management of the energy sector. Instead of a competitive electricity market, a vertically integrated energy holding company was created and decisions on energy tariffs are taken based on political rather than economic principles.

The National Energy Holding Company[1] (NEHC) is a 100% state owned Stock Company joint stock company (JSC)that unites generation, transmission and distribution companies: JSC Electric Power Plants (EPP), the largest electricity generator, comprising all major HPPs and Bishkek Heat and Power Plant (CHP) and District Heating Network; National Electric Grid Company (NESK), the transmission system operator (TSO); Four distribution system operators (DSOs); and Kyrgyz Energy Transaction Center (metering and settlement data center) and Chakan HPP cascade of 9 small hydropower plants (SHPPs). There are 6 privately owned SHPPs that sell directly to consumers. A number of private suppliers buy small shares of electricity from JSC Electric Power Plants and sell to commercial consumers of distribution companies.

[1] www.energo.gov.kg

The Energy Policy is defined by the **State Committee of Industry, Energy and Subsoil Use (SCIESU)**[1] which was given this responsibility after the abolishment of the Ministry of Energy and Industry in 2016.

The **State Department for Regulation of Fuel and Energy Complex (GARTEK)** provides energy licensing, nominally sets tariffs, and implements the functions of the Anti-Monopoly Authority in the energy sector. However it is far from being independent and decisions are strongly influenced by state politics.

The **"National Management Company,"** also under state ownership, represents another layer of inefficient state management in the Energy sector. This entity was created to address corruption, however no progress has been made to date.

This paper reviews the cases of proven and alleged corruption stemming from poor state governance and inadequate tariff policies in the energy sector of the Kyrgyz Republic, keeping in mind that "corruption" refers to the misuse of resources or power for private gain. The presented cases demonstrate the extent to which inefficient state governance and artificially low tariffs: (a) lead to dependence on external credit sources; (b) intertwine the enrichment of elites with using credits and grants; (c) results in collusion between businesses and political interests. The cases demonstrate different angles of political corruption involving embezzlement, collusion, patronage and fraud.

Case Description

Energy Trading Companies

One of the pre-conditions of a 2010 revolution became increase of tariffs for energy resources; thus converting the tariffs issue into a highly politically sensitive issue. The so-called tariff revolution of 2010 has been resulted in governmental change in Kyrgyzstan. Instead of showing leadership towards healthy economic policy, the government has stepped back on its own commitments to introduce cost-reflective tariffs. This may be partly due to influential stakeholders who benefit from the current situation and would like to preserve it.

There are 20 to 25 private intermediary trading companies in the market[2] who, per the decision of GARTEK buy electricity from the state-owned JSC "Electric Stations" and sell to customers in certain regions for a higher price than state-owned companies in other regions. These trading companies use the resources of state-owned power producers and network operators to sell power to their customers at high profit. Intermediary companies have the triple advantage of using state infrastructure assets, cheap purchase cost, and monopolistic conditions for selling electricity at high cost. Effectively these concessional conditions result in the loss of funds from the energy sector, estimated at nearly 300 million KGS (USD 4,298,640 Exch. rate: 69,7)[3] lost annually.[4]

For example, intermediate company "AK-Meenet Electroservice" buys electricity at 0.26 KGS/kWh and uses the networks of the state-owned "Severelectro" for free. Meanwhile "Severelektro" buys electricity from state-owned "Electric Stations" at 0.35 KGS/kWh. As a result, the

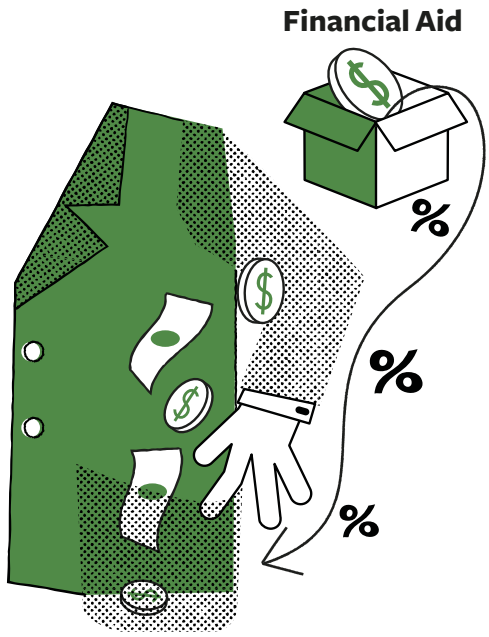
[1] *http://www.gkpen.kg/*
[2] *Some other sources indicate 124 licensees in the energy sector, including intermediary companies https://rus.azattyk.org/a/kyrgyzstan-energy-market/29187076.html*
[3] *www.nbkr.kg*
[4] *www.region.kg*

damage to “Severelectro” amounted to 10.5 million KGS in 2019 (USD 1,504524,32). Another private trading company buys electricity at a wholesale price 0.87 KGS/kWh, and sells it to a large shopping center in Bishkek for 2.55 KGS/kWh, making a substantial windfall. The private trading companies mostly belong to state officials or related persons.[1] For example:

- “Avtomash Energo” is registered to the sons of ex-President Almazbek Atambayev.
- “Nur Al Energo” was co-founded by the director of the State Inspectorate for Environmental and Technical Safety.
- “Sibelektroshchit Asia” was co-founded by the director of the “Nur Al Energo”.
- “Energotekhservis” was founded by the wife of the state secretary of the State Agency for Anti-Monopoly Policy and Competition Development.
- “Energotrade” is one of the founders of the Association of Entrepreneurs of the Energy Complex, which was created by the former first deputy director of the National Agency for Anti-Monopoly Policy and Development. The ex-minister of energy Osmonbek Artykbaev has brokered the renting of HV substations to “Energotrade” through the decision of the Ministry of Energy and Industry.
- “Transelectro” was established by Bolotbek Begaliev and his partners, the ex-member of Bishkek city parliament.[2]

The public perceives existence of the energy trading companies as a corrupt practice. In his letter to the President, a civic activists[3] and energy experts[4] consider this scheme involving private intermediary companies owned by influential people of the ruling elite as corruption and a fraud against state interests. Although the total volume traded through this companies is only 5-6% of total consumption, the material and moral damage to the public sector is pretty high; 60% of citizens consider the energy sector “highly corrupt,” in large part due to the efforts of GARTEK to create favorable conditions for private business at the expense of the state-owned energy companies leading to the withdrawal of funds from the energy sector.[5]

This corrupt practice of intermediary companies was invented before 2010 to benefit ex. president Kurmanbek Bakiev’s family. It could be ended either by the decision of the government or the National Holding Company, as insisted upon by civil society. However, the temptation of energy resources for the ruling elites is strong and keeps this corrupt practice operational. **The Kyrgyz experience of intermediary trading companies in the energy sector proves that individual politicians and bureaucrats can easily manipulate markets as a means of generating profits through non-competitive mechanisms, protected through the legislation**, namely the Law “On electric power industry» enforced in 2018. The law is aimed to create a quasi-market by legalization of vested interests of the intermediary energy companies. The law in fact aims to protect and promote influential private interests. The state capture occurs through private lobbying and influence as only someone who has connections in the state institutions (government, parliament,



[1] https://24.kg/ekonomika/115003_smeshnyie_tarifyi_dlya_pereprodavtsov_elektroenergii_kak_nanas_najivayutsya/
[2] https://24.kg/ekonomika/115003_smeshnyie_tarifyi_dlya_pereprodavtsov_elektroenergii_kak_nanas_najivayutsya/
[3] Letter to President by Sapar Argynbaev, a former member of the Board of Directors of the state owned energy company “Severelectro”
[4] Rasyl Umbetov, chairperson of the Fund “Fight Against Corruption “Taza Kol”
[5] https://24.kg/obschestvo/114652_chastnyie_energokompanii_izvlekayut_pribyil_elektricheskie_stantsii_subsidiruyut/

ministries) gets a license to buy and sell electricity, and creates a private distribution company. Unlike state-owned companies that invest the earned profit back to the system to keep the power grid running, private trading companies put the profit into the pocket. And the law does not prohibit this as explained by Galina Demchenko,[1] the former head of the Department of Purchase and Sale of Electricity of Severelectro.

Energy Tariffs for Household Consumers

y tariffs for consumers in the Kyrgyz Republic are "socially oriented." Households pay 0.77KGS ($0.01) per kWh consumed, up to 700 kWh per month (1000kWh in highlands) and 2.16 KGS ($0.028) for higher consumption.[2] Non-household commercial and business consumers (e.g., industry, agriculture) pay about triple – 2.24 KGS ($0.029) per kWh.

Electricity consumed by households below the 700kWh threshold represents 52% of total consumption and drives the average price of electricity below the short-term cost-recovery level (48% of cost-recovery level in 2017). Large residential consumers and business consumers partly compensate for the losses with tariffs above short-term cost recovery (1.3-1.9 times).[3] However even these customers do not cover the long-term costs of supplying KR's energy, which are likely to be much higher.

In spite of tariffs being among the lowest in the region and probably the continent; public surveys[4] show that 60% of citizens are against increasing electricity tariffs and consider them to be high already. **61% of respondents believe that there is corruption involved in the energy sector**. Due to low tariffs,[5] the state-owned companies are accumulating huge debts while infrastructure deteriorates. According to the National Energy Holding Company, 56.2% of substations and transformers, as well as 55.3% of energy transmission lines need maintenance. The government, in spite donor and IFI support, does not itself provide adequate funding to cover the financial deficit for maintaining and developing the network, installation of new transmission cables and proper metering, which in turn encourages petty corruption to cover these costs in a more "flexible" manner.

With current tariffs, the electricity sector is projected to have an annual deficit of KGS 6.8 billion (USD 90,434,070.24; Average exch.rate by September 2020 is 75.1929)[6] by 2023[7] while the total energy sector annual deficit is projected to reach 8.4 billion KGS (USD 111,712,675.00) by 2023.[8] Other factors contributing to the deficit in addition to tariffs include technical and commercial losses (unpaid bills, billing non-existing consumers, writing off commercial consumption as residential, etc.) and seasonal deficits. To cover the deficit the government looks for more loans from external sources, mainly foreign aids.

Politicians, the government and top management of energy companies are interested in keeping low tariffs. They either use tariff policy as a tool for pre-election manipulations of public opinion, for building a base of patronage and political support, to preserve their power, and to enrich themselves as outlined above.

[1] *https://www.vb.kg/doc/292022_top_6_shirshovskih_shem_v_energetike_kyrgyzstana.html*
[2] *Pumping stations pay 0.78 KGS per kWh ($0.01)*
[3] *Respectively 1.36, 1.93 times The Economics, Policy and Governance (EPG) department at the EBRD "Kyrgyz Republic Diagnostic". By Hans Holzhacker and Dana Skakova. May 2019*
[4] *Data-journalism program of the "Media-K" Internews in Kyrgzstan implemented by support of USAID in partnership with the World Bank and IDEM*
[5] *Debts of the state owned energy companies to the budget by the end of 2019 is 118 billion KGS that makes nearly 20% of. For comparison, the state budget expenses in 2018 came up with 142 billion KGS*
[6] *www.nbkr.kg*
[7] *Stabilizing the Kyrgyz Energy Sector*
[8] *International Monetary Fund Report #19/209, June 2019*

The wrong tariff policy leads to dependence on external credit sources and enriches elites who have mastered the technique of benefiting from market distortions and diverting foreign aid to their own benefit. On the other hand, a misguided tariff policy creates conditions for more collusion between business and political interests – damaging the sector, as presented below.

Loans for Energy Sector

The Anticorruption Business Council of the Kyrgyz Republic (ABC KR)[1] describes a persistent corrupt practice whereby energy companies take unnecessary loans for repair of high-voltage power lines, buy new equipment, and then divert significant sums by writing off the still-functional old equipment and recording into accounts the work already done before. This is done at the expense of foreign loans, while diverted amounts are transferred to offshore accounts.[2] A February 2020 publication of the World Bank states - "The elites are getting richer due to embezzlement of international financial assistance awarded to Kyrgyzstan."[3]

Since 2010, the country has borrowed $208 million for the construction of the Datka substation, $390 million for construction of the Datka-Kemin transmission line, $386 million for modernization of the Bishkek thermal power plant, and $415 million (part of which is grants) for the modernization of the Toktogul HPP. Together with the interest, Kyrgyzstan will have to repay more than $400 million by 2027.[4] The peak payment for debt servicing falls on 2025, when $139.3 million will have to be repaid. We allege that significant amount of this was diverted.

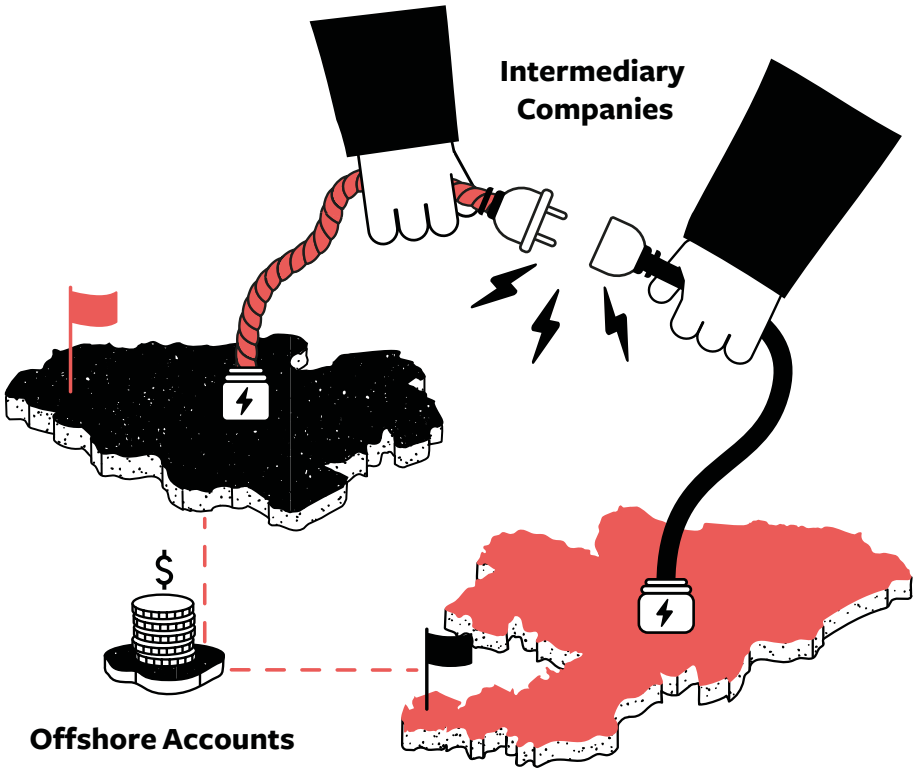
In a recent study, the World Bank assessed amounts diverted from international aid funding in various developing countries by correlating the timing of aid disbursements with transfers from these countries to offshore accounts.[5] On average, more than 7% of the aid gets withdrawn from the poor country if aid volumes amount to 1% of GDP. The share of leaked amount increases to 15% if assistance amounts to 3% of the recipient country's GDP. The World Bank concludes that very high levels of aid might enable corruption and institutional erosion.

Applying these results to Kyrgyzstan, one could conservatively estimate the total amount of diverted loans in 2011-2018 is at least $150 million (about 24% of GDP), out of $1.43 billion received for the energy sector. However it seems that the rate of financial embezzlement is much higher as evidenced by cases below.

For instance, in the case of the reconstruction of the Bishkek Thermal Power Plant (TPP), a court ruling found that $111,2 million had been embezzled from the country, using the conduit of JSC "Electric Stations." This embezzlement was also evidenced by numerous suspicious transactions, including $14.4 million spent on unspecified administrative expenses; $6 million spent on unspecified consultancy services; transport services costing $10-20 million; $200,000 spent on furniture, etc.[6]

For instance, in the case of the reconstruction of the Bishkek Thermal Power Plant (TPP), a court ruling found that USD 111.3 million had been embezzled from the country, using the conduit of JSC "Electric Stations." This embezzlement was also evidenced by numerous suspicious transactions, including $14.4 million spent on "unspecified administrative expenses"; $6 million spent on "unspecified consultancy services"; transport services costing USD 10-20 million; USD 200,000 spent on furniture, etc.[7]

[1] *https://unisongroup.org/sites/default/files/2012_sbornik_analitich_ru.pdf, p.74*
[2] *World Bank Report on illicit enrichment "Elite Capture of Foreign Aid".*
[3] *https://rus.azattyk.org/a/kyrgyzstan-vsemirnyi-bank-korruptsiya/30457220.html*
[4] *https://24.kg/ekonomika/97930_pik_vyiplat_pogosdolgu_kyirgyizstana_pridetsya_na2027_god_400_millionov/*
[5] *http://documents.worldbank.org/curated/en/493201582052636710/Elite-Capture-of-Foreign-Aid-Evidence-from-Offshore-Bank-Accounts*
[6] *https://24.kg/obschestvo/105531_modernizatsiya_tets_uscherb_kyirgyizstanu_otsenili_v111_millionov/*
[7] *https://24.kg/obschestvo/105531_modernizatsiya_tets_uscherb_kyirgyizstanu_otsenili_v111_millionov/*



The EPC contract for reconstruction of the Bishkek CHP Plant (Chinese TBEA) was similarly deemed to be non-transparent, lacking impartiality, and enabling corruption. In the reconstruction of the Bishkek Heat Power Plant, 16 high-level officials – among them, two Prime Ministers, the Minister of Finance, members of the Parliament) – as well as top management of the holding company and energy companies were accused and sentenced on corruption charges in 2019.[1] **The case shows that prosecution is not a sufficient safeguard as the fraud continues in spite of people being jailed for previous cases. This may be an effect of significant amounts diverted that encourages high risk-taking by incumbents.**

Another likely mechanism of enrichment is inflated budgets for construction and rehabilitation. In the case of Toktogul HPP rehabilitation the total budget for rehabilitation was estimated by Tractebel Engineering at $415 million while in fact only $172 million was spent as reported by the NEHC chairman at the Parliament session on December 26, 2019.[2] It is not clear so far where the rest of the money has gone; the government's assertion that $100 million was saved on the rehabilitation evokes even more questions. Therefore, by the decision of Parliament, an ad-hoc working group was established to investigate the report of the NEHC and identify whether the rest of the amount was stolen.[3]

This case also indicates that the government cares little about the dubious reputation of selected contractors and may be looking for enrichment opportunities.

[1] *https://www.currenttime.tv/a/isakov-prigovor-kyrgyzstan/30311393.html*
[2] *https://kyrgyztoday.org/ru/news_ru/rekonstruktsiya-toktogulskoj-ges-mozhet-prevratitsya-v-modernizatsiyu-tets-g-bishkek/*
[3] *https://kyrgyztoday.org/ru/news_ru/rekonstruktsiya-toktogulskoj-ges-mozhet-prevratitsya-v-modernizatsiyu-tets-g-bishkek/*

The Belgian Company "Tractebel Engineering" was selected for the feasibility study of Toktogul HPP reconstruction, in spite of the Kazakhgate scandal in the early 2000s, in which Tractebel Engineering was accused by Belgian and Swiss police of offering $50 million in bribes to Kazakh officials in return for the transfer of Kazakh gas networks to the company. According to the newspaper "Le Soir," part of the $50 million was returned to the managers of Tractebel in the form of a "kickback."[1]

These above cases indicate that the corruption in energy sector of Kyrgyzstan is a systemic problem and necessitates collective action. **Corruption is an expected behavior involving all key stakeholders: the Parliament ratifies the loan agreements, the government develops and approves the terms of reference, the National Energy Holding Company selects a vendor and administers the contract, and energy companies implement those projects. The main interest for the whole chain of stakeholders is enriching themselves**. These cases also raise questions about the due diligence of financing agencies –foreign lendors in overseeing the use of their funds. **Donors and foreign financing agencies do not care much about the reputation adequacy of procurement and minimal costs, as long as there is a state guarantee.**

Enabling Environment

Poor state governance, poor legal framework and weak enforcement of laws and anticorruption measures are the main factors that facilitate the corruption in energy sector in Kyrgyzstan. Chaotic destruction of the energy sector has been going on for over 20 years. "Decision makers destroyed the energy sector so that an untouchable caste of people appeared in the system, which today receives quite high dividends."[2] **There is little political will to eliminate corruption in general, and in energy sector in particular. This can be considered as "state capture."**[3]

Existing channels of accountability and transparency have also been destroyed or made inefficient. The Public Advisory Board created in 2010[4] was liquidated, together with abolishing of the Ministry of Energy and Industry in 2015. In 2014 the Secretariat of the Security Council under the President of the KR identified six corruption risk zones and about 25 corruption practices in the energy sector. The Ministry of Energy approved an Anticorruption Action Plan that contained 40 measures for the mitigation of corrupt practices. In 2017 the Anticorruption Action Plan was revised and approved by the State Committee for industry, energy and subsoil use (SCIESU). However, implementation has been weak. According to the SCIESU, 70% of mitigation measures are still pending. In January 2020, the President publicly stated that the SCIESU opposes the decisions of the Security Council.

State ownership of energy resources, combined with leadership intent on self-enrichment, paralyzes reforms in the sector. The accountability of state agencies (GARTEK and the SCIESU) is comprised merely of formal reports, provided irregularly. **Institutional control in the energy companies is weak and biased, and nepotism has become widespread.** The State Property Fund selects the candidates for Boards of Directors and internal audit commissions of energy companies, through non-transparent means. **Newly appointed high-level officials appoint close relatives or loyal persons from their family clan to decision-making positions**. This enables leadership to block attempts at impartiality and independence. For example, on Septem-

[1] *http://mnenie.akipress.org/unews/un_post:16219*
[2] *https://24.kg/ekonomika/115865_kak_vse_gosudarstvennoe_vkyirgyizstane_stalo_chastnyim_dlya_osoboy_kastyi/*
[3] *transparency.org/files/content/corruptionqas/State_capture_an_overview_2014.pdf*
[4] *Public Advisory Boards consisting on representatives of the civil society were established by the Decree of the President R. Otunbaeva in 2010. Since adoption of the law "On Public Boards of the State Agencies" in 2015, the Government decides under what state agencies the Boards will function.*

ber 2019 a newly appointed non-specialist chairman of the National Energy Holding Company dismissed three regional directors of "Electric Stations" through the decision of the Board, comprised of his direct subordinates.

In several instances,[1] **top management of energy companies evade disclosure of technical and financial information, classifying it as "secret information" in spite of international standards of disclosure, including free access to reports by the media.**[2]

Although civil society and research institutions have the opportunity to openly express their opinion and seek to influence government decisions, their **limited engagement and understanding of the energy sector does not allow them to play a central role in ensuring public accountability**. The lack of understanding of energy sector specifics also limits the effectiveness of media outlets in monitoring corruption as they have mostly to rely on quotes of government officials and experts. Only a few journalists[3] are known for their own investigations and writing on energy issues. Low public awareness of energy sector specifics and good international practices is an enabler of corruption.

The Costs of Corruption

Corruption in the energy sector undermines economic development and the security of the country in various ways:

- Outstanding loans of energy companies, as of late 2018, account for nearly 20% of GDP. The stakes are high for repaying these loans, as failing to do so would negatively affect national sovereignty and geopolitical independence. If Kyrgyzstan is not able to repay debts to China, or disagrees with the terms of credit, Kyrgyzstan is only eligible to address these disputes in Chinese arbitrage court. The experience of other countries (e.g., Tajikistan, Pakistan, etc.) indicates that failure to repay may lead to repossess of the infrastructure that the loan was taken for, namely: Power Transmission Station Datka-Kemin, substation Datka, and Bishkek Thermal Power Plant. To pay off these energy sector debts, together with interest, every economically active citizen would have to pay $1500 to lenders.[4]
- Artificially low tariffs do not allow development of the sector, such as investment in new infrastructure, development of energy efficiency and renewable energy, and creation of related jobs and economic activity. The flow of foreign direct investment in the sector for the expansion of energy infrastructure and modernization of technologies has declined in recent years, reaching zero in 2018.
- In contrast with sector deterioration and increased indebtedness, the net profit of intermediary energy companies has been increasing, resulting in losses of nearly $4.3 million per year – a sum that could be reinvested in energy sector development.
- Risks of Corruption in the energy sector of KR affects negatively all aspects of life of the population. The rich and influential get richer, while the majority of population gets poorer. Corruption results in degradation of energy production and transmission assets and forces introduction of seasonal limits across regions.[5] Thus, schools and kindergartens, hospitals and business as well as households stay without electricity in

[1] *As of March 2020, the press service of JSC "Electric stations " categorically refused the Akipress News Agency to share information about water filling capacity of the Toktogul reservoir for the past 5 years.*
[2] *http://kabar.kg/news/iatc-kabar-potentcial-i-razvitie-gidroenergetiki-kyrgyzstana-perspektivy-i-bar-ery/*
[3] *Azzatyk, K-News, 24.KG, Vecherni Bishkek, Akipress News Agency*
[4] *https://kaktus.media/doc/354827_vneshniy_dolg:_skolko_kajdyy_kyrgyzstanec_doljen_krypnym_kreditoram_kr.html*
[5] *Decree of the government of the Kyrgyz Republic No. 544 of October 14, 2019*

wintertime, which greatly affects the wellbeing of citizens.[1]

- Corruption, along with overspending, also affects the quality of works and reliability of energy supply to consumers. The Bishkek heat and power plant, in spite of being rehabilitated by TBEA in 2017, broke down in the coldest days of January 2018, leaving the city freezing and with reduced electricity for almost four days. The failure happened exactly one year later as well.
- Corruption undermines democratic development as establishment of democratic governance in the Kyrgyz Republic associates with challenges and problems, as the country scored low on all World Governance Indicators.[2] Level of public trust is also very low, and citizens have an especially negative perception of economic governance in the energy sector. According to estimation of the corruption perception by the National Statistics Committee of the Kyrgyz Republic for 2019 , the State Agency for Regulation of the Fuel and Energy Complex (GARTEK) under the Government of the Kyrgyz Republic is ranked 24 (score: 14,2 out of 100) amongst 43 state agencies. Bishkek city citizens consider GARTEK under the Government of the Kyrgyz Republic highly corrupt (score: -14,9)[3]

Observations

1 Corrupt practices are discrediting the idea of a competitive market because of nepotism and creating better conditions for the businesses affiliated with high level officials, international aid, and a healthy tariff structure – giving opponents of reforms vis-a-vis the energy sector management and building a true market for energy supply services, and the opportunity to blame the reforms and engagement of IFIs as the major vicious influences.

2 Intermediate “private” “commercial” companies acts as parasites on the sector with the support of officials, due to sector deficit, low tariffs, and the absence of competition and transparency. This is a case of ineffective state management combined with state capture.

3 Non-transparent public procurement results in inflated budgets. For example, the construction budget of the Datka-Kemin power line highlights the need for scrutiny, as it is much higher than industry standards.

4 The case of alleged corruption in procurement of Kazakh coal neglecting own producers, appointing the previously indicted officials, was allegedly related to $6 million kickback operations and closing of criminal cases against several companies. This exemplifies another case of collusion between officials and business interests, in this case of a foreign business elite.[4]

5 The practice of borrowing excessive amounts for energy sector projects with the intention of diverting the money reflects collusion between national elites, international contractor companies, and lending agencies.

6 Inadequate state governance combined with the absence of transparency, legitimate private interests, and market competition are the main enablers of corruption in energy sector.

[1] On November 26, 2019, the central hospital, 9 schools, 4 kindergartens, 5 residential apartment buildings and even the regional administration were disconnected from power supply in Batken city, the capital of the Batken region. exrernal link A list of villages, residential areas, streets and districts that are switched off from the energy supply across regions can be found on the following web. sites: https://www.severelectro.kg/content/article/69-perechen-uchastkov-rabot;
[2] http://info.worldbank.org/governance/wgi/index.aspx#country
[3] http://www.stat.kg/ru/indeks-doveriya-naseleniya/
[4] https://total.kz/ru/news/mir/kazahstanskogo_oligarha_obvinili_v_podkupe_chinovnikov_kirgizstana_date_2019_10_06_15_16_00

Recommendations

To eradicate the described corrupt practices in the short-term and prevent corruption in the medium and long-term, urgent mitigation measures are needed.

In the short term, the **Government** needs to initiate institutional reforms to avoid dependence on external resources for keeping the system alive that might be resulted in the collapse of the energy system, and improve the reliability of energy supply:

Introduce the following emergency measures to stabilize the sector, namely:

- Conduct institutional reforms to prepare for privatization and competition through unbundling sector activities, and abolishing the National Energy Holding Company and the National Management Company. Restore the policy-making function of the Ministry and independence of the regulatory agency
- Conduct public campaign for tariff awareness and tariff reform
- Restore the independence of GARTEC and regulation of tariffs

GARTEC should:

- Develop and present to the government and population the study on energy tariffs and the Concept of cost-recovery tariffs, which would enable improvement of energy sector operations and assets.
- Develop and present to the government and population a package of mitigation measures to protect vulnerable customers during the tariff increase.
- Together with the State Committee for industry, energy and subsoil use (SCIESU) launch the public awareness and information campaign required for increasing tariffs for energy supply.

The State Property Fund of the Kyrgyz Republic should:

- Ensure merit-based selection and appointment of the top management of the companies, and members of the Board of Directors through transparent selection process with mandatory participation of civil society
- Consider also introducing the foreign western management in public companies – to set up their functionality

To complement these measures:

- **Energy companies** should ensure mandatory disclosure of all relevant financial and technical information
- **Civil society organizations** should closely track operations of the energy sector in order to advocate for and monitor safeguards against corruption

Support from the **international community** to the government and civil society in improving control of energy corruption should focus on:

- Strengthening donor coordination and supporting a multi-stakeholder dialogue under the auspices of the Parliament's Committee on Law Enforcement and the Fight Against Corruption
- Developing methodology and indicators for systemic assessment of international aid embezzlement via elite capture in the energy sector (World Bank/USAID)
- Reviewing and conducting an assessment of the country performance in line with international benchmarks for the energy sector (OSCE/USAID)

- Support awareness-raising on best practices and tariff regulation in the energy sector, for both the population and officials
- Capacity building for civil society and Parliament members to enable them to exercise better oversight of ongoing projects, including by providing best practices and benchmark prices for selected infrastructure projects.

Medium term measures:

- The Parliament initiates a public discussion on sector reform and the development of a fully functioning energy market unlike the existing quasi-market
- The Government introduces gradual tariffs increase to ensure full cost recovery, as stipulated above
- Civil society organizations support reform measures, while exercising robust oversight to ensure corruption is reduced, in partnership with investigative journalists
- **The following topics are suggested for future review and discussion**

More refined analysis and improved evaluation of the effectiveness of anti-corruption initiatives in the energy sector using the assessment framework proposed by OECD Anticorruption Network for Eastern Europe and Central Asia, in particular:

→ **unbiased and effective risk-based verification of asset and interest declarations;**
→ **enforcement statistics on corporate liability;**
→ **efficiency of identification and tracking of corruption proceeds in the energy sector;**
→ **issues with privatization of state companies and making them "cash cows" for the benefit of the ruling elite; and**
→ **privatization of the State Property Fund**

Bibliography

Andersen, J. J., Johannesen, N., & Rijkers, B. (2020). Elite Capture of Foreign Aid: Evidence from Offshore Bank Accounts. World Bank Group. Retrieved from https://documents.worldbank.org/en/publication/documents-reports/documentdetail/493201582052636710/elite-capture-of-foreign-aid-evidence-from-offshore-bank-accounts

Holzhacker, H., & Skakova, D. (2016). Kyrgyz Republic Diagnostic, May 2019. European Bank for Reconstruction and Development. Retrieved from https://www.ebrd.com/documents/policy/country-diagnostic-paper-kyrgyz-republic.pdf?blobnocache=true

Kaufmann, D., & Kraay, A. (n.d.). Worldwide Governance Indicators. Retrieved from http://info.worldbank.org/governance/wgi/#country

Kyrgyz Bank. (n.d.) Official exchange rates. Retrieved from https://www.nbkr.kg/index1.jsp?item=1562&lang=ENG

Martin, M. (2014). State capture: An overview. Transparency International. Retrieved from https://www.transparency.org/files/content/corruptionqas/State_capture_an_overview_2014.pdf

The document cites different sources from the Kyrgyz media, which are indicated in the footnotes.

Corruption in Moldova's Energy Sector and the Impact on Energy Security

Sergiu Tofilat, Tudor Soitu

General Context

Since the early days of Moldova's independence, the country's energy security has largely depended on the Russian Federation for both gas consumption and electricity generation. The entry points and the gas compressor station of the Trans-Balkan pipeline are under the control of self-proclaimed Transnistrian authorities[1] on the left bank of the Dniester River, which serves as proxies for the Kremlin authorities in achieving their foreign policy objectives in the region. Less than 19% of Moldova's electricity demand is produced domestically by 3 combined heat and power (CHP) plants that run on natural gas as fuel,[2] with Gazprom being the only gas supplier. Gazprom owns 50% and controls another 13.4% of shares of Moldovagaz, the only gas utility for Moldova, having a de facto monopoly in Moldovan gas market. Through the Iasi-Ungheni gas interconnector with Romania, a volume of 1.2 million cubic meters of gas was supplied in 2015, or about 0.1% of Moldova's annual consumption without the Transnistrian region.[3] Moldova is highly dependent on the Transnistrian region for gas.

The energy system of the Republic of Moldova operates in parallel with the energy system of Ukraine, being interconnected by 7 high-voltage power lines. About 80% of Moldova's electricity consumption is procured from abroad: from Ukraine or from the MGRES power plant located in the Transnistrian region. Even the import of electricity from Ukraine cannot avoid the Transnistrian territory, except for a single power line. Two interconnection lines reach the Transnistrian side and 4 lines are connected to the transformer station of MGRES power plant, also located in the separatist region. Moldova has a common border with Romania in the west, but the electric power systems of these states do not work in parallel.

The price of electricity supplied by MGRES has never been based on a cost structure, as Transnistria does not pay for the gas consumption. The gas tariffs in the Transnistrian region are set by the self-proclaimed government and are below market rates, while all revenues from gas sales are transferred to the so-called "special gas account," funds which subsequently are loaned to the separatist region's budget. In fact, the Russian Federation has used Moldova's dependence on Russian gas to establish a contractual system whereby Moldovan consumers are forced to finance separatism in their own country by purchasing energy from MGRES in Transnistria and accumulating gas debts. In 2007-2016 alone, nearly $1.3 billion from the so-called "special gas account" was transferred to the separatist budget, accounting for up to 35% of total budget spending for the 10-year period. Gazprom served as the main instrument to finance the geopolitical agenda of the Kremlin administration, which can be summarized as follows: strengthening Russian influence in Moldova by financing separatism and maintaining the role of mediator of the Transnistrian conflict to advance its own interest.[4]

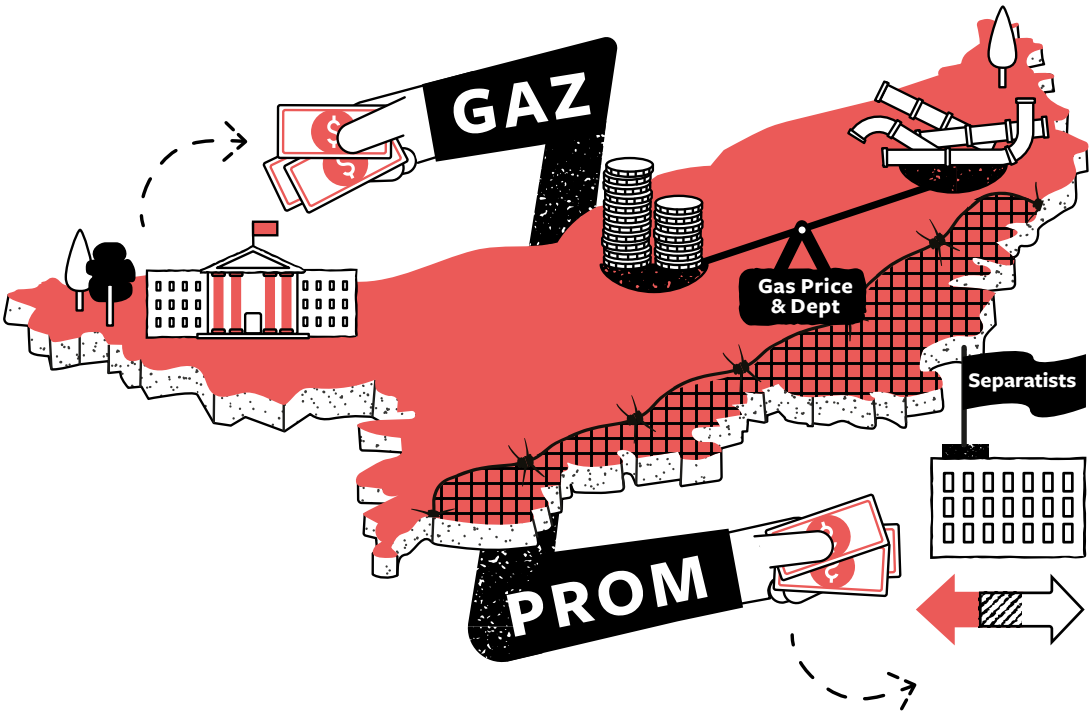
Although the Moldovan authorities have been aware of the need to strengthen the country's energy security and eliminate dependence on Russian gas by diversifying the electricity and gas supply, little has been done in this regard until present. The objectives of diversification have been included in all energy strategies over the last 20 years. The Energy Strategy till 2010, adopted in 2000,[5] mentions that "the Government will take steps to build new gas pipelines to secure the gas supply." In 2007, a new Energy Strategy was approved that runs until 2020,[6] which stated that "the Government will take measures to build new gas pipelines to secure the gas supply." Thus, after almost 7 years of "intensive" work, all efforts concerning the diversification were limited to changing one word in the Government decision. As we will observe in this research, particularly in the case of electricity supply through the intermediary company

[1] *Moldova does not have any control over this territory. After military conflict in 1992, the Russian Army stationed in Transnistria (former Soviet 14th Guards Army)*
[2] *Electricity TSO Moldelectrica, https://moldelectrica.md/ro/electricity/energy_sources*
[3] *ANRE (energy regulatory agency) report for 2016, page 22.*
[4] *IDIS Viitorul, "Energy and politics: the price for impunity in Moldova", Apr 2017,*
[5] *Government decision no. 360 of April 10, 2000, https://www.legis.md/cautare/getResults?doc_id=73726&lang=ro#*
[6] *Government decision no. 958 of August 21, 2007, External link*

Energokapital, the involved parties are interested in preserving the status quo through coordinated efforts:

- On one hand, **Russian Federation** continues to finance the separatism by providing "gas subsidies" to the Transnistrian region, consolidating thus their geopolitical influence by increasing Moldova's total debt for Russian gas; Gazprom turns a blind eye on the mismanagement of Moldovagaz in order to corrupt and loyalize Moldovan political elites;
- At the same time, **Moldovan political decision makers** aim for personal enrichment from corruption schemes and raise no concerns with the financing of the self-proclaimed regime in Transnistria by supplying gas "on credit" and passing the debt to Moldovagaz.

Real steps concerning the gas interconnection with Romania started in 2013 with the construction of Iasi-Ungheni pipeline. Despite the strong political and financial support from EU and other international development partners, the pipeline is not slated to be operational before the fall of 2021. However, this interconnector would not cover the gas consumption of the Southern part of Moldova, which still depends on the Trans-Balkan pipeline system. On the other hand, the uncertainties over the gas transit contract between Ukraine and Russia in 2019 forced the Moldovan authorities to create an alternative gas supply route in just six months by modernizing the Trans-Balkan pipeline, to enable it to operate in reverse mode.



The vulnerabilities of the energy sector were exploited by Gazprom alongside with the corrupt Moldovan politicians, who tolerated and even facilitated fraudulent schemes in the energy sector to the detriment of the national interests of Moldova.[1] There have been numerous corruption scandals in the energy and gas sector over the years. Although political parties with different geopolitical orientations were in power, no one has been convicted and the unjustified costs are borne by consumers. This research highlights the most severe cases of corruption and their role in undermining the energy security and increasing Moldova's dependence on Russian gas.

[1] *Community Watchdog.MD, "Moldovagaz - 20 de ani de fraude masive sub protectia actionarilor si institutiilor de stat" [Moldovagaz - 20 years of massive fraud under the protection of shareholders and state institutions], September 2019,*

Hostile Takeovers of the Gas Supply Complex

Before the launch of the Turkish Stream in 2019, Gazprom has used the Trans-Balkan pipeline to supply 20-25 bcm (billion cubic meters) of gas annually to Balkan countries. The pipeline crosses Ukraine and Moldova, including the breakaway Transnistrian region. Aiming to take control of critical gas transmission infrastructure, in December 1993 Gazprom signed a controversial gas supply contract with officials from Moldova and self-proclaimed Transnistria which is largely believed to have been collusive in nature. The contract included several questionable:

- The gas price was increased from $38.5 to $80 for thousand cubic meters. During that period, Gazprom supplied gas on European market at an average price of $72.8;[1]
- Gazprom requested advanced payments and imposed a fine equivalent to 128% per annum on the amounts due, which was 17 times more than for other countries of the former USSR.

These provisions were not accidental, given the fact that Transnistrian separatist region stopped paying for gas consumption after the 1992 Transnistrian conflict. Consequently, in 1994 alone Moldova's gas debt to Gazprom increased from $22 million to $291 million, including $91 million of Transnistria's debt and $100 million of penalties. As a result of the artificial debt swelling, in 1995 the Government of Andrei Sangheli agreed on a debt-to-equity swap and ceded in favor of Gazprom a 50%+1 share of the newly formed company Gazsnabtranzit, Moldova's gas transmission operator. The government violated the provision of the Law on foreign investments[2] and underestimated the assets of Gazsnabtranzit. As a result, Moldova was prejudiced with over $416 million for the benefit of the Russian concern.[3]

The Kremlin administration attempted to reproduce a similar scenario in Ukraine 20 years later, following the Russian aggression in Donbass. Gazprom increased the price of natural gas for Ukraine by 81%, from $268.5 to $485, on a prepaid basis,[4] and began supplying gas to the separatist regions in eastern Ukraine in February 2015, contrary to the provisions of the contract with Ukrainian gas supplier, Naftogaz.[5] Putin himself insisted upon delivering gas to the separatist regions in the Eastern Ukraine: "we should provide stable gas supplies to all our customers, including the citizens in the south-east of Ukraine".[6] However, Naftogaz sued Gazprom in the Stockholm arbitration court and was exempted from paying the illegal debt. Moldovagaz cannot apply similar tactics because, according to the agreement signed with Gazprom, any disputes are examined by Moscow Commercial Arbitration Court. Obviously, there are very limited chances that Moldovagaz would obtain a favorable decision in that court. In fact, Gazprom is the one who gets favorable decisions regarding the confirmation of the debt for the gas supplied to Moldovagaz, including to the separatist region, in order to formally justify itself to the tax authorities of the Russian Federation.

The plunder of Moldova's gas system continued when the Government adopted another illegal decision in October 1998, incorporating Moldovagaz and transferring to Gazprom a 50% share

[1] *Mihail Sudo, El'vira Kazankova, "Energeticheskie resursy. Neft' i prirodnyj gaz. Vek uhodyashchij", 1998,*
[2] *Art. 9 point 2 of the Law no. 998 of April 1, 1992 on the foreign investments,*
[3] *IDIS Viitorul, „The gas industry in RM: the burden of ignorance and the cost of errors",*
[4] *Dr. Frank Umbach, NATO review, "Russian-Ukrainian-EU gas conflict: who stands to lose most?", May 2014,*
[5] *Rbc.ru, "Газпром нашел способ начать прямые поставки газа в Донбасс" [Gazprom has found a way to start direct gas supplies to Donbass], Feb 2015,*
[6] *Gazprom press release of April 8, 2015, https://www.gazprom.com/press/news/2015/april/article223355/*

of the company in a debt-to-equity swap. The Government decision no. 1068/1998 stated that the capital of Moldovagaz was determined on a preliminary estimate of both transmission and distribution pipelines (including the assets of Gazsnabtranzit), thus violating again the provision of the Law on foreign investments. The same Government decision specified that in 1999 the Department of privatization and state property management (Vladimir Filat) will carry out a revaluation of Moldovagaz's assets in order to increase the equity and to repay the gas debt accordingly. However, this provision was not enforced either.

These and other acts of fraud related to the mismanagement of Moldova's natural gas system were described in the report of the Court of Accounts, following the audit carried out in 2000-2001 at the request of the Parliament. Despite the report containing pertinent proofs of multiple acts of fraud committed by high-level Government officials and the administration of gas companies in favor of Gazprom, it has not been heard in the Parliament. Moreover, Mr. Tudor Șoitu, the head of the audit team, was placed under investigation by the Prosecutor's office and fired from the Court of Accounts.[1] This well-coordinated effort by prosecutors and judges to intimidate Mr. Şoitu suggests a strong political circle with the intent to cover up the fraud.

Fraudulent Administration of Moldovagaz

The corrupt practices have continued even after the supposedly pro-European coalition came to power in 2009. Following an inspection report conducted by the energy regulatory authority (ANRE) of Moldovagaz's subsidiary, ANRE issued four decisions in 2012 regarding fraud amounting to MDL 243.5 million (equivalent to $20 million) in the construction of gas pipelines and procurement of materials at excessive prices. However, the investigations of alleged fraud at Moldovagaz and its subsidiaries turned against their initiators. Just two weeks after the first inspection report was issued, there was an assassination attempt of one of ANRE directors, Nicolae Raileanu.[2] A grenade placed in Mr. Raileanu's car exploded, but this assassination attempt has not yet been investigated. A number of frauds that took place at Moldovagaz and its subsidiaries were highlighted in a whistleblowers' report published in September 2019,[3] including:

- Excessive losses in gas distribution networks, amounting to 32.8 million cubic meters or 3.4% from the volume of supplied gas, while the losses in EU member states are well below 1%;[4]
- According to the audit report of the expenses included in the gas tariff for 2015, Moldovagaz spent about $4.5 million for the insurance of the gas transmission and distribution infrastructure, while the balance sheet value of the assets was $70 million. The insurance premium equals 6.4% of the assets value, which is excessively high and should have raised red flags for the shareholders. Considering the cost of the insured property, no insurance company in Moldova can pay such compensation. The local company must have a reinsurance with an international company, which would require it to transfer almost the whole premium worth $4.5 million. Given the fact that the energy regulatory agency did not accept these expenditures for tariff purposes, obviously no reinsurance was signed and the money was simply stolen by the perpetrators;
- Despite the fact that Moldovagaz has a legal department, the company paid undisclosed amounts for legal assistance services to the office of the so-called lawyer Valerian Mânzat (Legal Solutions LLC, Tarsen Grup LLC) and to MGS Legal Consulting LLC, among whose founders are the former Minister of Justice Vitalie Pirlog and for-

[1] *Application no. 18835/08 by Tudor Soitu against Moldova,*
[2] *IPN.md press agency, "ANRE denounces ‚assassination attempt' against Nicolae Raileanu", April 11, 2012,*
[3] *Supra note 6, Community Watchdog.MD (2019)*
[4] *Inogate, "Energy (electricity & gas) sector performance assessment and improvement under the regulatory perspective", Jan-Mar 2015, page 135,*

mer Deputy Minister of Justice Nicolae Eşanu – raising concern about the possible use of kickbacks;
- Unknown amounts of embezzled funds via procurement of foreign currency at an increased exchange rate compared to the average rate on the banking market.

Neither Gazprom nor the Government of Moldova, as shareholders of Moldovagaz, have taken any measures to prevent or investigate these and other violations committed by the company's management. Although the prosecutor's office conducted several searches of Moldovagaz offices, none of the investigations resulted in proper prosecution of the company's decision-makers or the Moldovan officials involved.[1] Moreover, despite the fact that the company recorded losses of hundreds of millions of MDL almost every year, two of its top officials were decorated with Presidential award "Glory of Work" in 2012[2] and 2017.[3] The fact that state institutions are not interested in investigating these acts of alleged fraud raises concern about corrupt interests of political decision makers.

Corrupt Schemes in the Electricity Supply Sector

The electricity sector has also been subject to vested interests and corrupt practices. The absence of regulation related to the import of electricity has been exploited by political elites. State-owned companies, subordinated to the Ministry of Economy, have concluded contracts on electricity supply through intermediary companies hiding in offshore jurisdictions, forcing thus the consumers to pay excessive bills. To date, no corruption scheme for energy imports has been investigated by the prosecutors and no officials have been held accountable for consumer fraud.

Between 1998 to 2001, the state-owned company Moldtranselectro, in charge of operating the Moldovan power grid, imported electricity from Ukraine through a number of intermediary companies: Energoalians (Ukraine), Derimen Properties Ltd (British Virgin Islands), and Ferren-M (Moldova), the latter being allegedly founded by Natalia Diacov, the daughter of a former speaker of Parliament Dumitru Diacov. The state-owned company's administrators signed acceptance certificates on the import of electricity in the absence of primary accounting documents, creating thus a fictitious debt of approximately $21.5 million.[4] This two-decade-old scheme led to an arbitration initiated by Energoalians. In 2013, arbitrators Mihail Savranskiy (Russia) and Victor Volcinschi (Moldova) decided by a vote of two to one in the claimant's favor, rejecting the Moldovan state's objections and forcing it to pay $ 46.5 million.[5] Volcinschi, who voted against his own country and in the interest of perpetrators, was referred to the ad hoc tribunal[6] in 2010, when the Minister of Justice was Alexandru Tănase. Komstroy, the successor-in-interest of Energoalians, began the debt recovery procedure and demanded the seizure of Moldova's assets abroad. In April 2015 Komstroy managed to freeze the Belgian accounts of MoldATSA, a state enterprise responsible for air traffic security in Moldova.[7] One year later the account freeze was cancelled, however the case is still being examined at the Paris Court of Appeal.

Another alleged scheme of consumer fraud took place in 2008, during the communist government. In April 2008, Igor Dodon, then Minister of Economy and currently President of Moldova, negotiated the supply of electricity from Ukraine[8] through an intermediary company, Energo-Partner Kft. Following these negotiations, about 30% of electricity imported by Mol-

[1] *Ziarul de Garda, "Gusev şi alţi patru angajaţi, învinuiţi în dosarul Moldovagaz" [Gusev and 4 other employees acused in Moldovagaz case], June 2016,*
[2] *Presidential decree no. 318 of October 05, 2012,*
[3] *Presidential decree no. 362 of September 03, 2017,*
[4] *Decision of the Court of Accounts no. 66 of July 04, 2002*
[5] *Sic.md, "The Energoalians Affair: What You Need to Know", September 2019*
[6] *This arbitration tribunal in Paris was created under the Energy Charter Treaty signed by Moldova in 2010. Moldova's Ministry of Justice delegates a permanent arbitrator.*
[7] *Rise.md, „Millions from air traffic seized in Brussels", August 2015*
[8] *Government Decision no. 32 of April 21, 2008*

dova from Ukraine's energy system was still procured from the state-owned Ukrinterenergo at market price ($40/MWh), while the other 70% of electricity was supplied by the intermediary Energo-Partner Kft at a higher price ($53/MWh). Between May and December 2008 alone, the Moldovan consumers had overpaid $14.5 million as a result of higher electricity prices charged by the intermediary company.[1] As a result of the higher price for the electricity supplied by the intermediary company, in July 2008 the energy regulatory agency ANRE increased the electricity tariffs by 10%.[2] Energy experts submitted a complaint to the Prosecutor's Office, providing evidence that in just one year the intermediary company obtained a profit of over $14.5 million from the price difference for energy. A criminal investigation was opened in November 2017.[3] However, the case was not sent to the court.

The frauds in electricity supply continued even after the communists lost power in 2009. Another scam was set up in 2014, after Ukraine suspended the export of electricity to Moldova due to a lack of coal, following the Russian aggression in Donbass. The only remaining source to cover about 80% of Moldova's energy consumption was the MGRES power plant in the Transnistrian region. As Transnistria does not pay for the gas, the separatist authorities resell the gas at subsidized tariffs to local consumers, including to the MGRES power plant, which supplies electricity to Moldova. Until November 2014 MGRES supplied electricity to Moldova at a price of $68 per MWh, purchasing gas from Tiraspol-Transgaz at $151.5 per thousand cubic meters. As mentioned earlier, all the income from the gas sales is accumulated in the so-called "special gas account" and transferred to the Transnistrian budget, increasing thus Moldova's debt to Gazprom.

After a collusive agreement between the Moldovan oligarch Vladimir Plahotniuc and the self-proclaimed President of Transnistria, Yevgeny Shevchuk, in the fall of 2014, the electricity from Transnistria to Moldova began to be supplied by Energokapital – an intermediary company with shareholders hiding behind offshore companies.[4] The essence of the scheme was to create an illicit profit margin by reducing the gas tariff for electricity generation, since the gas tariffs are set by the separatist government. Energokapital supplied electricity to Moldova at a price of $67.775 per MWh (almost identical to the price previously offered by MGRES), but purchased gas 15% cheaper, at $129.5 per thousand cubic meters.[5] The MGRES power plant was assigned the role of providing services for Energokapital for gas flaring and electricity generation. The illicit margin was syphoned off by the beneficiaries of Energokapital, hidden behind Scottish limited partnerships. In July 2016, civil society watchdogs submitted evidence to prosecutors about how Energokapital transferred $19.2 million to its offshore shareholders.[6] Instead of investigating the potential fraud, the Prosecutor's Office claimed that the statements of the experts are false and they did not present any documents that would confirm the illegalities.[7] This alleged financial crime appears to be enabled by political protection from the ruling Democratic Party, led by Vladimir Plahotniuc, for the following reasons:

- Energokapital received a supplier license from the Moldovan energy regulator ANRE at an astonishingly quick speed– within just 3 days, although the legal maximum term is 15 days;
- The contract for the supply of electricity with Energokapital was signed by the state enterprise Energocom, subordinated to the Ministry of Economy, which at that time was led by Plahotniuc's relative Andrian Candu, also a member of the Democratic Party of Moldova;
- The offshore shareholders of Energokapital are connected to the "theft" of a billion

[1] *Anticoruptie.md, „DOC // Schemă frauduloasă de import a energiei electrice" [Fraudulent electricity import scheme], October 2017*
[2] *ANRE decision no. 300 of July 31, 2008*
[3] *Anticoruptie.md, "Proces penal într-un caz de corupție, semnalat de Centrul de Investigații Jurnalistice încă în 2008" [Criminal trial in a corruption case, reported by the Center for Journalistic Investigations back in 2008], November 2017*
[4] *Investigation by Sergiu Tofilat, "Schema Energokapital explicată pe înțelesul tuturor" [Energokapital scheme explained for everyone to understand], August 2016*
[5] *Press release of the self-proclaimed Transnistrian government of July 18, 2016*
[6] *IPN.md press agency, "Authorities urged to examine transactions of company "Energocapital" in offshore areas", July 14, 2016*
[7] *Press release of the General Prosecutor's Office, July 29, 2016,*

dollars from three Moldovan banks;[1]
- Energokapital had its bank accounts at Victoriabank,[2] controlled at that time by Plahotniuc;[3]
- The Prosecutor's office refused to investigate the fraud, claiming that no evidence was submitted by the independent experts from the civil society, while all the media channels controlled by Plahotniuc published derogatory information about the experts.

It appears that the Energokapital scam was likely "blessed" by Kremlin administration, given the visit to Moscow of Moldovan deputy Prime-Minister Andrian Candu in September 2014,[4] just two weeks before the incorporation of Energokapital.[5] During the visit, Candu met with Alexandr Medvedev, the deputy chairman of the Board of Directors of Gazprom and with Alexandr Novac, Russian Minister of Energy.

Factors that Facilitate the Corruption in Moldova's Energy Sector

The biggest challenge for fighting corruption, including in the energy sector, is the desire of political elites to get rich illegally, to the detriment of national interests. The ruling political parties use the lack of regulation in energy sector to organize corruption schemes and subordinate regulatory and law enforcement institutions in order to avoid being held accountable.

Lack of Regulation

Until recently, electricity imports were not regulated at all. The political party that controlled the Ministry of Economy put its intermediaries in the energy import industry and gained illicit profits that were embezzled by offshore companies, increasing thus the price for the final consumers. The situation changed only in January 2017, when the Energy Community Secretariat provided the Moldovan government with guidelines for the annual procurement of electricity.[6] The Guidelines established a procurement procedure for the regulated suppliers of electricity and created a group of observers, including representatives of the Energy Community Secretariat and the EU Delegation to Moldova, to ensure that the procurement process is transparent and non-discriminatory. Although the energy procurement guidelines have been adopted in power market rules approved by the energy regulator ANRE,[7] these procedures still do not apply to the state-owned company Energocom, which signs the electricity import contracts.

[1] *Theblacksea.eu, "Moldovan energy intermediary company linked to "billion-dollar bank theft" scandal", March 14, 2016*
[2] *Copies of payment orders,*
[3] *Newsmaker.md, „Крупнейший акционер Victoriabank связан с людьми из окружения Владимира Плахотнюка" [The largest shareholder of Victoriabank is associated with people from the circle of Vladimir Plahotniuc], February 9, 2015,*
[4] *Press release of the Ministry of Economy of September 25, 2014,*
[5] *Energokapital incorporation agreement of October 10, 2014*
[6] *Energy Community Guidelines for the annual procurement of electricity, January 2017,*
[7] *ANRE press release of August 7, 2020*

As mentioned in the previous section, corruption cases in the energy sector have arisen since at least 1994. Major frauds have been uncovered by the audit report issued by the Court of Accounts in 2001, by the inspection reports issued by ANRE in 2012, and by the civil society watchdogs in 2016 and 2017. Although the frauds amounted to hundreds of millions of USD and plenty of evidence has been submitted to the prosecutors, investigation of the frauds has focused on targeting the whistleblowers rather than the alleged perpetrators. The prosecutors conducted three inspections at Moldovagaz's offices during 2015 and 2016,[1] initiated criminal investigations in 2016 on an Energokapital case,[2] and on an Energo-Partner Kft scam in 2017.[3] However, none of the cases were sent to the court and no official was convicted. This raises concern that part of the illegal proceeds from these schemes was used to bribe Moldovan politicians, who subordinated the law enforcement institutions.

The proactive position of energy regulator ANRE in fighting the corrupt practices in the energy field has not gone unnoticed by the parliamentary majority. In 2013 and 2014 the Parliament replaced ANRE's board of directors and appointed persons loyal to political leaders. As a result of the new appointments, the Agency violated multiple times the tariff methodology, based on decisions influenced by the political agenda of the ruling parties.[4] Even the Energy Community Secretariat raised concerns about the independence of Moldova's energy regulator.[5] Moreover, in 2017, former and acting members of the Democratic Party were appointed almost simultaneously in administrative positions at ANRE and Moldovagaz. Thus, the Parliament appointed Tudor Copaci as general director of ANRE, Copaci being a former member of democrats (he left the political party a few days before being appointed), while the Government nominated an acting member of the Democratic Party, Vasile Botnari, as the chairman of the Board of Directors of Moldovagaz.[6]

How Corruption Affected the Development of Moldova's Energy Sector

Corruption schemes in both the energy and gas sector have resulted in higher bills for consumers.It took the Moldovan government 26 years to approve the first regulations on energy procurement and to eliminate intermediaries, thanks to the intervention of the Energy Community. Although there are no intermediaries in the gas supply chain, the mismanagement of Moldovagaz has led to excessive costs, part of which is included in tariffs by the energy regulator, and the other part leads to the accumulation of debts to suppliers, particularly for gas. None of the political forces that have been in power have shown interest in verifying the economic activity of Moldovagaz and cracking down on the frauds that push up the gas debt.

The lack of regulation and transparency in the energy sector fuels corrupt practices and allows political parties in power to maintain the status quo. Moldova continues to purchase electricity

[1] *Ziarul de gardă: „Gusev și alți patru angajați, învinuți în dosarul MoldovaGaz" [Gusev and four other employees, accused in the MoldovaGaz case], July 2016*
[2] *Deschide.md, "Afacerea Energokapital // Harunjen: Avem dosar penal de câteva luni" [Energokapital scam // Harunjen: We have a criminal case for several months], July 2016,*
[3] *Supra note 26*
[4] *Supra note 6 at §2*
[5] *Energy Community Secretariat's review of the National Energy Regulatory Agency, September 2016*
[6] *Center ASPE, "Assessment Report of ANRE activity for 2015-2017", October 2017,*

from the separatist region, pushing up the consumption of non-paid gas. Maintaining Moldova's dependence on Russian gas is by far the greatest challenge that undermines the development of the energy sector and burdens the country's entire economy. The efforts undertaken by the Moldovan political decision makers have not been sufficient to strengthen the energy security of the country and to reduce Moldova's dependence on Russian gas.

In February 2000, Gazprom cut off the gas supply to Moldova under the pretext of accumulated gas debt. According to Dumitru Braghiş – the Prime Minister at the time – Gazprom demanded the payment of debt worth $195 million within two days, the daily payment for current gas consumption, and not to allow gas suppliers other than Gazprom to enter the market. "If we do not meet these conditions, the gas will not be turned on" Braghiş said.[1] Few things have changed since then, except that the gas debt of Moldovagaz has increased almost 20 times and today exceeds $7.9 billion, including $6.7 billion owed directly to Gazprom[2] and another $1.2 billion owned to Gazprom's subsidiary Factoring Finans.[3] As a result, the diversification efforts on both electricity and gas supply have been long delayed. Nor can it be counted how many feasibility studies have been produced in the last 10-15 years regarding interconnection options. Even the emergency upgrade of the Trans-Balkan gas pipeline, to enable the gas supply to run in reverse mode, was performed in the second half of 2019 due to external factors. Uncertainties around the gas transit agreement between Ukraine and Russia after 2019 forced Moldovagaz to identify alternative solutions to supply gas to Moldova.

But even in this case, alternative gas supply routes do not completely solve the problem of Moldova's dependence on Russian gas. Indeed, now Moldova can suspend the gas supply to the separatist region if Transnistria refuses to pay. However, this would result in the shutdown of the MGRES gas-fuelled power plant, leaving Moldova without its largest source of electricity and creating system imbalances that would undermine the import of electricity from Ukraine. These risks have been assessed in all energy strategies approved by Moldovan governments throughout the years and the only feasible solution for ensuring the electricity supply is by interconnecting with the Romanian electricity transmission system. However, the electricity interconnection projects have also been delayed. According to the roadmap for the electricity sector approved in 2015, the power line Vulcanesti-Chisinau with back-to-back substation were to be put into operation in the second quarter of 2019.[4] In the meanwhile, the Transport System Operator TSO in electricity sector Moldelectrica has pushed the deadline until the end of 2022.[5]

[1] *Vedomosti.ru, "Молдова сдалась" [Moldova surrendered], February 25, 2000*
[2] *Gazprom's financial report for Q2/2020 at page 44,*
[3] *Gazprom's financial report for Q4/2005 at page 47,*
[4] *Government decision no. 409 of June 16, 2015,*
[5] *Electricity transmission network development plan for 2018-2027 period,*

Recommendations

Eliminating corruption in the energy sector and reducing dependence on Russian gas can only be achieved by diversifying energy supply options and implementing competitive market rules In addition, it is necessary to strengthen the independence of the regulator and to investigate frauds that have taken place in the energy sector.

- Diversification of energy supply. The realization of the interconnection projects with the Romanian and implicitly European energy market will contribute to the diversification of the energy supply options, which is indispensable in order to have a real competition on the energy and gas market. Diversification is essential to consolidate Moldova's energy security, to stop the accumulation of gas debt and to give up the contractual gas supply scheme "on credit" to the Transnistrian region.
- Developing fair and competitive markets. Even if the interconnection projects will be finalized, Moldova needs to adopt and enforce legislation to stimulate competition and transparency of the energy market, ensuring that no supplier has a competitive advantage by not paying the full cost of gas for energy production. A functioning energy market operator, similar to Romanian OPCOM, must be also created to ensure non-discriminatory treatment for all market participants and to meet the challenges of competitiveness, sustainability and security of supply.
- Consolidating the independence of the energy regulator ANRE. The regulator should have the necessary functional and financial independence to approve and enforce fair rules on the market, which would improve the transparency and reduce corruption. The new law on energy approved in 2017 eliminated ANRE's financial dependence on Parliament. However, the rules of appointment of ANRE directors must be further improved to ensure the institutional independence of the Agency. The parliamentary selection committee must have an exact number of members and should conduct open hearings regarding the candidates, in order to ensure that there are no hidden arrangements to nominate politically affiliated candidates. The evaluation grid shall be revised as well, to replace the unreasonably abstract and subjective criteria such as "communication abilities."
- Investigating the frauds in the energy sector. The prosecutors must complete the criminal investigation on the cases already initiated and send the files to court. It is also necessary to conduct an audit of the economic activity of Moldovagaz from the moment of its incorporation in order to establish the amount of fraud that has been committed, initiate the process of asset recovery, and repay a part of the gas debt. The audit should also identify unreasonable expenses in order to exclude them from the gas tariff.

Bibliography

Alexey Miller informs Vladimir Putin on situation with gas supply to Ukraine. (2015, April 8). Gazprom. Retrieved from https://www.gazprom.com/press/news/2015/april/article223355/

ANRE denounces ‚assassination attempt' against Nicolae Raileanu. (2012, April 11). IPN news agency. Retrieved from https://www.ipn.md/en/anre-denounces-assassination-attempt-against-nicolae-raileanu-7967_997076.html

Authorities urged to examine transactions of company "Energocapital" in offshore areas. (2016, July 14). IPN news agency. Retrieved from https://www.ipn.md/en/economie/77740

Bird, M., & Cotrut, A. (2016, March 14). Moldovan energy intermediary company linked to "billion-dollar bank theft" scandal. The Black Sea. Retrieved from https://theblacksea.eu/stories/moldovan-energy-intermediary-company-linked-to-billion-dollar-bank-theft-scandal/

Calcea, N. (2016, August 4). Schema Energokapital explicată pe înțelesul tuturor [Energokapital scheme explained for everyone to understand]. Moldova.org. https://www.moldova.org/schema-energokapital-explicata-pe-intelesul-tuturor/

Chernitski, O. (2000, February 25). Молдова сдалась [Moldova surrendered]. Retrieved from https://www.vedomosti.ru/newspaper/articles/2000/03/03/moldova-sdalas

Ciobanu, M. (2016, July 22). Gusev și alți patru angajați, învinuți în dosarul MoldovaGaz. Procurorii nu știu unde se află șeful întreprinderii [Gusev and 4 other employees acused in Moldovagaz case]. Ziarul de Garda. Retrieved from https://www.zdg.md/stiri/stiri-justitie/gusev-si-alti-patru-invinuti-in-dosarul-moldovagaz-procurorii-nu-stiu-unde-se-afla-gusev/

Community Watchdog.MD. (2019). Moldovagaz - 20 de ani de fraude masive sub protectia actionarilor si institutiilor de stat [Moldovagaz - 20 years of massive fraud under the protection of shareholders and state institutions]. Retrieved from https://www.watchdog.md/wp-content/uploads/2019/09/Studiu-Moldovagaz-09-2019_compressed-1-1.pdf

Energy Community. (2016, September 8). Independence of Moldova's energy regulator at risk, Secretariat's study concludes. Retrieved from https://www.energy-community.org/news/Energy-Community-News/2016/09/08.html

Energy Community. (2017, January 5). An important step towards transparent procurement of electricity in Moldova. Retrieved from https://www.energy-community.org/news/Energy-Community-News/2017/01/05.html

Institute for Development and Social Initiatives (IDIS) Viitorul. (2017). Energy and politics: the price for impunity in Moldova. Retrieved from http://viitorul.org/files/Policy%20Paper%202017%20-%20Impunitate%20si%20%20intelelegeri%20rentiere%20sectorul%20energetic%20ENG%20II.pdf

Institute for Development and Social Initiatives (IDIS) Viitorul. (2007). The gas industry in RM: the burden of ignorance and the cost of errors. Retrieved from http://viitorul.org/files/Politici%20PubliceGAZZ_ENG.pdf

Preasca, I., & Bolfa, A. (2015, August 14). Millions from air traffic seized in Brussels. Rise Moldova. Retrieved from https://www.rise.md/english/millions-from-air-traffic-seized-in-brussels/

S.E. Moldelectrica. (2017). Electricity transmission network development plan for 2018-2027 period. Retrieved from https://moldelectrica.md/files/docs/TYNDP_EN.pdf

The energoalians affair: what you need to know. (2019, September 11). Sic.md. Retrieved from https://sic.md/

en/the-energoalians-affair-what-you-need-to-know/

Umbach, F. (2014, May 9). Russian-Ukrainian-EU gas conflict: who stands to lose most? NATO Review. Retrieved from https://www.nato.int/docu/review/articles/2014/05/09/russian-ukrainian-eu-gas-conflict-who-stands-to-lose-most/index.html

Газпром нашел способ начать прямые поставки газа в Донбасс [Gazprom has found a way to start direct gas supplies to Donbass]. (2015, February 19). Rbc.ru. Retrieved from https://www.rbc.ru/politics/19/02/2015/54e5e47c9a7947081ec94c4a

Крупнейший акционер Victoriabank связан с людьми из окружения Владимира Плахотнюка [The largest shareholder of Victoriabank is associated with people from the circle of Vladimir Plahotniuc]. (2015, February 9). Newsmaker.md. Retrieved from http://web.archive.org/web/20150213061235if_/http:/newsmaker.md/rus/novosti/krupneyshiy-aktsioner-victoriabank-svyazan-s-lyudmi-iz-okruzheniya-vladimira-plaho-8488

Schemă frauduloasă de import a energiei electrice [Fraudulent electricity import scheme]. (2017, October 31). Anticoruptie.md. Retrieved from https://anticoruptie.md/ro/stiri/doc-schema-frauduloasa-de-import-a-energiei-electrice-igor-dodon-si-zinaida-greceanii-subiectii-unei-plangeri-depusa-la-procuratura-generala

Proces penal într-un caz de corupție, semnalat de Centrul de Investigații Jurnalistice încă în 2008 [Criminal trial in a corruption case, reported by the Center for Journalistic Investigations back in 2008]. (2017, December 5). Anticoruptie.md. Retrieved from https://anticoruptie.md/ro/dosare-de-coruptie/proces-penal-intr-un-caz-de-coruptie-semnalat-de-centrul-de-investigatii-jurnalistice-inca-in-2008

Public Service Obligation in the Ukrainian Gas Sector: Corrupt Vulnerability

Sergii Balan, Serhiy Yevtushok

Introduction

The annexation of Crimea and occupation of part of the Donbass region in 2014 caused serious losses to Ukraine's still not very stable economy, depriving it of more than 13% of its economic potential. Ukraine has strived to restore its economic and industrial losses with the financial support of Western countries that, in turn, demanded that the Ukrainian government implement drastic reforms aimed at tackling corruption and increasing transparency and accountability of the public sector. In 2015, Ukraine had the lowest position in the Index of Economic Freedom in Europe, with a classification of "mostly unfree."

In 2015, Ukraine signed an Association Agreement with the EU and initiated deep systemic reforms to align imperfect national legislation with European standards. The fight against corruption in all spheres of public life became a cornerstone of the changes demanded by foreign partners. Nonetheless, the image of Ukraine as a corrupt country has seriously affected its reputation on the global level and precluded it from reaching a more dynamic pace of reform. According to the Transparency International, Ukraine was ranked 126th in the Corruption Perceptions Index in 2019.

The efficacy of reform implementation during former President Poroshenko's incumbency was widely debated given that level of corruption in 2015-2019 remained at about the same level. Slow progress in fighting corruption caused popular disappointment and enabled Volodymyr Zelenskyi to become President of Ukraine in 2019 and his party "Servant of the People" to create an one-party majority in the Parliament. However, the developments in late 2020, namely the controversial decision of the Constitutional Court to roll back the corruption prevention system, indicate the need to sustain efforts aimed at completing the reforms in Ukraine and not allowing any backslides.

Traditionally, the gas sector was considered one of the most corrupt spheres in Ukraine. The terms of gas supplies from Russia to Ukraine were subject to high-level political negotiations until the end of 2015 when Russian gas supply to Ukraine was halted. Many famous Ukrainian businesspersons close to top state officials made huge fortunes through supplying 'cheap' gas from Russia. For Ukrainian political elites, for years it was much more profitable, politically and financially, to exploit energy dependency on Russia rather than reform Ukraine's energy industry, raise energy efficiency, implement energy saving, and improve energy security. As a result, in spite of its own resources and potential, Ukraine remains highly import-dependent on gas with share of imports at about 30% in 2019. Dependence on energy imports was employed as a platform for billion-dollar corruption schemes in hydrocarbons supplies.[1]

From the start of the Russian invasion in 2014, Ukraine has commenced implementation of reforms towards free market in energy sector in line with the European energy acquis. The Ukrainian government established an independent energy regulator – the National Energy and Utilities Regulatory Commission of Ukraine (NEURC) and initiated adoption of the EU's Third Energy Package, embodying further liberalization of gas and electricity markets. This required from the Ukrainian government to set up all elements of market relations from scratch. Ukraine already has achieved some progress by adoption of the Law on the Natural Gas Market, finalization of Naftogaz (national oil and gas company of Ukraine) unbundling and establishing an independent gas transmission system operator, and introduction of the daily gas balancing system. The Ukrainian parliament has also updated the Annex XXVII to the Association Agreement with the EU, which introduced a bilateral mechanism to control the compliance of the Ukrainian legislative initiatives with the respective EU laws (in gas sector as well).

Ukraine is now facing the challenging task of completing open and competitive gas market according to the European target model. This entails the establishment of market pricing for both

[1] *https://jamestown.org/program/dmytro-firtash-launches-new-opaque-gas-intermediary/*

household and industrial consumers, ensuring simple and effortless procedure of switching between gas suppliers, improved protection of market players' rights, and permanent monitoring of market performance. Natural gas distribution and supply in Ukraine had a number of shortcomings, causing serious corruption risks. The monopolized and overregulated Ukrainian retail gas market was draining taxpayers' money through multiple well-established corrupt practices such as manipulation of gas consumption standards for unmetered consumers, illicit use of customer registers (i.e. "dead souls" or fake accounts), and misallocation of gas volumes from households to industrial customers (price arbitrage). All the aforementioned frauds practiced by designated retailers became possible due to the introduction of imperfect Public Service Obligations (PSO)[1] scheme – described below – combined with poor metering and ill-designed subsidization of vulnerable customers on the gas market. Intended for the protection of vulnerable consumers, PSO finally resulted in a number of alleged corruption cases,[2] enabled by differentiated pricing applied to commercial and household consumers. One of the illustrative corruption cases related to PSO in the gas sector has been unveiled in the city of Kirovograd (now Kropyvnytskiy) where officials of Kirovogradgaz (gas distribution company) created hundreds of fake gas accounts and sold unconsumed volumes of gas to industrial companies.[3] Another case took place in Lviv region where officials of the district heating company misused about 150 million cubic meters of gas bought under the PSO regime and generated electricity for industrial needs.[4]

The remainder of this case study describes how flaws in legislation caused by political populism, lack of political will, shallow professional expertise of public officials, and weak institutional capacity of the judicial system and regulatory bodies – i.e., the Antimonopoly Committee of Ukraine (AMCU) and the NEURC – to withstand powerful business actors together created a favorable environment for corruption, with damaging effects.

Cases Description

Established in 2015, the system of Public Service Obligations (PSOs) imposed on natural gas suppliers was intended to be an interim step towards creation of a liberal gas market in Ukraine. Instead, the government has consistently delayed the transition to market pricing, preventing a sharp rise in prices on natural gas for households because of high political risk and possible serious public discontent. PSO in household gas supply combined with the poor metering contributed to the emergence of several schemes of alleged corruption having caused losses to the state budget. The monopoly of regional gas companies inherited from the Yanukovych era became a real burden to public authorities performing gas market liberalization until 2020. This regime, which was partly lifted in August 2020 due to comparatively low gas prices on the European gas hubs, has caused considerable budget losses and should be applied carefully in other countries.

[1] *"Public service obligations" relates to the need of guaranteeing, through regulatory measures or requirements addressed to suppliers or transmission and distribution system operators, a minimum standards of consumer and environmental protection in the name of general economic interest, which could not be achieved through simple market mechanisms*
[2] *The Ukrainian anti-corruption framework (i.e. The Law of Ukraine "On Prevention of Corruption," the Criminal Code of Ukraine, the Code of Ukraine on Administrative Offences) defines a corruption as an activity aimed at unlawful use of their powers and related opportunities to obtain unjustified benefits. It embodies a wide range of subjects of liability, namely, state-level public servants, municipal officers, managers of private and public companies, notaries, auditors, experts, receivers, arbiters of arbitration tribunals or other persons who perform similar public functions. The Criminal Code of Ukraine (i.e. Article 963) states that companies are criminally responsible for corruption crimes committed by companies' authorized representatives on behalf and in the interests of the companies.*
[3] *https://www.epravda.com.ua/news/2017/09/27/629527/*
[4] *https://www.epravda.com.ua/news/2020/08/12/663951/*

PSO. PSO is the obligation imposed by the government on individuals or legal entities, to protect certain public interest, also via provision of energy (gas) at regulated prices. This non-market temporary measure, elaborated as an element of the state social policy to protect low-income families from prohibitive utility payments during the market transformation, became a mechanism for dexterous owners of gas supplying companies to skim illicit profits.

PSO in Ukraine was first introduced in 2015[1] (and still in force, despite its application to households was suspended by August 1, 2020) when residential gas prices were raised rapidly in accordance with the obligations to IMF, and the government decided to protect households. The resolution mandated Naftogaz to supply the gas produced by the company and its subsidiaries at a regulated price to households, religious organizations, and district heating (DH) companies. In case of shortage of own production, Naftogaz was obliged to buy gas at market prices from domestic or foreign companies and supply to designated consumers at a regulated price. PSO retailers as part of the scheme were not allowed to exceed 2.5% profit margin set by the government. Naftogaz was also not entitled to refuse selling gas at a regulated price to other suppliers of gas to households.

Naftogaz, the largest taxpayer to the Ukrainian budget, for a long time had to provide domestic consumers and heating companies with gas under the PSO regime. However, due to the de facto monopoly on gas retail market for households, gaps in legislation, and weak political will, the PSO regime resulted in Naftogaz having significant financial losses[2] and suing the government for lost profits. Naftogaz blamed gas supplying companies for manipulating the volume of gas consumed by households.

De facto monopoly of regional gas retailers (PSO suppliers). Until August 2020, the retail gas market in Ukraine was de facto monopolized by regional gas companies, 70% of which are directly or indirectly controlled by the Ukrainian oligarch Dmytro Firtash. Under the unbundling requirement, in 2015 there has been a legal unbundling of regional distribution companies into network (DSOs) and supply companies, however the common ownership as well as control of customer registers by incumbents makes this unbundling symbolic and ineffective.

Firtash's history in the gas sector dates back to the beginning of 2000s[3] and is closely related to notorious Swiss-based trader RosUkrEnergo. Founded in 2004, the company served as an intermediary in providing supply of all Russian gas coming to and through Ukraine in 2004-2009. The company was founded by Russian Gazprombank and Ukrainian Centragas Holding. A 90%-share of the latter belonged to Dmytro Firtash, 10% to his partner Ivan Fursin. The Ukrainian oligarch together with Gazprom-linked entity had completely controlled all natural gas imports to Ukraine.[4]

According to media reports, a substantial part of Firtash fortune came from a 45 percent stake he held in RosUkrEnergo.[5] Firtash was one of the donors of the pro-Russian Party of Regions headed by the ousted Ukrainian President Viktor Yanukovych, whose win in the 2010 presidential campaign paved the way for accumulation of assets by the oligarch's company DF Group in the chemical industry, metallurgy, agriculture, banking sector, and the me-

[1] *Resolution of the Cabinet of Ministers "On Approval of the Regulation on the Imposition of Special Obligations on the Subjects of the Natural Gas Market to Ensure Public Interests in the Functioning of the Natural Gas Market"*
[2] *In 2018, Naftogaz estimated its direct profit losses caused by PSO regime for the period from October 2015 through December 2017 at UAH 36.2 billion (approximately $1.36 billion). In addition, profit losses of the Naftogaz's subsidiary Ukrgazvydobuvannia reached UAH 74.8 billion ($2.8 billion) for the same period. www.naftogaz.com*
[3] *www.washingtonpost.com*
[4] *https://nv.ua/biz/naftogaz-vs-gazprom/five-stories-about-how-putin-organized-crime-and-oligarchs-tried-to-destroy-naftogaz-and-ukraine-50011464.html*
[5] *www.reuters.com*

dia. Through privatization rounds under Yanukovych, DF Group also became the majority shareholder of the largest network of regional gas companies[1] operated under the brand Regional Gas Company (RGC). After 2014, political affiliates of Firtash have reunited under pro-Russian political party Opposition Bloc (later Opposition Platform – For Life).

The de facto monopoly of regional gas retailers has been established because of inefficient privatization of regional gas companies followed by only legal unbundling (supply function was separated into subsidiaries of regional and municipal DSOs) without visible incentives for supplier switching. In fact, the same owners kept control over both distribution and supply functions.

Firtash was bolstered by the Russian Federation, which was interested in using energy resources and Ukrainian corruption as political leverage. In particular, his companies were issued $11.5 billion in loans through the Russian state-owned Gazprombank.[2] Furthermore, Reuters documented in an investigation that Gazprom sold to RosUkrEnergo 20 billion cubic meters of gas well below market prices. After selling this gas to Ukraine, Firtash made about $3 billion in profits.[3] Supply companies owned by RGC serve about 8 million household consumers, out of total 12.5 million while Naftogaz currently supplies only 2% of household customers.[4]

In March 2014, Austria's Federal Crime Agency announced that Firtash was being held at the request of the United States, on suspicion of violating laws on bribery and forming a criminal organization in the course of foreign business deals. Since then Firtash has been under arrest in Austria and is waiting to be extradited to the US. Despite being under arrest in a foreign country for many years, gas companies owned by Dmytro Firtash appeared to be actively employing a number of corrupt schemes based on shortcomings in PSO related legislation.[5]

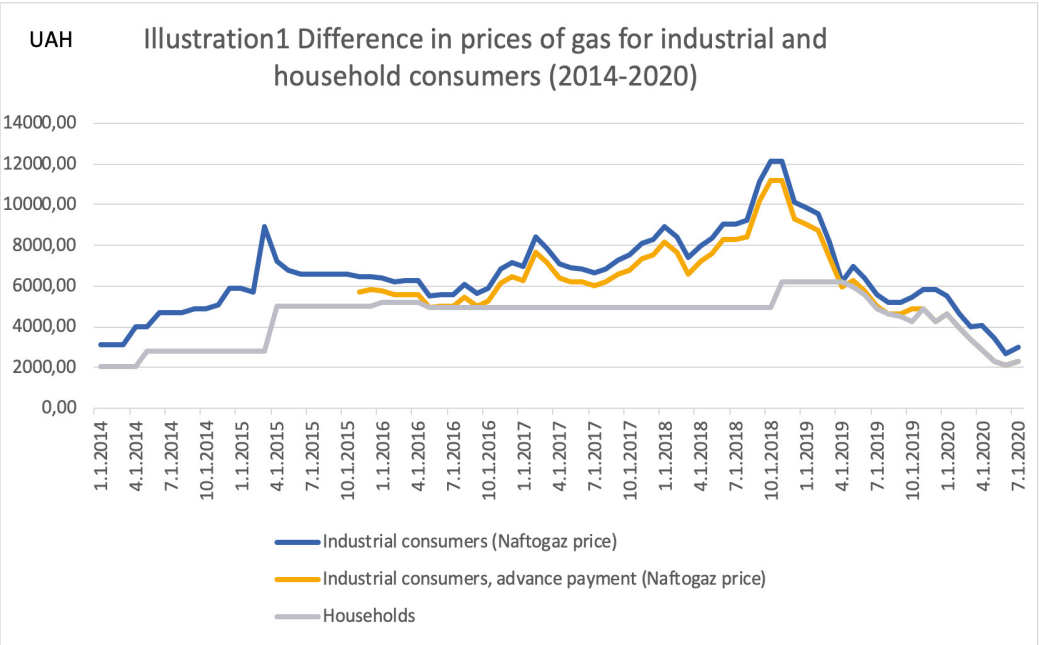
Price difference. Annual consumption of natural gas in Ukraine is approximately 30 billion cubic meters (29.8 bcm in 2019).[6] In 2019, Naftogaz sold approximately 15.4 bcm, i.e. more than half of total country consumption, under the PSO regime for household customers. 8 bcm were sold to regional supply companies and 7.4 bcm to district heating operators.

Subsidies only to a certain group of consumers create opportunities for price arbitrage or speculation when a gas supplier can buy the gas assigned for household consumers at a low regulated price, but eventually fraudulently sell it to industrial consumers at market price. According to conservative estimates by Naftogaz, due to price arbitrage between customer categories under the PSO regime, more than 0.6 bcm of natural gas per annum have been misallocated by particular companies, from households to industrial consumers in recent years.[7] Misallocated gas is usually used in several gas-intensive industries (e.g. chemical industry, alcohol production) where payments are made in cash.

A gap between household and industrial gas prices created a temptation for corruption among officials of regional PSO supply companies to divert the natural gas they purchase for households to other consumers. At the beginning of 2015, the market gas price for industry was more than double as high as the regulated price for households. In the following years, the price difference decreased, but still resulted in substantial losses for Naftogaz and the state budget. The gas prices for different categories in Ukraine reached market parity in April 2019, with

[1] *https://jamestown.org/program/dmytro-firtash-launches-new-opaque-gas-intermediary/*
[2] *https://www.reuters.com/article/russia-capitalism-gas-special-report-pix/special-report-putins-allies-channelled-billions-to-ukraine-oligarch-idUSL3N0TF4QD20141126*
[3] *https://www.reuters.com/article/russia-capitalism-gas-special-report-pix/special-report-putins-allies-channelled-billions-to-ukraine-oligarch-idUSL3N0TF4QD20141126*
[4] *https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/11/Insight-77-The-market-takes-shape-the-Ukrainian-gas-sector-to-2030.pdf*
[5] *https://www.nbcnews.com/politics/congress/senator-oligarch-linked-kremlin-earned-millions-while-fighting-extradition-u-n1013661*
[6] *https://www.naftogaz.com/www/3/nakweb.nsf/0/938500D9D390DFFDC22585070036FFB4*
[7] *http://www.naftogaz.com/files/Information/170926_Report_re_RSCs_v2-pdf_ENG.pdf*

only trade margins (both wholesale and retail) regulated for households supply until August 1, 2020.[1]



In 2018 alone, approximately 6% (compared to 3.2% in 2019) of Ukraine's budget revenues were spent on household subsidies[2] thus diverting substantial financial resources to unproductive expenditures reproducing energy poverty given that energy efficiency measures remain substantially underfunded (e.g. state budget expenditures for energy saving programs amounted to 0.4 billion UAH in 2018 or 0.04% of the budget revenues) due to the lack of budget resources. According to expert estimates, Ukraine spent $54 billion on direct and cross-subsidies for residential gas consumption in 2005-2015.[3] As a result, the IMF pressured the Ukrainian government to raise domestic gas prices to market levels as a condition for signing loans aimed at covering the budget deficit.

In 2015, the government began reforming the energy sector towards an open competitive market, but the issue of dominant incumbents (regional gas companies) remained, as they continue to implement corrupt schemes.[4]

In April 2020, the Security Service of Ukraine revealed one of the latest examples of gas misallocation by officials of the regional gas company Donetskoblgaz. The company purchased gas at a reduced price under PSO for households but instead supplied it to industrial enterprises in Donetsk region using fraudulent accounting. As a result, some local companies were consuming gas free of charge since 2017, while the supply company was charging household consumers for unused gas. A total debt of UAH 1.7 billion (approximately $63 million) was illegally transferred from businesses to household accounts through this scheme. Top-management of the company was accused of abuse of authority.[5]

The launch of a daily balancing on the gas market in Ukraine in April 2019[6] and respective improvement of gas consumption metering (through daily allocations) has reduced opportunities for speculation. E.g., a month after the launch of the TSO information platform, Naftogaz (still

[1] https://prm.ua/tsina-na-gaz-dlya-naselennya-kabmin-uhvaliv-klyuchove-rishennya/
[2] http://www.naftogaz.com/files/Zvity/Annual-Report-2018-ukr.pdf
[3] https://www.epravda.com.ua/projects/gazpravda/2020/03/23/657905/
[4] https://www.washingtonpost.com/business/2019/11/06/head-ukraines-gas-company-has-been-shot-pilloried-tv-attacked-by-giuliani-associates-its-all-days-work/
[5] https://www.ukrinform.ua/rubric-economy/3001409-sbu-vikrila-kerivnictvo-doneckoblgaz-na-milardnih-oborudkah-z-derzavnim-prirodnim-gazom.html
[6] https://dixigroup.org/storage/files/2019-05-10/alert_daily_balancing_ukr.pdf

not unbundled at the time) reported it began documenting misallocation of gas volumes to industrial enterprises by distribution companies.[1]

The most common corrupt schemes that have been practiced in the Ukrainian gas sector are discussed below in more detail:

Scheme 1. Unmetered gas and inflated gas consumption standards

Until now Ukraine has not managed to ensure full metering of the natural gas consumed by households. Non-metered consumers and excessive consumption standards set up by the government have caused about 400 million cubic meters of gas (equal to 5%[2] of the total annual household consumption in 2019[3] - worth approximately $100 million) to bypass the metering system annually.

There are three groups of household customers in Ukraine according to gas use: households using gas only for cooking, households using gas for cooking and water heating, and households using gas for cooking, space heating, and water heating. These categories have different gas allocation norms (standards). The total number of household gas consumers is 12.4 million including about 1.13 million (9%) that are not metered.[4] Another 1.8 million consumers use the meters with expired service life. For instance, out of 780,000 household consumers in Kyiv, 270,0000 are not fully metered.[5] Given that majority of non-metered households use gas only for cooking, about 5% (approximately 0.4 billion cubic meters in 2019) of natural gas consumed is not metered.[6]

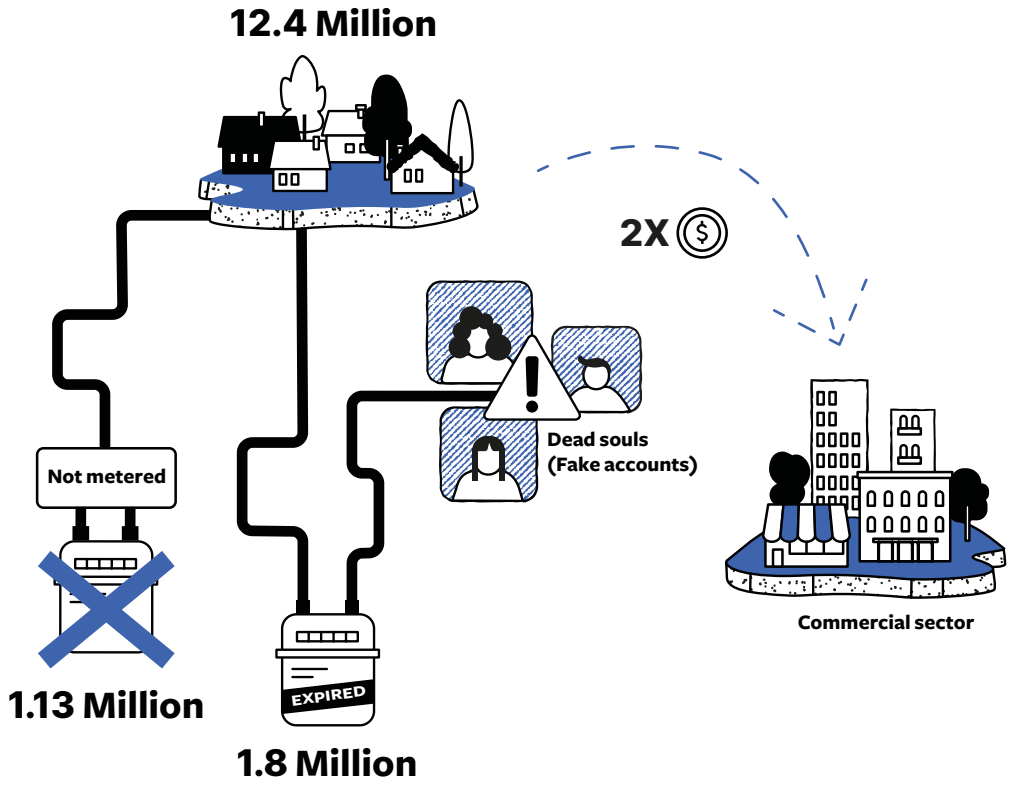
Consumption standards have changed drastically in 2012-2019 and were gradually reduced by up to three times for different categories of consumers. However, all standards were based on political decisions rather than economic justification, which created solid ground for corruption allowing officials of private gas companies to resell unused volumes of gas to industrial consumers. This also provided the PSO retail companies a legitimate opportunity to dispute government decisions which they have successfully used to protect their sales.

For example, on the 28th of January 2016, High Administrative Court of Ukraine overturned the Resolution of the Cabinet of Ministers of Ukraine #237 on the gas consumption standards of May 6, 2015, and invalidated it from the very moment of adoption. As a result, additional volumes of natural gas were accrued to non-metered households. It caused an increase in statistical household gas consumption in 2015 by about 170 million cubic meters worth of UAH 1.2 billion (approximately $50 million). Besides, additional volume of gas was not reflected in the annual gas balance as it was not acknowledged by primary settlement documents.[7] In turn, the Association of Gas Market of Ukraine that represents a position of regional gas companies insisted that the Cabinet of Ministers of Ukraine established understated gas consumption standards for non-metered household gas consumers that resulted in annual losses of all market players equivalent to 383 million cubic meters of natural gas (worth UAH 2.681 billion).[8] The Association stated that the gas consumption standards specified in the government resolution of January 30, 2019 were not substantiated and at least twice lower than the average actual consumption by non-metered consumers.[9]

[1] *https://hromadske.ua*
[2] *www.eeplatform.org.ua*
[3] *https://lb.ua/economics/2020/02/07/449322_potreblenie_gaza_ukraine_upalo_nizhe.html*
[4] *http://mpe.kmu.gov.ua/minugol/control/publish/article?art_id=245481542 (see annex to the explanatory note)*
[5] *https://www.epravda.com.ua/columns/2020/06/5/661410/*
[6] *https://voxukraine.org/uk/skorochennya-spozhyvannya-gazu/*
[7] *https://voxukraine.org/uk/skorochennya-spozhyvannya-gazu/*
[8] *http://agru.org.ua*
[9] *Ibid.*

Scheme 2. "Dead souls" (fake accounts)

As example, PSO retail companies resorted to fraudulent allocation of gas volumes to non-existent household consumers seeking to sell this gas to commercial consumers or to cover their own imbalances. The de facto monopoly of regional gas companies until August 2020 assured that only they have had exclusive access to information on the actual gas consumption by households. Using this data, RGC affiliated companies could have easily manipulated with gas volumes by means of fake reporting. The scheme was organized by officials of PSO retailers in conspiracy with owners or top-management of industrial plants (especially energy intensive ones).[1]



In June 2017, Naftogaz as shareholder retrieved control over JSC Kirovogradgaz (temporarily operated by RGC before) and initiated an inspection of the enterprise. It revealed lately that 384 fake accounts linked to certain addresses of subscribers were deliberately added to the automated billing system.[2] As a result, 9.8 million cubic meters of gas were written off in 2017, generating UAH 78 million ($3 million) in losses.[3] Naftogaz also stated that while supplying gas to so called "dead souls," Kirovogradgaz allocated to such accounts about 1.5% of annual gas volumes in 2015, 2.6% in 2016 and 6.0% in January-August 2017.[4]

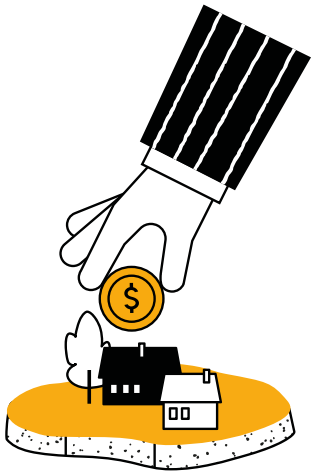
In 2018, the law enforcement bodies investigated another case of corruption in Lviv region when top-level managers of thermal power plants organized a scheme of misallocation of about 300 million cubic meters of gas intended for household consumers to electricity generation. The electricity generated with the diverted gas was further sold to industrial consumers. State losses amounted to UAH 1.4 billion ($51 million).[5]

Monetization of household subsidies for final consumers (instead of service providers) starting

[1] https://interfax.com.ua/news/economic/487298.html
[2] https://www.naftogaz.com
[3] https://www.ukrinform.ua
[4] https://hromadske.ua
[5] https://www.5.ua

from January 2019[1] combined with market-based pricing under PSO since January 2020 along with government efforts to bring more control into the process of subsidies approval significantly restricted further opportunities for manipulations with fake accounts.

Scheme 3. Subsidized consumers



There was a state social standard/limit for gas consumption by special category of subsidized households in Ukraine which was very generous,[2] strongly exceeding the actual average consumption of subsidized residents. Nevertheless the statistics show that state aid recipients consumed more gas than others, which is partly because subsidized households really consumed more and partly due to 'creative accounting' of PSO retail suppliers. For instance, the standards for households using gas for heating, the most gas-consuming category of customers, decreased from 7 cubic meters per square meter[3] in 2015 to 4 cubic meters per square meter in 2019.[4] In turn, gas companies continuously challenged the government's decrees on reduction of social standards/limits in courts.[5]

According to Naftogaz estimates based on analysis of the documentation of Kirovogradgaz (previously operated by RGC), households receiving subsidies were registered to consume 1.5-2 times more gas than those who did not receive subsidies.[6]

Analyzing the reporting documents of Kharkivgazzbut (PSO retailer affiliated with RGC) for October 2015 – March 2016, Naftogaz paid attention to the fact that average consumption of gas by unsubsidized consumers amounted to 1096 cubic meters per household for these six months. However, a month later, in reports covering seven months (October 2015–April 2016) average consumption by the same category of consumers were equal to 284 cubic meters per household. It is obvious that total gas consumption of a household in seven months could not be lower than total consumption in six months. Meanwhile, average reported consumption per household receiving subsidies almost doubled (from 1778 cubic meters for six months to 3154 cubic meters for seven months). This case illustrates how officials of the PSO retailer retrospectively reallocated gas volumes in order to increase the amount of subsidies paid from state budget to cover the cost of gas consumed by vulnerable consumers.[7]

The reduction of the social consumption standards along with monetization of household subsidies covering non-consumed gas by subsidized households limited the opportunities of gas supply companies for manipulations starting from 2019.

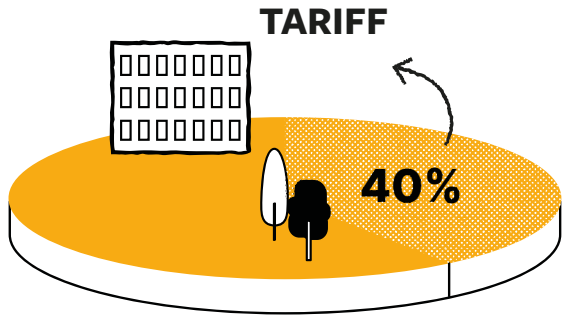
Scheme 4. Unauthorized (off the balance) gas offtake from transmission system

Another form of subsidization and market distortion is the reduced margins and low tariffs for gas distribution, which do not cover the distribution costs and provokes unauthorized gas withdrawal from the gas transmission system. Despite some success in reforming the Ukrainian gas sector, the problem of unauthorized gas withdrawal from transmission system has long challenged the Ukrainian energy security. From 2016 to February 2019, gas distribution companies

[1] *https://finance.liga.net ; https://zakon.rada.gov.ua/laws/show/1176-2018-%D0%BF#Text*
[2] *https://www.epravda.com.ua/columns/2020/06/5/661410/*
[3] *Social quota for households using gas for heating is applied during heating season – from October 16th to April 15th.*
[4] *https://zakon.rada.gov.ua/laws/show/409-2014-%D0%BF#Text*
[5] *https://www.ukrinform.ua/rubric-economy/2650478*
[6] *https://censor.net.ua/*
[7] *http://www.naftogaz.com/files/Information/170926_Report_re_RSCs_v2-pdf_ENG.pdf*

accumulated more than UAH 35 billion ($135 million) in debt for negative imbalances to gas transmission system operator UkrTransGaz.[1] About 70% of this debt belongs to RGC affiliated companies, respectively to their ownership share over DSOs.[2] It is estimated that unauthorized gas withdrawal will amount to UAH 10 billion[3] (approximately $370 million) in 2020. E.g., Khmelnitskgaz stated in the middle of December 2019 that the insufficient tariff caused it to bear losses totaling UAH 520 million[4] (approximately $20 million) in the past year.

In March-April 2019 alone, the cost of negative imbalances amounted to more than UAH 2.5 billion ($97 million). It was mainly formed by regional DSOs that resorted to unauthorized gas offtake for their own production and technological needs. Only UAH 50 million ($2 million) out of UAH 2.5 billion in debt was paid as of June 4, 2019.[5] But the total cost of positive imbalances for the same period to be paid to market participants by TSO amounted to UAH 0.53 billion ($20 million), UAH 0.27 ($10 million) billion of which was already paid to stakeholders.[6] Following 3 quarters of 2020, regional gas companies accumulated UAH 1.357 billion (approximately USD 50 million) of debts for imbalances while offtaking gas from transmission system. Of this amount, regional gas companies reimbursed only 25%, i.e. UAH 337 million (USD 12 million). Only every fifth DSO settles up its payment to TSO on time allowing for further timely payments for positive imbalances to market players.[7]



According to the former head of the NEURC O.Kryvenko, the gas distribution tariff in 2018 covered only about 40% of costs required for purchase of the gas volume intended for technological needs.[8] As DSOs are withdrawing gas without full payment, the TSO has to pay for the withdrawn gas out of its own funds and accumulates losses. As a result, unpaid imbalances lead to significant financial instability of the gas transition system operator. Gas distribution companies argue in response that, first, the distribution tariffs established by the regulator are not sufficient to compensate their distribution services and, second, DSOs are not entitled to cease supplying gas to consumers running up debts.

In order to solve the problem, TSO resorted to collecting debts owed by regional gas companies in courts and won several trials.[9] In addition, the distribution tariff was increased twice (in January and July 2020) to cover in full technological losses of gas.[10] The situation is likely to improve after the regulator updated the methodology of calculating technological losses for DSOs aimed at reducing number of disputes over reimbursement of gas for technological needs.[11] In addition, the Ukrainian Energy Exchange in cooperation with the Ministry of Energy, EBRD, and Energy Community initiated a set of measures to launch short-term standard products trading (gas exchange). As of September 2020, the Ukrainian Energy Exchange launched trading platform as a service for settling daily imbalances by customers of transportation services.[12]

[1] https://www.spglobal.com/platts/en/market-insights/videos/market-movers-europe/081020
[2] https://www.epravda.com.ua/columns/2018/11/5/642301/
[3] https://ua-energy.org/uk/posts/u-2020-rotsi-nesanktsionovanyi-vidbir-hazu-mozhe-koshtuvaty-10-mlrd-hryven-ohtsu
[4] https://ukranews.com/ua/news/677016
[5] http://utg.ua/utg/media/news/2019/05/negatyvnyi-nebalans-operatora-gts-v-kvitni-zris-do-25-mlrd-grn.html
[6] Ibid.
[7] https://tsoua.com/news
[8] https://ua.interfax.com.ua/news/interview/530183.html
[9] https://ua-energy.org/uk/posts/ohtsu-vidsudyv-u-oblhaziv-238-mln-hrn-borhiv-za-vidibranyi-haz
[10] https://oilpoint.com.ua/regulyator-pidvishhiv-tarifi-na-rozpodil-gazu/?lang=uk
[11] http://www.nerc.gov.ua/?news=10744
[12] https://www.ueex.com.ua/presscenter/news/korotkostrokovomu-rinku-prirodnogo-gazu-v-ukraini-buti/

Abuse of De Facto Monopoly Position and Opposition to Reform

Regional PSO suppliers have used their de facto monopoly position (each regional gas distribution network operator has its own subsidiary supplying gas) in the retail market in several ways. In 2019, NEURC received 12,684 complaints from household gas consumers, 8,139 of which concerned the recalculation of natural gas volumes to standard conditions.[1] The regulator later conducted an inspection and recorded violations of the law by 20 regional gas companies, which overestimated the so-called "thermal coefficients" (adjustment of gas volumes to cold temperatures) and earned additional income on household consumers.[2] The situation was resolved positively for gas companies as they challenged the actions of the regulator in court, invoking non-compliance with legal procedures by the NEURC during the inspection and the court eventually upheld the lawsuit. In addition, incumbent suppliers attempted to apply "thermal coefficients", sometimes retrospectively, to consumers even upon market liberalization when household consumers tried to switch a supplier.[3] In response, households challenged bills with additional charges in courts and several lawsuits are now pending in the Supreme Court of Ukraine. In one of those hearings, the Supreme Court of Ukraine noted that the methodology of volumes adjustment adopted in 2004 is not applicable to household consumers and could not be applied in settlements with households. Given a significant number of similar cases in the courts of Ukraine, the Supreme Court concluded that it is necessary to form a unified law enforcement practice on "thermal coefficients".[4]

Unmetered gas was another acute problem of the Ukrainian gas market actively abused by regional PSO retailers. As of beginning of 2019, only 43% of the Ukrainian consumers using gas for cooking had individual gas meters, while others pay for consumed gas according to the standards set up by the government. Companies affiliated with Firtash's RGC were constantly challenging[5] the implementation of new standards for gas consumption by non-metered consumers. The government has been adopting regulations that reduced consumption standards (based on 1996 levels) since 2015 but regional gas companies challenged these decisions in court, arguing that legislative procedure had been violated. Courts upheld the plaintiff's position and suspended the adopted regulations. Incumbent gas suppliers are interested in selling gas to consumers without meters according to old standards which are higher as they would be able to avail themselves of trading disengaged gas to industrial consumers.[6]

Besides, a number of gas distribution companies filed a lawsuit in 2020 to prevent introduction of new rules simplifying supplier switching procedure adopted by the NEURC. Upon implementation of the switching rules, households acquired an effective instrument of choosing better deal (i.e. price and quality of service) in gas supply through changing a retail company.[7]

Arguing that household consumers were charged with "temperature coefficients" during the antitrust proceedings, regional gas companies noted they only complied with the applicable law and were forced to bring gas volumes to standard conditions in order to cover their technological losses.[8] The NEURC and the AMCU have repeatedly stated that these losses are already included in the distribution tariff and it is illegal to charge them separately in utility bills. Incumbent gas companies, in turn, blamed the regulator and the anti-trust authority for pressurizing business in a manner not compatible with European legislation.[9]

[1] *https://www.nerc.gov.ua/data/filearch/Catalog3/Richnyi_zvit_NKREKP_2019.pdf, p. 159.*
[2] *https://www.oporaua.org/article/zhitlo/19463-rakhunki-za-gaz-chomu-derzhava-ne-mozhe-zakhistiti-spozhivachiv*
[3] *https://www.ukrinform.ua/rubric-economy/3105991-gazove-kripatstvo-i-temperatura-navkolisnogo-seredovisa.html*
[4] *https://ua-energy.org/uk/*
[5] *https://gazpravda.com.ua/novyny/v-ukraini-cherez-sud-povernuly-zavyshcheni-normy-spozhyvannia-hazu*
[6] *Ibid.*
[7] *https://gazpravda.com.ua/novyny/hazzbuty-namahaiutsia-zupynyty-vidkryttia-rynku-hazu-cherez-sudy*
[8] *https://amcu.gov.ua/npas*
[9] *https://expro.com.ua/*

Enabling Environment

Three fundamental factors created a conducive environment for the corruption in regulated gas supply – lack of political will, populism, and poor professional expertise in reforming the gas sector. This did not allow to ensure full commercial metering, eliminate ineffective subsidization, and root out other corruption-supportive factors. For political convenience, the political elites have made unsubstantiated or even blatantly erroneous decisions for many years. Political support was long outweighing common sense and market rules in the Ukrainian gas sector to the benefit of a few unscrupulous tycoons. This attitude caused adoption of a set of fragmented decisions and regulations instead of the elaboration of a comprehensive policy aimed at irreversible transition to market rules.

The legal framework was approaching a clear competitive market model too slowly. The legislative gaps and ambiguities enable gas-supplying companies to misallocate gas, protract payment periods, resort to gas withdrawal from transmission system, and sell unmetered gas, causing losses to the state. Definitely, the unbundling of Naftogaz and lifting the PSO regime for households in 2020 brought the Ukrainian gas sector closer to the European standards, but the lack of consistency and systemic approach in reform preconditions for fair play undermines competition in the market.

De facto monopolization of gas retail is another scourge of gas market. Until August 2020 regional PSO suppliers enjoyed a monopoly and have had no competitors. Household consumers, in turn, did not have a real opportunity to switch to other suppliers, choose a lower price or a better service because potential suppliers were not interested in entering the market due to low profitability of gas supplies to household consumers and DH operators under PSO. This reality became possible as about 68% of residential gas supply in 2019 was controlled by one private group of companies affiliated with the oligarch Dmytro Firtash.[1]

Regional gas companies accumulate debts to Naftogaz with impunity because it is practically impossible to disconnect them or revoke the DSO license. On the other hand, the regulator did not have enough power to carry out unscheduled inspections of market players.[2] Consequently, the TSO does not receive significant funds, part of which could be transferred to the state budget in the form of taxes and/or invested in the system development. Furthermore, Naftogaz (as former TSO parent company) demands subsidies from the state budget as a result of the debts accumulated by gas companies, households, and district heating companies.[3]

In 2019, the AMCU considered 16 cases against PSO gas suppliers affiliated with the RGC and ruled that regional gas companies are using their natural monopoly position to coordinate and acquire a full monopoly position vis-à-vis consumers in regions of their operation, which took full advantage of their status for profit in 2015-2019.[4]

Since 2015, the government has been trying to gradually introduce competitive market mechanisms into the Ukrainian gas sector. However, challenges of the retail gas market cannot be met by single-point solutions due to the complexity of the situation. Legal flaws exist: the Code on Gas Transmission System does not allow TSO to penalize DSOs for unauthorized gas offtake; the government periodically adopts provisions prohibiting Naftogaz (as wholesale PSO supplier) to discontinue gas supply to district heating companies and thermal power plants regardless of their financial discipline; there is a lack of legal provisions regulating data exchange between state-run registers of subsidy recipients and gas consumers; there is a lack of compliance with the European law of the rules on gas balancing, standards of data exchange etc.[5] These legal

[1] *http://www.nerc.gov.ua/data/filearch/Catalog3/Richnyi_zvit_NKREKP_2019.pdf, pp. 151-152.*
[2] *https://www.unian.ua/*
[3] *https://www.epravda.com.ua/*
[4] *https://amcu.gov.ua/*
[5] *http://pulse.eu-ua.org/ua/streams/energy-sector-and-energy-security*

flaws did not allow to stop and prevent occurrence of possible corruption schemes. Another facet of the same issue is that the NEURC and the government often ignored procedural aspects for adopting consumption standards that enabled gas companies to challenge them in courts.

We assume that any changes aimed at reducing the de facto monopoly position of PSO retail suppliers were opposed not only on a regional but on a national level as well. This is evidenced by the fact that numerous governments did not make a final move to liberalize the retail segment of Ukrainian gas market until recently, and still lack effective solutions to the fraudulent schemes described above.

Manipulations with fake household accounts became possible because PSO gas retailers were not mandated to reconcile volumes of gas consumed by subsidized households that they declared and there was no means to check their accuracy.[1] Yet, there were two separate unsynchronized registers in Ukraine – a register of subsidy recipients and a register of gas users. These registers are operated by different public authorities – the Ministry of Social Policy and Ministry of Finance, respectively – allowing regional gas companies to avoid reconciliation. According to the Ministry of Social Policy, the Ukrainian legislation did not entail exchange of information from the Unified State Register of Housing Subsidies Recipients, which was launched only in July 2018 as the first step towards effective control over subsidized gas consumers.

Despite the PSO for households was lifted, it is likely that all the schemes described above will remain in effect as long as other problematic factors like metering, improper billing, and customer registers remain in place.

Costs of the Qualitative & Quantitave Assessment

Alleged Corruption in the gas sector leads to a number of monetary and non-monetary damages to the state and inflicts harm to the public interest.

1 **State losses.** Corruption practices built upon price gaps have caused financial losses to state companies obliged to sell gas at a lower regulated price. In 2018, Naftogaz management estimated the losses related to PSO functioning for the period from October 1, 2015 through June 30, 2018 at more than 102.9 billion UAH (approximately $4 billion). UAH 80.8 billion (approximately $3 billion) of this amount is lost revenue of PJSC "Ukrgazvydobuvannia" (state-owned Naftogaz-affiliated company), which produces hydrocarbons and sells natural gas, intended for household consumers, to Naftogaz. UAH 7 billion (approximately $260 million) of this amount is related to the formation of bad debts reserves, and the remaining UAH 5.1 billion (approximately $190 million) is direct losses.[2]

Unauthorized gas withdrawal from the transmission system, according to Naftogaz, has created the debt for of UAH 27 billion (approximately $1 billion)[3] as of mid-2018, and it is estimated that unauthorized gas take may amount to UAH 10 billion[4] (approximately $370 million) in value in 2020. Partially this was caused by insufficient distribution tariffs in place since 2016 which have not been reviewed until January 2020. E.g., a single company Khmelnytskgaz stated in the middle of December 2019 that reduced distribution tariffs caused it to bear losses totaling UAH

[1] *https://www.ukrinform.ua/rubric-economy/2480641-tretij-pohid-na-oblgazi-ci-vdastsa-peremogti-firtasa.html*
[2] *https://ua.korrespondent.net/business/companies/4030160*
[3] *https://daily.rbc.ua/ukr/show/yuriy-vitrenko-oblgazy-hotyat-uchastnikami-1530648502.html*
[4] *https://ua-energy.org/uk/posts/u-2020-rotsi-nesanktsionovanyi-vidbir-hazu-mozhe-koshtuvaty-10-mlrd-hryven-ohtsu*

520 million[1] (approximately $20 million) in recent years.

In 2019, several court resolutions mandated the NEURC to compensate DSOs' losses resulting from inadequate tariffs established in 2016. The regulator was obliged to return UAH 589.9 million (approximately $22 million) to Kharkivgaz[2] and UAH 1.038 billion (approximately $40 million) to Dnipropetrovskgaz including the amount of compensation into gas distribution tariff.[3]

According to former Executive Director of Naftogaz Yuriy Vitrenko, the size of shadow gas sales in Ukraine may have amounted to approximately $600 million. As a result, the volume of unaccounted gas sales may reach 10% of the Ukrainian market.[4] Regulated prices and insufficient trade margin restricted competition on the market and had considerably reduced the market attractiveness for new actors.

2 **Energy security and economic development.** State-owned companies remained underfinanced largely because of alleged corruption schemes and inefficiencies related to regulated prices, which limited their ability to invest in exploration and development of new fields, multiplying the dependence of the Ukrainian economy on imported natural gas. For instance, the state-owned company Ukrgasvydobuvannia, a subsidiary of the Naftogaz group, due to significant financial restrictions[5] partly caused by PSO,[6] as well as legislative flaws that severely constrained the number of subsoil use licenses received by the company and weak investment decisions, was forced to abandon its ambitious 20/20 program, which envisaged growth of gas production up to 20 billion cubic meters by 2020 and was expected to reduce Ukraine's dependence on imported natural gas.[7]

3 **Scarcity of investments and reduction of natural gas production.** Limited profitability under PSO (trough regulated margins of 1.917% in wholesale and 2.5% in retail) along with discounted network tariffs for gas regional distribution had reduced the interest of existing and potential market players. An administratively regulated price that has been lower than the cost of gas production in Ukraine for a long time urged Naftogaz to offset this difference by its own funds and then claimed that the government had to reimburse losses from the state budget. Ukraine has a low level of foreign investments in its hydrocarbons sector, as it is perceived as a country with significant corruption risks. In April 2020, Naftogaz announced that it attracted a foreign partner within the first ever full-scale Production Enhancement Contract in the history of Ukraine's oil and gas industry that committed to about UAH 1 billion (about $37 million), the biggest foreign investment over the last 5 years.[8] For a country with the second largest[9] gas reserves in Europe, this amount of investments is not adequate. The 2.5% retail margin prescribed by the government resolution as an element of the PSO regime did not cover full operational costs of supplying companies, providing no incentives for new players to enter this market. So far, there are no major foreign companies among either producers or retailers of natural gas in Ukraine.

4 **Lack of incentives/possibilities for energy savings.** Low regulated prices usually do not encourage the majority of consumers to implement energy-efficient technologies and save more gas. Moreover, low prices create an elastic demand effect – the more affordable the price the more consumption it stimulates. Many low-income Ukrainian households cannot afford investing into energy saving technologies because price regulation (non-market until January 2020), PSO regime (until August 2020), subsidies, and gas consumption quotas distort price signals, eliminating a decrease in consumption as an option for family savings.

Due to significant budget spending on housing subsidies for vulnerable consumers, the state

[1] https://ukranews.com/ua/news/677016
[2] https://ua.interfax.com.ua/news/economic/591835.html
[3] http://www.reyestr.court.gov.ua/Review/81398326; https://www.epravda.com.ua/news/2019/06/5/648485/
[4] https://censor.net.ua/ua/news/3170142/rynok_chornogo_gazu_v_ukrayini_moje_dosyagaty_600_milyioniv_vitrenko
[5] https://zn.ua/ukr/energy_market/gazovidobutok-proval-pid-ovaciyi-300006_.html
[6] https://www.naftogaz.com/www/3/nakweb.nsf/0/81124715DABDC9CFC225821E002482E9
[7] https://dt.ua/energy_market/gazovidobutok-proval-pid-ovaciyi-300006_.html; https://westnews.info/news/
[8] https://ugv.com.ua/en/
[9] http://agpu.org.ua/upload/files/10153122706935.pdf

is not able to invest the necessary amount of funds to improving energy efficiency and energy saving technologies. E.g., in 2018 and 2019, the budget expenditures on supporting energy efficiency measures amounted to approximately UAH 2 billion (approximately $760 million), which is almost two orders of magnitude less than the amount of direct and indirect costs spent to pay subsidies. Besides, due to lack of funds available through distribution tariff or budget allocations, some household consumers do not have installed gas meters in their housing, and this does not allow to determine precisely the volumes of gas that are actually consumed by such consumers.

5 **Misrepresentation of state social function.** Prior to the abolition of the PSO, the very idea of social support for vulnerable households was distorted because wealthier customers consuming more gas practically saved more money on utility bills, but not those pertaining to vulnerable categories of consumers. Due to identical regulated prices for all domestic customers, which were substantially below market level at least until January 2020, those households that consumed more gas (e.g. for space heating) also benefitted from such system running in parallel to housing subsidies. The government dispersed its scarce financial resources for the support of all citizens instead of focusing only on vulnerable categories of gas consumers. As a result, the state budget was burdened with excessive social expenditures that hampered its ability to invest into productive economic spheres.

6 **Harm to consumers' rights.** Households did not have an alternative to buying gas from a single company operating in the respective region and at a single regulated price. Since market liberalization in August 2020, there is only few supplying companies working; should this happened earlier, consumers would have enjoyed better choice in terms of suppliers and products. Yet, a consumer is still not protected from poor service (e.g. low-quality gas) or manipulations with the volumes consumed if a household is not equipped with individual metering (as those issues are responsibility of DSOs). It was almost impossible to change a gas supplier in Ukraine until July 1, 2020 when the NEURC resolution liberalizing supplier switch came into force.[1]

Hence, we may conclude that unduly implemented PSO system in combination with other existing circumstances created much room for corruption. Although the regulated prices and supply protected household consumers from sharp increases in their utility bills, in the long run it harmed public interests.

Possible Remedies

Although regional gas supply companies actively opposed the actions of the government and the regulator for elimination of their de facto monopoly position through discrediting campaigns and lawsuits,[2] under strong pressure from the international partners and CSOs, the Ukrainian government slowly but incrementally has passed required laws establishing a competitive retail gas market.

While eradicating the corruption practices and shady schemes in the Ukrainian gas sector, the government needs to put gas reform into a wider perspective, combining it with a number of strategic goals (i.e. "green transition," raising energy efficiency, reducing energy consumption, and reaching self-reliance in gas supply). Drastic changes could be reached by fast decisions made in a systemic and comprehensive way – otherwise, every regulatory flaw will beget corruption.

[1] *http://www.nerc.gov.ua/?id=52006*
[2] *http://www.naftogaz.com/files/Information/2018-12-10_Oblgazy.pdf*

The drop in global commodity prices with the outset of coronavirus pandemic formed a conducive ground for the state to remove PSO for household consumers, which finally expired on August 1, 2020. Starting from this date, gas for households is supplied at a market price and consumer received real incentives to look for alternative suppliers. However, the PSO regime still remains in force until May 1, 2021 for district heating companies, which accumulated significant debts to Naftogaz for consumed gas (UAH 44 billion (approximately $1.5 bln) as of August 2020),[1] incl. UAH 6.6 billion ($0,2 billion) accumulated in 2020.[2] The problem is also that only 2% of gas intended for industrial consumption is sold on open trading platforms (like Ukrainian Energy Exchange), and the rest is supplied under bilateral agreements.[3] The state should encourage development of exchange instruments to launch an open gas market with standardized short-term products and futures, as the well-functioning and liquid market is the main weapon against corruption.

In fact, Ukraine maintained a double subsidy system when in addition to the PSO regime, which covered all the groups of households regardless of their income, the poorest households received separate personal subsidies. Universal subsidizing (e.g. via the PSO regime) did not serve the purpose of social protection but instead, coupled with lack of accounting (e.g. gas consumers register, individual gas meters, etc.), it resulted in emergence of corruption practices. Universal subsidies should be replaced with addressing individual low-income households (i.e. by the means of targeted subsidies) provided that all subsidized households are registered and equipped with gas metering.

The current system of subsidies discourages household consumers from energy saving. The total amount of budget subsidies significantly exceeds expenditures for energy efficiency for many years. E.g., the budget of Energy Efficiency Fund in 2020 is UAH 2.72 billion or $100 million, while the budget spending on household subsidies amounts to UAH 47.5 billion or $1.8 billion.[4] The government should shift its policies towards stimulation of energy saving technologies among households through affordable loan programs and tax relief. To reduce spending, an average household has to care not only about the price of gas but about decreasing average consumption as well – the less volume of gas is consumed, the less room for manipulations is available.

Until the very launch of competitive retail market in August 2020, regulated prices encouraged corrupt practices whereby gas retailers could contrive different schemes to make a profit. Given the level of gas market concentration, the institutional capacity of regulatory, law enforcement, and judicial bodies should be reinforced to resist any attempts of incumbents to dictate their terms or neglect legal provisions. Price and procedural regulation prevented new players from entering the market, which could have broken de facto monopoly of regional supplying companies and create competitive gas market much earlier. Abolition of PSO for household consumers in August 2020 along with simplification of the switching procedure by NEURC liberalized retail gas market and created opportunities for gas consumers to choose a supplier according to personal preferences. But it will take a while for the majority of household consumers to realize the benefits of a liberal gas market.

Foreign partners have always actively supported Ukraine's actions in the fight against corruption and reform of the Ukrainian energy sector. International organizations along with national governments of particular countries motivated Ukraine to implement effective reforms proposing financial and technical support in return. Support for the legislation that introduces market mechanisms in the gas sector is yielding results (e.g. adoption of the Law of Ukraine "On the Natural Gas Market" in 2015 and over 100 acts of regulation afterwards). If provided, further comprehensive support of competitive pricing, effective procedure-based relations between consumers and suppliers, and establishment of proper monitoring mechanisms will help Ukraine to eliminate the remaining corrupt mechanisms.

[1] *https://biz.censor.net/resonance/3217925/yak_na_gazovomu_rinku_zyavilis_90_mlyardv_borgv*
[2] *https://www.epravda.com.ua/rus/columns/2020/10/6/665959/*
[3] *http://www.naftogaz.com/files/Zvity/Naftogaz_2019_UA.pdf, pp.72-73.*
[4] *https://zakon.rada.gov.ua/laws/main/294-20*

Civil society organizations should keep putting pressure on the state authorities and conducting advocacy campaigns addressing MPs, government officials, and expert society. Ukrainian NGOs and think tanks have actively supported the introduction of daily gas balancing, the abolition of PSO, and the simplification of supplier switching rules, but there is still lack of efficient control over market players at the regional level, where the lion's share of abuses usually occur. A good example of civil society confronting the regional incumbents is the case of household consumers from Volyn, Sumy, and Kyiv regions, who sued their suppliers over the use of "temperature coefficients," in cooperation with local NGOs. One of those lawsuits has been transferred to the Supreme Court of Ukraine and, if successful, may set a precedent for future cases.[1] It is also important for the Ukrainian CSOs to collaborate with anti-corruption, law enforcement, and the judiciary bodies to effectively detect and prosecute corruption schemes in the energy sector.

Recommendations

It is the time to complete the eradication of corrupt practices in the gas supply to household consumers. State structures are gradually gaining access to documents and exposing corruption schemes practiced by the "empire" of regional gas companies. It is necessary to reach full commercial metering, including SCADA[2] system, the lack of which was the main enabler of corruption in the gas sector. Equally important is long-delayed switching to energy units in gas market, so that consumers pay for energy they used and not for gas volumes.

The transparency and accountability of distribution network operators needs to be strongly increased including restoration of the control over billing systems by regulator (in the 1990s, account registers were transferred from trading houses of Naftogaz to DSOs). However, along with the creation of accurate unified consumer registers, it will be necessary to resolve the problems of debt, subsidies, control and much more.[3]

Given abovementioned, there are several suggestions to respective state bodies that could, if implemented in full, further develop full-fledged gas market in Ukraine and eradicate potential niches for corruption practices.

The Cabinet of Ministers of Ukraine

- The government is recommended to keep fostering the development of the liberal gas market through introduction of the effective market instruments (e.g. strengthening of the gas exchange trade etc.). Short-term standard products trading will enable all the suppliers to buy gas in equal conditions, including gas produced by state-owned companies. It should be mentioned that the government is already focusing on market mechanisms in the gas market. A draft law is now being considered to allow the TSO to purchase gas on exchange instead of public procurements. [4]
- At the same time, the government, as well as the regulator, should be more persistent in advocating and adopting European regulation in gas market to complete its reform. In particular, it is necessary to set up adequate consumption standards, switch to generally accepted energy units, and establish a European procedure for adjusting to standard conditions (0°C). These solutions will eliminate the problem of "thermal coefficients".
- The government should incentivize gas DSOs to finalize the instalment of individual

[1] *https://www.ukrinform.ua/rubric-economy/3105991-gazove-kripatstvo-i-temperatura-navkolisnogo-seredovisa.html*
[2] *Supervisory Control and Data Acquisition (SCADA): https://www.allaboutcircuits.com/technical-articles/an-introduction-to-scada-systems/*
[3] *https://www.ukrinform.ua/rubric-economy/2480641-tretij-pohid-na-oblgazi-ci-vdastsa-peremogti-firtasa.html*
[4] *https://expro.com.ua/novini/verhovna-rada-dozvolila-ogtsu-kupuvati-gaz-dlya-balansuvannya-na-brj*

meters in private and multi-apartment housing, which were paid for by household consumers through distribution tariff. Yet, the regulator and law enforcement bodies should investigate how the funds allocated for meters installation were collected and spent. This will allow the reduction of unmetered gas use according to social standards and thus reduce corruption and budget losses.

- In addition to control, the national legislation should be amended to include additional sources of funding for installing meters in households. For the present DSOs, the law should stipulate local budgets funds along with distribution tariff as possible sources of meters installation. New suppliers should be entitled to install meters out of their own funds. Besides, the scope of energy efficiency programs ("warm loans", Energodim etc.) should be expanded so that consumers have an option to install metering themselves.
- Inconsistencies between registers of subsidy recipients and gas consumers should be fixed along with defects in gas metering system. Ideally, all registers should be synchronized with each other providing full access to the accounts' information for respective users (i.e. TSO, gas suppliers and public authorities in charge of paying gas subsidies). Currently, the registers are operated by different public authorities – Ministry of Social Policy and Ministry of Finance respectively. Exchange of information between registers will enable reconciliation and effective control over subsidized gas consumers.
- Along with the launch of a competitive gas market, it is necessary to create a transparent and accurate database of household consumers, to which both consumers and all suppliers should have access.
- Given that the PSO regime for district heating companies will remain in force until May 2021, the government, the parliament, and Naftogaz should adopt measures aimed at improving payment discipline of DH companies, as well as tackle the issue of aggregated debt of heating companies to Naftogaz. First of all, the minimum payment threshold of 78% allowing gas supply to district heating companies without full payment should be eliminated. In addition, the existing debts of the district heating companies should be either restructured or covered from the state budget and then deducted through budget transfers from regional/local budgets, which potentially could stimulate regional public authorities to deal with gas debts (as most DH companies are owned by local communities). Finally, the trends in global commodity prices allow for the painless lifting of PSO for DH companies and relatively fast transition to market pricing.
- The government should develop and implement gas release program for largest producers (namely, Ukrgasvydobuvannia) to sell a share of production on commodity exchange to increase market liquidity and decrease concentration.

The NEURC

- The NEURC put efforts to promote market rules in gas sector as well. The regulator along with the National Securities and Stock Market Commission, the Ukrainian Energy Exchange and the TSO, has signed a memorandum with Energy Community on joint efforts to form commodity trade mechanisms in the gas market including clearing house and financial instruments.[1] The interest is also evidence by the fact of emerging new exchange platforms.[2]
- It is vital to strengthen the control over the use of gas in the supply chain. The regulator has to finally solve the very urgent problem related to volumes of unaccounted gas for household consumers. In order to complete the process of installing meters in households, more relevant funds have to be included in the distribution tariff, and DSOs shall be regularly monitored on implementation of the process. The introduction of RAB tariffs for gas distribution companies implying the obligation to reinvest in the networks they operate will improve distribution services.
- It is important to provide the NEURC with sufficient powers to investigate manipu-

[1] https://www.rbc.ua/ukr/news/ukraine-planiruyut-sozdat-energeticheskie-1548776281.html
[2] https://www.ukrinform.ua/rubric-economy/3124561

lations on gas market and operate a register of business entities acting on the gas market in line with provisions of European legislation, namely the Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency (REMIT).[1]

- Adoption of a new procedure for determining the technological losses for distribution operators could solve the problem of imbalances. After the numbers are calculated, the NEURC should update the respective tariffs of DSOs.
- It is important to focus on adoption of the entire set of European network codes to reach deeper integration and synchronization of the energy systems of Ukraine and the EU. The regulator is recommended to introduce mandatory balancing neutrality charge in 2021/2022 gas year without any further delays – for this purpose, it should monitor preparatory actions of market players.
- Given that the NEURC has already simplified the procedure for supplier switching, as well as adopted protective measures through the establishment of the supplier of last resort (and improving its operations), it is essential to conduct a large-scale national information campaign on the benefits of market relations and explain publicly the purpose of retail gas market reform.
- The primary task of the NEURC (along with the AMCU) is comprehensive market monitoring and prevention of violations by companies. This requires strengthening the institutional autonomy of regulators (both NEURC and AMCU) and the introduction of REMIT.[2] Yet, the legal departments of AMCU and NEURC should be reinforced by personnel and resources necessary to support actions against abusive gas retailers in courts.

CSOs and expert society should be more demanding in urging political parties and their leaders to **adopt EU-compatible market rules** aimed at preventing manipulations with gas volumes and empowering consumers. International donor organizations could contribute to fighting corruption in gas sector by **supporting non-profit projects** aimed at raising consumer awareness on corrupt practices, energy saving measures, and the importance of gas metering.

[1] *https://ua.interfax.com.ua/news/general/689775.html*
[2] *The regulator has already developed a relevant draft law: http://www.nerc.gov.ua/?news=10524*

Bibliography

Grey, S., Bergin, T., Musaieva, S., & Anin, R. (2014, November 26). SPECIAL REPORT-Putin's allies channeled billions to Ukraine oligarch. Reuters. Retrieved from https://www.reuters.com/article/russia-capitalism-gas-special-report-pix/special-report-putins-allies-channelled-billions-to-ukraine-oligarch-idUSL3N0TF4QD20141126

Krambeck, D. (2015, August 31). An Introduction to SCADA Systems. All About Circuits. Retrieved from https://www.allaboutcircuits.com/technical-articles/an-introduction-to-scada-systems/

Kuzio, T. (2013). Dmytro Firtash launches new opaque gas intermediary. Eurasia Daily Monitor, 10(55). Retrieved from https://jamestown.org/program/dmytro-firtash-launches-new-opaque-gas-intermediary/

Naftogaz Research. (n.d.). Retail gas supply under PSO act: Manipulations with volumes and subsidies by RSCs. Retrieved from https://www.naftogaz.com/files/Information/170926_Report_re_RSCs_v2-pdf_ENG.pdf

Pirani, S. (2020). The market takes shape: The Ukrainian gas sector to 2030. Oxford Institute for Energy Studies. Retrieved from https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/11/Insight-77-The-market-takes-shape-the-Ukrainian-gas-sector-to-2030.pdf

Shields, M., & Gruber, A. (2014, March 13). Ukrainian gas oligarch Firtash arrested in Vienna on FBI warrant. Reuters. Retrieved from https://www.reuters.com/article/us-ukraine-austria-firtash/ukrainian-gas-oligarch-firtash-arrested-in-vienna-on-fbi-warrant-idUSBREA2C14V20140313

S&P Global. (2020, August 10). Market Movers Europe, Aug 10-14: Key oil reports and state of German steel market eyed [Video]. Retrieved from https://www.spglobal.com/platts/en/market-insights/videos/market-movers-europe/081020-key-oil-reports-german-steel-gas-storage-french-nuclear

Vitrenko, Y. (2019, March 12). Five stories about how Putin, organized crime and oligarchs tried to destroy Naftogaz and Ukraine. NV. Retrieved from https://nv.ua/biz/naftogaz-vs-gazprom/five-stories-about-how-putin-organized-crime-and-oligarchs-tried-to-destroy-naftogaz-and-ukraine-50011464.html

Whalen, J. (2019, November 6). The head of Ukraine's gas company has been shot at, pilloried on TV, and attacked by Giuliani associates. It is all in a day's work. The Washington Post. Retrieved from https://www.washingtonpost.com/business/2019/11/06/head-ukraines-gas-company-has-been-shot-pilloried-tv-attacked-by-giuliani-associates-its-all-days-work/

Winter, T. (2019, June 4). Senator: Oligarch linked to Kremlin earned millions while fighting extradition to U.S. NBCNews. Retrieved from https://www.nbcnews.com/politics/congress/senator-oligarch-linked-kremlin-earned-millions-while-fighting-extradition-u-n1013661

This report describes and summarizes the cases of corruption in the electricity and gas sectors of Armenia, Bulgaria, Georgia, Kyrgyzstan, Moldova and Ukraine, to reveal the typical forms, enablers, main actors, and possible remedies of this complex phenomenon. These post-socialist countries with relatively weak governing structures, at various stages of political and economic transition, struggle with energy dependence and experience geopolitical pressures from Russia. This makes them especially vulnerable to energy corruption threatening their development and national security. Specific instances of energy corruption are featured in country cases, while the summary paper explores the typical forms, enablers, and stakeholders related to energy corruption. It also discusses systemic interconnections defining the landscape of energy corruption and suggests some remedies. Following the well-established path of energy reforms in line with the EU energy acquis seems to be the most efficient measure for reducing the space for corruption by establishing transparency and governance standards in the energy sector with the support of domestic and international stakeholders.

Armenia

Bulgaria

Georgia

Kyrgyzstan

Moldova

Ukraine

World Experience for Georgia

www.weg.ge