

Anti-Corruption Review of the Energy Sector in Ukraine







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Foreword

Energy sector reform is essential for Ukraine's economic and national security. A well-functioning energy sector, attractive to investors and enabler of economic activity, will only be possible if anticorruption reforms are implemented successfully.

The transformation of the energy sector became a paramount task in the reforms agenda of the Ukrainian government. Ukraine has already made some steps towards energy efficiency, better operated SOEs and reducing corruption. However, despite these efforts, the evidence strongly suggests that the energy sector remains one of the areas most vulnerable to corruption and related irregularities in Ukraine.

The OECD has long worked with its Governments and beyond towards developing and implementing effective policies aimed at preventing and reducing corruption. OECD standards and good practices are applicable at national level and translate well into individual sectors of economy, including the energy sector in Ukraine.

OECD has been providing targeted support to Ukraine in its anti-corruption reforms since 2014. The project Supporting Energy Sector Reform in Ukraine was launched in 2019 in the context of the OECD-Ukraine Action Plan aiming to improve investment, corporate governance of state-owned enterprises (SOEs), competition and anti-corruption practices in energy sector of Ukraine. It is implemented by the OECD with the financial support of the Government of Norway.

The OECD Anti-Corruption Network for Eastern Europe and Central Asia (OECD/ACN) carried out this review at the request of the Government of Ukraine within the framework of the OECD project Supporting Energy Sector Reform in Ukraine.

The purpose of this review is help policymakers, energy sector stakeholders, anti-corruption bodies, state-owned enterprises (SOEs) and law enforcement bodies identify trends and good practices, as well as common problems in the energy sector and make informed decisions for a corruption free energy sector.

The review provides an overview of corruption risks, anti-corruption measures implemented by the government and non-governmental stakeholders. It also analyses the challenges of investigating and prosecuting corruption in the energy sector.

Drawing on the OECD standards and other good practices, the review offers a set of recommendations to reduce corruption-related challenges and eliminate opportunities for corrupt practices in the sector. The recommendations resulting from this review show that further reforms will require broad-based cooperation and active engagement from the government as well as from a wide range of other institutions and non-governmental stakeholders.

The review attempts to cover the whole of energy sector of Ukraine. However, it focuses on some specific issues, which are of key importance in the context of corruption risks in this sector. The recommendations apply specifically to the energy sector but many could be successfully used to prevent and counter corruption in other sectors of economy.

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The opinions expressed in the review do not necessarily reflect the views of the above-mentioned organisations or individuals.

The review was prepared for publication by Arianna Ingle, Communications Officer and Gabriele Verbickaite, Programme Assistant at the OECD Anti-Corruption Division. Alesco Translations translated the review into Ukrainian.

Acronyms and Abbreviations

AMCU Antimonopoly Committee of Ukraine

AntAC Anti-Corruption Action Centre

ARMA Agency of Ukraine for Detection, Search and Management of Assets Obtained from Corruption and Other

Crimes

Bcm Billion cubic metres

BOC Business Ombudsman Council

CEO Chief Executive Officer

CHP Combined Heat and Power

CHPP Combined Heat and Power Plant

CMU Cabinet of Ministers of Ukraine

CosT Construction Sector Transparency Initiative

DHC District Heating Company

DSO Distribution System Operator

EBRD European Bank for Reconstruction and Development

EITI Extractive Industries Transparency Initiative

ENTSO-E European Network of Transmission System Operators for Electricity

ESU Energy Strategy of Ukraine

EU European Union

EUEA European-Ukrainian Energy Agency

FIT Feed-in Tariff

GDP Gross Domestic Product

GTS Gas Transmission System

GWh Gigawatt hour

HPP Hydroelectric Power Plant

IEA International Energy Agency

IMF International Monetary Fund

JSC Joint-Stock Company

KWH Kilowatt-Hour

ME Ministry of Energy

Mtoe Million tonnes of oil equivalent

MW Megawatt

MWh Megawatt hour

NABU National Anti-Corruption Bureau of Ukraine

NACP National Agency for Corruption Prevention in Ukraine

NEURC National Energy and Utilities Regulatory Commission of Ukraine

NJSC National Joint-Stock Company

NPP Nuclear Power Plant

OECD Organisation for Economic Co-operation and Development

OSINT Open Source Intelligence Tools

PJSC Public Joint-Stock Company

PSO Public Service Obligation

PV Photovoltaic

RAB Regulatory Asset Base

RES Renewable Energy Sources

RSC Regional Supply Companies

SAEE State Agency on Energy Efficiency and Energy Saving of Ukraine

SAPO Specialised Anti-Corruption Prosecutor's Office of Ukraine

SBU Security Service of Ukraine

SDGs Sustainable Development Goals

SOE State Owned Enterprise

SPF State Property Fund of Ukraine

SPP Solar Power Plant

TI Transparency International Ukraine

Toe Tonnes of oil equivalent

TPES Total Primary Energy Supply

TPP Thermal Power Plant

TSO Transmission System Operator

UAH Ukrainian Hryvnia

UNIC Ukrainian Network for Integrity and Compliance

USAID United States Agency for International Development

USD United States Dollar

UWEA Ukrainian Wind Energy Association

VAT Value Added Tax

WPP Wind Power Plant

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Executive Summary

Energy sector reform is essential for strengthening Ukraine's economic and national security. By signing the Association Agreement with the European Union (EU) and adhering to other international commitments, including the Paris Agreement, Ukraine has made the transformation of the energy sector one of its main priorities.

In recent years, bold strategic steps have been made to shape a policy reform agenda, build a sound legal and institutional framework, and enhance greater transparency and integrity in various energy sub-sectors. These steps include the development of the "Energy Strategy of Ukraine until 2035" (ESU 2035) and the "Concept for Green Energy Transition by 2050", adoption of ambitious legal acts across all sub-sectors and significant progress in alignment with the requirements of the EU directives.

However, despite intensified efforts and progress achieved, the data provides a strong indication that the energy sector of Ukraine remains one of the most vulnerable areas to corruption and related irregularities. Drawing on the OECD standards and other best practices, the review has identified common corruption risks and factors contributing to corruption across key sub-sectors of the energy sector.

Particularly, against the background of legal and institutional transformation, strategic decision-making in the energy sector often tends to lack transparency, a clear evidence base and engagement of relevant stakeholders. Principles of transparency, integrity and inclusiveness need also be better applied to decision-making during exceptional circumstances, including the emergency, to minimize risks of undue influence.

An overarching theme is also arbitrary administrative or political interventions in the activities of state-owned enterprises (SOEs) in the energy sector that undermines the operational autonomy of such enterprises. Despite the enhancement of the corporate governance structures of SOEs, there are substantial concerns regarding their practical implementation in the energy sector. Most importantly, a transparent and merit-based procedure for selecting managers of SOEs remains to be seen.

Another corruption risk of general nature is a lack of a comprehensive plan for the settlement and a clear procedure for repayment of debts in the energy sector. Faced by key SOEs in the gas, electricity, and coal sectors, the debt issue orchestrates various corruption schemes and has a detrimental fiscal effect on the energy value chain in general.

Besides, advancements in each sub-sector would not be possible to realize unless the consistent application of the public procurement legislation and its effective monitoring is ensured. Only substantiated legal exceptions with adequate consideration to competition, transparency, and accountability should be permitted.

A complex interplay of contextual factors, such as a lack of political will, limited transparency, legal loopholes and inefficient human capacity of ownership authorities, contribute to existing corruption risks across energy sectors described below.

The oil and gas sector in Ukraine has traditionally been a favourable environment for corruption. One of the key sources of corruption risk in the gas sector concerns price regulation conducted in the form of public service obligations (PSOs). The PSO regime gave rise to various embezzlement schemes and other manipulations conducted, e.g. via price arbitrage, misuse of gas, fake consumer accounts and data manipulation. Even with the formal termination of the PSO, price volatility directly contributing to corruption in the market remains a concern.

The global subsidization of the gas sector has not been without corruption challenges either. Some examples include relocating consumed energy and payments from subsidized to non-subsidized households, selling energy to non-existent people, artificial inflation of gasconsumption, etc.

The absence of a unified consumer database and commercial gas metering devices reinforces the risks of potential manipulations. Both create opportunism for unlawful enrichment and can be easily used in favour of some market players. Cited manipulations include the application of "consumption standards" as opposed to actual consumptions, inconsistent interpretations of standards by the SOEs, abuse of coefficient rates, etc.

Another critical problem of the retail natural gas market is the affiliation of distribution system operators (DSOs) and incumbent retail suppliers (gazzbuts), which used to be part of integrated regional gas companies. While an "unbundling" process, ensuring the separation of transmission from generation, formally took place, functional unbundling of DSOs is yet to be completed. Compliance programs of DSOs in the gas sector lack integrity-related measures. Both SOEs and regulators fall short of providing effective oversight on the implementation of compliance programs by the DSOs.

The oil sector is a particularly lucrative target for corruption. Signs of state capture at one of the central SOEs in the oil sector has been particularly alarming. Notably, abuse of monopolistic status and undue influence of private interest groups on the SOE management led to monopolization of auctions in the oil sector. The example demonstrates the utmost importance of strengthening overall competition in the market and building a robust and effective anti-corruption system.

Due to inconsistent legislation and inadequate market oversight, tax exemptions for oil and gas transportation also became fertile ground for oligarchs. High-level corruption schemes are associated with misuse and fraud related to the tax-free import of oil and fuels. Other examples of tax avoidance and abuse are illegal mini-refineries and illegal fuel stations.

Most episodes of corruption in the nuclear energy sector occur in public procurement. While procurement-related abuse is common in other energy sectors, the corruption schemes in the nuclear industry involve a combination of different forms of abuse and means of cover-up. Among them, kickbacks and embezzlement, abuses in purchases through intermediaries, bribery associated with procurement, cartels and sales at deflated prices.

SOEs operating in the nuclear power sector are prone to risks of abuse, misappropriation and obstruction of control, in some cases committed or supported by the management internally. On the regulators' side, individual instances of corruption and fraud, weak regulatory environment, conflicts of interest and the capture of regulatory authorities by economic or political groups contribute to weakening detection and prevention efforts in the nuclear sector. Heavy political influence and a lack of impartial procedure for appointment and dismissal of management of the biggest SOE in the nuclear sector adds to the vulnerability of the enterprise and pose a significant risk for the overall stability in the sub-sector.

Numerous proven, alleged or suspected incidents of corruption have taken place in the coal sector. Similarly to other industries, complex forms of corruption primarily emerged in public procurement. Among others, embezzlement of funds via fake purchases or overpayment in procurement by SOEs operating in the coal sector. Another regular form is selling goods or services produced by the SOEs at prices below the market level. In most cases, the SOEs management and employees support such illegal acts directly.

A combination of specific factors facilitates collusions and corruption in the coal sector. From an economic standpoint, most SOEs remain non-viable and supported by subsidies from the state budget. Inefficient use and unsystematic state aid allocation, a lack of clear SOEs' performance benchmarks, and a failure to maintain effective financial control lead to an endemic debt situation among SOEs. Such context appears to be conducive to further deliberate abuses of existing funds among SOEs and raise concerns regarding the planned privatization of indebted enterprises. Besides, the limitations of competition in the coal market and coal-fired electricity production create conditions for clientelism alongside the market economy. The large number of sub-threshold procurements bypassing strict transparency rules by key SOEs in the coal sector also raises questions.

A lack of national strategy for reforms in the coal industry and clear criteria on establishing, liquidation and control of SOEs creates possibilities for manipulations in the coal sector. There are substantial concerns over the abilities of regulatory authorities to address pressure – or even capture of regulatory bodies – that affect critical policy directions in the sector, e.g. development of tariff policies and methodologies for electric and thermal energy. From the governance perspective, pressing challenges remain in oversight, enforcement of integrity standards and appointment of reliable and impartial management in the SOEs. An extensive number of regulatory entities, deficient internal control systems, and incompliance with regulations provide further opportunities for corruption to thrive.

Regarding the hydropower energy sector, publicly available data reveals only isolated episodes of corruption, mostly related to the embezzlement of funds associated with construction works of hydro plants. However, many corruption risks account for the increased vulnerability of this sector. Common risks such as artificially inflated procurement volumes, bid-rigging, politically connected individuals with a vested interest, conflict of interest and other corruption acts are also highly applicable to this sub-sector. Limited transparency of the strategic development process, including a lack of public hearings and disclosure of environmental impact assessments, creates a fertile ground for corruption in hydropower projects.

Despite the recent management reform and enhancement of compliance functions of the main SOE operating in the hydro energy sector, the extent of the SOE management to exercise its powers has been subject to debate. Concerns also remain regarding possible undue influence exercised by ownership entities in the staff appointment processes.

There are a number of corruption risks at the level of transmission system operators (TSOs) and DSOs. Among TSOs, there is a lack of a clear picture of the execution of public duties by the major SOEs in the electricity market. Besides, inefficiencies in dispatching in the balancing market have opened doors to manipulations and increased corruption risks. Specific legal provisions allowing exemptions from paying the total amount of the TSO tariff created a privileged position for some consumers belonging to large financial and industrial groups.

Corruption risk factors in the DSOs owe to the lack of 'unbundling' efforts, limiting avoidance of potential conflicts of interest. A low level of digitalization of metering devices creates a possibility for misuse of electricity for illicit gain, interference into operation of measuring instruments or illegal cooperation of DSO employees with consumers. Furthermore, the long accession periods to the electricity grids and partially unresolved issues of the connection methodology reinforce opportunities for corruption.

The renewable energy sector is considered one of the most transparent compared to other more 'traditional' areas of the Ukrainian energy sector. However, existing incentives for renewable energy production, inefficient policies, and market volatility may lead to corruption and undue influence in the industry.

Identified corruption risks are currently concentrated around political interference into feed-in-tariffs debts repayment to renewable energy source producers. Certain incidents signaled particular vulnerability of the debts issue to political exposure driven by a hidden struggle of competing groups for influence on the

electricity market. The renewable energy sector remains vulnerable to politically motivated restrictions aimed at driving international companies out of the market by setting restrictive barriers of different kinds.

Transparency of policy development should be enhanced so that opportunities for influence regarding critical policy decisions, such as developing a new scheme of state support formula and RES support quotas, or a future design of a tradable green certificates system, are minimized. In particular, concerns regarding rent-seeking behaviour to acquire favourable regulatory protection have been raised.

In addition to the anti-corruption analysis of the mentioned sectors, the document also reviews specific policy areas having overarching corruption-related risks for the overall energy sector – privatization, public procurement and licensing and permits.

The ambitious large-scale privatization of SOEs, including in the energy sector, has been reportedly subject to delays. Besides, there are concerns regarding the institutional and human capacities of the State Property Fund to manage the upcoming increase in a portfolio effectively. Particularly, limited capacity and competencies to effectively monitor and carry out duties may lead to increased corruption incidents and other abuses at the SOEs. The situation is further complicated by the lack of an official strategic policy document on the privatization program. A list of SOEs not subject to privatization and a prioritization plan remains to be developed.

An analysis of procurement practices in the energy sector demonstrates that public procurement has the highest number of corruption risks. Abuse of simplified and negotiated procurement procedures and manipulation with sub-threshold procurement without using the ProZorro platform are frequent misconducts. At the procurement planning stage, collusion on market research and inadequate price estimation often leads to purchasing goods and services at prices higher or lower than the market prices. At the contract award and implementation stage, an award to a non-compliant bidder, procurement from intermediate companies, intentional cancellation of tenders, and an increase or changes in contract terms during implementation happen regularly. Limited competition and a demand for highly technical services or goods further facilitate procurement-related corruption schemes.

Factors conducive to collusion and misconduct include a lack of capacities among procurement specialists, lack of guidelines and ineffective control at the procurement planning, award and implementation stages. A frequent change to the legal framework and inconsistent application of procurement procedures also leads to market actors' opportunistic behaviour aiming to circumvent and manipulate the procurement rules in the energy sector.

Due to the extensive regulatory framework, complex technical nature of regulated issues and economic effects of decisions, licensing activities in the energy sector involve significant corruption risks. Ensuring operational independence, coupled with relevant technical expertise, in regulatory bodies is crucial. However, the recent legal amendments and instances of interference in the work of one of the regulators - the National Energy and Utilities Regulatory Commission – raise substantial concerns regarding its independent status. Besides, still significant flaws in the regulatory framework, including exceptions from the auction procedures, inconsistencies and non-transparent application of regulatory norms, and weak oversight by licensing bodies, is an overarching issue in the licensing of the energy sector.

The absence of the nationwide anti-corruption policy document significantly undermines anti-corruption developments and the effective implementation of anti-corruption responsibilities in the sector. Noteworthy is that none of the sectoral development programmes or strategies for energy sector reforms addressed corruption risks in the energy sector. The Anti-Corruption Strategy, which suggests critical measures to address existing corruption risks in the energy sector, has not been adopted. Besides, up to date, state agencies have not carried out risk assessments in the energy sector as a whole or any of its subsectors, including oil and gas, coal, nuclear, hydro, or renewable sources of energy.

While most state institutions with functions in the energy sector can be praised for adopting their anticorruption programmes, the narrow scope of risks assessments undermines their quality and ability to address actual corruption risks. Inefficient monitoring of the implementation and a lack of thorough evaluation of effectiveness pose a risk to the overall impact of anti-corruption programmes.

Besides, a lack of "tone from the top" on the importance of anti-corruption, limited human resources, and inadequate safeguards for the independence of anti-corruption officers in both state bodies and SOEs only favour instability and inconsistency in the anti-corruption efforts in the sector. These factors contribute to the low level of enforcement of asset declaration, conflict of interest, whistle-blower protection and other similar measures by the state bodies in the energy sector, rendering many of these instruments ineffective.

To be effective, the National Agency for Corruption Prevention, despite having a broad mandate in policy setting and prevention of corruption, lacks genuine support and feedback from the sector institutions. Implementation of its functions at the sectoral level in the vacuum is not possible and again requires actions to remedy this situation.

The specialized criminal justice institutions – the National Anti-Corruption Bureau of Ukraine, the Specialized Anti-Corruption Prosecutor's Office, the Asset Recovery and Management Agency, and the High Anti-Corruption Court are in place, providing Ukraine with a sound institutional framework for law enforcement response. The public increasingly recognizes their efforts to combat high-level corruption in the energy sector. They are also reflected in the number of detected cases under investigations cited throughout this report and some prosecutions in the area. However, these institutions suffer, similarly to others described in this report, because of undue pressure, interference in their work, and often the lack of political support.

Separately, taking into account the complexity of corruption schemes in the energy sector, these institutions face challenges of an operational nature. Further improvements in the legal framework on the investigation, prosecution, asset recovery and adjudication to effectuate prompt and effective response to corruption in the energy sector are therefore crucial.

1 Energy Sector Overview

1.1. General overview

Energy sector reform remains one of the main priorities in promoting Ukraine's sustainable development. While acting as a key transit country, above all for natural gas, Ukraine has also been one of the largest producers of hydrocarbons in Eastern Europe. The dissolution of the Soviet Union in 1991 led to the severe political and economic turmoil that affected Ukraine's energy sector, with total primary supply falling by more than 45% over the decade. Moreover, heavy government regulation and mismanagement of state-owned enterprises and the prevalence of the vested private interests further undermined the stability and security of the energy sector, rendering Ukraine one of the least energy-efficient countries in the world. Despite increasing energy efficiency in recent years, Ukraine consumes nearly three times the OECD average per unit of GDP (Figure 1)¹.

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Figure 1.1. Energy intensity of GDP

Source: IEA, OECD, 2019

Ukraine's energy production has been decreasing following the decrease in energy demand until the early 2000s. This is due to the gradual downfall of industrial production, unable to adapt and compete internationally in the market economy. After the 2000s and until the crisis in 2008, Ukraine has been increasing both the energy demand and production. The annexation of Crimea and the military conflict in

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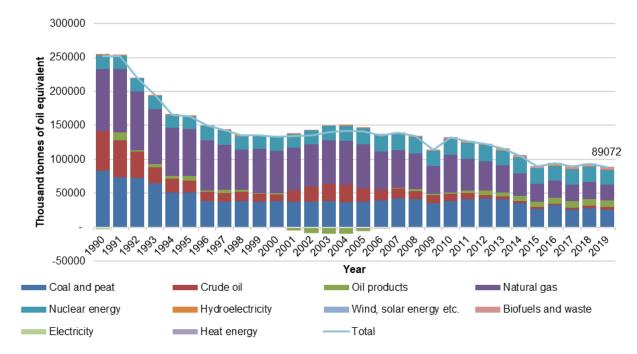
¹ Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework. – OECD: 2019.

Eastern Ukraine, where a significant part of the country's industry was situated, contributed to an even further decline in energy demand and production.

In 2019, Ukraine's total primary energy supply was just 89.1 mtoe, with the largest shares consisting of coal (29%), natural gas (26%) and nuclear (24%). While producing about two-thirds of energy supply domestically, Ukraine continues to import coal, natural gas and crude oil and oil products to meet its domestic demand (Figure 2).

Figure 1.2. Ukraine's total primary energy supply

Total Primary energy Supply

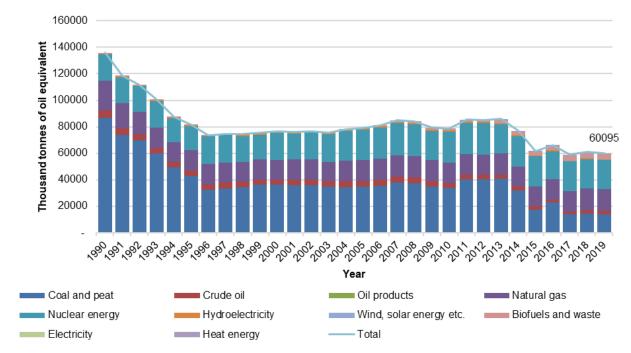


Note: : Primary energy supply comprises production, import, export and changes to international bunkers and stock. The total difference between total primary energy supply and imports in 2019 is 5971 toe ths and includes energy export (1830 toe ths), international bunkers (121 toe ths) and stock changes (3840 toe ths).

Source: State Statistics Service of Ukraine

Figure 1.3. Ukraine's total production

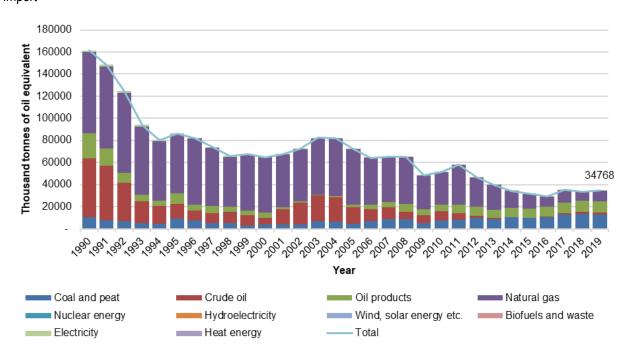
Production



Source: State Statistics Service of Ukraine

Figure 1.4. Ukraine's energy import

Import



Source: State Statistics Service of Ukraine

Ukraine remains heavily reliant on oil products and gas imports due to the increase of the economic activity in the transport sector and increase of the public welfare leading to a growing number of car owners. Export of energy from Ukraine is insignificant. Also, Ukraine remains dependent on coal imports, mainly from Russia².

Ukraine's residential consumers are the main end-users in total final consumption, with industrial and transport sectors, among others (including public services, agriculture and non-energy use) following suit. Natural gas remains the primary end-use fuel, with the residential sector consuming approximately 59% of it. Electricity and heat are consumed by residential and industrial sectors, while crude oil and oil products are used primarily in transport. Though a significant portion of coal is used in producing heat and electricity during transformation processes, industrial consumers are its primary end-users. In renewables, solar and wind are used to generate electricity, while biofuels and waste are mostly used for heat production and for the end-use by mostly residential consumers (Figure 3).

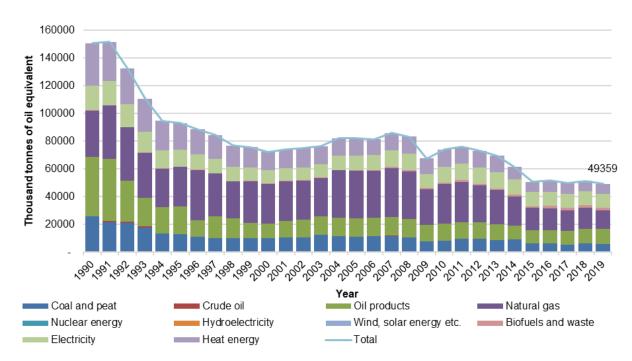


Figure 1.5. Total final consumption

Note: Total final consumption represents the useful end use of energy supply, not accounting for losses due to transportation and energy conversion.

Source: State Statistics Service of Ukraine

Ukraine's end energy use amounts to 55% of the total primary energy supply. The difference is attributed to energy conversion (36%), own consumption of the energy sector (4%) and transportation losses (4%).

² E&Y (2019), Extractive Industries Transparency Initiative (EITI) Report of Ukraine http://mpe.kmu.gov.ua/minugol/doccatalog/document?id=245516257

1.1.1. Oil and gas

Fossil fuels make up a significant share of TPES in Ukraine, with natural gas and oil remaining central to the energy transformation and end use³. Ukraine's hydrocarbon reserves amount to 395 million barrels of oil and 39 trillion cubic feet of gas⁴.

Ukraine's gas consumption has declined almost in half during the last decade, from 59,3 bn m³ in 2011 to 30 billion m³ in 2019, of which Ukraine itself produced more than 60%. The causes of this decline were multiple: loss of control over the territory of Crimea and the beginning of the military conflict in Ukraine's eastern regions; deep structural economic changes resulting in a sharp fall in production from heavy industry, and an overall temporary decline in economic activity; also the essential consumer price increases introduced in 2015⁵.

According to the Energy Strategy of Ukraine2035, the industry's primary objective in the medium term is developing its own gas production resource base and minimizing gas import6. There is large scope for further domestic gas development.

However, Ukrgazvydobuvannia (UGV) requires substantial investments to stabilise and possibly increase its production (75% of its current fields are being depleted) using capital-intensive modern technology and equipment.

Ukraine has successfully diversified its imports of natural gas reducing dependence on natural gas imports from Russia by starting the import from Europe, the more secure but also more costly solution, in 2015. In 2017, Ukraine covered its gas import requirements with supplies from the European market. Ukraine plans to end imports of gas after 2020 by increasing domestic production⁷.

During 2009-2019, gas transit through Ukraine was based on the transit contract with Gazprom, under which the volume of gas transit was relatively high and significantly decreased from 2020. Such decrease is based on the newly agreed terms of the utilization of the GTS of Ukraine to transport natural gas to European countries for the period 2020-2024. At the end of 2019, Naftogaz, Gas TSO, and Gazprom signed a set of agreements necessary for the continuation of natural gas transportation activities by Gazprom through the territory of Ukraine until 2024⁸.

Between 2013-2018, oil production fell from 2.7 million tons to 2.1 million tons, while over 80% of the crude oil and oil products in Ukraine are imported primarily from Belarus (more than 50% of imported oil in 2016), Russia, Lithuania and other countries. Given that Belarusian refineries depend on crude oil from Russia, Ukraine's current oil product import mix puts the country at significant risk of oil products supply shortage.

Naftogaz controls most of the domestic oil and gas extraction and the entire transportation and storage infrastructure. Naftogaz's key subsidiaries include Ukrnafta (an oil producer, majority owned by Naftogaz); Ukrgazvydobuvannya (the largest producer of gas and gas products); Ukrtransnafta (oil pipeline operator); and Ukrtransgaz (gas storage operator)¹⁰. The leading position in Ukrainian gas production belongs to the

³ Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework. – OECD: 2019.

⁴ https://resourcegovernanceindex.org/country-profiles/UKR/oil-gas

⁵ Prices for commercial consumers were 55 per cent higher than for household consumers in January 2018 (Lough, J., Dubrovskiy, V. Are Ukraine's Anti-corruption Reforms Working? Research Paper. Chatham House. The Royal Institute of International Affairs. Russia and Eurasia Programme. 2018. - 10 p.); Securing Ukraine's Energy Sector. Issue brief. – Atlantic Council. Global Energy Center and DINU Patriciu Eurasia Center: 2016.

⁶ Energy Strategy by 2035

⁷ Ukrainian Energy Market: Overview of the sector and future projects. – Flanders investment & trade market survey, 2018.

⁸ https://www.naftogaz.com/files/Zvity/Annual report Naftogaz 2020 EN 28 04 2021 3.pdf

⁹ https://www.eu4energy.iea.org/countries/ukraine.

 $^{^{10}}$ Ukrtransgaz became the gas storage operator after unbundling of Operator GTS outside the Naftogaz group.

state-owned companies PJSC Ukrgazvydobuvannia (UGV)11, 100% owned by the state through NJSC Naftogaz of Ukraine PJSC Ukrnafta, where the state controls 51% of shares.

Five major Ukrainian private companies produced around 22% of gas in 2019. PrJSC Naftogazvydobuvannia, a member of DTEK holding, Burisma Holdings, Smart Holdings, JKX Oil&Gas, Geo Alliance, and Ukrnaftoburinnia are the leaders among private gas production companies.

1.1.2. Nuclear power

The nuclear power sector in Ukraine plays one of the main roles in the country's electricity industry, remaining quite stable during the last decade in Ukraine. In 2018, nuclear energy accounted for 37% of total domestic energy production and 24% of the TPES12. Ukraine is in the top five countries in the world in the production of nuclear electrical energy as a share of total domestic electrical energy, at almost 50 per cent13.

The state-owned NNEGC "NAEC" Energoatom" owns and operates. 15 nuclear power plant units (13,8 GW) at 4 nuclear power plants; therefore, it controls all operating NPPs in Ukraine. 14All the Ukrainian nuclear reactors were built in Soviet times, so often, they do not meet the modern safety standards 15.

As for the operational lifespan of nuclear capacities, the designed lifetime of 12 out of 15 power units has already expired (30 years), so they are operating with an extension of 10 (VVER-1000 type reactors) and 20 (VVER-440 reactors) years. The risks associated with the ageing of nuclear power plants are increasing, as their modernization does not involve the replacement of some key equipment, such as reactor vessels. Also, the replacement of capacities requires a lot of time and capital. Recently, Energoatom declared its interest in the technology of small modular reactors and studies possibilities of its introduction16. For that, Energoatom signed the relevant memorandum with the US company NuScale Power17.

Ukraine has the facility to store spent nuclear fuel only from Zaporizhzhia Nuclear Power Plant. Spent nuclear fuel from three Ukrainian nuclear power plants is still being sent for storage and processing to the Russian Federation, which costs Ukraine around USD 200 mln every year. Still, the opening of the Central spent fuel storage facility in the Chernobyl Exclusion Zone is constantly delayed.18

The nuclear fuel used at Ukrainian nuclear power plants is 100% imported.

Ukraine has uranium reserves and is undertaking mining activities, in particular at Zholtye Vody in the Dnepropetrovsk region, that could provide about one-third of the country's uranium needs. Further sites are under active exploration and development using both domestic and foreign resources 19.

¹¹ In 2019, Ukrgasvidobuvannya produced 14.9 bcm of natural gas, while playing a central role in gas processing https://www.naftogaz.com/files/Zvity/Annual_report_Naftogaz_2020_EN_28_04_2021_3.pdf

¹² https://www.worlddata.info/europe/ukraine/energy-consumption.php

¹³ NEURC, Annual Report 2020, https://www.nerc.gov.ua/data/filearch/Catalog3/Richnyi_zvit_NKREKP_2020.pdf

¹⁴ It includes four nuclear power plants: Zaporizhya, Rivne, South-Ukrainian and Khmelnytskyi.

¹⁵Henrich Boll Stiftung, Oleksandra Zaika (2021), *Ukraine nuclear impasse*, https://eu.boell.org/en/2021/04/26/ukraines-nuclear-impasse

¹⁶ Energoatom (2021), Future Technologies: Energoatom studies the possibility of introducing small modular reactors in Ukraine, http://www.atom.gov.ua/en/press_center-19/company-

^{20/}p/future technologies energoatom studies the possibility of introducing small modular reactors to ukraine-47766

¹⁷ Energoatom (2021), Energoatom and NuScale Power signed a memorandum on possibility of introducing small modular reactors in Ukraine, https://www.energoatom.com.ua/en/press_center-19/company-

^{20/}p/energoatom and nuscale power signed a memorandum on possibility of introducing small modular reactors in ukraine-48010

¹⁸ Henrich Boll Stiftung, Oleksandra Zaika (2021), *Ukraine nuclear impasse*, https://eu.boell.org/en/2021/04/26/ukraines-nuclear-impasse

¹⁹ Schneider, M., Froggatt, A., Thomas, S. Nuclear Power in a Post-Fukushima World. 25 years after the Chernobyl accident. The World Nuclear Industry Status Report 2010-2011. – Worldwatch Institute: 2011.

to the Russian Federation, which costs Ukraine around USD 200 mln every year. Still, the opening of the Central spent fuel storage facility in the Chernobyl Exclusion Zone is constantly delayed.20

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1.1.3. Renewable energy

Renewable energy generation is one of the key priorities for the Ukrainian energy sector and national economy. The current share of energy generated from renewable energy sources – wind, solar, biomass, biogas and small hydropower stations (RES) has significantly increased during the last years. According to the official sources, at the end of 2020, the total capacity of renewables reached 7,737 MW and represented 7,3 % of shares in the energy balance of Ukraine (without big hydro power plants)22. Promoting energy security and efficiency, Ukraine seeks to increase the share of renewables up to 25% in the total supply till 203523.

The dynamics of the RES development in Ukraine du8ring the last six years are shown in Figure 12.

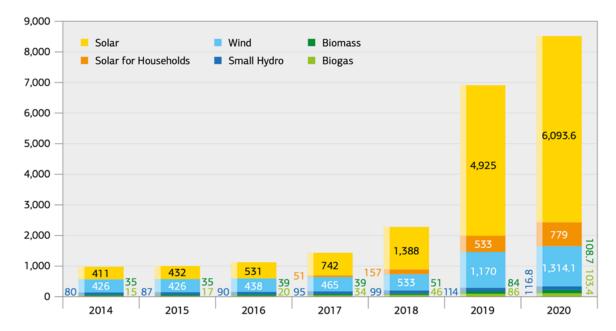


Figure 1.6. Dynamic of installed capacities from RES producers under FiT, MW

Source: : UWEA, SAEE²⁴

²⁰ Henrich Boll Stiftung, Oleksandra Zaika (2021), *Ukraine nuclear impasse*, https://eu.boell.org/en/2021/04/26/ukraines-nuclear-impasse

²¹ Schneider, M., Froggatt, A., Thomas, S. Nuclear Power in a Post-Fukushima World. 25 years after the Chernobyl accident. The World Nuclear Industry Status Report 2010-2011. – Worldwatch Institute: 2011.

²²NEURC (2020), Annual Report, https://www.nerc.gov.ua/data/filearch/Catalog3/Richnyi_zvit_NKREKP_2020.pdf

²³ Energy Strategy Ukraine by 2035

²⁴Ukraine Wind Power Association (2021), Wind Power Sector of Ukraine 2020, https://spain.mfa.gov.ua/storage/app/sites/72/uwea-2020.pdf

Solar energy

The following companies are amongst the largest solar energy producers in Ukraine:Activ Solar with 441 MWt, DTEK Renewables operating Trifanivska Solar Power Plant and the largest solar power plant in Ukraine Nikopol Solar Power Plant with an aggregate generating capacity of 200 MW25, CNBM with 267 MWt, Solar Energy Plus with 15 MWt26. Other private companies operating in this segment are local capital companies. ²⁷

Wind energy

The wind power sector is represented by foreign and domestic companies. The main players with already operational wind power plants (WPP) are DTEK (Botievska WPP 200 MW, Prymorska 1 WPP 99,58 MW, Prymorska 2 WPP 99,58 MW, Orlivska WPP 98,8 MW), Vindcraft Group with a portfolio of 335 MW (the biggest ones - Novotroitska WPP 72,6 MW, Overyaniska WPP 68,4 MW, Myrnenska WPP 163 MW), NBT with Syvaska WPP 101,4 MW, Wind Parks of Ukraine with the biggest Ochakivska WPP 52,6 MW and Prychornomorska WPP 42,8 MW, Guris with Ovid WPP 32,67 MW²⁸.

Biofuels and waste

Biofuels and waste have been used primarily for heat production, with over 80% of the output consumed by the residential sector29. Among biomass energy producers, SEC Biomass Ltd. and SALIX Energy, both privately owned, represent key domestic players in Ukraine. The biomass materials are transformed into solid, liquid or gas biofuels. Numerous Ukrainian firms conduct this process, including Almaz-M, ECO PRIME Co. Ltd., and SALIX Energy, PJSC "Myronivsky Hliboproduct" (MHP), a London Stock Exchange-listed Ukrainian producer of poultry meat, grain and fodder.³⁰

Geothermal energy

Geothermal power is also included in the national plan of renewable energy of Ukraine, projected to grow to 20 MW by 2020.³¹ Ukraine is among the countries with average conditions for the formation of geothermal fields.³² Economically viable energy resource of thermal waters in Ukraine is estimated at 8.4 million tons of oil equivalent per year; however, the use of these resources is insufficient.³³

²⁵ Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework. – OECD: 2019.

²⁶ Renewable energy sector: Unlocking sustainable energy potential. – Ukraine, National Investment Council of Ukraine, 2018. – 24-25 p.

²⁷ Ukrainian Energy Market: Overview of the sector and future projects. – Flanders investment & trade market survey, 2018. – 54-55 p.

²⁸ Ukraine Wind Power Association (2021), Wind Power Sector of Ukraine 2020, https://spain.mfa.gov.ua/storage/app/sites/72/uwea-2020.pdf

²⁹ IEA (2019), IEA Statistics, https://www.iea.org/statistics/

³⁰ Ukrainian Energy Market: Overview of the sector and future projects. – Flanders investment & trade market survey, 2018. – 56 p.

³¹ Developed by the State Agency on Energy Efficiency and Energy Saving of Ukraine "Road map of geothermal energy and the energy of the environment for the period up to 2020" and adopted by the Cabinet of Ministers determines the basic parameters of development of geothermal energy in Ukraine. It is planned that the installed capacity of geothermal power plants in 2020 will amount to 64 MW, of geothermal heating plants - 120 MW, geothermal heat pumps - 120 MW. At present the research potential of geothermal energy resources in Ukraine are at the initial stage of development (Morozov, Y., Barylo, A. Geothermal Energy Use, Country Update for Ukraine. – European Geothermal Congress, 2019.).

³² Morozov, Y., Barylo, A. Geothermal Energy Use, Country Update for Ukraine. – European Geothermal Congress, 2019.

³³ https://www.irena.org/publications/2015/Apr/Renewable-Energy-Prospects-for-Ukraine

1.2. Legal and intuitional framework

Today in Ukraine, a number of state institutions and agencies are associated with the regulation of the energy sector. The key governmental bodies in Ukraine's energy sector are the Cabinet of Ministers of Ukraine (CMU), the Ministry of Energy (ME), and the National Energy and Utilities Regulation Commission (NEURC).

The CMU is the highest executive body responsible for collective decision-making, including the supervision of state policy in the energy sector and power industry. The CMU adopts the Energy Strategy of Ukraine and control its execution, imposes public service obligations (PSO) in the energy sector with regulated prices, and exercises the ownership of the main state-owned energy companies (Energoatom, Ukrhydroenergo etc.) (OECD, 2020³⁴) (CMU, 2021³⁵).

The ME is the central executive body that forms and implements state policy within the energy sector. It reports to the CMU and the Verkhovna Rada (parliament) and the Office of the President of Ukraine. The ME is responsible for developing the Energy Strategy of Ukraine, monitoring its execution, and submitting annual progress reports to the CMU and the National Security and Defence Council (OECD, 2020³⁶). Together with energy policy implementation, the ME prepares and monitors the energy balance, develops the rules and methodology for renewable energy auctions, construction of new generation capacities, as well as smart grids projects. Currently, the ME performs the role of the owner of the electricity and gas transmission system operators as well as of the electricity market operator (CMU, 2021³⁷). Recently, the decision was made to transfer all state-owned electricity distribution system operators (DSOs), which were on the list of privatization and managed by the State Property Fund, to the ME³⁸. Also, the ME closely works with the State Inspectorate on Energy Supervision and the CMU on implementing state policy in the electricity and heat supply sectors and monitoring the security of electricity supply, including technical aspects of the activities of distribution system operators in the electricity sector.

The State Nuclear Regulatory Inspectorate (SNRI) is the central executive body, coordinated directly by the CMU, that is responsible for the development and implementation of the state policy in the field of nuclear security³⁹. The SNRI has been assigned the functions of the state nuclear regulatory authority and, therefore, establishes regulatory criteria and requirements to define safety conditions for the operation of nuclear installations and the use of radiation sources (IAEA,2020)⁴⁰.

³⁴ OECD (2020), SOE Reform in the Electricity Sector of Ukraine https://www.oecd.org/corporate/SOE-Reform-Electricity-Sector-Ukraine-ENG.pdf

³⁵ CMU (2021), *The Resolution of CMU "On certain questions of management over objects of state property" No. 50-p dated 20.01.2021*; According to this Resolution, the CMU took the decision to transfer Ukrhydroenergo, Energoatom, several state-owned combined heat and power plants (CHPPs) – CHPP-2 ESHAR, Kalush CHPP, Lesychansk CHPP – under control of the CMU, to transfer the state enterprise of foreign economic activity Ukrinterenergo from the Ministry of Energy to the Ministry for the Development of Economic, Trade and Agriculture, and to prepare the decision on transferring Ukrenergo and Main Gas Pipelines of Ukraine (MGU) under control of the Ministry of Energy.

³⁶ OECD (2020), SOE Reform in the Electricity Sector of Ukraine https://www.oecd.org/corporate/SOE-Reform-Electricity-Sector-Ukraine-ENG.pdf

³⁷ CMU (2021), «Ukrenergo", "The Main Gas Pipelines of Ukraine", "Market Operator" transferred to the Ministry of energy, https://www.kmu.gov.ua/news/ukrenergo-magistralni-gazoprovodi-ukrayini-ta-operator-rinku-peredano-pid-upravlinnya-minenergo

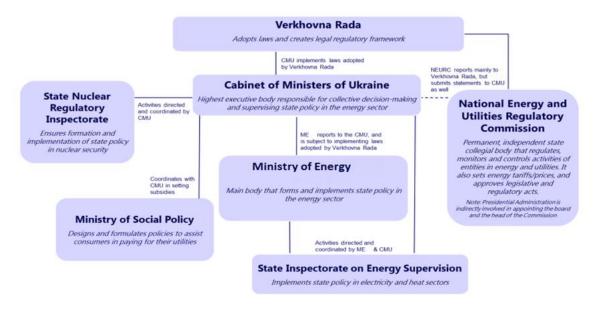
³⁸ Decision of the National Security and Defense Council of Ukraine from July 30, 2021 "On measures to neutralize threats in the energy sector", enacted by the Decree of the President of Ukraine of August 28, 2021 № 452/2021, https://zakon.rada.gov.ua/laws/show/n0056525-21#n2

³⁹ https://snriu.gov.ua/pro-nas/zagalna-informaciya/osnovni-zavdannya

⁴⁰ IAEA (2020), Country Nuclear Power Profiles, https://cnpp.iaea.org/countryprofiles/Ukraine.htm#:~:text=The%20Ukrainian%20nuclear%20safety%20legislation,and%20further%20amended%20and%20supplemented

Figure 1.7. The architecture of the Energy Sector Regulatory Framework in

As of October 2021



The NEURC performs functions as the main regulatory authority within the energy sector. The Regulator reports to the Verkhovna Rada about its activities, which include the tariff setting and implementing of the price policies. In 2016, Ukraine adopted the Law on NEURC to align its duties with the EU Third Energy Package requirements. The law aimed at establishing the NEURC's legal status and its regulatory authority and ensuring its economic and financial independence for effective regulation of the energy market⁴¹. As of today, the NEURC reports to the Verkhovna Rada and legally reports to and cooperates with the CMU, though it is claimed that the President maintains an indirect role in appointing the Commissioners.⁴²

1.2.1. National plans and policies

Ukraine has been working on reforming its energy sector to put the country on a path of sustainable growth. In 2011, Ukraine became a Contracting Party to the Energy Community Treaty, making legally binding commitments to adopt the core EU energy legislation, the so-called "acquis communautaire." The implementation of the renewable energy and energy efficiency acquis based on comprehensive, multi-annual action plans and the obligation of Ukraine to provide regular implementation reports has driven some of the country's efforts in this respect. As Ukraine signed the Association Agreement with the European Union (EU) in 2014 and engaged in further international commitments, it marked the start of a new chapter for its energy reform ambitions.

In 2015, Ukraine committed itself to achieve a range of policy targets attached to the UN Sustainable Development Goals (SDGs), which include the energy sector. In 2016, the government ratified the Paris Agreements, expressing its commitment to ensure that the greenhouse gas emissions in 2030 will not exceed 60% of the 1990 emissions level. In April 2021, the Ministry of Environmental Protection and Natural Resources has presented a draft of the updated National Determined Contribution with an even

⁴¹ Law on NEURC https://zakon.rada.gov.ua/laws/show/1540-19#Text

⁴² DiXi (2020), Situation around the National Energy and Utilities Regulatory Commission (NEURC) jeopardizes the independence and sustainable operation of the Regulator, https://dixigroup.org/wp-content/uploads/2020/11/alert_neurc_eng.pdf

higher objective of achieving 35% of the emission of 1990 level by 2030. It was approved and published by the UNFCCC in July 2021 (MEDT, 2017^{43}).

According to the Energy Community's 2020 Implementation report, Ukraine has made significant progress by aligning 50% of its legal framework with the requirements of the EU directives⁴⁴. The detailed Ukraine's progress in each energy sub-sector is presented below (see Figure 5)

Figure 1.8. Implementation of EU directives in the energy sector

Summa	ary Indicators	Transposition Assessement	Implementation Status	Descriptions
F	Electricity	Ø	49%	Implementation in the electricity sector of Ukraine is moderately advanced.
۵	Gas	Ø	84%	Implementation in the gas sector of Ukraine is almost completed.
•	Oil	0	35%	Implementation in the oil sector of Ukraine is still at an early stage.
23	Renewable Energy	0	52%	Implementation in the renewable energy sector of Ukraine is moderately advanced.
	Energy Efficiency		67%	Implementation in the energy efficiency sector of Ukraine is well advanced.
2	Environment	0	CAN.	Implementation in the environment sector of Ukraine is well advanced.
•	Climate	•	51%	Implementation in the climate sector of Ukraine is moderately advanced.
赛	Infrastructure	8	6%	Implementation in the infrastructure sector of Ukraine is yet to begin.
<u>ılı</u>	Statistics	0	81%	Implementation in the statistics sector of Ukraine is almost completed.
0	Cybersecurity	0	35%	Implementation in the cybersecurity sector of Ukraine is still at an early stage.

Source: Energy Community Secretariat, Annual Implementation Report 2020: Ukraine

In August 2017, the CMU adopted the "Energy Strategy of Ukraine until 2035" (ESU 2035) with an overarching goal of addressing "the needs of society and economy for fuel and energy in a technically-reliable, safe, economically efficient and environmentally-friendly way, in order to guarantee the improvement of social well-being" 45. The strategy identifies energy sector reform as essential to achieving

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MEDT (2017), Sustainable Development Goals: Ukraine (2017 National Baseline Report), https://mfa.gov.ua/mediafiles/sites/poland/files/Sustainable_Development_Goals_Ukraine.pdf

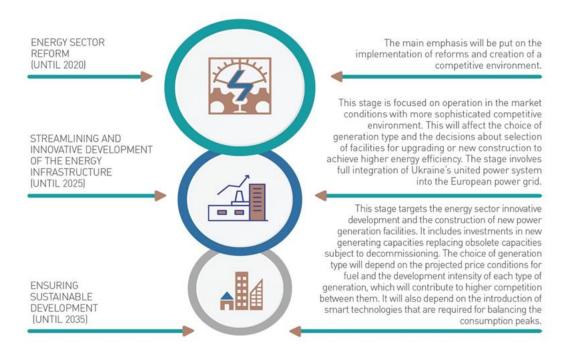
44 https://energy-community.org/news/Energy-Community-News/2020/11/23.html

⁴⁵ Cabinet of Ministers (2017), On approval of the Energy Strategy of Ukraine for the period up to 2035 "Security, energy efficiency, competitiveness", https://www.kmu.gov.ua/ua/npas/250250456.

four policy outcomes: energy efficiency, security, competitiveness and greater integration with the EU energy space.

The ESU 2035 implementation is divided into three stages, described in Figure 6. Currently, Ukraine has started the second stage, assuming that all required energy sector reforms have been already implemented. In reality,, according to the monitoring performed by the OECD, in many sectors, the implementation of the ESU 2035 lags behind.⁴⁶ Still, the electricity sector shows the biggest progress compared to all others.

Figure 1.9. Summary of the ESU 2035



The alignment between the country's energy and economic policy goals is critical for maximising the results of the energy transition, particularly in the context of the adoption of Ukraine's forthcoming Economic Development Strategy. The planned concept Green Energy Transition by 2050, modelled on the EU Green Deal, will set out a blueprint for decarbonising Ukraine's energy sector by 2050 while promoting its sustainable economic development. The sustainability of the concept should be guaranteed in some way in order to withstand future government reshuffles and ensure that the valuable progress that has been achieved will not be lost. The works on the Energy Strategy 2050 have started in August 2021⁴⁷.

⁴⁶ OECD (2020), Monitoring the Energy Strategy of Ukraine, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Monitoring-the-energy-strategy-Ukraine-2035-EN-.pdf

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⁴⁷ OECD (2020), Monitoring the Energy Strategy of Ukraine, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Monitoring-the-energy-strategy-Ukraine-2035-EN-.pdf

1.2.2. Oil and gas

Following the regulatory templates promoted by the European Union, the Verkhovna Rada adopted the Law on the Natural Gas Market. ⁴⁸ The Law sets up the basis for the liberalization of the gas market. It stipulates that the domestic natural gas market is based on the principles of free competition, adequate consumer protection and the security of the natural gas supply. It also envisages the unbundling of the gas transmission system operator (TSO) from gas production and supply functions, clearly outlines the role of the state and the independence of the regulator, and establishes the principle of tariff regulation of natural monopolies and free market prices in competitive segments of the gas market ⁴⁹.

However, the reform process was slowed down because of the limited modernisation capacities and vested interests which have perpetuated the opaque gas trading system.⁵⁰ The failure of the Cabinet of Ministers to implement the unbundling of the system operator blocked the reorganisation of the gas sector.⁵¹ Only in 2019, the unbundling of the gas transmission system operator (TSO) was completed. According to the selected model of the Independent System Operator (ISO),⁵² all the dispatching assets and personnel, as well as functions of the certification, licensing, and monitoring of the gas tariffs were transferred to the new TSO - LLC "Gas TSO of Ukraine",⁵³ a wholly owned subsidiary of the JSC "Main Gas Pipelines of Ukraine".⁵⁴ Today, the gas transmission system operator is managed by the Ministry of Finance and is fully independent from the Naftogaz group.⁵⁵ (see Figure 10)

⁴⁸ OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework

⁴⁹Naftogaz, Annual Report 2015, https://www.naftogaz.com/files/Zvity/Naftogaz Annual Report 2015 engl.pdf

⁵⁰ Agha Bayramov & Yaroslava Marusyk (2019), *Ukraine's unfinished natural gas and electricity reforms: one step forward, two steps back*, Eurasian Geography and Economics

⁵¹ The Naftogaz Unbundling Plan was submitted to the Energy Community and subsequently adopted by the Cabinet of Ministers on 1 July 2016.

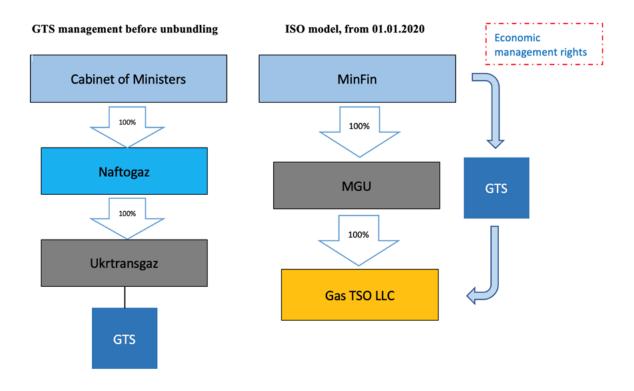
⁵² Before 2020, Ukrtransgaz (a company 100% owned by Naftogaz) provided gas storage and transportation through trunk gas pipelines. From 1 January, 2020 the company was divided into two separate legal entities: the gas storage facilities operator (Ukrtransgaz), which remained a part of Naftogaz Group, and the gas transportation system operator (Gas Transmission System Operator of Ukraine LLC (GTS Operator LLC), which operates independently and is engaged only in natural gas transmission

⁵³ On 15 November, 2019, the Parliament of Ukraine adopted the laws allowing the unbundling of GTS Operator under the Independent System Operator (ISO) model. On 22 November 2019, the GTS Operator received the preliminary decision of the Regulator regarding its certification as a gas transmission system operator. On 17 December 2019, the Energy Community Secretariat agreed the certification of GTS Operator. On 24 December, 2019, taking into account the positive conclusion of the Energy Community Secretariat, the NEURC adopted its final decision on the certification of the gas transmission system operator of Ukraine. On 1 January 2020 the parties signed the Act of transfer of property (assets) of the state-owned gas transportation system of Ukraine to GTS Operator, by the right of economic management. They also signed the Act of transfer of a 100% stake in GTS Operator, which completed the acquisition by JSC "Main Gas Pipelines of Ukraine" of full control over GTS Operator.

⁵⁴ On 18 September 2019, the Cabinet of Ministers of Ukraine adopted *Resolution No. 840 on Separation of Natural Gas Transportation and Ensuring Operations of the Gas Transportation System Operator*, which provided for the following unbundling arrangement: Transfer the function of managing the corporate rights of JSC "Main Gas Pipelines of Ukraine" from the Ministry of Energy and Environmental Protection of Ukraine to the Ministry of Finance of Ukraine.

⁵⁵https://www.naftogaz.com/www/3/nakweben.nsf/0/D8BC2878DEB5362BC225847A0063BBC2?OpenDocument&year=2019&month=09&nt=News&

Figure 1.10. Unbundling of Gas TSO



Source: Authors compilation is based on Naftogaz data

In order to ensure further transparency and competitiveness of the gas market, as well as the synchronization of the Ukrainian GTS operator with the European operators, the government introduced the daily balancing system of natural gas.⁵⁶ Prior to these changes, reconciliations took place only once per month.

The major step towards gas market liberalization was reached on 1 August 2020 by opening the gas market for household consumers. From 1 August 2020, the PSO⁵⁷ with regulated prices for households have been terminated, and the Cabinet of Ministers is no longer able to regulate gas prices for the needs of the households. According to the new rules, each consumer is able to change the gas supplier based on market preferences⁵⁸. Also, the Regulator adopted the rules that simplified the procedure for changing the

 $^{^{56}}$ CMS CMNO (2020), Progress in the Ukrainian oil and gas sector in 2019 and the outlook for 2020, https://www.cms-lawnow.com/ealerts/2020/01/progress-in-the-ukrainian-oil-and-gas-sector-in-2019-and-the-outlook-for-2020

⁵⁷ According to the Article 11 of the Law of Ukraine on the Natural Gas Market, Ukrgazvydobuvannya shall sell extracted natural gas to Naftogaz, while Naftogaz is required, pursuant to its public service obligations (PSO), to ensure the sale of gas to regional gas suppliers, religious organizations and DHC, and serving households. The former gas supply regime under PSO was established by the Cabinet of Ministers' Resolution No. 758 from 1 October 2015, which extended PSO several times. New PSO regime was established by the Resolution No. 867 from 19 October 2018, which also extended PSO many times till final cancelation of PSO for households from 1 August 2020. Currently, the PSO is applied only for heat supply companies till 1 May, 2021.

⁵⁸ Naftogaz, Annual Report 2020, - https://www.naftogaz.com/files/Zvity/Annual report Naftogaz 2020 EN 28 04 2021 3.pdf

natural gas supplier to enhance the competition in the gas market⁵⁹. However, the retail gas market is still far from being competitive, and the government shall take additional measures to deal with this issue.⁶⁰

The oil and gas extraction industries are already heavily regulated. Still, they tend to be reformed because Ukraine became part of the EITI network. The Ukrainian government made a further step to attract foreign investment by simplifying regulations related to gas and oil extraction the licensing. Since 2019, the licensing rounds for oil and gas blocks have been organized through the concession and PSA tenders. Haso, Ukraine has launched the Investment Atlas for subsoil users with detailed information on gas and oil sites available for potential investments.

In general, the current legal and institutional framework in the oil and gas sectors is the result of a complex and lengthy process of reforms. The benefits of the reforms should not be overlooked because the sector needs further legal changes to fulfil its international commitments.

1.2.3. Nuclear power

Nuclear power generation is a complex and high-risk process that requires a carefully drafted regulatory framework. Since its independence, Ukraine has adopted many laws on the use of nuclear energy, radiation safety, radioactive waste management, licensing of nuclear energy usage, etc.⁶³

The Law on Use of Power and Radiation Safety lays the foundations of the functioning of the nuclear industry in Ukraine. Pursuant to the Law, the SE "NNEGC "Energoatom" is the sole nuclear operator and has full legal responsibility for the safety of all Ukrainian nuclear power plants. Previously, Energoatom was under the umbrella of the Ministry of Energy, which is responsible for the development and implementation of state technical and investment programs in the sphere of nuclear power. ⁶⁴ In January 2021, the company was transferred under the control of the Cabinet of Ministers. The recently reformed PSO model aims at improving the financial stability of Energoatom. According to the new rules, the company sells about half of its electricity for the needs of the population within special obligations and sells the rest in various market sectors at competitive prices. ⁶⁵ Given the current exacerbation of the energy crisis in Ukraine, further legislative developments are necessary to ensure the financial stabilisation of Energoatom.

According to the established tradition, the NEURC retains the industry-wide competence in the field of licensing and tariff setting for the thermal and electric energy generated by NPPs. However, the main regulatory functions in the nuclear power sector are performed by the State Nuclear Regulatory

⁵⁹Naftogaz, Annual Report 2020, - https://www.naftogaz.com/files/Zvity/Annual_report_Naftogaz_2020_EN_28_04_2021_3.pdf

⁶¹ Offshore Technology (2019), Improved fiscal terms but possible political risks in Ukraine upstream industry, https://www.offshore-technology.com/comment/ukraine-oil-and-gas-2019/

⁶² CMU, Investment Atlas of the subsoil users has been launched in Ukraine, https://www.kmu.gov.ua/en/news/roman-opimah-v-ukrayini-zapracyuvav-investicijnij-atlas-nadrokoristuvacha

⁶³ The main laws in nuclear energy are: the Law of Ukraine "On nuclear energy usage and radioactive safety", the Law of Ukraine "On human protection against the impact of ionizing radiation", the Law of Ukraine "On licensing of nuclear energy usage", the Law of Ukraine "On metrology and metrological activities", the Law of Ukraine "On arrangement of issues on nuclear safety assurance", the Law of Ukraine "On radioactive waste management", the Law of Ukraine "On mining and processing of uranium ores", the Law of Ukraine "On physical protection of nuclear facilities, nuclear material, radioactive waste, other sources of ionizing radiation".

⁶⁴ OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf

 $^{^{65} \}underline{\text{http://mpe.kmu.gov.ua/minugol/control/uk/publish/article:jsessionid=5CD66DB4B580315E9BA61C28C3BBA48A.app1?art_id=245472942\&c_at_id=35109}$

Inspectorate (SNRI).⁶⁶ The Inspectorate is the central executive authority in the nuclear industry. As already mentioned, the SNRI elaborates normative documents and standards of nuclear and radiation safety. On 19 May 2020, the Parliament approved the draft Law restoring the independent status of the SNRI. Accordingly, the SNRI has broader powers in the oversight and licensing⁶⁷ of activities performed by the nuclear power plants. The current legislative and institutional changes aim at ehnancing transparency and independence of the decision making by the national nuclear regulator.

Ukrainian authorities have successfully created a strong legal and institutional framework for the exploitation of nuclear power plants. However, the current energy crisis and speculations about the future of nuclear energy show that further efforts need to be made to ensure the stability of the sector.

1.2.4. Renewable energy

Legislation and state institutions

The Law of Ukraine "On alternative energy sources" determines the main legal provisions on setting the "green" tariffs and auction incentive mechanism. ⁶⁸ According to Article 4 of the Law, the Verkhovna Rada adopts the main policies in the renewable energy sector. Traditionally, the NEURC performs regulatory oversight functions and uses its discretionary powers to fix the feed-in tariff and to set the rules for the Power Purchase Agreements (PPAs).

The Ministry of Energy is responsible for the RES policy development and RES draft laws preparation, forecasting of the share of RES in energy balance, preparation of the RES auctions. The State Agency for Energy Efficiency and Energy Saving is responsible for issuing certificates of fuel belonging to alternative energy sources.⁶⁹

"Green" tariff

A feed-in tariff (- "green" tariff), introduced on 1 April 2009, has become the main incentive for investments in the renewable energy sector of Ukraine. The "green" tariff is defined as a preferential price for producers of electricity from renewable energy sources paid by the state⁷⁰. The legislation sets the rule that all amount of electricity produced by the RES producer shall be purchased by the state company Guaranteed Buyer

⁶⁶ The main functions of the Nuclear and Radiation Safety Authority, as specified by the Nuclear Safety Convention and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, have been entrusted to the State Nuclear Regulatory Inspectorate of Ukraine. The objectives, functions and powers of the Regulatory Body are specified in the Regulations for State Nuclear Regulatory Inspectorate of Ukraine, as approved by Presidential Decree No.403/2011 of April 6, 2011.

⁶⁷ SNRI conducts annual state oversight of activities performed by entities characterized by high risk; inspect all nuclear power plants (15 power units) that belong to one economic entity, Energoatom nuclear national operator, in parallel at all sites in all areas within one scheduled measure:

⁻ license activities in the area of nuclear energy within the timeframes and under the procedures established in accordance with the level of danger for such activities;

⁻ establishes liability of the nuclear entity for failure to comply with nuclear and radiation safety requirements;

⁻ performs unscheduled inspections with potential termination of hazardous nuclear or radiological activities by the state nuclear regulatory body in violation of nuclear and radiation safety.

⁶⁸ After adoption of the Law of Ukraine "On electricity market" in 2017, all provisions on "green" tariffs were transferred from the Law of Ukraine "On electricity industry" (it was cancelled) to the Law of Ukraine "On alternative energy sources".

⁶⁹ According to the Procedure on issuing, using and termination of certificates of origin of electricity for commercial entities that produce electricity from alternative energy sources approved by the Cabinet of Ministers of Ukraine No. 711 from 24 July, 2013 with the following amendments - https://zakon.rada.gov.ua/laws/show/771-2013-n#Text

⁷⁰ According to the Law of Ukraine "On alternative energy sources", the feed-in tariff is applied for electricity production from solar, wind, biomass, biogas sources as well as for micro-, mini-, and small hydro power plants with certain defined conditions of feed-in tariff application depending on the type of renewable energy sources.

under the "green" tariffs.⁷¹ To benefit from the "green" tariff, the RES producers shall sign the relevant Power Purchase Agreement (PPA) with the Guaranteed Buyer, that sells the produced electricity on the wholesale market at the market price. The difference between the "green tariff" paid by the Guaranteed Buyer and the market price is compensated by another state enterprise, Transmission System Operator (Ukrenergo). This compensation is part of the electricity transmission tariff paid by the transmission system's end users.⁷²

"Green" auctions

On April 25, 2019, the Parliament of Ukraine adopted the Law of Ukraine "On the promotion of competitive conditions for producing electric power from alternative energy sources" that introduced the auction system (instead of the FIT) for the RES producers..

In order to support the renewable energy facilities, which do not have contracts with the Guaranteed Buyer for the purchase of their energy at the green tariff rate, the state support will be provided under the "green auctions". The auction mechanism will apply to all the wind facilities with a capacity exceeding 5 MW and solar facilities with a capacity exceeding 1 MW. All other types of renewable energy sources can participate in "green" auctions on a voluntary basis. The winners of "green" auctions will receive state support in the form of a quota, i.e., a volume of electrical power which the state guarantees to buy from them at the winning price. The maximum winning price should not exceed the relevant "green" tariff rate 73. The first "green" auction was supposed to start on 1 April 2020. As of today, the auctions have not been organized yet. 74

Due to the rapid growth of the RES installed capacities, the "green" tariff support scheme had become less sustainable. As a result, in autumn 2019, the Ukrainian government initiated discussions regarding the further restructuring of the "green tariff" for operational RPPs, and a limitation of the timeframe for commissioning of the developing RES plants that have executed preliminary Power Purchase Agreements (pre-PPAs) before 31 December 2019. ⁷⁵These discussions were closely related to the issue of the accumulation of the Guaranteed Buyer's debts. On 10 June 2020, the Government and the RES industry signed a Memorandum of Understanding⁷⁶ on the Settlement of Problematic Issues in the Renewable Energy Industry.⁷⁷ Based on the MoU, the Ukrainian Parliament adopted the relevant Law on the restructuring of the feed-in tariff in Ukraine (See Box 1). However, the issues with the Guaranteed Buyer's debts to the RES producers have not been fully resolved⁷⁸.

- Reduction of "green" tariff for solar and wind power plants (-15% for solar more than 1MW, -7,5% for wind);
- Increasing financial liability for imbalances of RES producers;
- Economically feasible transmission tariff for RES financing;
- Schedule of debts repayment;
- Guarantees on full and timely current payments;
- State guarantees against legislation changes.

⁷¹ The Law of Ukraine "On electricity markets"

⁷² https://sk.ua/publications/green-tariff-in-ukraine/?utm_source=Mondag&utm_medium=syndication&utm_campaign=LinkedIn-integration

⁷³ https://sk.ua/publications/green-tariff-in-ukraine/?utm_source=Mondag&utm_medium=syndication&utm_campaign=LinkedIn-integration

⁷⁴ In order to launch the first "green" auctions, the Government shall take the decision on approval of annual RES quota, types of auctions and schedule of RES auctions.

⁷⁵ https://cms.law/en/int/expert-guides/cms-expert-guide-to-renewable-energy/ukraine

⁷⁶ The main provisions of this Memorandum are the following:

⁷⁷Ukraine Wind Power Association (2021), Wind Power Sector of Ukraine 2020, https://spain.mfa.gov.ua/storage/app/sites/72/uwea-2020.pdf

⁷⁸ As for settlement of debts to RES producers (accumulated from 1 March till 1 August 2020, its' 22,4 billion UAH), according to the Memorandum with the Government, the RES producers should received 40% from debts (8,96 billion UAH) at 4 quarter 2020, other 60% of debts shall be settled by equal parts each quarter in 2021 (3,36 billion UAH each quarter). As of June, 2021, only 5,9 billion UAH was paid, or 26% from total debts. Partly, it was happened because of allocation of credits by state banks to Ukrenergo for further allocation to the Guaranteed

Box 1.1. Restructing of the feed-in tariff in Ukraine

On 21 July 2020, the Ukrainian Parliament adopted the Law of Ukraine No. 810-IX, "On amending of certain legislative acts of Ukraine regarding improvement of terms of support of renewable energy producers" (the Law). The Law was signed by the President on 31 July 2020 and entered into force on 1 August 2020.

The changes foreseen by the Law include:

- Reduction of Feed-in Tariff Rates. The FIT rates should be reduced depending on the installed capacity of the SPPs and WPPs and on the date when the plant was commissioned. Amendments regarding a 2-year extension of the FiT have not been upheld despite the numerous requests of Ukrainian business and international establishments.
- Introduction of the accelerated liability for electricity imbalances. Accelerated liability for electricity imbalances will apply for RES facilities with an installed capacity of more than 1 MW. For other facilities, the gradual introduction of liability for imbalances is stipulated from 01 January 2021.
- Special tariff for electricity transmission services for "green" electrometallurgy enterprises. The Law envisages the establishment of the special tariff of the transmission services for electricity purchased for the purposes of steel production by the enterprises of "green" electrometallurgy. The tariff for such enterprises will be lower since it will not include expenses of the TSO for fulfilling its Public Service Obligations in ensuring an increase in the share of electricity production from alternative energy sources.
- Updated rates of premium for the use of equipment manufactured in Ukraine
- Ensuring payments to the RES producers. The Law stipulates that the Cabinet of Ministers of Ukraine shall envisage in state budget expenditures to financially support the Guaranteed Buyer for payments to the RES producers. Such expenditures should be formed in accordance with the budget requests of the Ministry of Energy, based on calculations provided by the NEURC. Payments from the state budget should not be for less than 20% of the forecasted marketable products of electricity generation from alternative energy sources for the relevant year. The Law also temporarily envisages that the funds received by the TSO (NPC "Ukrenergo") from the capacity allocation of cross-border interconnectors shall be used for the following purposes: 30% to guarantee the actual availability of the allocated capacity, maintenance and increases of capacity allocation through investment into the electricity transmission system (e.g. construction of new interstate electricity transmission lines); 70% for the repayment of the Guaranteed Buyer's debts. The Guaranteed Buyer shall transfer the received funds in the following way: 50% to the SE Energoatom; 50% to pay other RES producers for generated electricity.
- Settlement of the issue of compensation to RES producers for curtailments. The Law defines the TSO (NPC "Ukrenergo") as the entity responsible for the compensation to the RES producers⁷⁹.

Buyer on payments to RES producers. But other planned measures, as the fixed costs for settlement debts with RES producers in the state budget for 2020/2021, or increasing the transmission tariff to the economically feasible level, or other measures were not happened.

⁷⁹ https://hillmont.com/publ/alerts/law-on-feed-in-tariff-restructuring-passed-by-the-parliament-of-ukraine

2 Corruption Risks and Corruption-Related Issues In Sub-Sectors

2.1. Oil and gas

The oil and gas sector in Ukraine has traditionally been a favourable environment for corruption and different corruption-related risks. The reasons were numerous. First, given the strategic importance of these sectors in ensuring basic public needs, they were and still are subject to state aid, which in many cases has been abused by market players (see the PSO case below). Second, considerations of the sectors' strategic importance and price volatility (and social tensions related to it) made Ukrainian governments reluctant to implement liberal reforms in these fields.

Such state of affairs only perpetuated favouritism and clientelism in actions of public authorities, resulting in market and asset concentration. For example, in the gas distribution field 18 out of 46⁸⁰ DSOs are owned by companies operating under the Regional Gas Company (RGC) brand. These DSOs operate almost 176 000 kilometres or approximately 61% of all distribution grids in Ukraine.⁸¹ The same Regional Gas Company also includes 16 household gas suppliers, that account for 58% of the retail gas market⁸². 'Favorites', who gained significant economic power, monetized it in political influence, thus reinforcing longestablished corruption schemes. Thus, it's not surprising that many corruption risks and factors have a long history.

2.1.1. Corruption-related risks in the gas sector

PSO regime

One of the long-established corruption risks is the practice of energy prices regulation, especially for the households, which took price subsidies for granted as one of the state obligations. However, the other side of the protection from gas price volatility is actual and potential corruption. In 2015-20, price regulation was carried out in the form of public service obligations (PSO), enforced through a number of consecutive government decrees. Under the PSO regime, Naftogaz was to sell gas to household suppliers (via incumbent retailers) and district heating companies at regulated prices.⁸³ The trade margins were strictly regulated and accounted for 1.917% for Naftogaz (as a wholesale supplier) and not more than 2.5% for

⁸⁰ National Energy and Utilities Regulatory Commission (NEURC), Register of licensees of National Energy and Utilities Regulatory Commission (https://data.gov.ua/dataset/123f9941-cc81-42b8-83af-5459df8cac61).

⁸¹ National Energy and Utilities Regulatory Commission (2021), page 292 in 2020 NEURC Annual Report (https://www.nerc.gov.ua/data/filearch/Catalog3/Richnyi zvit NKREKP 2020.pdf).

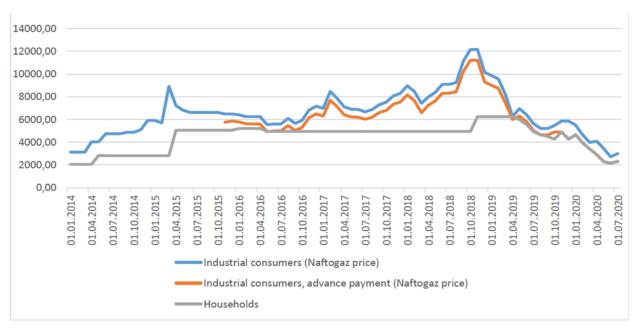
⁸² National Energy and Utilities Regulatory Commission (2021), page 14 of *Report on monitoring the functioning of natural gas market in 1Q* 2021 (https://www.nerc.gov.ua/data/filearch/monitoryng/gas/2021/monitoryng_gaz_l-2021.pdf).

⁸³ Decree of Cabinet of Ministers of Ukraine №867 dated 19 October 2018 (https://zakon.rada.gov.ua/laws/show/867-2018-%D0%BF#Text).

incumbent retailers (so-called "gazzbuts").⁸⁴ At the beginning of 2020, the PSO price was pegged to the TTF gas hub⁸⁵ quotations⁸⁶ as a measure for approximating it to market pricing. In August 2020, the PSO was terminated for households and in May 2021 - for heat producers. The main aftereffect of the regime was a significant budget compensation to the Naftogaz that sold gas at prices much lower than market ones, which amounted to 32 billion UAH.⁸⁷

Figure 2.1. Difference in prices of gas for industrial and household consumers (2014-2020)





Source: Naftogaz (2021), Natural gas prices

(https://www.naftogaz.com/www/3/nakweb.nsf/0/4D50A380B0969658C2257F7F0056E388?OpenDocument).

Besides, the PSO regime created room for price arbitrage and respective misuse of gas sold. The corruption case that caused high media attention was the scandal around cogeneration (CPH) facilities in Novyi Rozdil and Novoyavorivsk. From 2013 to 2017, these CHPs used gas under regulated prices for generating electricity, which was subsequently sold to industrial consumers at market prices, though under the PSO scheme, they had to use such gas for heat production and supply to households. The damage caused to the state is estimated at 2.1 billion UAH.⁸⁸ The National Anticorruption Bureau of Ukraine initiated 2 parallel proceedings against the officials of the cogeneration plants. As of June 2021, the first one was at the stage of pre-trial investigation, while the second one – of preliminary court hearing.⁸⁹

⁸⁴ Газзбут – household gas suppliers that used to be the part of regional gas monopoly (DSO+regional retail supplier) (in Ukrainian).

⁸⁶ Naftogaz (2020), Naftogaz calculated the gas price according to the new methodology of the Cabinet of Ministers (https://www.naftogaz.com/www/3/nakweb.nsf/0/EF45F7CD574C25C8C22584FD005169DA)

⁸⁷ Ekonomichna Pravda (2020), Government paid 32 bln UAH of compensation to Naftogaz (https://www.epravda.com.ua/news/2020/12/22/669452/).

⁸⁸National Anti-Corruption Bureau of Ukraine (2020). *Investigation of causing UAH* 729.8 million gas embezzlement scheme completed (https://nabu.gov.ua/novyny/rozkradannya-gazu-na-7298-mln-grn-materialy-vidkryto).

⁸⁹ National Anti-Corruption Bureau of Ukraine (2020), *Five persons are suspected of involvement in UAH 729.8 million gas embezzlement scheme* (https://nabu.gov.ua/novyny/rozkradannya-gazu-na-7298-mln-grn-pidozryuyutsya-5-osib).

⁸⁵ The Title Transfer Facility – a virtual trading point for natural gas based in the Netherlands.

Another example of corruption related to the PSO regime and price arbitrage was the artificial increase of household gas consumption by Kirovohradgaz, which was made public in 2017. Kirovohradgaz, as the DSO, was responsible for calculating household consumption of natural gas, which was to be covered under the PSO mechanism. In July 2017, Naftogaz JSC took control over the company and initiated an internal investigation, which revealed that Kirovohradhaz created 384 fake consumer accounts⁹⁰ with the view to artificially inflate household consumption. As a result, 9.8 million cubic meters of gas were falsely documented as sold to households in 2017, generating 78 million UAH (3 million USD) in losses. A similar scheme was employed by Donetskoblgaz – another DSO and retail supplier (not subject to the unbundling requirement). According to the Security Service of Ukraine, ⁹¹ the company had been buying gas at a reduced price for households but instead supplied it to industrial consumers in the Donetsk region. Additionally, Donetskoblgaz redistributed the debts of the industrial consumers for gas among households, i.e. the first had been supplied with gas free of charge, while the latter had to pay more.

To sum up, the PSO regime created price differentiation on Ukrainian gas market, which was abused by some market players – in particular by those incumbent retailers who were part of the PSO scheme and had the interest to fabricate data regarding household consumption and then sell cheaper gas for a higher price. The fact of fabrication was (and still is) hard to prove as detailed information on consumption is not disclosed and cannot be verified. With the view to eradicating such manipulations, public authorities initiated several parallel projects aimed at establishing a unified and comprehensive database of gas consumption⁹²⁹³, but as of now, such projects are only at the stage of conceptual development. Besides, more than 1 million households⁹⁴ still remain without commercial metering of natural gas (see below in this section), which will enable manipulations even in the case of launching the abovementioned database of consumption. Both a lack of DSOs' transparency and the incomplete commercial metering of natural gas contributed to the PSO regime misappropriations.

Although the PSO was terminated for both households and heat producers in August 2020 and May 2021,, some of the recent regulatory decisions can be regarded as implementing a quasi-PSO that bears the same risks. The significant increase in gas prices in the end of 2020 caused tensions and protests⁹⁵ among Ukrainians at the beginning of 2021. The government temporarily introduced⁹⁶ the regulated gas price of 6.99 UAH/cm for all household suppliers, which was in force until April 2021. Since May 2021, the NEURC implemented mandatory annual offers for households (i.e. suppliers are obliged to set annual gas prices for their household consumers with no right of increasing such prices throughout the year).⁹⁷ In such a way, households were protected against price volatility. Big suppliers working under the RGC brand secured low annual tariffs for their customers by concluding gas supply contracts with the state-owned

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⁹⁰ UNIAN (2017), Wrote off on "dead souls": Naftogaz informed of gas theft by oblgaz (https://www.unian.ua/economics/energetics/2158196-spisuvali-na-mertvi-dushi-naftogaz-rozpoviv-pro-kradijku-gazu-oblgazom.html).

⁹¹ Ukrinform (2020), SSU charged the management of Donetskoblgaz with multibillion fraud with state-owned natural gas (https://www.ukrinform.ua/rubric-economy/3001409-sbu-vikrila-kerivnictvo-doneckoblgaz-na-milardnih-oborudkah-z-derzavnim-prirodnim-gazom.html)

⁹² Law of Ukraine №1590-IX dated 30 June 2021 https://zakon.rada.gov.ua/laws/show/1590-20#Text

⁹³ Kosatka.Media(2021), *E-Consumer: At what stage is the* e-register of electricity, gas and heat consumers? (https://kosatka.media/uk/category/elektroenergiya/news/e-spozhivach-kak-idet-sozdanie-elektronnogo-reestra-potrebiteley-elektroenergii-gaza-i-tepla).

⁹⁴ Ministry of Energy (2020), *Information on level of equipment of households with natural gas meters as of 01.01.2020* (http://mpe.kmu.gov.ua/minugol/doccatalog/document?id=245481506).

⁹⁵ Livyi Bereh 2021, Protests against gas prices growth continue: people are blocking up highways (https://lb.ua/society/2021/01/15/475291 ukraini trivayut aktsii protestu.html).

⁹⁶ Cabinet of Ministers of Ukraine (2021), Setting ceiling gas prices will decrease its costs for households by an average of 30% - Prime Minister (https://www.kmu.gov.ua/news/vstanovlennya-granichnoyi-cini-na-gaz-znizit-jogo-vartist-dlya-naselennya-v-serednomu-na-30-premyerministr)

⁹⁷ National Energy and Utilities Regulatory Commission (2021), *NEURC introduced yearly product for households on natural gas market* (https://www.nerc.gov.ua/?news=11430).

Naftogaz, 98 which provided for prices much lower than the market ones at that time. The Gas Supply Company Naftogaz LLC, as a part of the vertically integrated company, also has access to cheaper gas of domestic production. As a result, price differentiation has taken place again. While in May-September 2021, an average wholesale buyer purchased gas for 9,000-20,000 UAH/tcm,99 The Regional Gas Company suppliers could buy gas for 7420 UAH/tcm. 100 Given such price differences, suppliers have a temptation to resell cheap gas for market prices and the media already accused RGC of such misappropriations. Beginning from October 2021, gazzbuts cannot resale gas reserved for the households to industrial consumers, as it is prohibited by conditions of the balancing group created by Naftogaz as a wholesale supplier¹⁰¹

Similar price gaps remained in the heating segment of the gas market. Though the PSO regime was lifted in May 2021, Naftogaz remains the only relevant gas supplier for district heating companies, which constantly experience financial difficulties. Naftogaz developed the so-called 3-years contract for heat producers that provides for the gas price of 7420 UAH/tcm in the first year of supply, 102 obviously much lower than the market prices. This discounted price, however, only applies to volumes of gas 'reserved' for households' heating needs at the level of the previous heating season consumption. Therefore, the formal termination of the PSO neither enhanced competition on the gas market nor excluded risks related to the regulated pricing.

Utility subsidies

The global subsidisation of the sector proliferates negative effects of the PSOs mechanism that goes beyond the objectives of public interest. Due to the liberalisation of energy tariffs, the CMU, as a body responsible for setting the subsidies, multiplied the household subsidies for natural gas, electricity, heat and hot water. 103 The Ministry of Social Policy of Ukraine, local executive bodies and local self-government bodies are responsible for the assignment and accounting of utility subsidies.

During 2017-2020, a number of changes have been introduced to the regulatory acts for better targeting of the subsidised households as well as for the simplification of the allocation of subsidies. The government has also developed mechanisms aimed at ensuring effective state control in the field. In 2018, the public registry of utility subsidy recipients was created. Previously, the lack of a unified register of natural gas consumers made it extremely difficult to track where the energy services and subsidies payments were going. Even though the government claimed that subsidies were paid only to those who really needed them, the media regularly reported on the cases when MPs, high-level government officials and businesspersons who could afford luxury cars, houses and trips were on the list of subsidizers. 104

Interfax-Ukraina (2021),Naftogaz Enerhiia" agreed supply yearly contract aas (https://ua.interfax.com.ua/news/economic/732308.html)/.

⁹⁹ https://www.ueex.com.ua/eng/exchange-guotations/

¹⁰⁰ Ekonomichna Pravda (2021), The price of yearly gas: how Firtash makes money on state-owned money thanks to Naftogaz (https://www.epravda.com.ua/publications/2021/07/27/676286/)

¹⁰¹ https://naftogaztrading.com.ua/resource/default/uploads/2019/02/%D0%94%D0%BE%D0%B3%D0%BE%D0%B2%D1%96%D1%80%20%B1 D0%BF%D1%80%D0%BE%20%D1%83%D1%82%D0%B2%D0%BE%D1%80%D0%B5%D0%BD%D0%BD%D1%8F%20%D0%B1%D0%B 0%D0%BB%D0%B0%D0%BD%D1%81%D1%83%D1%8E%D1%87%D0%BE%D1%97%20%D0%B3%D1%80%D1%83%D0%BF%D0%B8. pdf

¹⁰²Naftogaz heating JSC (2021),Only 45% of district enterprises concluded 3-years (https://www.naftogaz.com/www/3/nakweb.nsf/0/9DBC177C97D1288AC225873700338484?OpenDocument&year=2021&month=08&nt=%D0 %9D%D0%BE%D0%B2%D0%B8%D0%BD%D0%B8&)

¹⁰³ According to the data published by the Treasury Service of Ukraine, the budget allocated to for subsidies increased from UAH 6,9 billion in 2014 to UAH 36,36 billion in 2020. https://www.treasury.gov.ua/ua/file-storage/vikonannya-derzhavnogo-byudzhetu

¹⁰⁴ Stopcor (2016), Subsidies for the Oligarchs, https://stopcor.org/subsidiyi-dlya-oligarhiv/?amp.

As of today, the government still does not monitor the work of the officials of the Ministry of Social Policy or other relevant state bodies. However, the information provided by the beneficiaries of the household subsidies is regularly checked. The verification of state payments is carried out in an automated manner by collecting, analysing and comparing information received from the applicants for the subsidies. Based on the results of the verification, the Ministry of Finance provides monthly recommendations to the state bodies responsible for the payment of subsidies. Usually, such recommendations prescribe conducting additional verification of information containing discrepancies.¹⁰⁵

Nevertheless, the absence of a consumer database and of the gas meters (see Commercial Gas Metering and Related Issues below) in some households lead to the distortion of the data on gas consumption by subsidized and non-subsidized consumers. In order to decrease the amount of subsidies that should be returned to the state budget, regional suppliers re-allocate consumed energy volumes and payments from the non-subsidized to subsidized households. A temporary ban on the verification of the allocation and payment of the utility subsidies, which was introduced during the Covid-19 pandemic, has aggravated the risks of potential volume manipulations and corruption.

The most common manipulations, facilitated by the current PSOs and subsidy regimes, are based on the sale of energy to the so-called "dead souls" (see Kirovogradgaz case above). In order to implement the scheme, regional gas distribution companies, oblgazes, insert fictional addresses into their billing systems. As a result, distribution companies sell energy to non-existent people, and such fictitious households receive subsidies. The embezzled money enrich political elites who resell the unused energy services to industrial consumers at higher prices.

In 2016, Naftogaz identified several cases when "regional gas suppliers have threatened recipients of subsidies with the cancellation of subsidies if these consumers do not increase their consumption (or report higher consumption)". According to the Naftogaz report, the regional energy distributors also manipulate the volumes of factual consumptions. Some final users, non-recipient of subsidies, receive cash kickbacks for reporting lower gas or electricity consumption. This allows to reallocate the consumed services to the subsidized households and to increase the amount of state aids. At the end, the regional gas supplying companies, in addition to receiving state subsidies, also receive cash payments from the non-subsidised consumers. However, there was no hard evidence of such cases, and no official investigation has been launched by the relevant law enforcement bodies.¹⁰⁶

Commercial gas metering and related issues

Another long-discussed issue on the natural gas market is incomplete commercial metering of gas consumed by households. According to the Ministry of Energy, as of the beginning of 2020, 1.13 million consumers did not have any gas metering devices, while 2.25 million consumers did not possess individual gas meters. The Law "On Ensuring Commercial Metering of Natural Gas" provides that distribution system operators are the entities responsible for gas meters installation as well as for financing it, while the Regulator performs oversight and controlling functions in this regard. Failure to fulfil these obligations by DSOs is punishable by the fine of 425 thousand UAH. However, even the financial sanctions didn't prevent the need to postpone the date of ensuring full commercial metering of households to January 2023. Among the reasons for this failure is the incomplete implementation of DSOs investment programs

¹⁰⁵ Ministry of Finance (2021), Answers to the OECD/ACN Questionnaire.

¹⁰⁶ Naftogaz Research (2017), Retail gas supply under PSO act: manipulations with volumes and subsidies by RSCs, Naftogaz Group, https://www.naftogaz.com/files/Information/170926 Report re RSCs v2-pdf ENG.pdf

¹⁰⁷ Ministry of Energy of Ukraine (2020), *Appendix to Explanatory note to the Draft Law amending The Law of Ukraine on Ensuring commercial metering of natural gas* (http://mpe.kmu.gov.ua/minugol/control/publish/article?art_id=245481542).

¹⁰⁸Law of Ukraine №3533-VI in the version dated 24 July 2021, (https://zakon.rada.gov.ua/laws/show/3533-17#Text).

¹⁰⁹ Law of Ukraine №1338-IX dated 05 March 2021 (https://zakon.rada.gov.ua/laws/show/1338-20#n12).

which is so far the only viable source of financing this campaign. As a result, according to the Regulator, 141 000 gas meters were not installed. Another controversial aspect regarding the commercial metering of natural gas was the possibility to install single metering devices for multi-apartment buildings. As a result, many consumers, who paid for providing individual gas metering (as respective costs were included in distribution tariffs), were installed only one gas meter for each multi-apartment building or group of houses. Such a decision was motivated by the government's unwillingness to increase the distribution tariffs but also contained a corruption risk, as aggregate gas consumption figures, provided by single multi-apartment gas meters, are easier to manipulate than in the case of fully individual gas metering.

Moreover, the group of consumers without any gas metering devices has to pay for natural gas in accordance with consumption standards set by the Cabinet of Ministers. First, there is a difference of opinions as to which consumption standards are currently in force, as these standards are provided for by a number of the Cabinet of Ministers decrees, many of which (including the most recent one) were successfully challenged by DSOs in court¹¹². Second, the sole fact that over 1 million consumers pay for gas based on 'standards' rather than actual consumption volumes gives room for manipulation and unlawful enrichment.

Calculations used to set these standards are also subject to debate and different interpretations: DSOs consider current consumption standards underestimated, 113 while representatives of Naftogaz assume they can be even lower. 114 In any case, the sole fact of the existence of gas consumption standards bears corruption risks, as such standards can be easily made subject to dramatic changes in favour of some market players or political appropriateness to appease the electorate. Ensuring full commercial metering is important for eradicating any potential or actual manipulations with gas consumption volumes.

But even those households equipped with metering devices are not fully safe from manipulations with consumption figures. Some of the meters are not capable of recalculating gas volumes subject to standard conditions (20°C and 766 mmHg under Ukrainian law), making measurement subject to adjustment, especially meters which are located outside the building. The practice of DSOs was to apply coefficients for the approximation of measurements to standard conditions. Coefficients' rates are defined by the respective Order of the Ministry of Environment¹¹⁵ and differentiated in accordance to the month and region as well as the location of the metering device (in- or outside the building). The differences between the volumes of gas before and after the approximation are considered to be technological losses of gas¹¹⁶ that are covered by the distribution tariffs.¹¹⁷ However, some DSOs and affiliated suppliers started to include the losses related to these coefficients in gas bills as separate volumes of consumption, thus making households pay twice. Coefficients even applied to those consumers who have gas meters capable of adjusting gas volumes to standard conditions.¹¹⁸ Consumers decided to challenge such accruals in

¹¹⁰ Ministry of Energy of Ukraine (2020), Regulatory impact analysis to the Draft Law amending The Law of Ukraine on Ensuring commercial metering of natural gas (https://mpe.kmu.gov.ua/minugol/doccatalog/document?id=245481504).

¹¹¹ Ukrainian Energy ua-energy.org (2020), Who against meters? (https://ua-energy.org/uk/posts/khto-proty-lichylnykiv).

¹¹² Kosatka.Media(2020), *Gas consumption standards: why we will pay more* (https://kosatka.media/uk/category/blog/news/normy-potrebleniya-gaza-pochemu-nado-budet-platit-bolshe).

¹¹³ Natural gas markets Association of Ukraine(2020), *Statement* (http://agru.org.ua/mat/doc/%D0%97%D0%B0%D1%8F%D0%B2%D0%B0%20%D0%90%D0%93%D0%A0%D0%A3%20(%D0%BD%D0%BE) E%D1%80%D0%BC%D0%B8).pdf).

¹¹⁴ Ekonomichna Pravda (2020), If you don't have gas meters – pay more. (https://www.epravda.com.ua/columns/2020/06/5/661410/).

¹¹⁵ Decree of the Ministry of Energy №116 dated 26 February 2004 (https://zakon.rada.gov.ua/laws/show/z0346-04#Text).

Decree of National Energy and Utilities Regulatory Commission №2033 dated 6 November 2020 (https://zakon.rada.gov.ua/laws/show/v2033874-20#Text).

¹¹⁷ Decree of National Energy and Utilities Regulatory Commission №236 dated 25 February 2016 (https://zakon.rada.gov.ua/laws/show/z1434-16#Text).

¹¹⁸ Gazpravda (2021), How not to pay for temperature coefficient three times? (https://gazpravda.com.ua/novyny/yak-ne-splatyty-zatemperaturni-koefitsiienty-trychi).

court.¹¹⁹ A number of cases were brought before the Supreme Court, which has to decide whether the accruals are lawful and thus establish a general rule of handling similar cases. Even if the court recognizes that the 'temperature coefficients' can be applied to household consumers, there are still questions regarding the coefficient rates. There is evidence that DSOs apply coefficients higher than those provided for by the government regulation and do not take into account the location of metering devices.¹²⁰ Despite sanctions from the NEURC and the Antimonopoly Committee,¹²¹ DSOs are persistent in accruing the 'temperature coefficients', so the issue is still to be resolved by either regulatory or judicial means.

DSOs' compliance and unbundling

A critical problem of the retail natural gas market is the affiliation of distribution system operators and incumbent retail suppliers (gazzbuts), which used to be parts of integrated regional gas companies. Formally, in 2015 they became separate legal entities with separate staff, management, information systems. At the same time, in its 2019 Annual Implementation Report, 122 the Energy Community Secretariat pointed out that the functional unbundling of DSOs is yet to be completed. Besides, certain aspects of the DSOs unbundling are highly questionable, as compliance programs don't contain some important structural elements. According to the Energy Community Secretariat recommendations, 123 compliance programs should include referral to disciplinary action, which will be taken against staff violating the compliance rules (e.g., for disclosure of confidential information), while DSOs programs provide for vague 'personal responsibility'. In contrast, the TSO compliance program¹²⁴ regulates the issue of staff responsibility in greater detail, including possible sanctions such as disciplinary penalties or suspension in case of conflict of interest. Besides, soon after being hired, the TSO employee is obliged to sign a statement in which he or she commits to comply with the program. The other questionable issue is control over compliance implementation. The oversight function must be performed by a competent and independent plenipotentiary, who prepares an annual report on the compliance program implementation. However, for example, at Vinnytsiagaz, this function is carried out by the deputy chairman of the board for economic and financial issues125. Such double-hatting may conflict with considerations of the plenipotentiary's independence.

The Regulator, in its turn, controls DSOs compliance only superficially, seeking verification of the facts of compliance program adoption, plenipotentiary appointment as well as annual implementation report preparation (see example). Which actual measures are taken with respect to functional unbundling remains unclear. On the other hand, there is indirect evidence that suppliers and network operators still maintain ties, as the latter creates obstacles for consumers who want to switch a supplier. Thus, it was

¹¹⁹ Ukrainian Energy ua-energy.org (2020), *The case of taming temperature coefficients: the Supreme Court will put the full stop* (https://ua-energy.org/uk/posts/sprava-pro-pryborkannia-temperaturnykh-koefitsiientiv-verkhovnyi-sud-postavyt-krapku).

¹²⁰ Ukrinform (2020), *Accruals for adjusting gas to 'etalon': pay or mot to pay* (https://www.ukrinform.ua/rubric-economy/2868761-narahuvanna-za-privedenna-gazu-do-etalonu-platiti-ci-ne-platiti.html).

¹²¹Ukrinform (2020), *Firtash*'s oblgazes are fined. Oblgazes resist (https://www.ukrinform.ua/rubric-economy/2836643-oblgazi-firtasa-strafuut-strukturi-oligarha-prucautsa.html).

¹²² Energy Community (2019), Annual Implementation Report 2018/2019 (https://www.energy-community.org/dam/jcr:a915b89b-bf31-4d8b-9e63-4c47dfcd1479/EnC_IR2019.pdf).

¹²³Energy Community (2018), *Energy Community: functional unbundling toolbox* (https://www.energy-community.org/dam/jcr:91408079-c65b-48a5-be79-c5140f4537dd/REG_SCHOOL_ECS_toolbox_112018.pdf).

Gas Transmission Operator of Ukraine LLC (2020), Compliance Program of Gas Transmission Operator of Ukraine LLC (https://tsoua.com/wp-content/uploads/2021/01/Programa-vidpovidnosti-OGTSU-nakaz-1072-vid-30-12-2020-postanova-NKREKP-2679-vid-23-12-2020.pdf).

¹²⁵ Vinnytsiagaz JSC (2016), Compliance program of Vinnytsiagaz JSC (https://vn.dsoua.com/ua/files/12586/1).

¹²⁶ Act on the results of Chernihivhaz JSC dated 05 April 2021 (https://www.nerc.gov.ua/data/filearch/Catalog8/naftogas/2021/05.04.2021/Akt-191 05.04.2021 Chernigivgaz.pdf).

reported that DSOs conceal EIC-codes of consumers – information, which is essential for switching.¹²⁷ Some operators unexpectedly may find technical problems in gas equipment of consumers, who wanted to change the supplier or penalize them, accusing of gas meter interference.¹²⁸ These cases not only prove the incomplete unbundling of DSOs and suppliers but also hinder the retail market development.

DSOs' procurement of gas for covering technological losses

The procurement policies of DSOs also constituted a problem in the natural gas market. For a long time, the Regulator and the Antimonopoly Committee failed to oblige DSOs to purchase natural gas for production and technological losses on the Prozorro e-procurement system. This obligation is provided for in the Law on Public Procurement as well as in the Licensing Conditions for Performing Commercial Activity of Natural Gas Distribution. However, from 2015 until now, DSOs have been successfully avoiding their obligations. Initially, the operators ignored the clauses of the two acts by referring to their vague wording, which was confirmed by the Antimonopoly Committee. 129 After the respective amendments were made in September 2019, DSOs had to comply with the law and purchase gas using the Prozorro system. But they did so only formally: indeed, some DSO published procurement announcements, but none of them were successful due to the low prices that were proposed, as well as unfavourable terms of payment. According to them, the buyer (DSO) could pay for gas 120 days following the date of supply. 130 The persistent status quo in this issue perpetuated non-transparency of DSOs, who could buy gas for high prices from affiliated companies and then require higher distribution tariffs due to the inflated cost of gas for covering their losses. Nevertheless, this risk was largely eliminated by the recent legislative novel, which enabled TSO and DSOs to purchase gas for balancing purposes on commodity exchanges 131. All bids and price information related to sales on platforms like UEEX are freely available; thus the purchase of natural gas by DSOs can be effectively monitored, while the DSOs can choose between different products (including short-term standard ones).

2.1.2. Corruption risks factors in the gas sector

Debts owed to the gas TSO

A long-established issue of the natural gas market is the debts of distribution system operators and other market participants for negative imbalances (i.e. for gas withdrawn from the transmission system). Both previous and current transmission system operators have suffered significant financial damage resulting from accrued imbalances. Total debt to Ukrtransgaz JSC (TSO until 2020) for 2016-2019 imbalances is 43.6 billion UAH¹³². The corresponding figure for the current TSO - Gas TSO of Ukraine LLC - is 10 billion UAH (as of 4 June 2021).¹³³

The biggest share of these debts accounts for distribution system operators, ¹³⁴ who withdraw gas from the system to cover their production and technological losses. All costs related to such losses are to be covered

¹²⁷ Ukrinform, (2020) Why gas monopolies hide gas code from consumers (https://www.ukrinform.ua/rubric-economy/3134652-prihovani-gazovi-kodi-abo-ak-ne-vidpustiti-spozivaca-do-konkurenta.html).

¹²⁸ Ukrainian Energy ua-energy.org (2021), *Households – suppliers: between arbitrariness and understanding* (https://ua-energy.org/uk/posts/spozhyvachi-hazu-postachalnyky-mizh-svavilliam-i-porozuminniam)

Nashi Hroshi (2021), How state enables oblgazes to bypass Prozorro system (https://nashigroshi.org/2021/02/02/yak-derzhava-dopomahaie-oblhazam-obkhodyty-systemu-prozorro/).

¹³⁰ https://prozorro.gov.ua/tender/UA-2020-01-28-002324-b

¹³¹ Law of Ukraine №1021-IX dated 02.12.2021 (https://zakon.rada.gov.ua/laws/show/1021-20#Text

¹³² https://www.facebook.com/sergii.pereloma/posts/275871700725018).

Gas Transmission Operator of Ukraine LLC (2021), Oblgzes increased arrears owed to Operator of GTS of Ukraine (https://tsoua.com/news/oblgazy-zbilshyly-prostrokovanu-zaborgovanist-pered-operatorom-gts-ukrayiny/).

¹³⁴ Gas Transmission Operator of Ukraine LLC (2021), March 2021 results: situation with unsanctioned withdrawals of natural gas got out of

by distribution tariffs; therefore, reasons for the default on payments remain unclear. DSOs have constantly complained about low distribution tariffs, 135 claiming they did not cover all their costs. Besides, some negative imbalances of DSOs are not related to their production and technological losses but result from the unauthorized withdrawal of gas by district heating companies and other industrial consumers, who did not conclude gas supply contracts or did not make relevant nominations under existing contracts. 136 According to law, DSOs should terminate supply to such consumers, but given the social importance of district heating enterprises, they are reluctant to do so, as they may face social tensions and protests from local authorities. 137 Besides, district heating companies are protected from gas cut-off by the security of supply rules that define them as 'protected consumers' 138., The activity of heat producers is especially important in winter and termination of gas supply bears the risk of infrastructural collapse in Ukrainian cities.

Neither low distribution tariffs (which significantly increased in 2020 and in 2021) nor unauthorized withdrawal of gas by industrial consumers explain such a low level of payments for the negative imbalances by distribution operators. Thus, as of 29 May 2021, DSOs had paid only 1.3% of 1.5 billion UAH for the negative imbalances accumulated in February 2021. At the same time, 7 of 46 DSOs did not have any debts for imbalances to the TSO.¹³⁹ That raises the question of why some operators pay for negative imbalances in time while others accumulate arrears. Some market players and politicians, though, call for debt relief and write-off¹⁴⁰ and such intentions can be translated into reality, as the parliament has already adopted a law providing for covering part of debts on the gas market from the state budget¹⁴¹.

In addition, this problem also contains corruption risks, as the gas withdrawal for DSOs technological losses can be artificially inflated, and the gas is then subsequently used for commercial purposes. In April 2021, the Security Service of Ukraine revealed a scheme of gas theft from the transmission system conducted by Donetskoblgaz¹⁴². The DSO manipulated with figures of technological losses and, as a result, unlawfully obtained natural gas. The damage caused to the TSO is estimated at 650 million UAH.

Control of state-owned gas distribution networks

Among the problems with long-established preconditions is the issue of the ownership structure of gas distribution systems. The Ministry of Energy, as the entity responsible for circa 65% of distribution systems owned by the state, 143 still does not possess precise information regarding the property. However, government resolution No. 95 of 21 February 2017 provides for ensuring annual stocktaking of networks by the Ministry 144. The reason for such turmoil is the non-transparent transfer of state-owned distribution

control (https://tsoua.com/news/rezultaty-za-berezen-2021-sytuacziya-z-nesankczionovanymy-vidboramy-gazu-vyjshla-z-pid-kontrolyu/).

¹³⁵ Interfax (2020), Vinnytsiagaz's losses increased to 52 mln UAH due to low distribution tariffs (https://ua.interfax.com.ua/news/press-release/663354.html).

¹³⁶ Naftogaz JSC (2018), Yurii Vitrenko: Oblgazes doesn't want to find themselves dragged into complex political story, when they are forced to turn off gas to district heating enterprises (https://www.naftogaz.com/www/3/nakweb.nsf/0/6009969735142B87C22582C000287DCC?OpenDocument)

¹³⁷Grechka (2017), *In Kropyvnytskyi, people stormed the office of Kirovohradgaz JSC manager* (https://ftp.3polk.info/suspilstvo/41009-u-kropyvnytskomu-aktyvisty-shturmuvaly-kabinet-kerivnyka-kirovohradhazu-foto-video).

¹³⁸ Decree of the Ministry of Energy №686 dated 2 November 2015 (https://zakon.rada.gov.ua/laws/show/z1489-15#n36).

¹³⁹ Gas Transmission Operator of Ukraine LLC (2021), Oblgzes increased arrears owed to Operator of GTS of Ukraine (https://tsoua.com/news/oblgazy-zbilshyly-prostrokovanu-zaborgovanist-pered-operatorom-gts-ukrayiny/)/.

¹⁴⁰ Draft Law 3800-1 dated 17 July 2020 (https://zakon.rada.gov.ua/laws/show/1639-IX#Text).

¹⁴¹ Law of Ukraine 1639-IX dated 14 June 2021 (https://zakon.rada.gov.ua/laws/show/1639-20#Text)

¹⁴² Security Service of Ukraine (2021), *SSU blocked unauthorized withdrawal through Donetskoblgaz facilities* (https://ssu.gov.ua/novyny/sbu-zablokuvala-nesanktsionovanyi-vidbir-hazu-cherez-potuzhnosti-pat-donetskoblhaz).

National Energy and Utilities Regulatory Commission (2021), page 292 in 2020 NEURC Annual Report (https://www.nerc.gov.ua/data/filearch/Catalog3/Richnyi_zvit_NKREKP_2020.pdf).

¹⁴⁴ Decree of Cabinet of Ministry of Ukraine №95 dated 21 February 2017, (https://www.kmu.gov.ua/npas/249774993).

systems to the private DSOs in the 1990s and 2000s – not in terms of shares in respective companies which only operate distribution networks (unlike DSOs in electricity), but in terms of accounting the property. As a result, the state as the owner of gas distribution systems had not been receiving any income from DSOs for using these systems. Besides, public authorities failed to make DSOs provide necessary investment in grids, especially in the 2000s. 145146 Another consequence of such mis-administration is the situation when up-to-date data on the ownership structure of distribution networks is highly questionable. Thus, the data on state-owned pipelines administered by the Ministry of Energy does not completely correspond to the respective information of the Regulator. 147 Besides, the National Security and Defence Council of Ukraine already indicated the trend of 'decreasing' the length of the state-owned networks. According to the Council, the state 'lost' almost 17 thousand cubic meters of distribution networks in recent years. 148

Such a state of affairs bears at least two corruption risks. First, the lack of clarity on the ownership of distribution systems enables manipulations with data, which are important for calculating production and technical losses as well as costs related to them. By doing so, DSOs can manipulate the reasoning for increasing the distribution tariffs. Second, the length of state-owned networks as well as their depreciated value, is important for calculating a fee for the distribution system use, which is to be paid by DSOs according to contracts on the distribution system exploitation. Artificial underestimation of state-owned pipelines length, as well as their depreciated value, may result in lower payments to the state budget.

To resolve the problem, the National Security and Defence Council of Ukraine (through a presidential decree¹⁵⁰) initiated another round of distribution networks stocktaking with a simultaneous review of contracts on the distribution system exploitation between DSOs and the Ministry of Energy.

2.1.3. Corruption-related risks in the oil and oil products sector

Case of state-owned Ukrnafta

State capture is another way of realizing corruption schemes. The case of Ukrnafta is quite illustrative in this regard. 42% of the company is owned by companies related to an influential Ukrainian businessman, and formally, after the change of management in 2015¹⁵¹, these structures do not influence the decision-making process. However, there are grounds to assume that the businessman maintained control over the state enterprise. First, Ukrnafta auctions for selling oil and gas condensate are monopolized as companies participating in the auctions are affiliated with the abovementioned businessman. In 2015, as a result of five auctions, oil for 7.7 billion UAH was sold to fictitious companies, which did not have the financial capabilities to pay for it. The Kremenchuk refinery also participated in the bids but won none of them. ¹⁵² This case was investigated by the Antimonopoly Committee, which proved ties between these companies

¹⁴⁵ DiXiGroup (2017), Management of gas distribution networks: how to balance interests? (https://dixigroup.org/storage/files/2017-06-14/dsopages.pdf).

¹⁴⁶ Ukrainian Energy ua-energy.org (2017), *Embezzlement of regional gas distribution networks* (https://ua-energy.org/uk/posts/rozpyl-rehionalnykh-haovykh-merezh).

¹⁴⁷ Ukrainian Energy ua-energy.org (2021), *In search of owners of gas distribution networks* (https://ua-energy.org/uk/posts/v-poshukakh-vlasnykiv-hazovykh-merezh).

¹⁴⁸ Interfax (2021), *Ukraine lost* 17 thousand kilometers of gas distribution networks, which 'somehow' became private-owned (https://ua.interfax.com.ua/news/economic/758989.html).

¹⁴⁹ Model contracts of exploitation of gas distribution networks and parts thereof (https://zakon.rada.gov.ua/laws/file/text/53/f464880n69.doc).

¹⁵⁰ Decree of President of Ukraine №452/2021 dated 30 July 2021 (https://www.president.gov.ua/documents/4522021-40021)

¹⁵¹ Mind.UA (2019), New reality of Ukrnafta: what waits for company without Mark Rollins https://mind.ua/publications/20196703-novi-realiyi-ukrnafti-shcho-chekae-na-kompaniyu-bez-marka-rollinsa

¹⁵² Dzerkalo Tyzhnia, (2018), Check and firm mate (https://zn.ua/ukr/energy_market/shah-i-micniy-mat-295030_.html)

and the Privat group of companies related to the abovementioned businessman.¹⁵³ This case was further investigated by the NABU and, as of May 2020, only 600 million UAH of the 7.7 billion UAH was paid to Ukrnafta. The other episode scrutinized by the NABU was Ukrnafta's purchase of petroleum products for 6.5 billion UAH on disadvantageous terms. The money was paid in advance, while the dates of supply were postponed from the end of 2015 to the end of 2018.¹⁵⁴

Even after these resonant cases, oil sale auctions remain captive of one company's will. Ukrtatnafta, owned by structures of two influential Ukrainian businessmen, is the sole buyer of Ukrnafta oil and thus has the power of dictating the price and terms of supplying oil by simply ignoring auctions or manipulating rules for calculating the starting prices of an auction.¹⁵⁵

Schemes on the oil products market

The Ukrainian government often used tax exemptions as one of the forms of economic levers and incentives. During a long period of time, the tax exemptions for the transportation of oil and gas were geared to promoting imports of these products. However, due to the inconsistencies in legislation and the lack of control by tax authorities, they became a fertile field for oligarchs. Several high-level corruption schemes were possibly built on the misuse and fraud related to the tax-free import of oil and fuels.

¹⁵³ Dzerkalo Tyzhnia, (2018), Check and firm mate (https://zn.ua/ukr/energy_market/shah-i-micniy-mat-295030_.html)

¹⁵⁴ National Anti-Corruption Bureau of Ukraine (2020), *UAH 600 million was refunded to "Ukrnafta" due to the NABU investigations* (https://nabu.gov.ua/novyny/600-mln-grn-vidshkodovano-ukrnafti-zavdyaky-rozsliduvannyam-nabu).

¹⁵⁵ Oilpoint (2020) Ukrnafta's auctions: will Kolomoiskyi continue withdraw money from the company (https://oilpoint.com.ua/aukczioni-ukrnafti-chi-prodovzhit-kolomojskij-vivoditi-groshi-z-derzhkompani%D1%97/?lang=uk).

Box 2.1. Corruption risks related to the tax-free import of crude oil and fuels

The Law on Foreign Investment of 1992 established the tax exemption for the import of crude oil and fuels for the period of 10 years. In 2003, the law became invalid.

In 2004, the Kremenchuk Avtozavodsky District Court restored the benefits of the lapsed law only for a private company Livela, owned by the former MP. In 2010, based on the court decision, Livela transported up to 80% of the total imported oil products to Ukraine. Untaxed import allowed Livela to monopolise the market, which has caused the suspension of production by the national oil refineries. Only Ukrtatnafta (controlled by the PrivatGroup) continued to produce oil and, allegedly, used Livela as an intermediary to re-import its own refined oil.

In December 2010, the AMCU started an investigation and Livela ceased its imports. Only in December 2018, the department of financial investigations of the State Fiscal Service started a pre-trial investigation in relation to Livela's tax evasion.

A similar case, related to the interrupted transit, involves a private company VETEK, owned by a businessman from the close circle of one of the former Presidents of Ukraine. Allegedly, VETEK imported fuel to Ukraine on the transit conditions in order to avoid payment of the VAT and excise tax. Such fuel, imported from Belarus, Russia, Bulgaria, Romania and Greece, has never been re-exported and was stored on the tank farms in Ukraine. Based on fictitious contracts, VETEK resold the fuel on the internal market via the company "Gas-Ukraine 2009". The alleged financial loss from both schemes amounts to almost UAH 10 billion.

A corruption component is not obvious in the above-described cases. However, the involvement of the PEPs in these schemes and the fact that the law enforcement bodies do not properly investigate such allegations lead to believe that such tax-free import could not have gone unnoticed without a "green light" from the high-level officials.

Source: Ekonomichna Pravda (2010), Livela embezzled UAH 3 billion, https://www.epravda.com.ua/news/2010/12/15/262221/; Schemes (2017), The GPO does not investigate the activities of the company "Livela" on duty-free import of petroleum products, Radio Svoboda Schemes, https://www.radiosvoboda.org/a/news/28307309.html; Stopcor (2020), Does Kurchenko's business empire refute its criminal nature with criminal methods?, https://stopcor.org/byznes-ymperyya-kurchenko-oprovergaet-svoyu-ugolovnuyu-sushhnost-krymynaln%D1%8Bmy-metodamy/.

Nowadays, in the oil products sector, inefficient market oversight results in multibillion losses for the state budget. Different misuses aimed at tax avoidance occur at the different stages of the value chain. Particularly, the problem of illegal mini-refineries exists. According to technical documentations, such enterprises produce oil products that are not subject to the excise fee, e.g. solvents. ¹⁵⁶ In fact, the illegal facilities produce diesel and gasoline (although of low quality), thus must pay an excise fee. Technical characteristics of the end products are much lower than those of the Euro-5 standard, which means that, according to law, such fuel cannot be traded on the Ukrainian petroleum market. Nevertheless, the low

¹⁵⁶enkorr (2020), "Grey" schemes on white factory? (https://enkorr.ua/ru/publications/serye_shemy_na_belom_zavode/243872).

cost of illegal oil products made them popular among small retail stations. Experts have calculated that in 2020 the activity of illegal refineries resulted in total budget losses of 3.8 billion UAH.¹⁵⁷

Another commonplace scheme of producing petroleum products without paying the excise fee is related to the imports of components for increasing the octane number of fuels under the guise of solvents. Following the imports of these components, they are added to low-octane petroleum, thus obtaining the fuels at much lower cost. Importers have been successfully avoiding excise fees, as prior to the imports, the abovementioned components were mixed and supplied as products of the paint and lacquer industry. According to law, such components are subject to the excise duty only if imported separately. This legal loophole resulted in 1.2 billion UAH of budget losses in 1Q2021 only.¹⁵⁸

The main consumers of counterfeit fuels are illegal petroleum stations, which is another major lacuna in Ukraine's tax policy. Recent attempts of the government to deal with the problem did not succeed. At the beginning of 2020, control and law enforcement agencies initiated inspections of 4 000 stations, ¹⁵⁹ some of which were closed as a result. However, the 2020 tax inspection moratorium related to the quarantine ¹⁶⁰ measures resulted in a 'renaissance' of the illegal segment of the retail market as of 2021. ¹⁶¹ The introduction of the licensing regime for different types of activity in oil sector in July 2019 also did not preclude the increase in the number of illegal stations. ¹⁶² The main consequence of such a state of affairs is massive tax avoidance, as the illegal stations do not have officially employed workers, and they do not pay land taxes. ¹⁶³ Besides, there are different schemes of value-added and income tax avoidance, whose beneficiaries are not only the stations but also enterprises which buy fictitious documents confirming fuel purchase in order to lower the income tax ¹⁶⁴. Estimated budget losses resulting from the existence of illegal filling stations amounted to 15 billion UAH in 2020. ¹⁶⁵ In general, the problem of illegal petroleum production and trading is a consequence of a lack of political will,. Even though the government regularly declares "wars" against illegal oil stations and law enforcement agencies report on the hundreds of closed stations, the issue is not fully resolved. ¹⁶⁶ There is a wide perception among the experts that such stations

¹⁵⁷enkorr (2021), The losses of state budget from illegal schemes on oil products market will exceed UAH 20 bln on 2021 (https://enkorr.ua/ru/news/poteri gosbyudzheta ot nelegalnyh shem na rynke nefteproduktov v 2021 godu prevysyat 20 mlrd grn a-95/245617).

¹⁵⁸ Consulting Group A-95 (2021), Sergey Kuiun, director of A-95 Consulting Group: Sharp increase in solvent imports fosters craft production of oil products (https://consulting.a95.ua/press-center/2021/04/14/sergei-kuyn-direktor-konsaltingovoi-gruppy-a-95-rost-importa-bezakciznyhrastvoritelei-stimuliruet-k.html).

Ekonomicha Pravda (2020), Honcharuk reported on the results of fight against illegal stations (https://www.epravda.com.ua/news/2020/01/30/656482/)

LigaZakon (2020), The Parlaiment terminated moratorium on planned inspections of the business during quarantine https://biz.ligazakon.net/news/200099_rada-skasuvala-moratory-na-planov-perevrki-bznesu-pd-chas-karantinu

¹⁶¹Ekonomichna Pravda (2021), Renaissance of illegal stations: why Zelenskyi's authorities failed to deal with clandestine gas stations (https://www.epravda.com.ua/publications/2021/02/18/671147/).

¹⁶² enkorr (2020), Under cover of the license (https://enkorr.ua/ru/publications/pod_pokrovom_licenzii/242146).

¹⁶³ Ukrinform (2020), Illegal stations are supplanted from market: truth or PR, what are waiting for us? (https://www.ukrinform.ua/rubric-economy/2855003-z-rinku-azs-vitisnaut-nelegaliv-pravda-ci-pr-i-so-nam-vid-togo-bude.html).

¹⁶⁴ BiznesTsenzor (2021), The History of cheque or where do fuel taxes flow? (https://biz.censor.net/columns/3258601/istoriya_odnogo_cheka_ili_kuda_utekayut_toplivnye_nalogi).

¹⁶⁵enkorr (2021), The losses of state budget from illegal schemes on oil products market will exceed UAH 20 bln on 2021 https://enkorr.ua/ru/news/poteri_gosbyudzheta_ot_nelegalnyh_shem_na_rynke_nefteproduktov_v_2021_godu_prevysyat_20_mlrd_grn_a-95/245617

¹⁶⁶ Ukrinform, The government plans to increase liability for opening the illegal gas stations, https://www.ukrinform.ua/rubric-economy/2576389-urad-planue-pidvisenna-vidpovidalnosti-za-vidkritta-nelegalnih-azs.html

wouldn't be so resilient without 'help' from local authorities. Allegedly, in many cases, their activity is covered up by the law enforcement agencies and local authorities, who also benefit from the scheme. 168

2.1.4. Corruption risks factors in the oil and oil products sector

A major corruption risk factor is Ukrtatnanfta's persistent refusal to report on the volumes of production. Ukrtatnafta is the operator of the Kremenchuk oil refinery, which is the biggest in Ukraine. 56% of the company's shares belong to the offshore structures affiliated to two Ukrainian businessmen. Ukrtatnafta, considering itself to be the only oil refinery enterprise in Ukraine, refers to the confidentiality of data regarding its production performance and capacities. According to the Law on State Statistics, 169 a company, having a monopoly position in a particular field of economy, may not report on its production figures, as they can be easily derived from aggregated figures published by the State Statistics Service of Ukraine and that can be equated to the disclosure of confidential commercial information(i.e. information, disclosure of which may be used by its rivals and affect company's commercial interests). Nevertheless, such provisions conflict with the fact that the Kremenchuk refinery is not the only enterprise of that type in Ukraine as there also is the Shebelynka gas processing plant and other smaller facilities. 170 Such lack of transparency is an obstacle to the petroleum market analysis as there are no official data on domestic production, which in 2020 was estimated to account for 48.2% of the petroleum market 171 and 15.3% of the diesel segment.¹⁷² Domestic producers do not possess absolute market power, but in times of deficit, their performance can influence the prices. Moreover, the absence of precise information on production by the Kremenchuk refinery enables the latter to manipulate excise duty payments.

2.1.5. Conclusions and recommendations

Overall, the corruption risks in the Ukrainian oil and gas sector can be explained by the complex interplay of the prerequisites: lack of political will, lack of transparency, lack of capacity and resources of state authorities.

Lack of political will. Many reforms and novelties in the sector may conflict with the interests of longestablished market players, who have political influence. Thus, full commercial metering of gas consumption significantly hinders manipulations with consumption figures and excludes possibilities for potential enrichment of incumbent suppliers/DSOs. Besides, the traditional protectionism with respect to households may prevent the government from reversing some policies containing corruption risks (the price intervention)

Particular schemes may result from a lack of capacities and resources of state authorities. Solving the issue of the gas distribution systems ownership requires full stocktaking and audit of the property, which includes almost 300 000 km of networks. The capability of the Ministry of Energy to ensure this is open to debate. Functional unbundling of DSOs and affiliated gas suppliers remains an issue in the Regulator's

¹⁶⁷ Volyn24 (2018), Without protectionism of the local authorities, illegal oil stations would not exist, https://www.volyn24.com/news/99814-bez-kryshuvannia-miscevoi-vlady-nelegalni-zapravky-isnuvaty-ne-mozhut-ekspert-video

¹⁶⁸ Херсонці (2019), Паливно-прокурорська мафія по-херсонськи (https://khersonci.com.ua/politics/41182-palivno-prokurorska-mafiya-po-khersonski-2.html)

¹⁶⁹ Law of Ukraine № 2614-XII in version dated 19 April 2014 (https://zakon.rada.gov.ua/laws/show/2614-12#Text)/.

¹⁷⁰ BiznesTsenzor (2018): Mysteries of Kremenchuk oil refinery: Why does Kolomoiskyi's company hide information? (https://biz.censor.net/resonance/3075515/tamnits_kremenchutskogo_npz_chomu_kompanya_kolomoyiskogo_hova_nformatsyu).

¹⁷¹ Consulting Group A-95 (2021), *Ukrainian gasoline market again reached 2 million tonnes* https://consulting.a95.ua/press-center/2021/01/18/ukrainskii-rynok-benzinov-vnov-vyshel-na-otmetku-2-mln-t-a-95.html

¹⁷² Consulting Group A-95 (2021), *Diesel market updated the record in 2020* https://consulting.a95.ua/press-center/2021/01/14/rynok-diztopliva-v-2020-g-obnovil-rekord-a-95.html

activity, which oversees only the general aspects of unbundling, while specific functional indicators (like access to consumers data) require more attention.

Lack of transparency. The absence of basic data regarding the sector (production of oil products, consumption of gas detailed by consumers, property status of gas distribution systems) hinders the development of the market and also conceals corruption risks.

Recommendations:

- Clearly and indiscriminately define the category of 'vulnerable consumers', with the view to making
 instruments of their protection more targeted, rational and transparent.
- Develop a procedure for the establishment and functioning of the Unified register of energy resources consumers, with depersonalized data on gas consumption both by suppliers and consumers and ensure effective verification of such data.
- Ensure the installation of reliable gas metering system to prevent volume manipulations of the consumed gas and related corruption risks.
- Consider adopting the Procedure for developing, submitting, and adopting compliance programs of gas DSO with a mandatory reporting to the Regulator on the progress of the implementation.
- Ensure that the distribution tariffs cover all relevant costs, including technological losses.
- Monitor actual procurements of the natural gas by DSOs and compare them with market indicators.
- Ensure that the stocktaking and certification of gas distribution systems are performed, providing comprehensive and definite data on ownership status of the assets.
- Ensure that information on state-owned distribution systems is exchanged among all relevant state institutions, including Ministry of Energy, National Energy and Utilities Regulatory Commission and State Property Fund with the view of verifying it.
- To avoid the risk of capture of the commercial activity of Ukrnafta, ensure that sales by Ukrnafta
 proceed in competitive circumstances and are open to as many different potential buyers as
 possible.
- Strengthen control over licensees producing petroleum products and exercising retail sale of fuel, including the inspection of their operation with the view to detecting products subject to the excise fees.

2.2. Nuclear power

Nuclear power is the source of more than half of the electricity produced in Ukraine. The state enterprise "Energoatom" is the sole operator of nuclear power plants. The absence of private business groups in nuclear energy production seemingly limits risks associated with the capture of sector governance. Nevertheless, corruption risks in this area remain significant, especially since they directly affect the security of electricity supply and the energy independence of Ukraine. "Energoatom" introduced transparency and anti-corruption compliance measures that could, *prima facie*, serve as a good practice example among Ukrainian SOEs. On the other hand, serious proven, alleged or suspected corruption incidents have also taken place in this sub-sector to the extent that the effectiveness of the implemented anti-corruption measures becomes questionable. Past incidents serve as indications of risks that exist currently and are expected to persist at least to some extent in the future. In this regard, the track record of "Energoatom" represents a reason for concern.

2.2.1. Corruption risks

Most of the known episodes of corruption in the sub-sector of nuclear power are related to public procurement. These risks are generally not specific to the area of nuclear power. Although the sub-sector has many specific characteristics, the kinds of suspected or proven corruption incidents often are such that occur in many parts of the energy sector and the public sector at large.

Many corruption schemes are complex and involve a combination of different forms of abuse, different kinds of criminal offences and different means of coverup. The below categorisation of corruption incidents and corresponding risks highlights particular aspects of corrupt conduct. In reality, most of the complex cases combine several such aspects. Some of the episodes described below are recent; others started or took place entirely before the transformation of 2014. Even the older episodes remain relevant because such schemes of corruption could also occur presently and thus still represent real risks.

Kickbacks and embezzlement in procurement

Funds obtained through inflated prices in procurement can be used as kickbacks to bribe public officials or channel profits to other fixers of corrupt schemes. In 2015, the NABU started an investigation targeting a former high-level public official for receiving EUR 6.4 million in kickbacks from "Energoatom" for "arranging" contracts to supply equipment in 2008-12. After receiving funds from "Energoatom", the supplier allegedly transferred the kickbacks to a company registered in Panama and owned by the former official. The NABU detected further episodes of theft from "Energoatom" through inflated procurement prices and alleged kickbacks concealed as payments in the total amount of EUR 4,65 million to foreign-based companies for consulting services in 2012-16.

In 2021, the NABU completed an investigation of a scheme of embezzlement that caused losses in the total amount of UAH 27 million at the Yuzhnoukrainsk nuclear power plant (a part of "Energoatom"). The scheme involved public procurement at prices inflated 18-34 times.¹⁷⁵ Another episode of procurement-related embezzlement at the Yuzhnoukrainsk plant resulted in the loss of UAH 12.3 million. In this episode, in 2011-12, an official is suspected of contributing to the victory of two commercial firms in a tender for the purchase of industrial air conditioning systems.¹⁷⁶ Since all of these episodes took place at the same SOE, they point towards the systemic nature of procurement corruption there.

Purchases through intermediaries

Participation of intermediary companies in the supply chain can be fully justified for legitimate business purposes, but it also represents a risk as a tool for stealing funds from state companies. In 2015, the media revealed that a former high-level public official had been allegedly siphoning money from nuclear fuel contracts using intermediary companies in Kazakhstan and Austria. The Security Service of Ukraine

¹⁷³ Al Jazeera (2021), "Could Ukraine's nuclear industry face another Chemobyl?", https://www.aljazeera.com/features/2021/4/26/does-ukraines-nuclear-industry-face-another-chemobyl.

See also: NABU (2018), Energoatom's case: investigation as of two more participants of the corruption scheme was completed, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/energoatoms-case-investigation-two-more-participants-corruption-scheme-was-completed.

¹⁷⁴ Solomianskyi District Court of Kyiv City, *Court decree No. 75185855*, 5 July 2018, https://youcontrol.com.ua/en/catalog/court-document/75185855/.

¹⁷⁵ NABU (2021), Embezzlement of UAH 27 million of Yuzhnoukrainsk NPP: indictment regarding one more person sent to court, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/embezzlement-uah-27-million-yuzhnoukrainsk-npp-indictment-regarding-one-more-person-sent.

¹⁷⁶ NABU (2021), *Embezzlement of UAH 27 million of Yuzhnoukrainsk NPP: new episode*, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/embezzlement-uah-27-million-yuzhnoukrainsk-npp-new-episode.

reportedly found evidence of corruption in the supply of uranium from the state uranium company "Eastern Mining and Processing Plant" (VostGOK) to "Energoatom" involving the intermediary companies causing a loss of USD 34 million to the state. 177 The NABU further found that "VostGOK" allegedly overpaid USD 17.28 million in 2014-16 in the procurement of uranium concentrate from a private intermediary company controlled by the public official. 178

Two intermediary companies registered in Germany and Estonia but having a joint office in Ukraine have allegedly colluded, and coordinated price offers for supplies of goods from the same Russian manufacturer. The intermediaries increased the prices of the Russian supplies on average threefold. The NABU has been assessing the possible involvement of officials of "Energoatom" in the organisation of the fraudulent tenders. This kind of abuse also appears systemic, and "Energoatom" apparently has no safeguards against abuse that utilizes intermediaries to distort purchasing.

Bribery associated with procurement

The element of bribery (provision and receipt of undue advantages) is one of the most widely found corruption risks and, as such, is present also in the sub-sector of nuclear energy. In July 2021, the NABU and the SAPO submitted to the court the indictment of two persons for the provision of an illegal benefit related to the construction of the centralized storage of used nuclear fuel of water-cooled reactors of power plants. A deputy general director of a separate department of "Energoatom" allegedly concluded a contract with a company controlled by a former member of parliament to build the storage. The contract was initially worth UAH 929 million and subsequently inflated to UAH 1.36 billion. In 2017-19, the official of "Energoatom" received three apartments in newly constructed buildings in Kyiv worth almost UAH 4.42 million. 180

Cartels in procurement

Prohibited agreements among suppliers with or without the knowledge and engagement of representatives of purchasing bodies are another means of manipulating procurement and stealing public funds. In 2020, the Security Service of Ukraine announced revealing the practice of two private companies that conspire to manipulate prices and eliminate competitors, thus considerably inflating the costs of works and services leding to ungrounded spending of UAH 26 million of state funds. In 2017-18, the companies won several public procurement tenders with the state enterprises "Chernobylska AES" and "Energoatom" for the construction of four nuclear objects in the Chernobyl zone. 181 The Anti-Monopoly Committee imposed fines in the total amount of UAH 117 million on the companies and disqualified them from participation in public procurement for three years. 182 From the point of view of purchasing entities, a key corruption risk is then

Nuclear Engineering International (2019), "Ukraine dismisses head of Energoatom reflecting political tensions' https://www.neimagazine.com/news/newsukraine-dismisses-head-of-energoatom-reflecting-political-tensions-7534772.

NABU (2017), NABU Detectives detained a former Member of Parliament, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/nabu-detectives-detained-former-member-parliament-updated.

¹⁷⁹ Тейзе, Е. (2020), "Оборудование для украинских АЭС: из России через Германию втридорога", *Deutsche Welle*, https://www.dw.com/ru/oborudovanie-dlja-ukrainskih-ajes-iz-rossii-cherez-germaniju-vtridoroga/a-55785686.

¹⁸⁰ NABU (2021), *Probe into unfinished nuclear fuel storage facility completed, files sent to court*, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/probe-unfinished-nuclear-fuel-storage-facility-completed-files-sent-court.

SSU (2020), SBU uncovers corporation "Ukrbud" on large-scale money laundering, Security Service of Ukraine, https://ssu.gov.ua/en/novyny/sbu-vykryla-korporatsiiu-ukrbud-na-milionnykh-oborudkakh-iz-derzhavnymy-koshtamy-pid-chas-budivnytstva-v-chornobylskii-zoni

¹⁸² AMKУ (2020), Викрито змову на будівельних роботах в Чорнобилі. Штраф - 117 млн грн, Антимонопольний комітет України, https://amcu.gov.ua/news/vikrito-zmovu-na-budivelnih-robotah-v-chomobili-shtraf-117-mln-grn.

collusion between their officials and agents on the one hand and the suppliers that engage in the prohibited agreements on the other hand.

Sales at deflated prices

"Energoatom" is also exposed to the risk of theft through sales of electricity at ungroundedly deflated prices. In 2021, the NABU reportedly carried out searches at "Energoatom" in relation to possible sales of electricity for prices below the market level in 2020, which allegedly caused losses of several billion UAH to the state enterprise while benefitting private companies. While sometimes sales at deflated prices can be just unsuccessful business or be intended to serve some legitimate commercial or social goal, they are also warning signs of intentional wrongdoing and corruption. During the on-site mission, interlocutors confirmed that deliberate sales at prices below the market level to certain buyers are a major corruption risk at "Energoatom".

Internal risks (without the direct involvement of outside parties)

As any company, SOEs in the area of nuclear power are also prone to risks of abuse, misappropriation, obstruction of controls, etc. committed by managers internally without outside parties. In July 2020, the director for preventing and countering corruption of "Energoatom" reported to the NACP and the Ministry of Energy (ME) a possible violation of the Law "On Prevention of Corruption" concerning allegedly illegal payment of bonuses for the second quarter of 2020 to two vice presidents of "Energoatom" in the total amount of UAH 530 000.¹⁸⁴ As a consequence, the individual who reported was dismissed. The management of "Energoatom" failed to gain the agreement of the NACP for the dismissal of the authorised person for anti-corruption matters and possibly violated the prohibition to dismiss or discipline a whistleblower who has reported possible facts of corruption.¹⁸⁵ The court ordered the reinstatement of the individual in July 2021 with the NACP acting as a third party in the case defending the rights of the whistleblower.¹⁸⁶ However, "Energoatom" dismissed him again immediately after the reinstatement. This episode attests not only to the risk of illegal internal actions of the management but also the possibly aggravated severity of the risk due to the vulnerability of the internal anti-corruption prevention system and the authorised person.

Other risk areas

The above description of corruption risks mostly focuses on state enterprises where most of the corruption incidents have taken place. However, many different corruption risks may affect also regulatory bodies

183 StateWatch (2021), "2020 рік "Енергоатом" завершив із чистим збитком 4,8 мільярди", https://statewatch.org.ua/publications/2020-rik-enerhoatom-zavershyv-iz-chystym-zbytkom-4-8-mil-iardy/.

Depo.ua (2021), "HAБУ проводить обшуки в oфici "Eнергоатома": Подробиці", https://www.depo.ua/ukr/politics/nabu-provodit-obshuki-v-ofisi-energoatoma-leros-202102101282953.

¹⁸⁴ Kalitenko, O. (2021), "The whistleblower who wasn't protected: the story of Oleh Polishchuk", Transparency International Ukraine, https://ti-ukraine.org/en/blogs/the-whistleblower-who-wasn-t-protected-the-story-of-oleh-polishchuk/.

Ризноокая, С. and Я. Маркин (2021), "Former anti-corruption director: Energoatom has a "conceptual" management regime. Part 1", Kosatka.Media, https://kosatka.media/en/category/blog/news/eks-direktor-po-protivodeystviyu-korrupcii-v-energoatome-deystvuet-ponyatiynyy-rezhim-upravleniya-ch1.

¹⁸⁵ НАЗК (2021), Голова НАЗК Олександр Новіков вніс припис КМУ для усунення порушень антикорупційного законодавства в діяльності "Енергоатому" та скасування незаконного наказу підприємства про звільнення викривача Олега Поліщука, Національне агентство з питань запобігання корупції, https://nazk.gov.ua/uk/novyny/golova-nazk-oleksandr-novikov-vnis-prypys-kmu-dlya-usunennya-porushen-antykoruptsijnogo-zakonodavstva-v-diyalnosti-energoatomu/.

186 НАЗК (2021), У справі за участю НАЗК суд зобов'язав "Енергоатом" поновити на посаді антикорупційного уповноваженого, якого звільнили за повідомлення про корупцію на підприємстві, Національне агентство з питань запобігання корупції, https://nazk.gov.ua/uk/novyny/u-spravi-za-uchastyu-nazk-sud-zobov-yazav-energoatom-ponovyty-na-posadi-antykoruptsijnogo-upovnovazhenogo-yakogo-zvilnyly-za-povidomlennya-pro-koruptsiyu-na-pidpryyemstvi/.

(notably the State Nuclear Regulatory Inspectorate – SNRI) and political authorities that make important decisions concerning the sub-sector of nuclear power. Based on international experience, corruption risks of regulatory bodies include but are not limited to:

- Individual instances of corruption and fraud in relations between operators, other entities and regulatory authorities;
- The capture of regulatory authorities by economic or political groups (a relatively recent prominent example was the Nuclear and Industrial Safety Agency of Japan and its role in relation to the disaster of Fukushima Power Plant in 2011);
- Conflicts of interest and partiality due to poorly regulated and managed rotation of personnel between regulatory authorities, operators and other entities involved in the nuclear energy sector.

2.2.2. Corruption risk factors

Policy and political environment

Due to the domination of state ownership (possibly also due to heightened safety concerns), the nuclear energy sub-sector has not been subject to the levels of competition for resources among so-called oligarchs and attempts to steer policy-making through influence on political institutions to the extent seen in certain other energy sub-sectors. However, the decisions of politicians have been, correctly or not, interpreted as expressions of undue influence and/or private economic interests.

Personal and business links between officials of nuclear enterprises and certain political figures (such as the former high-level public official involved in several episodes of corruption described above) have served as reasons for concern. There have also been episodes of antagonism between the enterprise and the political leadership. In 2019, the dismissal of the head of "Energoatom" was accompanied by a public exchange of accusations. The ME cited reasons such as inefficient management, suspicions of embezzlement and mismanagement of procurement, the use of defective products at nuclear plants, etc. On the other hand, the press service of "Energoatom" responded with claims that the minister was "pro-Russian" and showed "disdain" for the nuclear industry while the reproaches regarding the company management were "manipulative and false". 187

Political decisions or influence regarding big-value investments also increases risks related to political corruption or at least speculations in this regard. In 2019, a presidential decree called for building two long-discussed power units at the Khmelnytska nuclear power plant with the estimated cost of USD 2.5 billion. The issue gained controversy due to the (now apparently dropped) intent to award the contract to a company targeted by corruption investigations and controlled by Russians. Even though it can be debated what decisions need to be taken on the political level and what decisions on the levels of professional authorities or enterprises, the size, importance, and technological complexity of nuclear power in Ukraine mean that the political environment will always remain a source of certain risk to be managed but not eliminated.

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Nuclear Engineering International (2019), "Ukraine dismisses head of Energoatom reflecting political tensions", https://www.neimagazine.com/news/newsukraine-dismisses-head-of-energoatom-reflecting-political-tensions-7534772.

Digges, C. (2019), "Questionable Russian-owned company caught up in Ukrainian nuclear reactor deal", Bellona, https://bellona.org/news/nuclear-issues/2019-04-questionable-russian-owned-company-caught-up-in-ukrainian-nuclear-reactor-deal.

Economic context

"Energoatom" has been facing significant financial difficulties. The company finished the year 2020 with losses in the amount of UAH 4.8 billion. 189 "Energoatom" has been affected by non-payment for the electricity it supplied. According to the company, as of March 2021, the Guaranteed Buyer (GB) owed it more than UAH 6.5 billion. 190 "Energoatom" sown accounts have been frozen several times due to debts. 191 The latest such episode has been developing in 2021, i.e. the accounts were sequestrated under enforcement proceedings of the State Enforcement Service for a claim amounting to UAH 127.3 million in favour of the Ukraine-U.S. Joint Venture "Ukrelektrovat". 192

"Energoatom" is subject to an obligation to sell a major part of its electricity at limited regulated prices under the PSO mechanism. As found by OECD, as of 2019, Ukraine "continued to control electricity costs by maintaining price caps, as well as public service obligations for nuclear and hydro producers to supply electricity at lower rates for residential consumers. However, price controls have contributed to market distortions within the electricity sector, which may hinder the prospects for market development." The previous PSO obliged "Energoatom" to sell about 50-55% of the produced electricity at a price between 1-15 kopecks / kWh. The imposed tariff for electricity from nuclear power was lower than from other power sources and did not cover all costs and negative externalities such as the cost of managing radioactive waste and spent fuel. A new financial PSO system adopted by the Cabinet of Ministers came into force on 1 October 2021. A ccording to the new regulations, "Energoatom" sells all produced electricity in the free market. From 40% to 50% of the received funds, "Energoatom" will pay to the GB to ensure the availability of electricity for household consumers and compensate the price difference between different categories of consumers.

Conditions that the difference between residential tariffs and the market price shall be offset by revenue earned directly impact the overall financial performance of the company. Unless the payments due to the PSO are clearly quantified and imposed in a well-planned and grounded manner, they could hamper objective measuring of the performance of "Energoatom" and its management. One risk factor associated with the PSO is opportunities to justify suboptimal overall financial performance and conceal inefficiencies by exaggerated claims that it is entirely or mostly due to costs related to public policy objectives.

https://zakon.rada.gov.ua/laws/show/483-2019-%D0%BF#Text.

Energoatom (2021), New PSO mechanism commenced enabling to reduce electricity cost for almost 80% of household consumers, http://www.energoatom.com.ua/en/press center-19/company-

20/p/new pso mechanism commenced enabling to reduce electricity cost for almost 80 of household consumers-48167.

¹⁸⁹ StateWatch (2021), "2020 рік "Енергоатом" завершив із чистим збитком 4,8 мільярди", https://statewatch.org.ua/publications/2020-rik-enerhoatom-zavershyv-iz-chystym-zbytkom-4-8-mil-iardy/.

¹⁹⁰ Energoatom (2021), *Energoatom keeps winning cases concerning debt owed by Guaranteed Buyer to the Company*, http://energoatom.com.ua/en/press center-19/company-

^{20/}p/energoatom_keeps_winning_cases_concerning_debt_owed_by_guaranteed_buyer_to_the_company-46861.

Nuclear Engineering International (2016), "Continued Ukraine-Russia tensions over fuel", https://www.neimagazine.com/news/newscontinued-ukraine-russia-tensions-over-fuel-4915829.

¹⁹² Energoatom (2021), Address of Atomic Trade Union of Ukraine, http://energoatom.com.ua/en/press_center-19/company-20/p/address_of_atomic_trade_union_of_ukraine-48255.

¹⁹³ OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

¹⁹⁴ Zaika, O. (2021), "Ukraine's nuclear impasse", Heinrich-Böll-Stiftung, https://eu.boell.org/en/2021/04/26/ukraines-nuclear-impasse.

¹⁹⁵ Regulation of the Cabinet of Ministers of Ukraine No. 483 "On approval of the imposition of special duties on the electricity market participants to ensure the Public Service Obligation in the electricity market operation", 5 June 2019,

¹⁹⁶ Власенко, Ю. (2021), "Ринок електроенергії: і вовки ситі, і вівці цілі", *Економічна правда*, https://www.epravda.com.ua/columns/2021/10/1/678326/.

Possibilities to conceal or falsely explain away inefficiencies in turn create opportunities to cover up losses due to corruption.

Factors affecting procurement

Since procurement is associated with the gravest corruption risks in the nuclear-energy sub-sector, the market situation, rules and practices of procurement are major risk factors. The market of supplies for nuclear power plants has an oligopolistic character. Competition is limited due to the small number of potential suppliers of nuclear fuel, equipment for power units, etc. ¹⁹⁷ During the on-site mission, interlocutors also alleged that at least in some instances, the management of "Energoatom" has obstructed efforts to encourage competition among suppliers. Limited competition makes it unclear if and to what extent price inflation or irregularity is due to objective market conditions, accidental failures in negotiations, or manipulations on the part of individual companies. Restrictions regarding certain suppliers from Russia justified in the context of the geopolitical context of Ukraine further limit competition and create incentives to devise cover-up schemes.

"Energoatom" has failed to observe best practices in procurement. The enterprise has engaged dubious firms as suppliers that do not possess the necessary experience and expertise. 198 National inspections have been allegedly insufficient to prevent "Energoatom" from contracting companies with an appropriate record of successful accomplishment. There is no blacklist of companies to be banned from bidding in public procurement and no screening of potential bidders to ensure a stable, high-quality and secure product or service supply that is essential in the nuclear power sub-sector. The intent to choose a nominally European company for the project of constructing a reactor at the Khmelnytska plant regardless of the facts that the company has been targeted by corruption investigation of the NABU 199 and its choice could contribute to sustaining the dependence of Ukraine's energy sector on Russia was an example of a questionable appreciation of risks. Dependence on certain suppliers from the Russian Federation also possibly complicates due diligence. The circumstances are generally favourable for the development and persistence of narrow, clandestine but powerful corruption networks among individuals and companies involved in supplies of goods, works and services for the nuclear energy sub-sector.

State regulatory functions

The SNRI shall, *inter alia*, implement the state policy and ensure regulation in the area of safety of nuclear energy. In the past, the insufficient independence of the SNRI from "Energoatom" was a concern. Reportedly, earlier, if the operator could not meet certain standards or deadlines, its managers could simply inform the regulator thereof.²⁰⁰ In 2020, Ukraine amended the law to re-establish the independence of the SNRI and comply with international standards, including agreements with the European Union.²⁰¹

¹⁹⁷ Наші гроші (2021), "AMKУ та РНБОУ підіграли встановленню монополії однієї російської компанії в "Енергоатомі", https://nashigroshi.org/2021/06/10/amku-ta-rnbou-pidihraly-vstanovlenniu-monopolii-odniiei-rosiys-koi-kompanii-v-enerhoatomi/.

Wood, T. (2017), "Ukrainian corruption casts a nuclear pall over all of Europe", *The Washington Tlmes*, https://www.washingtontimes.com/news/2017/mar/30/ukrainian-corruption-casts-nuclear-pall-over-all-e/.

Digges, C. (2019), "Questionable Russian-owned company caught up in Ukrainian nuclear reactor deal", Bellona, https://bellona.org/news/nuclear-issues/2019-04-questionable-russian-owned-company-caught-up-in-ukrainian-nuclear-reactor-deal.

Wood, T. (2017), "Ukrainian corruption casts a nuclear pall over all of Europe", *The Washington Tlmes*, https://www.washingtontimes.com/news/2017/mar/30/ukrainian-corruption-casts-nuclear-pall-over-all-e/.

Nuclear Engineering International (2020), "Ukraine's president orders draft bill on development of nuclear energy", https://www.neimagazine.com/news/newsukraines-president-orders-draft-bill-on-development-of-nuclear-energy-8148257.

Adherence to standards in decisions to extend lifespans of nuclear power units²⁰² and feasibility studies on resuming the construction to complete units 3 and 4 of the Khmelnytska power plant have caused some safety-related controversies.²⁰³ On the other hand, the International Atomic Energy Agency made a favourable assessment regarding the lifespan extension of unit 3 at the Yuzhnoukrainsk nuclear power plant²⁰⁴.

This report does not aim to assess the adherence to safety standards and safety oversight in the nuclear sub-sector but notes that, in principle, cutting corners in safety compliance creates potential incentives and opportunities for gaining undue personal advantages. A common example would be tolerance of sub-standard supplies in procurement in cases of corrupt collusion between contracting bodies and suppliers. These are factors that relevant future corruption risk assessments should keep monitoring.

Governance of "Energoatom"

The SOE "Energoatom" owns and operates all of Ukraine's nuclear power plants. The Cabinet of Ministers holds the company on behalf of the state. It has been widely recognised that the ability of authorities to tackle vested interests and corruption schemes involving SOEs has been insufficient in Ukraine. "Energoatom" has neither a supervisory board nor a management board. Its leadership consists of the president and two vice-presidents. Besides regulatory powers, state governing bodies directly engage in oversight, exercise other ownership rights and undertake occasional management actions regarding SOEs, including the nuclear power plants.

Other aspects of concern include undue political influence on the management and activity of the SOEs, the lack of a transparent and impartial competitive procedure for the appointment and dismissal of the management and correspondingly biased appointments and dismissals in practice (especially relevant in view of the absence of the supervisory board of "Energoatom"), the lack of independence and inefficiency of corporate and financial controls (the Directorate of Control-Audit Work, Economic Security and Compliance Policy of "Energoatom" is directly subordinate to the president of the company, and it is the only logical possibility within the current governance structure), and insufficient transparency.

An example of political influence was the sale of electricity under the market price to a supplier of the Ukrainian railway in 2021. The total sale amounted to UAH 5.45 billion while the price per Mwh was almost twice below the market level. The reason for this sale was reportedly political to assist the railway, which finds itself in a dire financial situation.²⁰⁶ Even when not representing deliberate abuse, the practice of selling electricity in auctions at a discount relative to market prices, occasionally to companies affiliated with politically connected persons²⁰⁷, generally represents a significant corruption risk factor, if not always outright corruption.

²⁰² Al Jazeera (2021), "Could Ukraine's nuclear industry face another Chernobyl?", https://www.aljazeera.com/features/2021/4/26/does-ukraines-nuclear-industry-face-another-chernobyl.

Becker, O., K. Decker and G. Mraz (2021), NPP South Ukraine. Lifetime Extension EIA, Umweltbundesamt GmbH, https://www.umweltbundesamt.at/fileadmin/site/publikationen/rep0774.pdf.

²⁰³ Zaika, O. (2021), "Ukraine's nuclear impasse", Heinrich-Böll-Stiftung, https://eu.boell.org/en/2021/04/26/ukraines-nuclear-impasse.

²⁰⁴ IAEA (2018), *IAEA Concludes Long-Term Operational Safety Review at South Ukraine Nuclear Power Plant*, International Atomic Energy Agency, https://www.iaea.org/newscenter/pressreleases/iaea-concludes-long-term-operational-safety-review-at-south-ukraine-nuclear-power-plant.

²⁰⁵ OECD (2020), State-Owned Enterprise Reform in the Electricity Sector in Ukraine, https://www.oecd.org/corporate/SOE-Reform-Electricity-Sector-Ukraine-ENG.pdf.

²⁰⁶ Економічна правда (2021), "Енергоатом продав постачальнику УЗ великий обсяг електроенергії вдвічі дешевше ринку", https://www.epravda.com.ua/news/2021/09/30/678306/

²⁰⁷ OECD (2021), OECD review of the corporate governance of state-owned enterprises: Ukraine, https://www.oecd.org/corporate/SOE-Review-Ukraine.pdf.

Ukraine is obliged to corporatize SOEs under the EU-Ukraine Association Agreement. The ME has developed a draft law on the specifics of the corporatization of "Energoatom". After the adoption of the law, the corporate reform must be completed within nine months. The process would involve an external international audit of "Energoatom" and its transformation into a joint-stock company, 100% of the shares of which would be owned by the state. A supervisory board comprising experts in strategic management would monitor the effectiveness of the management. The reform promises to minimize the influence of the state, corrupt interests and the bureaucratic apparatus on the company.²⁰⁸

On another positive note, in the Company Transparency Index 2019, "Energoatom" held the fourth position.²⁰⁹ This serves as evidence that the enterprise has implemented some elements of good governance even if they have not to lead to a stable record of integrity.

Anti-corruption control environment

Both the external and internal anti-corruption control systems have not been performing adequately regarding "Energoatom". When the NACP initiated audit in August 2020, the acting president of the enterprise did not allow the NACP specialists to do it. Later the Cabinet of Ministers decided to conduct an official investigation, but, in October 2020, the Constitutional Court voided several of the NACP's powers, including the power to conduct inspections and ensure the protection of whistleblowers. This also led to the suspension of the investigation carried out by the ME. As of the time of this analysis, the management of "Energoatom" has not been held accountable for the dismissal of the authorised person in anti-corruption matters despite him being once reinstated based on a court decision. The governmental commission set up to investigate this matter did not find violations on the part of the management of the SOE.

The failure of "Energoatom" to carry out a corruption risk assessment in 2020 is additional evidence of deficiencies in the internal system.²¹² Up-to-date assessment of corruption risks is a prerequisite for effective internal anti-corruption control. It also appears that "Energoatom" has no effective system for detecting suspected illegal agreements among suppliers.

2.2.3. Conclusions and recommendations

"Energoatom" has its internal anti-corruption policy. Already back in 2015, its president reported that the company operated an online "trust box" for whistleblowing and carried out 53 official investigations in the first half of 2015. The investigations allegedly led to the prosecution of 48 individuals and the dismissal of

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Energoatom (2021), Creating national champion, https://www.energoatom.com.ua/en/press_center-19/company-20/p/creating_national_champion-47945.

²⁰⁹ Індекс прозорості компаній України 2019. https://cqpa.com.ua/wp-content/uploads/2020/10/Transp_index_2019_ua_full_web.pdf.

²¹⁰ Kalitenko, O. (2021), "The whistleblower who wasn't protected: the story of Oleh Polishchuk", Transparency International Ukraine, https://ti-ukraine.org/en/blogs/the-whistleblower-who-wasn-t-protected-the-story-of-oleh-polishchuk/.

See also: NACP (2020), Due to the CCU's decision, the NACP has to suspend the inspections of prevention of corruption in five Ukrainian state institutions, National Agency on Corruption Prevention, https://nazk.gov.ua/en/news/due-to-the-ccu-s-decision-the-inspections-of-prevention-of-corruption-in-the-state-agency-for-motor-roads-of-ukraine-ukravtodor-state-enterprise-national-nuclear-energy-generating-company-energoatom-a/.

²¹¹ StateWatch (2021), "Служебное расследование в отношении руководителя "Энергоатома" прекратили из-за решения КСУ", https://statewatch.org.ua/publications/sluzhbove-rozsliduvannia-shchodo-kerivnyka-enerhoatoma-prypynyly-cherez-rishennia-ksu/.

²¹² НАЗК (2021), Проведення Кабінетом Міністрів розслідування щодо т.в.о. президента "Енергоатому" — приклад підвищення стандартів захисту викривачів в Україні, Національне агентство з питань запобігання корупції, https://nazk.gov.ua/uk/novyny/provedennya-kabinetom-ministriv-rozsliduvannya-shhodo-t-v-o-prezydenta-energoatomu-pryklad-pidvyshhennya-standartiv-zahystu-vykryvachiv-v-ukrayini/.

four staff members, while information was passed on to law enforcement agencies on five occasions. ²¹³ In 2019, KPD Consulting in Ukraine concluded an external assessment of corruption risks at "Energoatom". Till February 2020, "Energoatom" published findings of internal investigations and verifications online. ²¹⁴ The president of "Energoatom" approved the latest anti-corruption program of the company in 2020. All these activities have proceeded in parallel with the detection of serious instances of corruption related to the activities of "Energoatom". The SNRI has had several anti-corruption documents, and in July 2021, an order was issued for the Commission of Corruption Risk Assessment to prepare the anti-corruption program of the SNRI for the period 2021-23. ²¹⁵

The fact that such activities do not necessarily eliminate serious corruption proves that at least some risk factors remain highly relevant. It appears that key driving forces of corruption in the nuclear energy subsector include:

- Failure to decouple the relevant state entities from vested interests of particular influential individuals and structures affiliated with them;
- Continuous tolerance towards incomplete legal, technical, safety compliance (corner-cutting), which is reinforced by adverse economic restraints;
- Insufficient guarantees of autonomy of "Energoatom" coupled with the lack of transparent, impartial
 and effective accountability mechanisms;
- Failure to corporatize "Energoatom" and bring its governance system fully up to international standards;
- Limitations of competition in the market of supplies of goods, works and services needed for the nuclear industry;
- Weaknesses in the national anti-corruption framework, specifically the suspension of certain powers of the NACP and failure to ensure effective whistleblower protection in practice.

Recommendations

- Corporatise "Energoatom" and implement corporate governance reforms in line with international best practices, including OECD Guidelines on Corporate Governance of State-Owned Enterprises and OECD Guidelines on Anti-Corruption and Integrity in State-Owned Enterprises.
- Ensure that all social obligations and objectives of "Energoatom" are clearly defined in a systematic manner, their costs calculated realistically and taken into account in performance appraisal of the company.
- Explore opportunities and take steps to strengthen competition in supplies for the nuclear energy sub-sector.
- Strengthen the policies and their implementation by "Energoatom" and other SOEs to detect signs
 of collusion between suppliers.
- Strengthen the implementation of due diligence regarding the suppliers of "Energoatom".
- Ensure that the anti-corruption / compliance functions within "Energoatom" are performed with due safeguards of autonomy.

²¹³ World Nuclear News (2015), "Energoatom chief recalls highs and lows of first half-year", https://www.world-nuclear-news.org/C-Energoatom-chief-recalls-highs-and-lows-of-first-half-year-12081501.html.

²¹⁴ Energoatom, "Результати розслідувань та перевірок", http://www.energoatom.com.ua/ua/komplaens-17/anticorruption-168/investigation-173.

²¹⁵ Державна інспекція ядерного регулювання України (2020), "Заходи Держатомрегулювання", https://snriu.gov.ua/pro-nas/zapobigannya-korupciyi/zahodi-derzhatomregulyuvannya

2.3. Coal energy

Virtually all major types of corruption risk factors are present in the sub-sector of coal energy, such as a high degree of state regulation, frequent regulatory, commercial and political interactions between public and private players, a significant role of state-owned enterprises with often sub-optimal standards of governance, a certain share of illegal economic activity, etc. The coal sub-sector is socially sensitive, particularly as a source of employment, while the economic efficiency of parts of the sub-sector is problematic. Hence it has been difficult to set clear market-based and economically grounded goals for the state activity in this area. Numerous proven, alleged or suspected incidents of corruption have taken place in the sub-sector, and, as with corruption in many areas, the known cases are likely to be just the tip of an iceberg. However, the cases serve as indications of existing and future risks.

2.3.1. Corruption risks

As in other sub-sectors, many of the known episodes of corruption are related to public procurement. On the surface, corruption in procurement manifests itself most visibly as inflated prices of goods, works and services purchased by state-owned coal enterprises. These risks are generally not specific to the area of coal energy. Although the coal sub-sector has many specific characteristics, the kinds of suspected or proven corruption often tend to be such that would be possible in many parts of the energy sector and the public sector at large. As in other chapters, the below categorisation of incidents and corresponding risks highlights specific aspects of corrupt conduct while in fact, most of the complex cases combine several of the elements.

Embezzlement in procurement

Procurement-related embezzlement can take many forms. One type of scheme is purchasing works, which are eventually carried out by the purchasing entity itself or another state-controlled entity, while the contractors are involved as intermediaries for siphoning part of the funds paid. Thus, in October 2020, the NABU announced the detection of a scheme to embezzle more than UAH 14 million allocated by the Cabinet of Ministers for preventing an emergency associated with flooding of mines. The procurement was based on a negotiated procedure. The state enterprise chose the general supplier, which thereafter engaged a subcontractor, which in turn engaged the employees of the concerned mine itself (part of the state enterprise) to implement the works. In fact, the state enterprise transferred UAH 33 million to its departments via two private intermediaries, which kept UAH 14 million thereof, while all the managers acted in a coordinated manner. Prices of certain materials were inflated almost twice, and a part of the works paid for was not implemented. The investigation established that the heads of the state enterprise and the private companies acted in the conspiracy.²¹⁶ In April 2021, the NABU announced the completion of the pre-trial investigation.²¹⁷ The management dismissed the responsible person at the state enterprise who reported and disclosed the scheme, thus showing weakness in the protection of persons responsible for anti-corruption matters appointed at legal entities.

²¹⁶ NABU (2020), 4 persons were given notices of suspicion of UAH 14.33 million funds embezzlement allocated on coal mines, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/4-persons-were-given-notices-suspicion-uah-1433-million-funds-embezzlement-allocated-coal.

²¹⁷ НАБУ (2021), *Злоупотребление служебным положением при ликвидации аварии на шахте: материалы открыто*, Національне антикорупційне бюро України, https://nabu.gov.ua/novyny/zlovzhyvannya-sluzhbovym-stanovyshchem-pid-chas-likvidaciyi-avariyi-na-shahti-materialy.

In the coal sub-sector, there have reportedly been hundreds of contracts concluded right below the threshold of publication in the ProZorro system to deliberately avoid public oversight.²¹⁸

Purchases through intermediaries

As in other sub-sectors, the participation of intermediary companies in the supply chain represents the risk of stealing funds. Corrupt involvement of intermediaries may represent not only separate incidents but be related to comprehensive collusion and systemic control over the purchasing entity. For example, in 2020, the NABU announced the detection of a scheme where in 2016-18, a group of individuals allegedly established control over public procurement by three state coal enterprises affecting the whole procurement cycle. In 69 procurement proceedings, contracts were concluded with the same supplier concerning different kinds of goods. The supplier functioned as an intermediary, and the scheme was set up so as to prevent the primary suppliers from co-operating with the state enterprises.²¹⁹

Payment for goods, works or services that were not provided

A further manifestation of fraud and corruption in procurement can be outright failure to provide the relevant goods, works or services while nevertheless receiving payment. An example of such a scheme is purchasing equipment, which shall be installed in a mine of a state-owned enterprise but is in fact transferred to a private mine. When subject to inspection, the acts are concealed with references to collapses, floods or fires that seemingly destroyed the equipment. For example, it has been reported that the head of one state enterprise allegedly helped certain companies to win a tender to supply mining equipment (arched supports), which were never supplied.²²⁰ Fake purchases of reparation works involve actual repairs done by the employees of the SOE itself, superficial repairs such as merely painting the equipment or no execution of the works at all. This kind of corruption risk appears exacerbated by the lack of oversight and sometimes the physical difficulties of verifying whether certain equipment has been installed or works performed in mines.

Sales of coal at deflated prices

According to information provided by the State Audit Service, the sale of coal at a price below the cost price is one of the most frequent violations in the energy sector. For example, in 2017, it was found that the state enterprise "Lisichans'kvuhill'a" sold coal considerably below the cost price in the amount of UAH 1.18 billion. Among other factors, the lack of control and inaction on the part of the Ministry of Energy (ME)²²¹ has been responsible for such sales.²²² From audit findings alone, it does not become obvious whether the loss-causing acts are due to deliberate abuse (corruption), negligence, or the realisation of certain other commercial risks. Criminal investigators detected intentional acts aimed to secure illegal

²¹⁸ Якушев, Р. (2021), "Миллионые хищения и "липовые" тендера - ставленник Ахметова Александр Коваль уничтожает "Добропольеуголь"", *АНТИКОР*, https://antikor.com.ua/articles/460670-millionye_hishchenija_i_lipovye_tendera_-—stavlennik_ahmetova_aleksandr_kovali_unichtohaet_dobropoljeugolj.

²¹⁹ NABU (2020), *NABU* exposed corrupt scheme of causing UAH 51 million damages to coal mining State Enterprises, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/en/novyny/nabu-exposed-corrupt-scheme-causing-uah-51-million-damages-coal-mining-state-enterprises.

²²⁰ Якушев, Р. (2021), "Миллионые хищения и "липовые" тендера - ставленник Ахметова Александр Коваль уничтожает "Добропольеуголь"", AHTИКОР, https://antikor.com.ua/articles/460670-millionye hishchenija i lipovye tendera-stavlennik ahmetova aleksandr kovalj unichtohaet dobropoljeugolj.

²²¹ Formerly the Ministry of Energy and Coal Industry.

²²² Рахункова палата (2019), Звіт про результати аудиту ефективності використання коштів державного бюджету, передбачених Міністерству енергетики та вугільної промисловості України на державну підтримку вугледобувних підприємств на часткове покриття витрат із собівартості готової товарної вугільної продукції, https://rp.gov.ua/upload-files/Activity/Collegium/2019/32-2 2019/Zvit 32-2 2019.pdf.

benefit for private entities in the case of the state-owned coal enterprise "Krasnolymans'ka" and its sale of coal below market prices to private intermediaries, which thereafter sold the coal at market prices to the state-controlled public joint-stock company (PJSC) "Centrenergo".²²³

Opportunities of corruption and embezzlement are generally as significant in sales operations as in procurement. If in procurement the losses are incurred through overpayment, in sales, the losses come from underearning. Purchases for SOEs at prices above the market level and selling goods or services produced by the SOEs at prices below the market level have generally been key schemes of corruption in Ukrainian state-owned enterprises.²²⁴

Influence on the regulator

Before the implementation of the new electricity market, the coal price was determined based on the methodology for determining tariffs for electric and thermal energy, which also set the maximum indicative value of coal for energy production approved by the National Energy and Utilities Regulatory Commission. . The coal selling price gave rise to the most serious suspicions of corruption in the coal sub-sector in the last years. The NABU investigated the abuse of the so-called Rotterdam+ formula in coal pricing, which was adopted in 2016 and cancelled in 2019. The formula envisaged pricing coal based on its average price in Rotterdam for 12 months plus the delivery cost to Ukraine. The methodology drew criticism due to its effects of the increasing price of electricity produced in coal and thermal plants, not considering the fact that coal of Ukraine and Russia was of lower quality than the coal sold in Rotterdam, and not considering that the delivery cost from Rotterdam was higher than the delivery cost from Eastern European countries. The NABU claimed that the DTEK managers colluded with the NEURC and manipulated tariffs on electricity generated from coal. It was suspected that a group of private companies in 2015 began pressuring the management of the NEURC to include in the tariff of electricity, produced by the thermal power plants of this group, non-existent costs, i.e. the costs of delivery and trans-shipment of thermal coal in Ukraine from ports in Europe.²²⁵ On the other hand, DTEK argued, inter alia, that the import parity was a price-setting mechanism recognised by the IMF and European countries.²²⁶ It was widely perceived that DTEK benefited from the pricing scheme,²²⁷ but in 2020 the SAPO partly closed the Rotterdam+ case.²²⁸ Notwithstanding the merits of the Rotterdam+ case, a corrupt influence on or even capture of the regulator remains an unavoidable risk, which could be mitigated but not eliminated.

Other risks

The State Audit Service has identified many different kinds of violations at state-owned coal enterprises, for example, overstepped limits on certain costs, ungrounded or unsubstantiated expenses, spending of

²²³ Supreme Anticorruption Court (2019), *Decision in the case No. 760/25017/19*, 9 September 2019, https://zakononline.com.ua/court-decisions/show/84154205.

НАБУ (2019), За позовом НАБУ суд анулював незаконну угоду з продажу 649 тис. тонн вугілля за заниженою ціною, Національне антикорупційне бюро України, https://nabu.gov.ua/novyny/za-pozovom-nabu-sud-anulyuvav-nezakonnu-ugodu-z-prodazhu-649-tys-tonn-vugillva-za-zanyzhenoyu.

²²⁴ OECD (2019), *State-Owned Enterprise Reform in the Hydrocarbons Sector in Ukraine*, https://www.oecd.org/daf/ca/SOE-Reform-in-the-Hydrocarbons-Sector-in-Ukraine-ENG.pdf.

²²⁵ НАБУ (2019), *"Роттердам+"*: 6 особам повідомлено про підозру, Національне антикорупційне бюро України, https://nabu.gov.ua/novyny/rotterdam-6-osobam-povidomleno-pro-pidozru.

OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

Antonenko, A, et al. (2018), "Reforming Ukraine's Energy Sector: Critical Unfinished Business", *Carnegie Europe*, https://carnegieeurope.eu/2018/02/06/reforming-ukraine-s-energy-sector-critical-unfinished-business-pub-75449.

Kossov, I. (2020), "ANTAC: New analysis concludes that Ukraine lost Hr 40 billion due to Rotterdam+", *Kyiv Post*, https://www.kyivpost.com/business/antac-new-analysis-concludes-that-ukraine-lost-hr-40-billion-due-to-rotterdam.html.

budgetary funds in deviance from the set purposes, failures to collect due payments, failures to claim payments associated with arrears of debtors, failures to oversee subsidiary companies appropriately, non-compliance with applicable regulations on the coal market, ungrounded writing off of assets, etc.²²⁹ Not every violation of legal procedure amounts to corruption, i.e. deliberate abuse for private gain. However, many kinds of violations may serve as the visible manifestations of possible corruption or so-called red flags.

Many different corruption risks may affect the regulatory bodies (the NEURC, the State Ecological Inspectorate, the State Service for Geology and Subsoil (SSGS), etc.) as well as political authorities that make important decisions concerning the sub-sector of coal energy. There are risks of pressure or even capture by economic or political groups, bribery, unresolved conflicts of interest, inadequately managed 'revolving doors' and others, all of which are common to regulatory bodies in most areas of economic significance.

2.3.2. Corruption risk factors

Policy and political environment

At the COP26 Climate Change Conference in Glasgow, Ukraine joined more than forty countries that have pledged to phase out coal burning in the coming decades to reduce the so-called greenhouse gas emissions and curb global climate change.²³⁰

The new Concept Document on Coal Sector Reforms is under discussion. According to the draft of the concept document, state-owned mines will be divided into three categories: mines belonging to the resource base of PJSC "Centrenergo", dual-purpose mines producing coal that can be used in energy production and metallurgy, and mines subject to privatization (not only as coal mining enterprises but also as integrated property complexes, in particular for the purpose of re-profiling).²³¹ In principle, a policy context that favours clear market-based development could gradually reduce certain corruption risks. The quality of the regulation has been subject to criticism due to several reasons, including a significant share of regulations that are legally questionable. According to the analysis published in 2019, every fifth regulatory act related to the coal market contained signs of illegalness.²³²

The political context of the coal sub-sector is affected by the presence of major private players who have had and continue having links with the political class. For professionals, shifting from private-sector positions to the public sector and back is generally a part of normal career development. However, in Ukraine, when public appointees and managers of SOEs are former employees of the largest private energy company or are only suspected of having acted favourably regarding the company, perceived links between it and the government sector give rise to perceptions of collusion. It is claimed that large private business entities influence the personnel formation of the Ministry of Energy, the NEURC and other public bodies.

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²²⁹ Document provided by the State Audit Service for this study: Реєстр проведених аудитів венергетичному секторі у 2017-2020 роках та І півріччя 2021 року.

²³⁰ Harvey, F., J. Ambrose and P. Greenfield (2021), "More than 40 countries agree to phase out coal-fired power", *The Guardian*, https://www.theguardian.com/environment/2021/nov/03/more-than-40-countries-agree-to-phase-out-coal-fired-power.

²³¹ Інтерфакс-Україна (2021), "Міненерго відкликало для перегляду концепцію реформування вугільної галузі", https://ua.interfax.com.ua/news/economic/731068.html.

²³² Зоркін, A. et al. (2019), Зелена книга регулювання ринку вугілля, BRDO Офіс ефективного регулювання, https://cdn.regulation.gov.ua/39/b6/11/ff/regulation.gov.ua/ %D0%97%D0%B5%D0%B8%D0%B5%D0%BD%D0%B0%20%D0%BA%D0%BD %D0%BB%D0%B8%D0%B8%D0%B0%D0%BD%D0%BD%D0%BD%D1%8F%D0%B8%D0%B8%D0%B8%D0%BB%D0%BD%D0%BD%D1%8F%D0%BB%D1%8B%D0%BB%D1%8B%D0%BB%D0%BB%D1%8F.pdf.

A further political aspect of the coal sub-sector is related to the social conditions of workers of mines. During the COVID-19 pandemic, several months of salary arrears accrued.²³³ However, crises concerning the compensation and social guarantees of miners have also occurred before. In this context, there have been pressures on the state, including through trade unions, to provide subsidies and retain unprofitable operations. Sometimes it has been difficult to distinguish between genuine advocacy for workers' rights and strategic lobbying for channelling budget funds, which could potentially be abused.²³⁴ Ukraine has generally seen political support from various groups for maintaining significant elements of the *status quo* regarding the state financial support for the coal industry as well as regarding maintained coal-powered electricity production.²³⁵

Economic context

The coal industry receives considerable state aid to cover costs of production in excess of the price of coal, subsidize refurbishment, reconstruction and upgrades, as well as compensate phase-out and decommissioning. The government protects the old business models and increases the amount of state dotation in this sub-sector while the volume of coal production reduces every year. The allocated money is supposed to cover the coal mines' debts and increase their production capacities. The support for the year 2021 was planned to be UAH 4.5 billion.²³⁶

The support has been associated with gross inefficiencies. The Chamber of Accounts of Ukraine has carried out several audits of the efficiency of the use of state budget funds provided by the Ministry of Energy for the restructuring of the coal industry. In 2017, the results of the audit showed that most of the allocated money was spent by the recipients of the state aid, not for its intended purposes or to implement some inefficient measures that did not help to strengthen the economic situation within the coal sector. ²³⁷ In 2017-18 and the first quarter of 2019, the ME did not ensure efficient and effective use of the budget means intended for the partial compensation of the losses. Performance indicators of the budget programs did not sufficiently reflect the achievement of goals. The distribution of allocations proceeded unsystematically and in the so-called manual or *ad hoc* regime. On the other hand, the enterprises themselves failed to maintain their financial assets and effectively collect payments from debtors. ²³⁸ The ineffectiveness of the state aid programs is mainly due to the lack of control by the Ministry of Energy over the use of the allocated funds. The on-site discussions revealed that the Ministry of Energy carries out planned inspections to verify the production and economic activities of the coal companies that are in its ownership, but accounting for the use of the state funds is not subject of such inspections.

Even though, on the surface, the state aid does not imply any corruption red flags, the anti-corruption analysis carried out by the NACP has identified the issue of providing illegal state aid as a high-risk area.

Probst, B. et al. (2021), *The economic implications of phasing out coal in Ukraine by 2030*, Aurora Energy Research, https://ua.boell.org/sites/default/files/2021-08/21-08_03_Economic%20implications%20of%20Ukrainian%20coal%20exit.pdf.

²³⁴ Молчанов, С. (2020), "Михаил Волынец и его профсоюзный бизнес", *Comments.ua*, https://comments.ua/digest/mihail-volynec-i-ego-profsoyuznyy-biznes-661838.html.

²³⁵ Kazanskyi, D. et al. (2017), *The real price of coal in Donbas: a human rights perspective*, East-Ukrainian Center for Civic Initiatives, https://www.boell.de/sites/default/files/real_price_of_coal_in_wartime_donbas_eng_summary.pdf?dimension1=division_osoe.

²³⁶ Українська енергетика (2020), "Уряд заклав 4,5 млрд грн на підтримку вугільної галузі в наступному році", https://ua-energy.org/uk/posts/uriad-zaklav-45-mlrd-hrn-na-pidtrymku-vuhilnoi-haluzi-v-nastupnomu-rotsi.

²³⁷ Accounting Chamber (2017), Report on the Results of the Audit of the Effectiveness of the Use of Funds From the State Budget Provided by the Ministry of Energy and Coal Industry of Ukraine for the Restructuring of the Coal Industry, Accounting Chamber of Ukraine, https://rp.gov.ua/upload-files/Activity/Collegium/2017/11-2 2017/zvit 11-2 2017.pdf

²³⁸ Рахункова палата (2019), Звіт про результати аудиту ефективності використання коштів державного бюджету, передбачених Міністерству енергетики та вугільної промисловості України на державну підтримку вугледобувних підприємств на часткове покриття витрат із собівартості готової товарної вугільної продукції, https://rp.gov.ua/upload-files/Activity/Collegium/2019/32-22019/Zvit 32-2 2019.pdf.

According to the NACP, a significant number of state authorities provide state aid, which does not comply with the Law "On the State Aid to Business Entities" and was declared illegal by the Antimonopoly Committee of Ukraine. In addition to the negative impact on competition, the allocation of such state aid might be the result of corrupt agreements²³⁹. The systematic failure to meet the financial plans set out in the concepts for restructuring the coal sector might be a sign of certain corrupt interests in the use of coal subsidies²⁴⁰.

Meanwhile, the share of state-owned coal enterprises has been decreasing. According to the Concept for Restructuring and Developing the Coal Industry over the Period to 2020 (decree of 24 May 2017), promising mines would be privatized or transferred to investors based on public-private partnerships. As of 2019, the state still dominated in the sector of coal beneficiation with eight operational coal beneficiation enterprises subordinated to the Ministry of Energy.²⁴¹

Losses and debts have been affecting not only the coal production itself but the whole cycle of coal-based electricity production. Coal amounted to 28% in the power generation mix in 2020.²⁴² By mid-2019, the state-owned wholesale buyer of electricity "Energorynok" had approx. UAH 32 billion in outstanding debt.²⁴³ In 2017, "Energorynok" owed, *inter alia*, UAH 1.2 billion to the state-controlled thermal power generator PJSC "Centrenergo". In autumn 2021, the management of "Centrenergo" blamed the debt of electricity consumers for the company's failure to purchase sufficient amounts of coal.²⁴⁴ State-owned coal producers have been subject to state demands to provide coal to state-owned power stations while, on the other hand, the coal producers themselves have often been late with their payments to "Energorynok".²⁴⁵

The endemic debt situation appears conducive for opportunities to explain away losses caused by inefficiencies or deliberate abuse. In such a context, it is hard, if not impossible, to establish and comply with meaningful benchmarks of efficiency. Moreover, deliberate accumulations of losses and debt and bringing enterprises to the verge of bankruptcy are known schemes to privatize the indebted enterprises inexpensively for the potential privatizers. Such suspicions have been raised regarding reasons for the poor financial situation of "Centrenergo". 246

Limitations of competition

The largest vertically integrated holding company DTEK is involved in various segments of the energy sector.²⁴⁷ In 2019, its share in coal production was 85%.²⁴⁸ This situation has caused competition-related

National Agency on Corruption Prevention (2020), Draft of the Anti-Corruption Strategy of Ukraine for 2020-2024, http://w1.c1.rada.gov.ua/pls/zweb2/webproc34?id=&pf3511=70007&pf35401=535606

²⁴⁰ DiXi Group (2020), Assessment of the Efficiency of Government's Expenditure for Restructuring the Coal Industry, https://dixigroup.org/wp-content/uploads/2021/02/dixi-coal-industry-web-2.pdf

²⁴¹ DiXi Group, "Coal processing", https://map.ua-energy.org/en/categories/elektroenerhiia/zbahachennia-vuhillia.

Probst, B. et al. (2021), *The economic implications of phasing out coal in Ukraine by 2030*, Aurora Energy Research, https://ua.boell.org/sites/default/files/2021-08/21-08_03_Economic%20implications%20of%20Ukrainian%20coal%20exit.pdf.

²⁴³ OECD (2020), State-Owned Enterprise Reform in the Electricity Sector in Ukraine, https://www.oecd.org/corporate/SOE-Reform-Electricity-Sector-Ukraine-ENG.pdf.

Matuszak, S. (2021), "Ukraine: energy problems on the eve of the heating season", Centre for Eastern Studies, https://www.osw.waw.pl/en/publikacje/analyses/2021-10-19/ukraine-energy-problems-eve-heating-season.

²⁴⁵ OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

²⁴⁶ Delo.ua, (2020), ""Центрэнерго" подталкивают к банкротству. Предприятие обескровлено", https://delo.ua/business/centrenergo-podtalkivajut-bankrotstvu-predpri-368503/.

OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

²⁴⁸ Уніан (2019), "AMKУ хоче змінити закон про енергоринок для боротьби з монополістами", https://www.unian.ua/economics/energetics/10513524-amku-hoche-zminiti-zakon-pro-energorinok-dlya-borotbi-z-monopolistami.html.

concerns reviewed on several occasions by the Anti-Monopoly Committee (AMC). In 2018, the AMC found that the holding did not abuse its monopoly situation.²⁴⁹

In 2021, the AMC found the presence of concerted action in the activities of the state wholesale company "Derzhvuhill'apostach", PJSC "Centrenergo", several companies of the DTEK group, and another private company. The concerted action allegedly constituted the formation of base prices of coal at the level of price boundaries defined at meetings with the ME in 2016-19 and led to a restriction of competition in the market of energy coal.²⁵⁰ Thus the distortions of competition have been coordinated and agreed with the involvement of a public authority.

At least hypothetically, the economic weight and dominance of the DTEK group in the market could also be converted into undue influence on public officials. The limitations of competition in the coal market and coal-fired electricity production create conditions for clientelism alongside the market economy. This somehow perpetuates, even if in a changed form, the bargaining-based distribution of the later period of the Soviet planned economy. In such conditions, economic decision making may become especially based on personal relations and corrupt networks of individuals.

Transfer of costs to the state

The bargaining and transactions in circumstances of limited competition exacerbate risks that the economic activity of the state will become detrimental to the public interest. State-owned coal mines have continuously received subsidies and compensations. The unprofitable mines requiring subsidies remain in the ownership of state-controlled companies while, on the other hand, many profitable mines have been either privatised or transferred in long-run concessions, predominantly to the DTEK company. Thus, a certain area of risk relates to possibilities of concentrating profits in the private sector and losses in the public sector. For example, in 2020, the Cabinet of Ministers approved the termination of the lease of six mines of the state enterprise "Dobropill'avuhill'a" to "DTEK Dobropill'avuhill'a" (the lease concluded in 2010). The property was taken over by a newly established state enterprise, "Dobropill'avuhill'a-vidobutok". Two of the mines have been exhausted, and there would be costs associated with the closure and servicing. The coal from the other mines is unusable without enrichment, and the company "DTEK Dobropil's'ka CZF" would have a monopoly position regarding the enrichment. While this episode as such does not reveal obvious acts of corruption, a possibility to privatize gains and nationalize losses is a major incentive of corruption.

State regulatory functions

The coal sub-sector is subject to the regulatory activity of several public authorities. In the coal sector, SSGS issues licences, exploration and production permits, monitors compliance by, *inter alia*, mining enterprises, and imposes sanctions.²⁵² The ME approves strategic development, financial and investment plans as well as ensures the organization of internal control and internal audit and their implementation at state mines.²⁵³ Other relevant regulatory authorities are the State Labour Service and the State Ecological Inspection. The system of authorities that affect activities related to subsoil use is rather complex. The coal sector is over-regulated, the principle or presumption of fair use is missing, and any action is subject to

²⁴⁹ Самофалов, А. et al. (2019), "Государство имени Рината Ахметова", ЛІГА.net, https://project.liga.net/projects/akhmetov_2019/.

²⁵⁰ АМКУ (2021), *АМКУ визнав Міненерговугілля та окремих учасників ринку енергетичного вугілля порушниками конкурентного законодавства*, Антимонопольний комітет України, https://amcu.gov.ua/news/amku.

²⁵¹ OECD (2018), Inventory of Energy Subsidies in the EU's Eastern Partnership Countries, http://dx.doi.org/10.1787/9789264284319-en.

²⁵² Kolvakh, V. and A. Doludenko (2019), Mining in Ukraine: overview, Thomson Reuters, https://uk.practicallaw.thomsonreuters.com/w-019-9318?transitionType=Default&contextData=(sc.Default)&firstPage=true.

Regulations on the Ministry of Energy of Ukraine (approved by the CMU Degree № 507 of 17 June 2020), https://zakon.rada.gov.ua/laws/show/507-2020-%D0%BF#n9.

approval.²⁵⁴ Many corruption risk factors may affect regulatory activity. Such factors include but are not limited to unclear, inconsistent or incomplete regulations, systematic noncompliance with the regulations within the regulatory bodies themselves, deficient internal control systems, insufficient human resources, etc.

Allegations and speculations regarding attempts of undue influence on regulatory activities in the coal and other energy sub-sectors have been common in Ukraine. In the context of the looming coal shortages in the autumn of 2021, it has been suspected that a major market participant has kept its stocks of coal small deliberately to be able to threaten the government with an energy crisis to obtain favourable decisions related to electricity tariffs, etc.²⁵⁵ Even if proved, such conduct would not constitute corruption in the formal sense, but it could be seen as an attempt by a major private-sector entity to gain control or at least decisive influence over public decision making.

Establishment, liquidation and control of SOEs

Ukraine appears to have been missing a clear strategy and economic rationale for establishing state enterprises for the wholesale of coal. The state enterprise "Vuhill'a Ukraini" was established in 2003 for the wholesale trade of fuel. The enterprise was in a situation of bankruptcy with total debts approx. UAH 6.2 billion in 2017²⁵⁶. The next state enterprise, "Derzhvuhill'apostach", was established in 2016 for the sales of coal from the state mines, but this company also accumulated excessive debt²⁵⁷. Finally, the state wholesale enterprise "Ukrvuhill'a" was established in 2020.²⁵⁸ Corruption risk assessment of the ME itself identified a corruption risk associated with the lack of criteria in decisions to establish, liquidate, reorganize enterprises, agencies and organisations. While the centralisation of wholesale activity in a single company may appear an appropriate means of control and coordination, the rather situational and *ad hoc* policy in this regard also creates possibilities of manipulations, for example, writing off losses by means of liquidating companies and creating ostensibly economic operators where in fact various and not always clear political objectives dominate.

Restructurisation of the coal sector has long been on the public agenda of Ukraine. In 2017, the Chamber of Accounts found that in 2014-16 the ME did not ensure legal, efficient and effective use of budget funds meant for the restructurisation of the coal industry. This task did not become a real priority for the ministry. No integrated system of legal regulation was created for this purpose. The audit also found many other serious deficiencies.²⁵⁹ In 2017, the National Coal Company was established under the ME as a holding company to encompass state-owned mines and reform this sector of industry.²⁶⁰ Meanwhile, observers

²⁵⁵ Matuszak, S. (2021), "Ukraine: energy problems on the eve of the heating season", Centre for Eastern Studies, https://www.osw.waw.pl/en/publikacje/analyses/2021-10-19/ukraine-energy-problems-eve-heating-season.

²⁵⁶ Finbalance (2017), "Суд визнав банкрутом держкомпанію "Вугілля України"", https://finbalance.com.ua/news/sud-viznav-bankrutom-derzhpidprimstvo-vuhillya-ukrani.

Кажанов. Е., В. Комаров (2020), "Ha угольном рынке создают нового накопителя долгов", *Олигарх*, https://oligarh.media/2020/01/24/na-ugolnom-rynke-sozdayut-novogo-nakopitelya-dolgov/.

Інтерфакс-Україна (2020), "Мінекоенерго створює держпідприємство "Укрвугілля"", https://ua.interfax.com.ua/news/economic/636561.html.

²⁵⁹ Рахункова палата, *Piшення* 16.05.2017 N 11-2, Про результати аудиту ефективності використання коштів державного бюджету, передбачених Міністерству енергетики та вугільної промисловості України на реструктуризацію вугільної промисловості, http://consultant.parus.ua/?doc=0AQB3CF1DC&abz=JP4I3.

OECD (2019), Snapshot of Ukraine's Energy Sector: Institutions, Governance and Policy Framework, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

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argued that the centralisation could create additional corruption risks related to, for example, public procurement, services of coal dressing, fulfilment of functions which the company is not legally eligible to implement, appointment of managers possibly controlled by oligarchs.²⁶¹ Anyway, the envisaged reform stalled, and no mine has been transferred to the new holding. The budget funds, which were initially meant for the re-equipment of mines, were mainly spent for covering arrears of wages and payments for electricity.²⁶²

In 2019, the Chamber of Accounts concluded that the ME had failed to approve plans of strategic development and investment for state-owned enterprises of the coal branch.²⁶³ The auditors also found that the ME had not created an effective system of internal control in the apparatus of the ministry and subordinate enterprises and organisations. In the absence of effective control, an effective system of internal audit had not been created in the coal-extracting enterprises.²⁶⁴ The system allegedly failed to implement measures to prevent the illegal, inefficient and ineffective use of the means of state support.

Illegal economic activity

Two sometimes interrelated forms of illegal activity in the coal sub-sector are operating illegal coal mines and illegal imports of coal from the occupied territories or the Russian Federation.²⁶⁵ In particular, the illegal coal mines create risks of corruption associated with efforts to legalize the coal obtained there.²⁶⁶ Pundits claim that most schemes of sales of coal from the occupied territories involve connections with high-ranking officials of the government authorities.²⁶⁷ Intermediary companies have been thriving on illegal and impure coal trading. PJSC "Centrenergo" has allegedly been one of the enterprises that chose supplies of coal from intermediaries from the Russian Federation instead of the state-owned wholesale company.²⁶⁸

Another type of fraud and illegal economic activity has been related to the so-called "household" fuel provided as social support. Cheap and low-quality coal, which may come from illegal mines, is mixed into the coal that is meant for recipients of support. The "saved" high-quality coal is then diverted and sold on the black market.²⁶⁹

No recent data were available for this report regarding the current extent of such types of illegal activities and their share in the overall coal market. Hence it is also impossible to assess their potential impact on corruption. It may be the case that certain forms of illegal activities have diminished in the last years.

²⁶¹ Makrenko, O. (2018), "Ukraine's new state coal giant – reform conduit or corruption sinkhole?", *Euromaidam Press*, http://euromaidanpress.com/2018/02/07/ukraines-new-state-coal-giant-reform-conduit-or-corruption-sinkhole/.

²⁶² Nitsovych, R. and S. Yevtushok (2020), "Reform of the Coal Industry is Once Again on the Path of Subsidizing", *DiXi Group*, https://dixigroup.org/en/comment/reform-of-the-coal-industry-is-once-again-on-the-path-of-subsidizing/.

²⁶³ Рахункова палата (2019), Звіт про результати аудиту ефективності використання коштів державного бюджету, передбачених Міністерству енергетики та вугільної промисловості України на державну підтримку вугледобувних підприємств на часткове покриття витрат із собівартості готової товарної вугільної продукції, https://rp.gov.ua/upload-files/Activity/Collegium/2019/32-2 2019/Zvit 32-2 2019.pdf.

²⁶⁴ Рахункова палата (2020), Звіт про результати аудиту ефективності використання коштів державного бюджету, виділених на проведення гірничорятувальних заходів і заходів з охорони праці та підвищення техніки безпеки на вугледобувних підприємствах, https://rp.gov.ua/upload-files/Activity/Collegium/2020/5-2 2020/Zvit 5-2 2020.pdf.

²⁶⁵ Centre for Global Studies "Strategy XXI" (2019), *Transparent energy trading in secessionist regions*. Case of Ukraine, https://eap-csf.eu/wp-content/uploads/Ukraine-Case-Study.pdf.

Makrenko, O. (2018), "Ukraine's new state coal giant – reform conduit or corruption sinkhole?", *Euromaidam Press*, http://euromaidanpress.com/2018/02/07/ukraines-new-state-coal-giant-reform-conduit-or-corruption-sinkhole/.

²⁶⁷ Centre for Global Studies "Strategy XXI" (2019), *Transparent energy trading in secessionist regions. Case of Ukraine*, https://eap-csf.eu/wp-content/uploads/Ukraine-Case-Study.pdf.

²⁶⁸ Delo.ua, (2020), ""Центрэнерго" подталкивают к банкротству. Предприятие обескровлено", https://delo.ua/business/centrenergo-podtalkivajut-bankrotstvu-predpri-368503/.

Kazanskyi, D. et al. (2017), The real price of coal in Donbas: a human rights perspective, East-Ukrainian Center for Civic Initiatives, https://www.boell.de/sites/default/files/real_price_of_coal_in_wartime_donbas_eng_summary.pdf?dimension1=division_osoe.

However, various forms of "black market" still remain a corruption risk factor due to possible involvement of public officials in enabling or covering up the illegal schemes, participation of SOEs in the illegal trade (for example, through procurement of coal from the occupied areas for state enterprises at inflated prices without verifying the legality of origin), etc.

2.3.3. Conclusion and recommendations

The policy in the coal-energy sub-sector has been a balancing act between satisfying social needs, supplying the national economy with energy, ensuring some degree of economic viability for the coal industry itself, and managing or at times succumbing to narrow private interests and corruption. The state has faced challenges to ensure that its regulatory activity is duly autonomous and effective. Moreover, there are numerous accounts of proven or suspected corruption in various SOEs of the sub-sector. Many forms of corruption, for example, the numerous instances of fraud and overpayment in the procurement of SOEs, would allegedly be less feasible without collusion on the part of public officials of law enforcement agencies, the Ministry of Energy and other authorities. However, such collusion can more often be suspected than proven. The lack of foreign investment in the coal production and coal power generation fields is probably another factor, which keeps competition limited and network-based bargaining common.

As preliminary and tentative conclusions, it appears that key driving forces of corruption in the coal energy sub-sector have been:

- The lack of a clear state strategy for reforms of the coal industry and weak commitment to strictly implement such strategy;
- Weak oversight and governance of SOEs, including the difficulties to set and enforce relevant benchmarks of efficiency in circumstances where the enterprises are expected to survive while relying on unprofitable operations and poor discipline of payment by customers;
- Generally poor enforcement of integrity standards in the SOEs of the coal sub-sector and failure to ensure systematically the appointment of reliable and impartial management;
- A restricted market situation, which at least in certain aspects resembles a duopoly of a private holding and the state, together with the danger of capture of the public authorities;
- The aggression against Ukraine, which encouraged various forms of illegal economic activity, including illegal imports of coal and subsequent corruption accompanying efforts to legalize the coal.

Recommendations:

- Ensure that all social obligations and objectives of SOEs in the coal sub-sector are clearly defined in a systematic manner, their costs calculated realistically and taken into account in performance appraisal of the company.
- Strengthen the practice of the relevant state bodies, exercising the ownership of SOEs in the coal sector, in setting commercial and other objectives for these SOEs in the coal sector, and ensure oversight over their implementation.
- Monitor the sales of coal by state-owned mining companies to prevent unjustified sales at prices below the market level.
- Ensure that the state aid allocated to SOEs in the coal sector is adequate and proportionate in regards to the companies' needs and their commercial and other objectives.
- Ensure that the state aid to cover costs of coal production is linked to obligations to achieve certain goals and that the level of achievement of these goals is monitored systematically.
- Review the system of regulations for the coal energy sub-sector to ensure that the regulations do not cause avoidable corruption risks.

- Introduce and strictly adhere to a transparent and fully merit-based procedure for the selection of managers of SOEs.
- Ensure that the legal guarantees for anti-ccoruption officers and compliance officers and whistleblowers in SOEs held by the Ministry of Energy are fully upheld.

2.4. Hydro power

Open sources contain relatively little information about corruption related to the sub-sector of hydro power in Ukraine. The state-owned private-law joint-stock company "Ukrhydroenergo" generates more than 90% of all electricity produced by hydro power plants. Partial privatisation of "Ukrhydroenergo" has been discussed in Ukraine, but in 2020 the Cabinet of Ministers decided to retain 100% of the company's shares in state ownership.²⁷⁰ Therefore many corruption risks of the hydro power sub-sector resemble those found in large state-owned enterprises generally.

2.4.1. Corruption risks

Strategic development

The strategy of the government is to increase the share of hydro-generated power in the overall volume of produced electricity. In line with this strategic direction, the government continues investing in hydropower plant construction and renovation.²⁷¹ Concerns voiced particularly by environmental experts regarding the strategic development focused on the alleged lack of transparency in the planning process (for example, in the preparation of the Program of development of hydro energy in Ukraine till 2026, which was adopted in 2016) and the alleged absence of the evaluation of environmental impact. There have been general speculations that the construction intentions reflected in the program serve the interests of private design and construction companies and may be a manifestation of corruption.²⁷²

Although little concrete evidence is found in public sources in this regard in Ukraine, it is generally recognized that hydropower projects are prone to the risk of policy capture. Decisions to develop certain projects may come under the undue influence of vested interests where the dam industry is among key beneficiaries.²⁷³ Corruption may be a factor which tilts decisions towards disregarding effects on the environmental sustainability as well as the economic and social circumstances of local populations. The selection of options in the planning is vulnerable to the consideration of ungroundedly limited options, predetermined and biased selection, lack of transparency, limited public involvement, undue influence by proponents, the selection of unnecessary projects.²⁷⁴

²⁷⁰ Цензор.НЕТ (2020), "Кабмін планує продаж до 50% "Укртрансгазу", "Укргазвидобування", "Укртранснафти", відмовилися від приватизації "Укргідроенерго", "Укренерго" та "Енергоатому", - законопроєкт", <a href="https://censor.net/ua/news/3169960/kabmin_planuye_prodaj_do_50_ukrtransgazu_ukrgazvydobuvannya_ukrtransnafty_vidmovylysya_vid_pr_vvatvzatsivi

²⁷¹ OECD (2019), *Snapshot of Ukraine's energy sector*, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

²⁷² UCMC press center (2017), "Experts: Hydroenergy development program is a serious threat to the environment", https://uacrisis.org/en/55389-programa-rozvitku-gidroenergetiki.

²⁷³ Haas, L.J.M. (2008), "Water for energy: corruption in the hydropower sector", Global Corruption

Report 2008, Transparency International, https://www.oieau.org/eaudoc/system/files/documents/43/218765/218765 doc.pdf.

²⁷⁴ Jennett, V. (2007), *Corruption in the Hydropower Sector*, U4 Anti-Corruption Resource Centre, https://www.u4.no/publications/corruption-in-the-hydropower-sector.pdf.

Procurement and misappropriation

As in most areas of the energy sector, embezzlement, bribery, and other forms of corruption are possible in the procurement of goods, works and services. There is anecdotal evidence that procurement at "Ukrhydroenergo" performed worse than at another SOE "Ukrenergo" and the latter paid less for similar products.²⁷⁵ Such general observations may serve as warning signs regarding some deficiencies, but they do not specify what exact risks may exist in the company in question.

Publicly available data of some reliability on incidents of corruption at "Ukrhydroenergo" are relatively few. In 2021 the Security Service of Ukraine detected the fact of misappropriation of the property of "Ukrhydroenergo" worth UAH 32 million. The misappropriation allegedly took place based on a fictitious agreement on works of riverbank reinforcement for the needs of the Dniester hydro pump storage power plant (PSP).²⁷⁶ A recent investigation reportedly detected a scheme of embezzlement associated with construction works at the Dniester PSP. To embezzle funds, the suspects entered false data regarding the scale of executed works and their cost in documentation, including works that were not executed at all. The estimated losses to the state amount to UAH 60 million.²⁷⁷ Although these may be isolated episodes rather than a systematic practice, risks of misappropriation will remain relevant in the future. According to interlocutors met during the on-site mission, for "Ukrhydroenergo", public procurement represents the main internal risk area where private interests may conflict with the interests of the enterprise in particular because "Ukrhydroenergo" works under the private law and its employees may engage in other commercial activities.

Allegations regarding the management of "Ukrhydroenergo"

There has been ongoing controversy regarding the management of "Ukrhydroenergo" with efforts of the government to remove the CEO. This report does not assess the legality of acts of individuals, nor does it aim to independently verify any allegations. An audit carried out at "Ukrhydroenergo" upon request of the Minister of Energy and Coal Industry in 2014 (and later declared invalid by a court) reportedly found ungrounded commercial operations, which undermined meeting the profitability benchmark in 2013-14 as well as excess payments to two private entities in the amounts of UAH 75 million and UAH 400 million. There have been allegations of inflated payments to suppliers²⁷⁸ as well as links between a major supplier of "Ukrhydroenergo" and persons related to the management.²⁷⁹ Regardless of the validity of the allegations, they reflect real types of risks common also in other SOEs and should be considered in any assessment of the risks in the hydro energy sub-sector.

²⁷⁵ Сташинский, Я. (2020), "Ukrenergo procurements in 2018-2019 were twice cheaper than the same procurements made by Energoatom, Ukrhydroenergo and Tsentrenergo – a survey", *Ukrainian News*, https://ukranews.com/en/news/722728-ukrenergo-procurements-in-2018-2019-were-twice-cheaper-than-the-same-procurements-made-by.

²⁷⁶ Служба безпеки України (2021), СБУ викрила привласнення майна ПрАТ "Укргідроенерго" на понад 32 мільйони гривень, https://ssu.gov.ua/novyny/sbu-vykryla-pryvlasnennia-maina-prat-ukrhidroenerho-na-ponad-32-miliony-hryven.

²⁷⁷ Національна поліція України (2021), *Нацполіція розслідує факти масштабних фінансових махінацій під час будівельних робіт на Дністровській ГАЕС*, https://mvs.gov.ua/uk/press-center/news/nacpoliciya-rozsliduje-fakti-masstabnix-finansovix-maxinacii-pid-cas-budivelnix-robit-na-dnistrovskii-gaes?fbclid=lwAR38e8lnJCFZI W40n6C3Yyw9JazAg4kefpTmbXf81Py OAPavtw-driArE.

²⁷⁸ Добров, В. (2020), "Как руководить "Укргидроэнерго": зарплата выше, чем у президента США, и миллионные растраты", *Факти та коментарі*, https://politics.fakty.ua/356360-kak-rukovodit-ukrgidroenergo-zarplata-vyshe-chem-u-prezidenta-ssha-i-millionnye-rastraty.

²⁷⁹ Цензор.НЕТ (2021), ""Укргідроенерго" при Сироті не заплатило до бюджету 2 млрд гривень, а сам він - за крок від звільнення", https://censor.net/ua/n3267027.

Construction of small hydro powerplants

In 2018, Ukraine had 143 small hydro power plants (capacity from 1 to 10MW), which operated at the so-called green tariff. Plans to construct small hydro power plants occasionally provoke accusations of corruption on different levels. It has even been argued that a profitable industry of small hydro energy plants is impossible in the natural conditions of the Carpathians and therefore only exists in countries with high levels of corruption (Ukraine and Romania). It has also been alleged that plans for constructing numerous small HPPs in Zakarpatska Oblast have been promoted and implemented by companies that benefit high-level public officials or their family members. For example, in October 2021, the city council of Uzhhorod voted against allowing land for the construction of a small HPP accompanied by allegations of links between a local politician's family and the company that was supposed to receive the land for the construction. Various legal requirements regarding transparency (notably the disclosure of environmental impact assessments) and public hearings have not been adhered to adequately in relation to plans to develop small HPPs.

Studies of corruption related to small HPPs in other countries have found types of abuse such as concessions being granted without submission of an official application and/or without obtaining necessary permits or conducting impact assessments, ²⁸⁴ development of the sector as a source of profit for politically connected companies and individuals. ²⁸⁵ This area of risk in Ukraine requires an additional assessment as experts and the public generally seem not to have focused on it much.

Other risks

In addition to the risks that can be identified based on the review of developments in Ukraine, the hydropower sub-sector generally involves numerous other corruption risks seen in the international experience. Since hydropower is considered renewable, it is more attractive than certain other energy sub-sectors for internationals donors and lenders. It can also qualify for public financial support. Politically connected entities and individuals can abuse the available investment or the award of subsidies. Risks of bribery, extortion, manipulations with documents and data, etc. are related to obtaining permits and licences. Corruption risks are known to have materialized in the resettlement of people displaced by hydro energy projects.²⁸⁶

"Ukrhydroenergo" has carried out its own corruption risk assessment. According to a survey of the employees of branches of "Ukrhydroenergo", the most frequently recognised possible corruption risks are a privileged or biased attitude towards individual employees (including when defining tariff rates, salaries,

Scudder, T. (2008), "Hydropower corruption and the politics of resettlement", Global Corruption

Report 2008, Transparency International, https://www.oieau.org/eaudoc/system/files/documents/43/218765/218765_doc.pdf.

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²⁸⁰ The World Bank (2019), "The executive summary – Market assessment of small hydro power plants in Ukraine", https://documents1.worldbank.org/curated/fr/472871561153957631/The-Executive-Summary-Market-Assessment-of-Small-Hydro-Power-Plants-in-Ukraine.docx.

²⁸¹ Zakarpatpost.net (2017), "Закарпатські МГЕС: чому окремі сільські голови Хустщини виступили проти тих, хто їх обрав?", https://zakarpatpost.net/2017/07/25/zakarpatski-mhes-chomu-okremisilskiholovy-hustschyny-vystupyly-proty-tyh-hto-jih-obrav/amp/.

²⁸² Семенюк, А. (2021), "Депутати не підтримали ідею будівництва міні-ГЕС в Ужгороді", *Zaxid.net*, https://zaxid.net/deputati_ne_pidtrimali_ideyu_budivnitstva_mini_ges_v_uzhgorodi_n1527756.

²⁸³ Мудра, О. (2018), "Заробіток на "чистій енергетиці": хто на Закарпатті лобіює будівництво малих ГЕС на річках Карпат", Українська енергетика, https://ua-energy.org/uk/posts/zarobitok-na-chystii-enerhetytsi-khto-na-zakarpatti-lobiiuie-budivnytstvo-malykh-hes-na-richkakh-karpat.

²⁸⁴ Dogmus, Ö. C. and J. Ø. Nielsen (2020), "The on-paper hydropower boom: A case study of corruption in the hydropower sector in Bosnia and Herzegovina", *Ecological Economics*, Volume 172, June 2020, https://doi.org/10.1016/j.ecolecon.2020.106630.

²⁸⁵ MANS Investigation Center (2017), "Case study: Small hydropower plants or business for the privileged ones", http://www.mans.co.me/en/wp-content/uploads/2018/02/CStudyNov2017.pdf.

²⁸⁶ Haas, L.J.M. (2008), "Water for energy: corruption in the hydropower sector";

allowances, bonuses, other incentives or compensation payments) and a lack of grounds in procurement-related decisions.²⁸⁷ According to the same kind of survey of employees of the management apparatus, instead of the concerns regarding the procurement risk, biased influence on the procedures of selection of personnel (appointments without the use of transparent and understandable procedures with equal conditions for all potential candidates) was among the three most frequently recognized risks.²⁸⁸ The survey findings seem to confirm key corruption risks that could be expected in a major SOE.

2.4.2. Corruption risk factors

Economic context

The economic context of the hydro energy sub-sector generally appears favourable, and "Ukrhydroenergo" remains profitable. The company will pay about 20-30% of the total income from selling electricity to the Guaranteed Buyer (GB) within the new PSO mechanism. However, it is a matter of concern that discretionary decisions of the state authorities affect the business of "Ukrhydroenergo". For example, as a result of the launch of the new PSO, an advance UAH one billion payment to the GB was established to ensure the availability of electricity for household consumers. Phe hydro-energy sector is an area of major investment. In the last 15 years, "Ukrhydroenergo" has rehabilitated and upgraded 48 hydro units. In the first half of 2021, the value of the reconstruction works amounted to UAH 466.2 million (therein UAH 273 million from the EBRD and the European Investment Bank). Phe performance of "Ukrhydroenergo" can be seen as a sign that corruption risks in the area have been reasonably contained. It might be that competition in the market of designing, reconstructing and building hydro power plants is somewhat limited and thus could be conducive to corrupt collusions, but so far, it has not been possible to detect reliable evidence of such effects of the market situation.

In the area of smaller HPPs, foreign investment is present.²⁹¹ Ukraine owes almost USD 700 million to foreign investors in renewable energy,²⁹² but, for this assessment, it has not been possible to find out exactly how much of this debt is in the sub-sector of hydro power. The existence of such debts brings with

²⁸⁷ "Загальний звіт з анонімного опитування працівників філій ПрАТ "Укргідроенерго" для виявлення корупційних ризиків та визначення рівня толерантного/критичного ставлення до проявів корупції у діяльності ПрАТ "Укргідроенерго"", https://uhe.gov.ua/sites/default/files/2020-

04/%D0%9A%D0%BE%D0%BF%D0%B8%D1%8F%20%D0%A0%D0%9E%20%D0%93%D0%95%D0%A1%20%D1%96%20%D0%93%D0%95%D0%A1%20%D1%96%20%D0%93%D0%95%D0%BA%20%D0%B8%D0%B8%D0%B8%D0%B8%D0%BA%29 0.xisx.

²⁸⁸ "Загальний звіт з анонімного опитування працівників Апарату управління ПрАТ "Укргідроенерго" для виявлення корупційних ризиків та визначення рівня толерантного/критичного ставлення до проявів корупції у діяльності ПрАТ "Укргідроенерго"", https://uhe.gov.ua/sites/default/files/2020-

^{04/%}D0%9A%D0%BE%D0%BF%D0%B8%D1%8F%20%D0%A0%D0%9E%20%D0%B0%D0%BF%D0%B0%D1%80%D0%B0%D1%82%20
%D1%83%D0%BF%D1%80%D0%B0%D0%B2%D0%BB%D1%96%D0%BD%D0%BD%D1%8F%20%28%D0%B3%D1%80%D0%B0%D1%
84%D0%B8%D0%BA%29 0.xlsx.

Regulation of the Cabinet of Ministers of Ukraine No. 483 "On approval of the imposition of special duties on the electricity market participants to ensure the Public Service Obligation in the electricity market operation", 5 June 2019, https://zakon.rada.gov.ua/laws/show/483-2019-%D0%BF#Text.

²⁹⁰ Sabadus, A. (2021), "Ukraine state hydro producer targets capacity expansion as energy transition, ENTSO-E deadline loom", Independent Commodity Intelligence Services, https://www.icis.com/explore/resources/news/2021/07/19/10664270/ukraine-state-hydro-producer-targets-capacity-expansion-as-energy-transition-entso-e-deadline-loom.

²⁹¹ OECD (2019), *Snapshot of Ukraine's energy sector*, https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Snapshot-of-Ukraines-Energy-Sector-EN.pdf.

²⁹² Polakiwsky, Y. (2021), "The unfortunate state of the "renewables" industry in Ukraine", *New Europe*, https://www.neweurope.eu/article/the-unfortunate-state-of-the-renewables-industry-in-ukraine/.

it various direct and indirect corruption risks from possibilities to discretionarily decide to whom to pay to potential deterrence of investors and reduced competition.

Governance of "Ukrhydroenergo"

Since early 2021, the Cabinet of Ministers holds "Ukrhydroenergo" on behalf of the state. Although the decision to transfer the company to the Cabinet of Ministers attracted some criticism and provoked suspicions of willingness to subject the company to political control, there is nothing inherently objectionable in this ownership arrangement. However, according to interlocutors, it remains unclear whether and how the Cabinet of Ministers as the ownership entity would provide support for the anti-corruption compliance capacity of "Ukrhydroenergo".

"Ukrhydroenergo" has undergone progressive reforms of corporate management, such as the creation of the Supervisory Board with four independent members selected through a competition.²⁹³ The company's public reporting on the achievement of financial and non-financial performance benchmarks has received positive recognition. In the Company Transparency Index 2019, "Ukrhydroenergo" held the eighth position.²⁹⁴

On the other hand, tensions have been surrounding the COE and the Supervisory Board of the company. In 2020 a government member reportedly demanded the Head of the Supervisory Board to replace the Director-General of "Ukrhydroenergo" and allegedly threatened in case of refusal. The demand was not met, and soon after, the Ministry of Energy decided to dismiss the Head of the Supervisory Council, but the court suspended the decision.²⁹⁵ In April 2021, the Cabinet of Ministers recognized the work of the Supervisory Board and the Executive Body of the company in 2020 as unsatisfactory.²⁹⁶ According to findings of the State Audit Service, "Ukrhydroenergo" failed to pay dividends in the amount of UAH 2 billion to the state budget in 2019.²⁹⁷ This assessment cannot independently verify grounds of the reproaches as well as concerns about undue political interference, but in either case, they indicate factors that exacerbate corruption risks. This controversy also relates to a broader risk area recognised by "Ukrhydroenergo" concerning the recruitment of staff, which could be affected by, *inter alia*, possible requests from public authorities to recruit a particular individual.

Other risk factors

So far, it has not been possible to identify other factors that have exacerbated corruption risks in the hydro-power dub-sector in Ukraine in practice. Numerous risk factors are possible in principle. The factors may stem, for example, from flaws in regulations that govern spatial planning and the award of rights (authorisations, licences, concessions) to use watercourses for hydro power, set standards of safety and quality, determine oversight, etc. As in other areas, the lack of integrity, resources or expertise of regulatory bodies may represent a further set of risk factors. Not only the capacity of the state but also of local public institutions play a role in exacerbating or mitigating corruption risks.

²⁹³ GOLAW (2019), Головою наглядової ради "Укргідроенерго" став керуючий партнер GOLAW Валентин Гвоздій, https://golaw.ua/ua/insights/news/golaw-managing-partner-valentyn-gvozdiy-elected-as-the-head-of-the-supervisory-board-at-ukrhydroenergo-pisc/.

²⁹⁴ Індекс прозорості компаній України 2019, https://cgpa.com.ua/wp-content/uploads/2020/10/Transp_index_2019_ua_full_web.pdf.

²⁹⁵ Glavcom.ua (2020), "Суд захистив наглядову раду "Укргідроенерго" від дій Мінекоенерго", https://glavcom.ua/news/sud-zahistiv-naglyadovu-radu-ukrgidroenergo-vid-diy-minekoenergo-659287.html.

²⁹⁶ Кабінет Міністрів України, *Розпорядження від 28 квітня 2021 р.* № 400-р, *Питання річних загальних зборів приватного акціонерного товариства "Укргідроенерго"*, https://www.kmu.gov.ua/npas/pitannya-richnih-zagalnih-zboriv-privatnogo-akcionernogo-tovaristva-s280421.

²⁹⁷ Цензор.НЕТ (2021), ""Укргідроенерго" при Сироті не заплатило до бюджету 2 млрд гривень, а сам він - за крок від звільнення", https://censor.net/ua/n3267027.

A matter of potential concern is a draft law submitted to the Verkhovna Rada on 3 November 2021 to exempt from competitive tendering procedures procurement for the construction of the third stage of the Dniester PSP and works at certain other objects.²⁹⁸

2.4.3. Conclusions and recommendations

Based on publicly available information, the likelihood of the materialisation of corruption risks in the subsector of hydro power is smaller than in other sub-sectors. It is not possible to exclude the possibility that the detection and investigation of corruption in this sub-sector has been less effective than elsewhere. However, hydro energy is less affected by sensitive geopolitical factors like the sub-sector of nuclear energy or a huge dominating private holding like in the sub-sector of coal. These might be among the key reasons for a possibly lower level of corruption.

Currently, some major factors that bring uncertainty concerning corruption risks are:

- The role of the Cabinet of Ministers as the ownership entity of "Ukrhydroenergo" and the controversy regarding the management of the enterprise;
- Uncertainties related to the validity and transparency of assessments of the environmental impact
 of hydropower projects and ensuring that such assessments are not unduly affected by vested
 interests:
- Possible conflicts of interest and other kinds of abuse related to the development of small HPPs.

Recommendations:

- Avoid attempts to circumvent rules governing relations between the ownership entity, the supervisory board, the management board and units of "Ukrhydroenergo". Ensure that all social obligations and objectives of "Ukrhydroenergo" are clearly defined in a systematic manner, their costs calculated realistically and taken into account in performance appraisal of the company.
- Ensure setting and adhering to relevant and realistic performance indicators for managers of "Ukrhydroenergo".
- Study the practice of planning and developing small HPPs to evaluate how transparency and integrity requirements have been implemented.
- Ensure that energy sector public procurement in the sector of hydro energy is carried out in line
 with provisions of the Law on Public Procurement and no exceptions are introduced, unless clearly
 grounded to ensure competition, transparency and accountability.

2.5. Renewables

The renewable energy sources (RES) segment is a relatively new segment of the national energy sector that is considered by the market players and expert community as one of the most transparent, compared to the 'traditional' corruption-related cases and practices established in the energy sector.

Being set up as a Western-alike, the model of RES market has been conceptually designed around the concept of feed-in-tariff (FiT) as a support scheme from the state with a purpose to secure a certain 'guaranteed' rate of return (RoR) and, thus, attracting new investors in the sector, implying a quite high level of transparency.

²⁹⁸ Проект Закону про внесення змін до розділу Х "Прикінцеві та перехідні положення" Закону України "Про публічні закупівлі" щодо особливостей застосування переговорної процедури закупівлі, https://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=73139.

However, in 2012-14 the lucrative RoRs and the possibility to use state funding to raise the RES businesses (without considering it as state aid) led to significant distortions into the FiT mechanism in favour of large photovoltaic (PV) and Wind entities, politically connected to ruling elites, and the imposition of a number of artificial entry barriers for foreign investors (e.g. the localization rule, acquiring land and connection to the electric grids and others).

After 2015, the key impediments for foreigners were lifted, and this led to rapid growth of RES installed capacities during the next five years. However, an overstimulation of the RES sector (the FiTs were still among the highest in Europe) coupled with the electricity market liberalization led to the actual inability of the state to pay off the FiT compensation to RES producers. It has caused the confrontation with the interests of large industrial groups that are vulnerable to the electricity price fluctuations (as electricity transmission tariffs of the TSO 'Ukrenergo' were identified as a source for the FiT funding).

Potential corruption risks are currently articulated around (a) political interference into the FiT debts repayment to RES producers caused by the confrontation of interests inside the Government, (b) the new scheme of state support voted for in 2020 – namely the auctions for support, based on a FiT premium formula and RES support quotas. Another potential field for the RES market distortions relates to (c) the future design of a tradable green certificates system that is to be implemented in Ukraine as a part of commitments to the EU. There are also a number of smaller (specific) risk areas linked to (d) the RES regulation malfunctioning.

2.5.1. Corruption risks

FiT debts and the confrontation of interests regarding RES support

Heavy overstimulation of the utility-size PV and wind installations under the FiT scheme in 2009-14 (compared to similar international PV/wind rates as well as ones for other Ukrainian RES types, like small hydro or bioenergy), delayed transfer to the competition-based RES support auctions. The electricity market reform, launched in 2019, led to the RES sector booming²⁹⁹ and the default of the state to pay off the full amount of the FiT to RES companies.

Due to the electricity market deficiencies³⁰⁰, an authorized company – SE 'Guaranteed buyer' (GB) – was not able to accumulate sufficient funds to pay the FiT to RES producers even after the FiT regulation revision in 2020. The latter has cut down the 'green tariffs' by 7.5% for most of the wind intsallations, and by 15% for most solar installations³⁰¹. Since 2017, it has led to a gradual FiT debts accumulation.³⁰² The situation has finally deadlocked after a decision to assign a part of the TSO 'Ukrenergo' transmission revenues to the FiT compensation by the GB³⁰³. In August – December 2020, Ukrenergo's transmission tariffs have raised by 85% in total (to 312.76 UAH/MWh), then have decreased by 6% in January 2021 (to 293.93 UAH/MWh) and remained at this level since April 2021. Still, this tariff hike was insufficient to resolve the FiT deficit, so Ukrenergo requested its massive increment – to 503 UAH/MWh³⁰⁴ – that immediately led to strong resistance of large industrial consumers of electricity that are affiliated with acting ruling elites. As a result, they managed to block the further increase of the transmission tariffs and refused

²⁹⁹ The total installed RES capacities increased by 6 times with major PV capacities additions during 2018-2019 (huge 4.2 GW of capacity increment). As of April 1, 2021, the total installed RES capacities eligible for FiT were 7.7 GW in which PV dominates (5.5 GW or 72%).

³⁰⁰ The most critical of them are subsidized prices for households, high concentration and regulatory restrictions.

³⁰¹ The Law No 810-IX also stipulated the direct funding from the state budget in the size of 20% of projected RES electricity sold on the market but it hasn't still happened due to legal conflict with the antitrust regulation.

³⁰² Increasing from UAH 40.6 bn for 2020, UAH 26 bn for 2019 from just only UAH 7.1 bn in 2017; see https://www.facebook.com/league.antitrust/posts/276844467133842

³⁰³ Therefore, transferring a part of FiT costs on the shoulders of all consumers of electricity.

³⁰⁴ https://ua.energy/wp-content/uploads/2020/09/2021 Informatsijne povidomlennya peredacha 25.09.20.pdf

to pay them for the second half of 2019³⁰⁵ - that caused a liquidity gap for the GB and its inability to pay off all the necessary FiT payments to RES companies.

The conflict reached a gridlock in the summer of 2020 when the RES companies and the Government signed the Memorandum of Understanding, under which the State has committed to pay off 40% of the accumulated debt in 2020 and the remaining 60% (by 15% instalments) in 2021. The payments had to be made on a quarterly basis in exchange for a slight decrease of the FiT (as mentioned above). The Government, nevertheless, failed to fulfil the commitment and, in October 2021, the aggregate indebtedness still constituted UAH 24.7 billion (including UAH 11.6 billion for 2020 and UAH 13.1 billion for 2021)³⁰⁶. The selected RES companies initiated lawsuits against the GB and Ukraine and managed to win back about 1 billion UAH in 2021. In October 2021, the situation changed when the Government decided to issue the targeted Green and Sustainability-linked Eurobonds for the total amount of UAH 22.8 billion. Only UAH 21.6 billion were raised, in fact, but the repayment to the RES producers has been marked by political scandal. Out of this sum, the payment of about 3 billion UAH to DTEK Renewables LLC has been blocked by the Cabinet of Ministers as a part of the politically exposed collision under dubious legal reasoning (the head of the GB was dismissed for his unwillingness to suspend the transfer). This illegal case has marked the vulnerability of the issue of the FiT debt to political exposure driven by a hidden struggle of competing groups of influence on the electricity market.

RES localization schemes as an entry barrier for foreign investments

After the introduction of the lucrative feed-in-tariffs for PV and wind generation, these segments were shielded against international competition in 2013-15 with a purpose to maximize profits and state support to certain Ukrainian business groups by the introduction of the so-called 'local content rule'. The rule was adopted as an amendment to the Law On Electricity³⁰⁷ and stipulated a restriction for the application of FiT only to the projects developed with the use of local equipment/construction works at a share between 30 and 50 percent, depending on the start/commissioning dates, the type of RES generation as well as fixed shares of localization for different parts of equipment installed.³⁰⁸

Being announced as a 'national industry protective support measure', the local content rule revealed biased support of the RES businesses affiliated with certain individuals. The rule benefitted only to the production facilities for polycrystalline silicon and PV cells and to only one wind turbines plant in Kramatorsk, operating under Fuhrländer franchise.

In 2007, when a person controlling most of the PV companies held a government office, a company Activ Solar GmbH had privatized the former state enterprise PJSC 'Semiconductor plant' in Zaporizhzhya. Further on, at the plant, a modern line for trichlorosilane, polysilicon and monosilicon production (main components of PV cells) was installed, using generous state support funds (see the next case for details). As a result, in October 2010, 'Semiconductor Plant' shipped the first bulk of polysilicon and, in 2011, became the sole production facility in Ukraine, possessing the full cycle of polysilicon production.³⁰⁹

In the case of Wind Parks of Ukraine (WPU) that is de-facto controlled by the family of a former legislative and executive official,³¹⁰ the localization of the wind turbines and related components had started in 2010.

Insider (2013), Who makes money on the green tariff for the wind energy in Ukraine, http://www.theinsider.ua/rus/business/526e7553b35f4/

³⁰⁵ https://biz.nv.ua/ukr/markets/v-ukrenergo-rozpovili-podrobici-pro-sudi-z-kolomoyskim-i-ahmetovim-novini-ukrajini-50142750.html

³⁰⁶ https://finbalance.com.ua/news/zeleniy-tarif-borhi-harpoka-y-ukrenerho-zbilshilisya-do-187-mlrd-hrn

³⁰⁷ Law No 5485-VI as of November 20, 2012. Source: https://zakon.rada.gov.ua/laws/show/5485-VI#Text

³⁰⁸ Specifically, for PV/wind/biomass projects the localisation share was set at 30% for the projects with the start date after January 01, 2012 and commissioning date not later than July 01, 2013, and 50% for the projects being commissioned not later than July 01, 2014. For PV projects the fixed shares between 5 to 32 percent for polycrystalline silicon and PV cells were applied.

³⁰⁹ http://yanukovich.info/uk/andrij-ta-serhij-klyujevy/

³¹⁰Register of the PEPs, https://pep.org.ua/uk/person/37626

A joint company, Fuhrländer Windtechnology LLC, was created after the purchase of licenses and technologies on the 2.5 MW class wind turbines production by the former official's affiliates from the German-based Fuhrländer AG and the construction of the production line in Kramatorsk at the EnergoMashSpetsStal plant³¹¹ (Fuhrländer AG later went bankrupt in 2012 in Germany).³¹² In the next two years, the company started a full-cycle production of wind turbines and other equipment for wind installations. It allowed WPU to equip and put into operation seven wind parks in Ukraine over the next ten years, having a localization ratio of more than 50% over time.

After the turnover of ruling political elites, on 4 June 2015, the local content rule was lifted³¹³ and replaced by a 'localization' surcharge to the FiT (or auction price) for the use of domestically produced equipment or its components in the RES projects. The specific FiT surcharge size is now defined by the NEURC based on a separate methodology³¹⁴ and set proportional to the share of local equipment (the localization share, LC) at the following ratio:

- LC ≥ 30% gives +5% to FiT or auction price;
- LC ≥ 50% gives +10% to FiT or auction price.

The replacement of the "local content rule" that deprived developers, other than those affiliated with the ruling elite, from the stimulus "localization surcharge" was an important factor for the opening of the Ukrainian RES market to international developers and a hike in the RES capacities installation in 2018-2019. However, the WPU is still the only Ukrainian RES developer in PV and wind segments able to reach 30% of the LC.

Related potential corruption risks

The RES sector remains potentially vulnerable to politically motivated restrictions aimed at preventing or driving international companies out of the market by setting restrictive barriers of different kinds. In particular, a beneficiary of the WPU and affiliated companies has become an MP of the current convocation and is active in drafting laws³¹⁵ and amendments to acting legislation aimed at different protective barriers and privileges for the wind generation business and wind turbine production business, which is not price competitive with the international peers, hence requiring the protective support.³¹⁶ Therefore, there is still a conflict of interests that may potentially harm the competitive environment in the Ukrainian wind generation by adopting localization regulation even under the RES auction support scheme.

Suspected raider attacks on RES developers

In 2020, the first case of a raider-like attack on foreign investors in the RES market took place. The Canadian PV company 'TIU Canada' started operations in Ukraine in 2016³¹⁷ and put into operation three PV power plants with a total capacity of 54.8 MW. In March 2020, the TIU Nikopol plant was suddenly

³¹¹ http://wpu.com.ua/ua/history/2010/

³¹² http://fwt.com.ua/en/?page_id=58

³¹³ Law of Ukraine No 514-VIII "On Introduction of Changes to Certain Laws of Ukraine with respect to Securing Competitive Conditions for Production of Electricity from Alternative Energy Sources" as of June 04 2015 / https://zakon.rada.gov.ua/laws/show/514-19#Text

³¹⁴ Set by NEURC Order No 2932 as of December 10, 2015 / https://zakon.rada.gov.ua/laws/show/z0119-16#Text

³¹⁵ The most prominent draft law was submitted in 2018, No 8449-1 / http://w1.c1.rada.gov.ua/pls/zweb2/webproc4 1?pf3511=64252

³¹⁶ https://www.dw.com/uk/%D0%B4%D0%B5%D0%BF%D1%83%D1%82%D0%B0%D1%82-%D0%B2%D1%96%D0%B4-

[%]D0%B1%D0%BF%D0%BF-%D1%80%D0%BE%D0%B1%D0%B8%D1%82%D1%8C-

[%]D0%B1%D1%96%D0%B7%D0%BD%D0%B5%D1%81-%D0%BD%D0%B0-

[%]D0%BF%D1%96%D0%BB%D1%8C%D0%B3%D0%B0%D1%85-%D1%96-

[%]D0%BD%D1%96%D0%BC%D0%B5%D1%86%D1%8C%D0%BA%D0%B8%D1%85-

[%]D1%82%D0%B5%D1%85%D0%BD%D0%BE%D0%BB%D0%BE%D0%B3%D1%96%D1%8F%D1%85/a-43896660

³¹⁷ The company became the first investor in Ukraine under the Canada-Ukraine Free Trade Agreement (CUFTA).

disconnected from the grid by the Nikopol Ferroalloy Plant ostensibly due to grid maintenance.³¹⁸In turn, the Canadian company received a proposal from the affiliated structures to sell the PV station at a discounted price.³¹⁹

'TIU Canada' has been challenging the Nikopol Ferroalloy Plant actions in courts but without any visible success, as the court proceedings became subject to constant delays and adjournments. The TIU hired lawyers and even filed an application to dismiss the panel of judges of the Court of Appeal, accusing them of the lack of objectivity and impartiality. The case was still pending in court at the time of preparing this report. The case sets a dangerous precedent of possible raider attacks on RES companies (that was non-common for the industry before) and carries a risk of deterring large RES developers from the Ukrainian market.

Capacity limits and/or suspension of FiT support for small private ground-mounted PV installations

The case is related to an intervention of the Ministry of Energy at the stage of RES regulation amendments in March 2019³²¹ aimed at the FiT reduction and introduction of the auction system (see the details above). Some amendments were initiated by MPs and supported by the Ministry of Energy. These legislative changes are aimed at suspending eligibility of small household PV and wind on-ground installation for the FiT after 2020.

According to the adopted amendments to the framework RES law,³²² the FiT support scheme for the household PV and wind installations would be applicable only for those installations mounted on building rooftops, facades or other than buildings' capital structures. The maximum allowed capacity was, however, increased from 30 kW to 50 kW as a compensator for excluding on-ground installations³²³. As a result, these amendments restricted the households' investments into ground-mounted PV/solar chains combined from single 30 kW stations at separate land plots.

This intervention, despite being rather rational, however, was made in favour of large and medium utility-level on-ground RES installations for which an uncontrolled growth of the household-level 'chain' installations meant growing competition for the FiT support provided by the state. The media reported that a key supporter of the amendments at the Verkhovna Rada might have had a conflict of interest due to the link to six middle-size RES companies (from 2 to 5 MW of installed capacity), owned by his assistants. ³²⁴ Before the final vote, the Ministry of Energy sent a letter ³²⁵ to the Prime Minister asking him to persuade the Cabinet of Ministers of Ukraine (CMU) to push the Verkhovna Rada for the inclusion of several amendments by MPs, including the ones on mandatory installation of small private RES installations only at rooftops, facades and other elements of capital structures. These efforts were suspectedly lobbied through the Ministry in the interests of the large RES companies against the background of the FiT decrease and raising competition for the support. ³²⁶ To the final extent, the rights of households to install

³¹⁸ The Nikopol Ferroalloy Plant took advantage of the fact that the PV plant is connected to a substation located on its territory.

³¹⁹ https://www.epravda.com.ua/news/2021/04/23/673302/

³²⁰ https://chamber.ua/news/foot-dragging-in-tiu-canada-case-consideration-golaw-attorneys-point-of-view/

³²¹ By the Law No 2712-VIII as of April 25, 2021 / https://zakon.rada.gov.ua/laws/show/2712-VIII#Text

³²² The Law of Ukraine 'On alternative energy sources' No. 555-IV as of February 20, 2003 / https://zakon.rada.gov.ua/laws/show/555-15/ed20201016#Text

³²³ For energy co-operatives, 150 kW limit has been applied.

^{324 &}lt;a href="https://legalhub.online/energetyka/v-ukrayini-zaboronyly-vstanovlyuvaty-na-zemli-domashni-sonyachni-paneli/">https://legalhub.online/energetyka/v-ukrayini-zaboronyly-vstanovlyuvaty-na-zemli-domashni-sonyachni-paneli/ https://www.chesno.org/akb/case/966/

³²⁵ https://www.slideshare.net/AndriyGerus/letter-minenergy-8449d

https://www.epravda.com.ua/publications/2019/04/13/646999/

on-ground PV and wind installations were restored already in August 2019, when the President signed the law based on draft No. 10357³²⁷ submitted by the same group of MPs.

In November 2021, an issue related to small, decentralized RES installations was raised again³²⁸. The Ministry of Energy, the NEURC and even the State Security Service of Ukraine triggered inspections of the small RES stations, regrouped in a network that that de-facto belongs to a single owner. Using the data gathered and analysed by the TSO, the NEURC is planning to inspect the DSOs in Prykarpattya. However, this household 'PV Christmas lights' phenomenon requires legal corrections caused by legal uncertainty and not administrative pressure that may have led to bribery and corruption at the local level.

2.5.2. Potential corruption risks

Introduction of annual quotas and an auctioning scheme for the RES support

After the payments crisis to the RES producers in 2020, structural changes to the FiT support scheme (under Law No. 2712-VIII, see the details above) have been introduced. Apart from the FiT amendments, the Law has introduced the legal framework for the new RES support scheme, namely the *auctions on support quotas distribution*. In particular, the law describes the institutional setting of auctions and introduces the instrument of the RES electricity generation quotas that will be sold on auctions. Those with the lowest sale price offered will be supported in the form of a fixed auction price to be paid for during the next20 years.³²⁹

The overall size of annual RES quotas has to be determined by the CMU, following an application by the Ministry of Energy. In line with the international obligations of Ukraine, the Energy Strategy targets, the generation adequacy assessment report and the actual progress of the RES facilities commissioning, the quotas are set up on an annual basis for the next five years. The auctions may be technology-neutral or distributed between different RES types.

There is also a specific type of auction: the government may offer land plots for the construction of RES facilities with certain technical parameters and issue TCs for connection to the electricity grid, covered by general or additional quotas.

The first pilot auction had to be run in late 2019, but as of September 2021, the implementation of the auction scheme was still delayed despite the fact that the CMU approved the detailed procedure of conducting the auctions and the procedure for selecting operators of electronic auction platforms in December 2019.³³⁰

The auctions are not implemented, not least because of the inability of the government to repay the FiT debts of the previous periods and the trust crisis between the RES producers and CMU. The strong lobby of the largest national RES producers has also succeeded to delay the auction scheme introduction with the purpose to put as much new RES capacities as possible under the 'old' FiT scheme. For example, the RES projects with a high level of readiness to construction (or at the ready-to-build stage) that received all necessary permits and concluded the pre-PPA agreements with the GB until the end of 2019 may be excluded from the auction scheme. In this case, they will be compensated under the standard FiT scheme

³²⁷ http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=66034

https://biz.censor.net/news/3301377/natskomisiya_pryznachyla_pozaplanovu_perevirku_domashnih_ses_na_prykarpatti?fbclid=lwAR0HF2dz GxAPwx3x74Ql3JDsUiZ8onbiyji8uaKlb30_UKxqc7qYEeoPxo8

³²⁹ Additional surcharge will be paid to RES producers for use of local equipment / components.

³³⁰ The CMU Resolution No. 1175 as of December 27, 2019 / https://zakon.rada.gov.ua/laws/show/1175-2019-%D0%BF#Text

(if PV projects will be commissioned in two years, and wind ones – in three years) – it significantly decreased the number of potential participants of auctions.³³¹

As a result, the proposed auction scheme carries the risk of influence by the largest RES beneficiaries willing to maximize their revenues by distorting the idea of auctions (price competition). Some concerns arose from the process of consideration of the draft Law on the FiT premiums introduction³³² that was developed by the Ministry of Energy and now prepared for a vote at the Parliament without being discussed with the majority of the RES industry representatives. A separate risk area of the new scheme of the RES support is the quotas allocation mechanism. The latter still lacks clarity in terms of location areas, electricity deficit/proficit balance, the forecasted volumes of quotas and other structural parameters that are to be based on clear and transparent criteria.

Quotas on bio-components in fuels and zero excise duties on biofuel components

With the objective of reaching the total RES targets, Ukraine also plans to develop the biofuels market and introduce sector-specific support schemes. For a long time, this sector has been underdeveloped, lacking clear and visible stimuli from the government. Systemic efforts to introduce the necessary regulations regarding the mandatory share of biofuels in motor fuels have been attempted since April 2020. On 30 June 2021, draft law No. 3356-d³³³ was adopted by the Parliament in the first reading.³³⁴ If adopted in full, the law will set quotas on the content of liquid biofuels in the total sales of petroleum and diesel at 5% by volume. This rule would enter into force in May 2022. In parallel, a few legislative initiatives are being developed with the aim to reduce the excise rate on the biofuel component of motor fuels to zero.³³⁵

If supported, these initiatives could potentially bring a sufficient stimulus for the biofuel market development. However, their final version may carry potential corruption risks, specifically related to the counterfeiting and 'grey' motor fuel components imports under the guise of biofuels. The same "schemes" exist in regards to the products of the painting and varnish industry that are converted to motor fuels at the illegal mini-refineries³³⁶.

'Green certificates' or RES electricity guarantees of origin

As a part of Ukraine's international commitments, the scheme of the so-called 'guarantees of origin' (GO) for electricity produced from alternative energy sources is being developed. This will become an important cornerstone of the Green Deal Policy and Carbon Border Adjustment Mechanism (CBAM) and will have vital essence for the exports of Ukrainian electricity and goods to the EU. The GO system may pose fraud and corruption risks related to the credibility of the data submitted by the RES producers, which are entitled to GOs to the national regulatory authority and checks against the metering data of DSOs and the TSO.³³⁷

2.5.3. Conclusions and recommendations

The renewables sub-sector has several significant corruption risks that are common for most sectors that are subsidised and subject to restrictive legal regulations. Two major contextual factors seem to exacerbate the corruption risks. One of them is poor planning and the economic viability of the support mechanisms, which result in debts and confrontations of interests that could have been avoided had the policy been more efficient and consistent. The implemented remedies sometimes involve unsystematic ad hoc solutions favouring particular persons and entities while discriminating against others. Such an

³³¹ https://home.kpmg/ua/uk/home/media/press-releases/2020/03/koronavirus-vs-energetika-chomu-ne-pracyuyut-zeleni-aukcioni-ua.html

³³² http://mpe.kmu.gov.ua/minugol/control/uk/publish/article?art_id=245570020&cat_id=167475

³³³ http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=70345

https://ua.interfax.com.ua/news/greendeal/752910.html

³³⁵ The draft laws No 2317, 1210 and 4098 (https://ips.ligazakon.net/document/GI03341A)

³³⁶ https://biz.liga.net/ekonomika/tek/article/kak-ustroen-biznes-podpolnyh-mini-npz-na-37-mlrd-grn-istoriya-odnogo-zavoda

³³⁷ https://expro.com.ua/en/articles/green-certificates-in-ukraine-quo-vadis-

approach to a policy may be due to active lobbying, but it also generates more incentives for lobbying because market participants may realize that it is key for their success. There is also a protectionist trait in the Ukrainian policies where the publicly justifiable interest to support the national economy intertwines with particularistic attempts to exploit the system. The other contextual factor is the apparent proneness of certain public decision-makers to conflicts of interest. Be they real conflicts of interest or appearance thereof, the frequent combinations of business and political roles strongly increase the likelihood of decisions motivated by private benefit.

Recommendations:

- Ensure transparent, comprehensive and inclusive discussions for draft legislation in renewable sources of energy, including introduction of the auctioning scheme, with a purpose to prevent distortions of competition principle and discrimination of market participants.
- Introduce the quotas distribution mechanism based on transparent and fair criteria excluding discrimination of selected RES stakeholders.
- Introduce the clear and transparent balancing rules for RES companies under the auction scheme preventing any unjustified interventions of 'Guaranteed Buyer' or TSO into the RES market.
- Prevent introduction of unjustified localization or other rules set up separately from the state RES support regulation as a barrier for new RES entrants into Ukrainian market.
- Take steps to prevent potential manipulations with the guarantees of origins by major energy holdings that produce different types of electricity.

2.6. Transmission system operators and distribution system operators

All electricity systems may be divided into two systems – the transmission system and the distribution system. The operational entities are the transmission system operator (TSO) and the distribution system operators (DSOs).

Transmission system

The transmission system of Ukraine is an integrated power system transmitting electricity through trunk grids from generating plants to distributors. It currently comprises more than 21 300 kilometres of the trunk and cross-border high voltage transmission lines.

As provided by the Law "On electrical energy market," 338 the transmission system operator is an economic entity licensed to conduct electricity transmission activities. The legal form of the TSO is a joint-stock company. The state owns 100 percent of the shares (stakes) in the authorized capital of the TSO, which is not subject to privatization or alienation in any other way.

The National Power Company Ukrenergo performs the TSO functions in Ukraine. Ukrenergo is a state-owned company, which has been recently corporatized from a state unitary enterprise to a Joint Stock Company.

Ukrenergo is responsible for operating Ukraine's integrated power system. It currently has eight regional power systems.

Each year Ukrenergo transmits over 110 000 GWh of electricity. Along with the domestic operation, it coordinates transmission system operations with neighbouring countries and manages cross-border electricity flows with neighbouring states.

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³³⁸ https://zakon.rada.gov.ua/laws/show/2019-19#Text

Ukrenergo's principal business is to deliver electricity from major electricity producers to regional distribution companies (DSOs) and to connect the Ukrainian network system with those of the neighbouring states, as well as to provide technical support for the export and import of electricity. Ukrenergo oversees the consumption of electricity and the exploitation of electricity facilities (the transmission system owned by the State) on behalf of the State, conducting energy scheduling activities. Ukrenergo also acts as a settlement administrator on the Ukrainian energy market (the settlement administrator is a legal entity that arranges for settlements on the balancing market and the market of ancillary services).

Ukrenergo is essentially one of the three enterprises (in addition to the nuclear power producer Energoatom and the hydroelectric power producer Ukrhidroenergo), which dominate the second largest sector of Ukraine's economy – the electricity sector. Due to its status as a natural monopoly, tariffs for the enterprise are set by the national sector regulator (National Energy and Utilities Regulation Committee, NEURC) using a cost-plus approach to set tariffs based on the OPEX and CAPEX needs of the enterprise. Ukrenergo conducts regular cross-border capacity auctions and sells rights to export electricity from Ukraine to neighbouring countries.

Since 2020, the Ministry of Energy is no longer involved in the overall strategic planning of the electricity sector in the part of the strategic planning of power grids development. Ukrenergo is responsible for the Ten-Year Transmission System Development Plan and the Generation Adequacy Report to be subsequently approved by the NEURC. Ukrenergo also maintains and invests in new infrastructural capacity.

On 14 July 2021, Verkhovna Rada of Ukraine adopted Law No. 1639-IX, "On measures aimed at overcoming recessionary dynamics and ensuring financial stability on the natural gas market". The law introduces several changes to the Law of Ukraine "On electrical energy market", including limitation of Ukrenergo's authority. According to this Law, on 1 February 2022, Ukrenergo loses the rights and obligations to:

- Develop electricity market rules, the transmission system code, the fiscal electricity metering code, the commercial metering code, the procedure for cross-border capacity allocation, the order of distribution of the capacity of the interstate connection and submit them to the Regulator for approval;
- Develop the Ten-Year Transmission System Development Plan, conduct the evaluation of generation capacity sufficiency (prepare the Generation Adequacy Report) to cover forecasted demand and ensure the required reserve;
- Ensure the management of integrated operation modes of Ukraine's integrated power system and those of the neighbouring countries.

Historically, the company has financed its CAPEX programs with loans from the EBRD and the World Bank. The financial performance of the enterprise fell in 2020 after constant growth in 2017-19. In 2019, its net income was UAH 1 864 094 000³³⁹ but, in 2020, the enterprise had losses amounting to UAH 28 548 584 000.³⁴⁰ In 2018, Ukrenergo employed 8 831 persons³⁴¹.

Ukrenergo is an example of an average Ukrainian SOE. The company was hoped to become a successful example of corporatization introducing good corporate governance practices as recommended by the OECD and facilitating Ukraine's compliance with the European Network of Transmission Systems Operators for Electricity ENTSO-E. However, in practice, this did not take place since Ukrnenergo is still not the owner of the transmission system (it is owned by the state). These circumstances worked against Ukrenergo's fulfilment of best practices.

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³³⁹ https://ua.energy/wp-content/uploads/2020/04/Ukrenergo_19fsu_with-signatures_AUDYT_UKR_VERSIYA.pdf

³⁴⁰ https://ua.energy/pro_kompaniyu/zvitnist/finansovyj-zvit/#1539243674002-4767cbe5-90d3

³⁴¹ https://ua.energy/wp-content/uploads/2019/04/Balans.pdf

The governing body of Ukrenergo's shares was the Ministry of Finance of Ukraine (till 12 September 2021) and is, since 13 September 2021, the Ministry of Energy. On 28 July 2021, the Cabinet of Ministers appointed the Ministry of Energy as the authorized governing body of the state-owned assets allocated to Ukrenergo for economic management as the assets that were not included in the company's charter capital. Ukrenergo is also involved in the provision of public services. Thus, Ukrenergo compensates to the SUE "Guaranteed Buyer" (the entity that is obliged to purchase all electricity produced by renewables, GB) the difference between the cost of electricity produced from renewable sources and the revenue raised by the GB through selling the electricity.

Due to the imbalance of Ukrenergo's tariff and the risky increase in the number of producers of energy from renewable sources (RES producers), as of 1 September 2021, the debt of the Guaranteed Buyer to RES producers amounted to almost UAH 16 billion, and the debt of Ukrenergo to the GB amounted to UAH 24 billion³⁴². This situation is a significant aspect of the Ukrainian energy sector crisis.

In May-June 2020, the Ministry of Energy and the Government made great efforts to stabilize this situation by signing a Memorandum between the Government and the RES producers³⁴³. The Cabinet of Ministers adopted a decision to provide state guarantees to ensure the fulfilment of loan obligations taken by Ukrenergo from state-owned banks to pay the debts to the GB. Also, in the last quarter of 2021, Ukrenergo was issued the so-called green bonds to recover its debts to RES producers. The green bonds were issued on a total sum of USD 850 million. Thus, the situation was stabilized, but structural reforms are needed to ensure the sustainable development of Ukrenergo as a transmission system operator.

Distribution systems

As provided by the Law "On electrical energy market", distribution of electric energy is carried out by the distribution system operator. Electricity distribution activities are subject to licensing in accordance with the law. The distribution system operator shall provide electricity distribution services on a non-discriminatory basis in accordance with the Law, the Code of Distribution Systems³⁴⁴ and other normative legal acts regulating the electricity market operation. The distribution system must be built taking into account the principle of economic efficiency, urban development plans (territories), in compliance with the property rights regime, requirements for environmental protection, energy efficiency, protection of human life and health, and rational use of energy in accordance with technical rules and safety standards provided by regulatory and technical documents.

According to the requirements of unbundling, a distribution system operator shall be prohibited from carrying out the activity of production and/or transmission and/or supply of electricity. The distribution system operator shall also be prohibited to own or manage shares (shares in the authorized capital) of an economic entity engaged in the production and/or supply (including supply to consumers) or transmission of electricity, while entities engaged in the production and/or supply (including supply to consumers) or transmission of electricity shall be prohibited to own or manage shares (shares in the share capital) of the distribution system operator³⁴⁵.

Distribution systems are systems that distribute electric power from the transmission system through the distribution system operators' grids to the final customer of electric power. Currently, there are 33 DSOs in Ukraine operating 824 000 km of electricity distribution networks³⁴⁶. The distribution system operators submit their local distribution grids development plans and investment programs to the Ministry of Energy and the NEURC for approval.

³⁴² https://www.gpee.com.ua/main/news?id=342

³⁴³ https://www.kmu.gov.ua/news/uryad-pidpisav-memorandum-z-virobnikami-zelenoyi-elektroenergiyi

³⁴⁴ https://zakon.rada.gov.ua/laws/show/v0310874-18#Text

³⁴⁵ https://zakon.rada.gov.ua/laws/show/2019-19#Text

³⁴⁶ Presentation of Ministry of energy

The major part (25) of DSOs are former oblenergos (regional electricity distributors and suppliers), which were unbundled under the requirement of the Law "On electrical energy market". However, some of them distribute electricity in regions smaller than an oblast, either to specific customers (like PEM Energo Vuhillia) or as an owner of non-core assets (like Ukrzaliznytsa).

DSO companies have the status of a natural monopoly; therefore, the tariffs for the enterprises are set by the NEURC using a cost-plus approach based on the OPEX and CAPEX needs of the enterprises. On 26 August 2020, the NEURC adopted a new regulatory asset base (RAB) tariffs methodology³⁴⁷. The parameters of the RAB regulation have been hotly debated since April 2020 by market participants, experts, and public authorities. As of 1 October 2020 (deadline for documents submission), 25 DSOs had submitted documents for the RAB regulation. The introduction of the RAB tariffs will enable DSOs to actively upgrade their networks and adopt European distribution system management practices. Moreover, it will ensure the right conditions for effective privatization of state-owned DSO companies.

As of 1 September 2021, the State owns or is a shareholder of 10 DSOs, 8 of which are controlled by the State, and in 2 of them, the State is a minority shareholder. Till the end of August, the State Property Fund of Ukraine (SPFU) was the governing body of six DSOs under state control and was the representative of the State in two DSOs where the State owns a minority stake. This may indicate the State's intention to privatize these assets. However, the list of privatization objects includes only five DSOs controlled by the state³⁴⁸.

The Resolution of the President of Ukraine No. 452/2021 of 28 August 2021 enforced the Resolution of the National Security and Defence Council of Ukraine of 30 July 2021 "On managing threats in the energy sector". The Resolution appointed the SPFU to do the following by 31 August 2021³⁴⁹:

- Exclude the state-owned shares of the DSOs from the lists of objects of privatization with the Ministry of Energy to be appointed as the governing body of the shares;
- Complete the implementation of measures on separating/unbundling the activities of DSOs whose shares are owned by the state and the universal services providers.

As of 25 November 2021, the Ministry of Energy received control over two majority stakes and two minority stakes in DSO companies. The SPFU is still the ownership body of four DSO companies.

2.6.1. Sub-sector specific corruption-related issues

In the spring of 2020, in connection with the coronavirus pandemic (COVID-19), the Verkhovna Rada of Ukraine³⁵⁰³⁵¹³⁵², the Cabinet of Ministers of Ukraine³⁵³ and other central executive bodies began to adopt regulations related to quarantine measures and aimed at overcoming the pandemic. Some of the acts have created an alternative legal regime for both the corporate governance of companies and for the regime of their business activities. As of November 2021, the regulations continue to operate and be applied. Such regulations also had an impact on the activities of the DSOs and the TSO.

Thus, for example, the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine Aimed at Preventing the Occurrence and Spread of Coronavirus Disease (COVID-19)" №530 of 17 March 2020 implemented a ban on fines for non-payment or incomplete payment for communal services and a ban on

³⁴⁷ http://www.nerc.gov.ua/data/filearch/Protokoly zasidan/2020/Protokol zasidannia 26.08.2020,%2028.08.2020,%2002.09.2020,%2009.09. 2020-53.pdf

³⁴⁸ https://zakon.rada.gov.ua/laws/show/36-2019-%D1%80#Text

³⁴⁹ https://www.rnbo.gov.ua/ua/Ukazy/4977.html

³⁵⁰ https://zakon.rada.gov.ua/laws/show/540-20#Text

³⁵¹ https://zakon.rada.gov.ua/laws/show/533-20#Text

³⁵² https://zakon.rada.gov.ua/laws/show/530-20#Text

³⁵³ https://zakon.rada.gov.ua/laws/show/211-2020-%D0%BF#Text

suspension of such services. These bans were generally in force for almost a year and remain in regions with the "red" level of epidemic danger (this included the whole of Ukraine as of November 2021). The bans did not ensure maintaining a high discipline of payments for the electricity consumed (including payments for the distribution and transmission) by the population. These regulations created a new legal field, which significantly changed the conditions for doing business for both the DSOs and the TSO.

The Law of Ukraine No. 639-IX, "On measures to manage crisis and ensure financial stability on the natural gas market" lifted the ban to discontinue the provision of services in case of incomplete payment as of 14 July 2021. This decision is expected to have positive effects on restoring the legal regulations on the electricity market.

2.6.2. Corruption-related issues specific for the TSO

Execution of public functions by Ukrenergo

As mentioned, Ukrenergo compensates to the GB the difference between the costs of and revenues from the electricity produced from renewable sources.

Such compensation is provided through the TSO tariffs. During the crisis of payments to the renewables, which took place during the spring and summer of 2020, and the signing of the Memorandum between the Government and the RES producers, there was a need to amend a number of legislative acts. The tariffs for renewables were reduced. In the meantime, the relevant law stipulates that some consumers will be exempted from paying the "green component" in the Ukrenergo tariff. In particular, an exception was made for the so-called "green metallurgy" - a phenomenon of which there are no examples in the region (Central and Eastern Europe)³⁵⁴. The exception reduces the number of payers of the "green component" in the Ukrenergo tariff and increases the burden for those who have to pay it. The exception creates a privileged position for some consumers belonging to large financial and industrial groups.

Moreover, the TSO's tariffs do not fully cover Ukrenergo's obligations towards the GB and the RES producers. According to the current legislation, 20 percent of the RES tariffs should be covered by the State budget, but according to the Law "On the State budget of 2021" and the draft of the Law "On the State budget of 2022", no funds for this purpose were prescribed.

Connection to power grids

An important task of the TSO is to ensure the connection of new consumers to the appropriate TSO energy facilities. The TSO has no right to refuse to connect a consumer's electrical installations to the transmission system if the customer complies with the transmission system code. The procedure of connection to the TSO's electricity networks is determined by the code of the transmission system and must be transparent, ensuring efficient and non-discriminatory connection to the transmission system.

The connection problems will be described in detail in 3.6.3.2 below.

In 2015-18, Ukrenergo issued the specifications for connection to the networks chaotically and in large quantities, which in turn led to the uncontrolled growth of RES producers. Ukrenergo's management did not take any measures to control the growth of renewables letting this situation to evolve into a general crisis in the energy sector during 2020.

Manipulation with the "COVID regulations"

As noted above, in the spring of 2020, central bodies passed special legislation for the period of the Covid-19 pandemic. On 8 April 2020, the NEURC, as the central executive body, adopted Resolution №766 "On

https://expro.com.ua/novini/deputati-zvlnili-pdprimstva-zeleno-metalurg-vd-povno-oplati-tarifu-na-peredachu-ukrenergo

actions of the electricity market participants during the quarantine and restrictive measures related to the spread of the coronavirus disease (COVID-19)", which amended several regulatory acts of the NEURC without following the procedures of approval of regulatory acts (e.g. without public consultations). The resolution replaced the rules that were adopted in the manner prescribed by law and was subsequently amended more than once. Some of the rules of the Resolution created opportunities for a wide range of abuses.

In particular, the Resolution stipulates that electricity suppliers do not acquire the status of "Default" in case of non-fulfilment of obligations to Ukrenergo in the balancing market. Thus, the supplier of the First Ukrainian Electric Company LLC, selling electricity to ZTMK LLC (51% stake in the SPFU management), bought it exclusively on the balancing market, for which it did not pay Ukrenergo. For its part, Ukrenergo could not assign such a consumer the status of "Default" and stop the company's access to the balancing market. On the other hand, Ukrenergo did not take any significant action to stop this free withdrawal of electricity or to inform the Regulator about it³⁵⁵.

UA 1 accounts

When operating in the balancing market (loading or unloading of generating capacity), Ukrenergo was to use a price range. Ukrenergo did not perform price ranking but gave appropriate control commands to all participants in the balancing market. The dispatcher gave a multidirectional command to PJSC Centrenergo (78% of whose shares are managed by the SPFU) and Energoatom. For Centrenergo, the dispatcher gave a command to decrease production and, as a result, pay Centrenergo the price of such upload. And in the same hours, the dispatcher gave a command to increase production and, as a result, pay Energoatom the price of such upload.

Talking about Centrenergo – the company uses the scheme to sell extra amounts of electricity (mostly produced but not sold by Energoatom) with no real intention and opportunity to produce it³⁵⁶. After the receiving of the dispatcher command, Centrenergo obtained the right of buying the electric power made but not sold by the Energoatom at the prices of the balancing market (100 times lower than its real cost). Centrenergo used this scheme, called "air trade" for more than a year (second half of 2020 – first half of 2021). On the other hand, Energoatom uses it own actions to counter this situation and to avoid losses for the company. As a result, Energoatom started to manipulate its technical schedule in another way – providing the dispatcher with the information that the company production schedule was lower than it was in reality.

But instead of doing nothing (the production schedule of both companies was balanced), Ukrenergo started to give a multidirectional command which was not prescribed by acting rules.

In total, such actions of Ukrenergo cost the company in 2020 approximately UAH 6 billion, which are not covered by the company's tariff. Neither Ukrenergo, nor the NEURC took any significant action to remedy this situation. Ukrenergo failed to inform the Regulator about it.

2.6.3. Corruption-related issues specific for the DSOs

Unbundling

The implementation of the unbundling requirements is a step towards the demonopolization of the electricity supply market. Prior to the reform, the relevant regional electricity supply companies provided

³⁵⁵https://expro.com.ua/novini/uchasniki-rinku-ee-zlovjivayut-nemojlivstyu-zastosuvati-status-defoltniy--sbu?fbclid=iwar1hyqf7wq-cwbhficfwy1rpmy36_q_ogkwzgxgnz7j_3rtjd5forasnhf0

³⁵⁶ https://www.radiosvoboda.org/a/schemes/30725466.html

both electricity distribution (transmission via local electricity networks) and electricity supply. Such companies were not interested in admitting new suppliers to their territory.

With the adoption of the Law of Ukraine "On the Electricity Market," the situation began to change. Regional electricity supply companies were required to take a set of measures to separate activities, which was mainly done by creating new entities engaged in electricity supply. The DSO's direct ownership of corporate rights in a supplier was allowed until 13 June 2020. All DSOs, except for five state-controlled DSOs, met these requirements and now do not own corporate rights in suppliers.

Four DSOs managed by the SPFU continue to own electricity suppliers, and one sold the respective stake on 10 November 2021. The situation potentially creates a conflict of interest, as the DSOs may, through the ownership of the corporate rights, influence both the suppliers' activities and the regional markets generally by restricting competition. The restriction of competition is administered not by restricting the admission of new players to the market but by restricting the transition of customers to them. A DSO can use its position as a distribution network operator to limit the outflow of customers from its own supplier by improperly influencing customers of such suppliers.

It should be noted that even after unbundling, the ultimate beneficial owners of the DSOs (both private and state-owned) continue to indirectly own electricity suppliers, and this also creates a potential conflict of interest where the DSOs can use their position to put pressure on customers should they stop receiving services from a related supplier.

Digitalization of networks

Electricity distribution systems in Ukraine have a low level of digitalization. Many basic indicators such as SAIDI³⁵⁷ and the amount of technological losses of electricity are still filled in manually in the logs without being automatically fixed by measuring devices. This practice creates a potential for information manipulation and possible abuse by unauthorized changes in electricity metering. As the means of accounting for technological losses of electricity and accounting of electricity consumption do not provide for the automatic recording of indicators, the risks associated with the theft of electricity by individual customers and the possibility of illegal co-operation of DSO employees with consumers increase.

One of the largest cases of unauthorized changes in electricity metering was on Kharkivoblenegro (state-owned DSO, which at that time was governed by SPFU). SPFU). Kharkivoblenegro transferred to Kharkivenergo (a universal service supplier under control of the SPFU) information that some households consume unusually high amounts of electricity (in fact, they had zero consumption). Kharkivenergo approved this information and received these amounts from Energoatom. In fact, the extra amounts may be used for unauthorized changes in electricity metering for illicit gain from commercial enterprises.

One of the requirements set by the Regulator for DSOs in the transition to RAB tariffs is the total digitalization of metering devices at the metering units belonging to the DSOs. The adoption of these measures will significantly reduce the risks and cases of misuse of electricity or interference in the operation of measuring instruments.

Connection to power grids

One of the most important tasks of DSOs is to ensure that new consumers are connected to energy facilities owned by DSOs. DSOs do not have the right to refuse to connect the consumer's electrical installations if the consumer complies with the distribution systems code. The procedure for connection to

³⁵⁷ System Average Interruption Duration Index

³⁵⁸ https://www.radiosvoboda.org/a/skhemy-na-kharkivoblenerho/31463773.htm

³⁵⁹ https://www.nerc.gov.ua/data/filearch/Materialy_zasidan/2021/kviten/07.04.2021/p22_07-04-21.pdf

the DSOs electric networks is prescribed by a code of distribution systems and should be transparent, ensuring efficient and non-discriminatory connection to distribution systems³⁶⁰. On 18 December 2018, the NEURC radically changed the approaches to the procedure of price calculation for connection to the transmission system and distribution system³⁶¹. The change in the connection methodology has significantly reduced the abuse by DSOs in terms of overcharging.

The time it takes to connect to the power grids in Ukraine is among the longest periods in Europe³⁶². The 1MW power connection can take up to 350 days. This problem is primarily due to unresolved land issues. The long accession time periods and partially unresolved issues of the connection methodology create opportunities for corruption for speeding up the procedure and reducing the costs. News about arrests of representatives of DSOs are rather common in the Ukrainian media.³⁶³ The solution to this problem is possible only with a significant reduction in the time of accession and cost reduction. On April 28, 2021, the NEURC adopted the Resolution "On ratification of Amendments to the distribution system code" aimed at simplification and transparency of the procedure of connecting consumers to the grid.

2.6.4. Conclusions and recommendations

Manipulations related to public obligations in the electricity market and emergency rules due to the COVID-19 pandemic have caused losses to the relevant state-owned enterprises. Corruption may have enabled the adoption of certain loopholes, but some forms of abuse of the rules are also possible simply due to economic operators exploiting unintended gaps. A major factor of corruption risk is inefficiencies associated with the low level of digitalization and connection with the grid.

Recommendations:

- Ensure proper disclosure of the information by TSOs and DSOs on the execution of public duties and their costs.
- Refrain from adopting special legislation related to emergency situations in a manner not provided by general legislation, and ensure that any exceptions, if introduced, are clearly grounded to guarantee competition, transparency and accountability.
- Increase control over vertically integrated companies in the energy sector activities with respect to ownership of both DSOs and electricity suppliers.

2.7. General recommendations for the whole of energy sector

- Make strategic decisions regarding the energy sector in a transparent, well-grounded and evidence-based manner with due involvement of all relevant stakeholders and explain rationale of national importance behind the political decisions.
- Explore further opportunities and take steps to strengthen competition in the energy sector.
- Ensure that no arbitrary political or administrative interferences are made into affairs of the SOEs in the energy sector.

https://18000.com.ua/strichka-novin/golovnij-inzhener-iz-cherkasioblenergo-pogoriv-na-xabari/

³⁶⁰ https://zakon.rada.gov.ua/laws/show/v0310874-18#n6

³⁶¹ https://zakon.rada.gov.ua/laws/show/v1965874-18#n11

³⁶² https://www.doingbusiness.org/content/dam/doingBusiness/media/Special-Reports/Getting-Electricity-Pilot-Indicator-Project.pdf

https://vezha.ua/politsiya-zatrymala-posadovtsya-vinnytsyaoblenergo-pid-chas-otrymannya-habara-foto/https://suspilne.media/167902-u-cernivcah-na-habari-u-devat-tisac-dolariv-zatrimali-posadovca-oblenergo/

- Refrain from adopting special legislation related to emergency situations in a manner not provided by general legislation. Ensure that any exceptions, if introduced, are clearly grounded to guarantee competition, transparency and accountability.
- Ensure that all social obligations and objectives imposed on the energy sector SOEs are clearly
 defined in a systematic manner, their costs calculated realistically and taken into account in
 performance appraisal of the companies.
- Develop a clear action plan of the government for the settlement of debts in the energy sector, including gas market, electricity market, and the coal sector.
- Ensure that the procedure for repayment of the debts in energy sector is transparent and based on clear criteria and information on the relevant decisions is made public on a regular basis.

3 Specific Corruption-Related Risks Areas in The Energy Sector

3.1. Privatization

3.1.1. Privatization policy overview

In Ukraine, official privatization was launched in 1992 when the first privatization laws were passed, and the first privatization program began. In 1992-94, over 9 000 state-owned enterprises were privatized as small enterprises, and more than 2 600 large state-owned enterprises were transferred to the private sector. In most cases, this was done through non-competitive and ad-hoc processes. In 2000, the State Privatization Program for 2000-2002 was adopted, and privatization began in strategic industries, natural monopolies, heavy industry, infrastructure and the high-tech sector. In 2003-04 SOEs were promptly sold to various government-oriented business groups and transferred to state officials through non-transparent methods. Most of these SOEs then simply lost assets, which led to the collapse of entire industries and a sharp rise in unemployment.

In 2005, after the Orange Revolution, this practice was brought to an end. But, unfortunately, no functioning procedures were established to replace it. Since then, state privatization programs were adopted for 2005-07, 2010-12 and 2012-14, but they did not lead to effective privatization.

Appointed in December 2014, the government temporarily suspended the privatization of SOEs in order to review their activities. In 2015, the Ministry of Economic Development and Trade, together with the State Property Fund of Ukraine (SPFU) compiled a catalogue of more than 200 state-owned enterprises for potential privatization, which was presented to the Cabinet of Ministers (CMU) in May 2015³⁶⁴. The government also approved plans to privatize 18 large companies, including energy production and distribution companies and a large fertilizer producer, the Odessa Portside Plant.

However, in 2016, when Ukraine achieved stable growth, macroeconomic stabilization and curbed inflation, the pace of economic reforms slowed down, and one rather anticipated reform, the planned privatization of state-owned enterprises, did not take place. Attempts to privatize two large SOEs, PJSC Odessa Port Plant in 2016 and PJSC Centrenergo in 2019, failed.

On March 7, 2018, the new rules of privatization came into force in Ukraine when the Law "On Privatization of State and Municipal Property" (hereinafter - the Law on Privatization) was adopted³⁶⁵. The government announced the start of "fair, transparent and competitive" privatization. According to the new privatization rules, instead of six different types of objects, all objects are divided into only two groups: small-scale privatization objects worth up to UAH 250 million and large-scale privatization objects worth over 250 million. Small-scale privatization objects are subject to sale at electronic auctions. In the absence of

³⁶⁴https://www.me.gov.ua/Documents/MoreDetails?lang=uk-UA&id=f9b47f2c-50ae-41b3-abea-117ff9c4fab8&title=PrezentatsiiniMateriali

³⁶⁵ https://zakon.rada.gov.ua/laws/show/2269-19#Text

demand, there is a rapid decline in their value - down to one hryvnia. One of the innovations of the new rules was the ban on the participation of Russian capital in Ukrainian privatization. In addition, the new privatization law provides for the termination of bankruptcy proceedings from the date when the decision to privatize the object is issued. This ban on bankruptcy proceedings lasts one year after the completion of privatization. It should be noted that in case a state-owned enterprise is not privatized for a long time, the termination of bankruptcy proceedings puts such SOE in a more privileged position compared to other enterprises in Ukraine and does not promote the market activity of SOEs.

It is noteworthy that privatization can be initiated by potential buyers in addition to privatization bodies and legal entities. Sale and purchase agreements can now be governed by foreign law, and disputes between investors and the state can be referred to as foreign arbitration. The law now also covers the privatization of communal assets in addition to state ones.

In 2019, the newly elected President of Ukraine, Volodymyr Zelensky, announced the strategic course for large-scale privatization, which was supported by the Verkhovna Rada and the newly appointed Government headed by Prime Minister Oleksiy Honcharuk.

The State Property Fund prepared the foundations for the launch of small-scale privatization. At the end of 2019, the Government transferred 530 SOEs of so-called small privatization and several large SOEs to the SPFU.³⁶⁶ Subsequently, further 431 state-owned objects were transferred for privatization. In total, in October 2019- March 2020, 961 objects were transferred to the SPF for further privatization, which was ten times more than over the period of the preceding ten years.

In 2019, 454 small-scale privatization objects were put up for electronic auctions, of which 373 objects were sold for a total amount of UAH 613 304 $320.^{367}$ In 2020 the situation was even better – 525 small-scale privatization objects were put up for electronic auctions, of which 432 objects were sold for a total amount of UAH 2 816 799 $140.^{368}$

Despite the positive dynamics of the process, it should be noted that the vast majority of the objects privatized in 2019 and 2020 are individually identified property that was in state ownership rather than SOEs very few of which were privatized.

Large-scale privatization of state-owned objects was suspended for the period of quarantine and restrictive measures to prevent the emergence and spread of the coronavirus disease (COVID-19) under the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine aimed at providing additional social and economic guarantees in connection with the spread of the coronavirus disease (COVID-19)" No. 540 of 30 March 2020. This suspension was terminated only at the end of 2020.

The large-scale privatisation started with the privatisation of the JSC First Kyiv Machinery Building Plant (former Bolshevik). As the SPA agreement has not been duly signed and many critical questions with respect to the privatisation have been raised, this case should not be seen as entirely successful.

At the meeting of the National Reform Council held on 30 June 2020 under the chairmanship of the President of Ukraine, the concept document on the privatization reform was presented as the basis of improvement of the privatization process, which should also ensure its institutional capacity.³⁶⁹

As of today, Ukraine does not have an official strategic policy document that represents a general privatization program. The last medium-term privatization program was adopted for the period 2015-17. Under current practices, management entities present the SPFU with lists of SOEs that, in their opinion,

³⁶⁶ https://www.dw.com/uk/ypяд-гончарука-й-велика-приватизація-що-коли-і-на-яких-умовах-продаватимуть/а-52365754

³⁶⁷ http://www.spfu.gov.ua/userfiles/pdf/zvit19 14800.pdf

³⁶⁸ https://www.spfu.gov.ua/ua/documents/press-list/spf-reports/15965.html

³⁶⁹ https://www.ukrinform.ua/rubric-economy/3054463-v-ukraini-prisvidsat-privatizaciu-i-vze-pridumali-ak-same.html

should undergo privatization. For its part, the SPFU prepares the lists of SOEs subject to privatization within the established period of time.

As noted above, the Law on Privatization has changed the conceptual approach to privatization and significantly simplified the regulation of privatization of state and municipal property. It is also envisaged reducing the number of state-owned enterprises that are not subject to privatization. On 2 October 2019, the Law of Ukraine "On the List of State Property Objects Not Subject to Privatization" was terminated ³⁷⁰.

Today the state does not have an approved list of SOEs that cannot be privatized. When the Verkhovna Rada abolished the previous list of SOEs that were not subject to privatization, it ordered the CMU to develop a new list within three months and submit it for approval to the Verkhovna Rada.

This list of objects was developed and approved by the CMU and submitted to the Verkhovna Rada (draft of Law No. 2831 "On the List of State Property Objects Not Subject to Privatization" of 3 February 2020). However, on 4 March 2020, the draft was withdrawn. Furthermore, the Verkhovna Rada later rejected two alternative drafts (No. 2831-1 and No. 2831-2). Thus, the law with the list of SOEs not subject to privatization has not yet been adopted. In this respect, further draft law No. 4020-2 is still under consideration at the Verkhovna Rada committees.³⁷¹

3.1.2. State bodies involved in the privatization process

The Cabinet of Ministers of Ukraine as a political body has its specific functions in the field of privatization. The Cabinet of Ministers approves state privatization programs, directs and supervises the implementation of these programs by the SPFU. It submits to the Verkhovna Rada a draft law on the list of SOEs that cannot be privatized and, finally, approves the list of SOEs for large-scale privatization, liquidation or restructuring.

The State Property Fund of Ukraine is the main body responsible for the implementation of privatization policy. It has a wide range of functions, including developing proposals for privatization programs, approving a list of small-scale privatization objects, and managing SOEs until they are privatized. The SPFU conducts actual privatization using the methods and techniques specified by law. The SPFU performs its function through the central office, as well as regional offices in the regions of Ukraine (currently, there are 10 of them). The SPFU also prepares draft regulations and has developed 48 rules and procedures on the implementation of the Law on Privatization.

The Ministry of Economy of Ukraine and other authorized governing bodies. The Ministry of Economy and other governing bodies participate in the privatization process, providing their annual proposals of SOEs to be privatized. Proposals should be formed on the basis of cost-effectiveness analysis. Such proposals should include projected privatization proceeds, as well as an analysis of the implications of such privatization for the country's economy. These proposals must be submitted to the SPFU by 1 October of the year preceding the year of inclusion of such SOE in the list of privatization objects. After the decision on privatization of an SOE is made, the relevant governing body must transfer such SOE to the SPFU in accordance with the procedure established by the CMU.

The Verkhovna Rada of Ukraine monitors the results, efficiency and legality of privatization. For these purposes and to analyse the consequences of privatization in the period from 1993 in 8 convocations of the Verkhovna Rada, the deputies created a Special Control Commission on Privatization, which was subsequently liquidated on 11 September 2019 by the Verkhovna Rada, and then restored on 25 September 2020³⁷².

³⁷⁰ https://zakon.rada.gov.ua/laws/show/847-14#Text

³⁷¹ http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=70035

³⁷²https://zakon.rada.gov.ua/laws/show/853-20#n2

3.1.3. Transfer of SOEs to the SPFU

The new Law on Privatization has simplified and further clarified the role and responsibilities of various state bodies in the privatization process. It also gave the responsible institutions the necessary powers to perform their roles.

The process of transferring SOEs intended for privatization from management entities to the SPFU is, as noted above, much more active than in previous years.

The new procedure for changing the management body of SOE designated for privatization was adopted on 10 May 2018, and further improved at the end of 2019³⁷³. The new procedure stipulates that the transfer of management functions must take place within one month after the decision to privatize an SOE was adopted.

However, in reality, the management bodies of SOEs are in no hurry to transfer objects for privatization, especially when it comes to large-scale privatization objects. For example, the decision to transfer the State Food and Grain Corporation of Ukraine (DPZKU), Artemsil and Khlib Ukrainy for privatization was adopted, but the practical implementation of the Government's decision to transfer them to the SPFU as large-scale privatization objects has been delayed³⁷⁴ and eventually terminated³⁷⁵. The active transfer of SOEs for privatization also has a number of negative aspects. The most significant of them is the situation when over a short period of time, the SPFU became the governing body of approximately a thousand of state-owned enterprises. Moreover, the vast majority of them (around 800 SOEs) are managed by the SPFU's central office. At the same time, the SPFU does not actively privatize SOEs and does not receive support to enhance its institutional capacity to manage such a large and fragmented portfolio of assets. As a result, the management portfolio of the SPFU is growing while there is no improvement in its ability to manage it.

The SPFU's inability to effectively manage its asset portfolio is evidenced, for example, by the sharp deterioration in the financial condition of such SOEs and the growth in wage arrears. It also results in both an increasing level of abuse at SOEs and in the SPFU's inability to control the activities of such large numbers of SOEs.³⁷⁶

3.1.4. Methods of privatization

The SPFU compiles the list of state-owned enterprises for large-scale privatization and submits it for final approval to the CMU. The SPFU itself approves the list of SOEs for small-scale privatization. Lists of SOEs to be included in the privatization for the next year are to be published on the SPFU website. In the energy sector, currently, six distribution system operators, the Kalysh heat and power plant, and Centrenergo are candidates for privatisation.

Small-scale privatization

SOEs of small-scale privatization are to be sold exclusively through electronic auctions. The Law on Privatization requires the CMU to establish detailed regulations and adopt procedures for conducting such auctions, including the procedure for conducting electronic auctions and selecting an electronic platform operator. The CMU authorizes electronic platforms, decides on the participation fee and its payment

³⁷³ https://zakon.rada.gov.ua/laws/show/389-2018-%D0%BF#Text

³⁷⁴ https://www.kmu.gov.ua/news/uryad-peredav-na-privatizaciyu-derzhavnu-prodovolcho-zernovu-korporaciyu

³⁷⁵ https://zakon.rada.gov.ua/laws/show/1329-2020-%D1%80#n2

³⁷⁶ http://www.spfu.gov.ua/userfiles/pdf/analitichna-dovidka-6-mis-2020_7590.pdf

procedure. The CMU also approves the procedure for determining the winner of the electronic auction, as well as the procedure for determining the special conditions of sale during the auction.

The electronic auction is carried out in accordance with the contract signed between the electronic platform operator and the auction organizer. To this end, the SPFU approves the relevant model agreement.

After the decision to privatize a SOE as an object of small-scale privatization is made, an Auction Commission is formed within 10 days. The commission determines the conditions for the SOEs sale, which are subsequently approved by the SPFU or its regional branch. The SPFU publishes the conditions within 10 days after approval. The auction for the privatization of a small privatization object is to be held not earlier than 20 days, but not later than 35 days after the publication of the information notice on the privatization of small privatization objects.

It should be noted that when conducting an auction for the sale of a small-scale privatization object, each of the auction participants could take only three steps. It is necessary to investigate whether this number of steps is reasonable and sufficient to determine the optimal selling price.

In addition, such restriction on the number of steps allows for abuse when several affiliated participants take part in the competition.

The affiliated participants could take part in the auction in the following procedure. The first, the technical participant, gives a high closed price offer in the order described above to become a participant, which makes the step last. The second participant, that is, the real buyer, makes a bet in the range of the starting price plus 5-10 percent. The real buyer takes the first step of round one of the auction by making a slight price increase. The technical participant also makes a small price increase (or increases the price by the amount needed to win the round).

During round two, the second participant (which works in collusion with the technical participant) increases the price so that its bid is greater than that of the third participant. This can also be done during round one (using information from the technical bidder, who has the opportunity to view all bids), but this can provoke a price increase in the steps of other bidders as they do not see the size of the bidder's bid to demotivate them further.

During round three, if the difference between the real buyer's price offer and that of the technical candidate is significant, the real buyer must ensure that after round three, his price offer is the second. This will allow the technical candidate (who loses the guarantee fee) to be recognized as the winner of the electronic auction. If, during round three, the difference between the price offer of the real buyer and the technical candidate is insignificant, the real buyer must ensure that his price offer is the first and thus, the technical candidate does not lose the guarantee fee.

Large-scale privatization

The CMU approves the procedures according to which large-scale privatization should be carried out. Large-scale privatization is carried out with the involvement of professional consultants – advisors. Privatization of large-scale privatization objects without the involvement of advisors is possible only by the decision of the CMU in case it is impossible to involve an advisor with the appropriate qualifications. External consultants (advisors) play an important role in the preparation and privatization of SOEs belonging to this group. Advisors are selected through competitive selection, in accordance with the procedure approved by the CMU and based on the criteria and competencies defined by the Law on Privatization.

The tasks of advisors are to conduct an audit, an analysis of economic, technical and financial activities of the enterprise, bringing indicators in financial statements to accounting standards, preparing a financing model, determining the attractiveness of the enterprise for investors and ways to improve it, setting the starting price and preparing an information package as well as identifying potential investors and holding a road show.

Advisors receive a fixed fee for performing their functions. If the state-owned enterprise is privatized, the advisor also receives a commission for successful privatization as a percentage of the sale price. The services of an advisor are paid from the state budget (through the relevant expenditure items of the SPFU).

An auction commission must also be formed to sell each SOE belonging to a large privatization category within 10 days of the privatization decision. The auction commission consists of at least five people and develops conditions for the sale of an SOE, which is then approved by the CMU. The terms of sale at the auction are published within 10 days, and the sale can take place in 30 days, but not later than 60 days from the date of publication. Auction minutes are created by the platform in electronic form and published on the day of the auction.

3.1.5. Conclusions and recommendations

Although the transfer of privatization objects to the SPFU during 2019-20 underwent significant changes in the number of transferred objects, it was not possible to establish mass privatization of SOEs. The objects of privatization are mainly individually identified objects rather than SOEs.

As for the objects of large-scale privatization, in January 2019, the CMU approved the list of objects of large-scale privatization, which included 21 objects. However, in 2019, as well as during the 2020, the sale of large-scale privatization objects was not carried out. The Government's introduction of restrictive quarantine measures in connection with the coronavirus pandemic (COVID-19) and changes in legislation have led to a decline in economic activity and the cessation of large-scale privatization, which can have a negative impact on the investment climate. This ban was lifted only at the end of 2020. Currently six distribution system operators, the Kalysh heat and power plant, and Centrenergo are companies of the energy sector that are set for privatisation.

Recommendations:

- Unblock the process of large-scale privatisation in the energy sector and make public a clear rationale for state ownership of energy sector SOEs, which are not subject to privatisation.
- Take steps towards reducing the scope for collusion between bidders in small-scale privatisation.
- Increase the institutional capacity of the governing process for SOE under privatization to mitigate and prevent corruption risks.

3.2. Public Procurement

According to the OECD studies, public procurement is one of the government activities highly vulnerable to corruption. The financial interests at stake, the volume of transactions and the close interaction between public and private interests in the award of contracts contribute to the development of corruption schemes at all stages of the public procurement cycle.³⁷⁷ The public procurement procedures in the energy sector are characterised by the demand of highly technical services or goods that require service providers to have specific experience.³⁷⁸ This factor limits competition in the sector and facilitates procurement related corruption schemes, as very often corruption and competition issues go hand in hand. Moreover, without

³⁷⁷ OECD (2016), Preventing Corruption in Public Procurement, https://www.oecd.org/gov/public-procurement/publications/Corruption-Public-Procurement-Brochure.pdf.

³⁷⁸ OECD (2021), Fighting Bid Rigging in the Energy Sector in Ukraine: A Review of Public Procurement at Ukrenergo, https://www.oecd.org/daf/competition/fighting-bid-rigging-in-the-energy-sector-in-Ukraine-2021-en.pdf

the bribery of public officials or of the company's top management, it would even be impossible to violate competition rules in some cases.³⁷⁹

The OECD analysis shows that corruption schemes in public procurement are typical for all the energy subsectors in Ukraine. The corrupt mechanisms and their examples are described throughout the report. In addition, the OECD Typology of corruption crimes in the energy sector in Ukraine analyses corruption issues in the energy procurement as a separate category of cases. Therefore, this section focuses mostly on corruption risks factors that are specific to procurement procedures in the energy sector as a whole.

3.2.1. Corruption risks factors related to legal and institutional weaknesses of procurement system

On 1 August 2016, the Law on Public Procurement has entered into force and became the main legislative act that regulates the functioning of the national procurement system in Ukraine. The Law makes the Ukrainian electronic public procurement system - "Prozorro"- mandatory for central authorities and monopolies, and for all the other public procuring entities. The key procurement data are published and regularly updated on-line on a central procurement portal free of charge in open data format, including procurement plans, complete procurement documents, outcomes of the tender evaluation, the contract award decision and the final contract price, appeals and the results of their review

The introduction of the Prozorro system made public procurement in Ukraine more transparent, but did not help to eliminate corruption in the tender processes. It is important to keep in mind that Prozorro is just a procurement platform that has no capacity to sanction the violations and manipulations detected in the procurement procedures. While the majority of businesses have confidence in the Ukrainian procurement system,³⁸⁰ the insufficient control and coordination among the state authorities assigned with the public procurement control functions make possible the systemic violations of the Law on Public Procurement.

In order to reduce corruption risks in the public procurement, the National Agency for Corruption Prevention (NACP) of Ukraine developed a model compliance programme for legal persons that is mandatory for SOEs and for the companies willing to take part in the public procurement process. Besides, anti-corruption officers were appointed in all major SOEs with the responsibility to promote compliance work.381 In addition, the Law on Public Procurement has formally established the mandatory debarment of the bidders found guilty of collusion or corruption. According to the Law, they must be excluded from bidding in public tenders for three years and the procurement body has no discretion in imposing the penalty. However, the civil society claims that the debarment system does not function well due to narrow focus and various loopholes. Besides, there were attempts to propose legislative initiatives to minimise the scope of debarment, e. g. to allow companies investigated – but not yet convicted – for collusion to continue their participation in the bidding process. Sas

In order to ensure unbiased and efficient protection of rights and legitimate interests of persons as related to their participation in public procurement procedures, the AMCU has established the Permanent Administrative Board for handling complaints against violation of the public procurement legislation.

³⁷⁹ OECD (2021), Corruption, Public Procurement and Competition in Eastern Europe and Central Asia: the Case of the Energy Sector in Likraine

³⁸⁰ OECD (forthcoming), The IAP 5th Round Pilot Monitoring Report of Ukraine.

³⁸¹ OECD (2017), Anti-corruption reforms in Ukraine: 4th round of monitoring of the Istanbul Anti-Corruption Action Plan, https://www.oecd.org/corruption/acn/OECD-ACN-4th-Round-Report-Ukraine-ENG.pdf.

³⁸² OECD (forthcoming), The IAP 5th Round Pilot Monitoring Report of Ukraine.

³⁸³ OECD (2019), Ukraine. Progress update. Fourth round of monitoring under the Istanbul Anti-Corruption Action Plan, https://www.oecd.org/corruption/acn/OECD-ACN-Ukraine-Progress-Update-2019-EN.pdf.

Decisions of the Permanent Administrative Board are adopted in the name of the AMCU. The Complaint Review Body normally has to review a complaint within 10 business days following the start date of the complaint review proceedings. However, the AMCU focuses at the detection of cartels, bid rigging and collusion in the energy procurements, and detection of corruption is not part of the AMCU's competences. The anti-corruption, procurement and competition experts rarely find common grounds for cooperation, as they act for different public bodies and use different legal tools. 384 While there are few examples of referrals from the anticorruption law enforcement bodies to the AMCU, there were no cases of the *vice versa* cooperation between these bodies. 385 Besides, a different interpretation of the legislation by review body and controllers and partially regulator allow corrupt individuals not only to implement various corruption schemes in a highly concealed manner, but to be sure that no legal sanctions will be applied to them. 386

The long awaited reform of the State Audit Office did not help to bring to justice individuals suspected of violations of the procurement legislation. For instance, in 2019, the State Audit Office monitored only 9,000 procurements (out of 150,000 that took place in the system). The sanctions were applied in less than 1% of the cases in which violations were detected.³⁸⁷

While the public procurement procedures seem to be well regulated, the lack of integrity of public officials and discretionary powers left to them during the procurement procedures leave space for manipulations, embezzlement and corruption. In addition, the internal procurement and audit units, as well as the state control bodies turn blind to some corruption red flags during the procurement procedure. As a result, the insufficient and inefficient mechanisms of control undermine even the most "prozzoro" system.

3.2.2. Corruption risks due to the lack of proper procurement planning

Every tender starts or, at least should start, with the development of the expenditures plan under public procurement procedures. Due to time constraints related to the adoption of the state budget, the SOEs in Ukraine usually form their financial and investment plans without taking into account the public procurement needs. The financial plans, approved by the line ministries, do not necessarily reflect the real or projected needs of the enterprises. In addition, financial plans include only aggregated budget categories that cover a wide range of goods or services, which will be lately purchased through the public procurement procedure. Therefore, the SOEs do not really plan in advance, what exactly will be purchased, for what purposes and what would be the expected value of the procured items.

The loopholes in the financial planning and insufficient auditing of the efficiency of public spending make possible intentional procurement of goods or services, in which there is no objective need.³⁸⁸ Such situations may happen if the management of the state-owned company has a prior agreement with a potential supplier for the purchase of the unsolicited goods or works.³⁸⁹ The scheme allows to write-off the funds that can potentially be returned to the approvers of the tender in the form of kickbacks. In such cases,

³⁸⁴ OECD (forthcoming), The IAP 5th Round Pilot Monitoring Report of Ukraine.

³⁸⁵ OECD (2021), Corruption, Public Procurement and Competition in Eastern Europe and Central Asia: the Case of the Energy Sector in Ukraine.

³⁸⁶ Transparent Public Procurement Rating (2017), Implementation Assessment of the Ukraine Public Procurement Legislation, https://www.tpp-rating.org/public/uploads/data/3/AOIL/5914ba099412aPPL Implementation-Assessment-Ukraine.pdf Transparency International Ukraine (TI-Ukraine)

³⁸⁷ Vasyl Zadvornyy (2020), A Duel of Prozorro with corruption, https://www.epravda.com.ua/columns/2020/03/23/658092/, in Ekonomichna Pravda

³⁸⁸ NACP (2021), Typical Corruption Risks in Public Procurement, Typovi-koruptsijni-ryzyky-v-publichnyh-zakupivlyah-1.pdf

³⁸⁹ OECD (2020), State-Owned Enterprise Reform in the Electricity Sector in Ukraine, http://www.oecd.org/corporate/soe-reform-electricity-sector-ukraine.htm

a "pre-selected" supplier is often linked to the management of the state enterprise. For instance, the former head of Energoatom has cited situations where equipment that has been purchased and stored for years at depots, was again purchased through an intermediary company.³⁹⁰

3.2.3. Corruption risks and the use of sidestep procurement procedures

Other type of corruption risks is related to the possibility of contracting parties to bypass the public procurement procedure in different ways. The SOEs can potentially manipulate the scope of the Law on Public Procurement that foresees the exempts for some types of goods and services in the fuel and energy sector.³⁹¹ The frequency of the changes or at least of the attempts to amend the procurement legislation, as well as the inconsistencies between different regulatory acts make the situation even worse. Even though the energy companies usually consult the Ministry of Economy of Ukraine on the need to apply the Law on Public Procurement in concrete cases,³⁹² the lack of clarity of the legal acts can potentially lead to the mismanagement of funds in the energy related SOEs.

In addition, the Law on Public Procurement foresees that the procurement of goods or services up to UAH 200 thousand can be carried out according to a simplified procedure. The same rule applies to the performance of works, the cost of which does not exceed UAH 1.5 million.³⁹³ The simplified and negotiated procedures make it easier to select concrete, pre-determined contractors for the supply of goods, works and/or services. The procurement under the negotiated procedure and the negotiated procedure on an urgent basis together represented 21.1% in 2019 and 13.5% in 2020 of the total contracted public procurement value. The sub-threshold direct contracting represented a further 22.1 % in 2019 and 15.3% in 2020 of the total contracted public procurement value.³⁹⁴ The high rate of the limited procurement procedures does not contribute to the transparency of the open-bidding mechanisms in Ukraine.

The practice shows that companies tend to resolve procurement into several smaller bids, the value of which does not reach the threshold for the application of the competitive procurement procedure. In 2017, an SE" Ukrgazvydobuvannya" (UGV) published tender calls for procurement of 100 operations of hydroblasting of terrene amounting to UAH 540 million. The separation of bids allowed the UGV to sign the contracts bypassing the Prozorro system. The media and energy experts report that these tenders presented high corruption risks due to the fact they attracted attention of too many suppliers even before the publication of the tender documentation. ³⁹⁵

During the on-site discussions, the civil society raised concerns regarding the draft law amending the Law on Public Procurement. On 2 December 2021, the Verkhovna Rada adopted the draft N. 6273 at the first reading. The draft allows the GTS Ukraine Operator and the subsidiaries of Naftogaz to purchase works, services and related goods for construction, reconstruction and repair of facilities without a legally prescribed public procurement procedure. According to the draft law, the negotiated procurement

³⁹⁰Energoatom (2008), Yuri Nedashkovsky Made Public Corruption Schemes Of The Previous Management Of Energoatom, http://archive.energoatom.kiev.ua/ua/press/nngc/1722-

yuryi_nedashkovskiyi_oprilyudniv_koruptcyin_shemi_poperednogo_kervnitctva_energoatomu/

³⁹¹Verkhovna Rada (2016), the Law of Ukraine on Public Procurement, articles 2(2) and 3(6), https://zakon.rada.gov.ua/laws/show/922-19/print1453109859715783#Text

³⁹² Ministry of Economy, Consultations, Request from "Vinnytsiamisteploenergo", https://www.me.gov.ua/InfoRez/Details?id=c178de4a-11db-48e1-9ec6-ea3e5d099370&lang=uk-UA&isSpecial=true

³⁹³ Verkhovna Rada (2016), the Law of Ukraine on Public Procurement, https://zakon.rada.gov.ua/laws/show/922-19/print1453109859715783#Text

³⁹⁴ OECD (forthcoming), The IAP 5th Round Pilot Monitoring Report of Ukraine.

³⁹⁵DS News (2016), Ukrgazvydobuvannya has announced a tender for UAH 540 million bypassing the ProZorro system, https://www.dsnews.ua/economics/-ukrgazdobycha-obyavila-tender-na-540-mln-grn-v-obhod-sistemy-31052016204100

procedure will be applied for the procurements that are necessary to ensure construction of the Dniester hydro-nuclear electricity station or the reconstruction of multiple compressor stations before October 2022. It is also proposed to establish that the essential terms of contracts for the purchase of relevant works may be revised after the conclusion of the contract. The draft law provides this possibility if the SOEs need to review the project documentation. The readjustment of the contract price cannot exceed 50% of the price of the initial contract. This will increase the likelihood of corrupt activities in the future procurements, as it withdraws a large number of contracts that will be concluded during 2022 from the open-bidding procedure. Also, the draft leaves too much place for the post-tender manipulations.

3.2.4. Corruption and corruption risk factors at the stage of design of the tender process

The OECD has previously identified that one of the most common procurement related corruption schemes is the purchase of goods and services for the SOEs at prices higher or lower than the market prices.³⁹⁷ While artificially low prices usually signify that there is a collusion between the bidding companies, the inflated prices can potentially encompass the amount of kickbacks in case of the corrupt procurement procedure.³⁹⁸

The NACP has identified the discretionary powers of the responsible SOEs officials in determining the expected purchase price for the goods/services among the main factors contributing to the implementation of such schemes.³⁹⁹ The Ministry of Economy has developed a methodology for determining the value of the procured goods and works.⁴⁰⁰ Still, these rules are indicative and not mandatory, and are not necessarily adapted to the complex characteristics of the energy market. The specificities of the energy sector require proper studying and market research for ensuring competitive procurement process and getting the best value for money.

The AMCU recognizes that the discriminatory qualification criteria (e.g. requirements to have own equipment, unjustified quantity and volume of similar contracts), setting unjustified requirements to submit unnecessary additional documents, adding conditions on the technical specification that go beyond the requirements for the procurement item distort the competition during the procurement procedures. 401 The staff of the internal procurement units of the SOEs often lacks professional expertise to draft technically adequate and supplier neutral specifications. Still, the bidders as well as procurement management specialists use many more techniques to limit the circle of potential suppliers by attracting the pre-selected companies and deterring potential bidders. The SOEs attempt to conceal the announced call for tender in the e-procurement system by making various "mistakes" and typos in the bidding documentation, so that potential bidders would not see a tender request or cannot meet the deadlines to submit their bids. 402 Sometimes, long terms of payment for delivered goods, services or works in procurement contract

³⁹⁶DerzhZakupivli (2021), The Verkhovna Rada adopted as a basis the draft law on amending the Law of Ukraine "On Public Procurement", https://www.dzakupivli.com.ua/news/953-verhovna-rada-priynyala-za-osnovu-zakonoproekt-pro-vnesennya-chergovih-zmn-do-zakonu-ukrani
³⁹⁷ OECD (2017), Anti-corruption reforms in Ukraine: 4th round of monitoring of the Istanbul Anti-Corruption Action Plan, https://www.oecd.org/corruption/acn/OECD-ACN-4th-Round-Report-Ukraine-ENG.pdf.

³⁹⁸OECD (2020), State-Owned Enterprise Reform in the Electricity Sector in Ukraine, http://www.oecd.org/corporate/soe-reform-electricity-sector-ukraine.htm

³⁹⁹ NACP (2021), Typical Corruption Risks in Public Procurement, Typovi-koruptsijni-ryzyky-v-publichnyh-zakupivlyah-1.pdf

⁴⁰⁰ Ministry of Economic Development, Trade and Agriculture of Ukraine (2020), An Order on the Approval the Approximate Method of Determining Of The Expected Value Of The Subject Of Procurement, N.275, https://zakon.rada.gov.ua/laws/show/922-19/print1453109859715783#Text

EBRD (2019), Guidelines for non-Ukrainian suppliers on participation in public procurement in tenders of Ukraine, https://infobox.prozorro.org/upload/files/main/1398/547/gpa-quide-ukraine-fin-update2020-2.pdf

⁴⁰²Apostrophe (2017), How Officials Learnt to Bypass Prozorro, https://apostrophe.ua/article/economy/finansy/2017-02-21/kak-chinovniki-nauchilis-obhodit-prozorro/10403

conditions deter companies from submitting their proposals, while the 'favourable' corrupt companies are aware that the payment will be made on time. 403 Such approach of "too much –not enough" definitely limits the competition in the sector. The anti-competitive practices may potentially involve a corruption component if they are implemented in the private interests of the management of the SOEs or of the winning bidder.

The main factor that allows public procurement units of the SOEs to set up too narrow or too broad conditions for procurement is the lack of precise legal guidelines on the development of the tender documentation. The room de manoeuvre foreseen by the legislation and the lack of effective control at the stage of development of the tender request make public procurement vulnerable to corruption.

The recent establishment of the Prozorro.market changes the order of steps in the procurement process. The private companies are admitted to sell their products or services at the separate procurement platform. A potential contractor chooses the best supplier among those that are already admitted for trading on the platform. When purchasing through the catalogue, the customer does not need to prepare tender documentation, technical requirements and to qualify the supplier. The qualification of suppliers to the catalogue is carried out by the centralized procurement organization SE "Professional Procurement". This allows suppliers to go through the qualification process without fear of intervention of the potential contractors. In practice, this means that an SOE willing to purchase goods or services cannot reject a bidder on the basis of the qualification criteria. This reduces the possibility of the ungrounded or unlawful rejection of the bidders. Some energy companies already sell their services at Prozorro.Market. Still, the platform has been operational for a too short period of time to make it possible to assess the potential corruption risks related to its use.

3.2.5. Corruption risk factors and award of a contract to a non-compliant or suspicious bidder

The lack of clear and open tender policies governing the organization and conduct of procurement often lead to the awarding of contract to a non-compliant bidder, thus, increasing potential corruption risks. For instance, the AMCU has cancelled the results of the tender for construction of Aquilon substation because of the Ukrenergo's discriminatory approach in the selection of bidders. Ukrenergo has disqualified gemen S.R.O. (Czech company) for failing to provide the complainant with the necessary documents. The Czech company drew attention to the fact that the Kiev Energy Building Company, which did not submit documents proving its compliance with the qualification criteria, was admitted to the auction. 404

Another corruption risk is related to the procurement of items not directly from the manufacturer but through the intermediate enterprises, belonging to the affiliated persons that share illegal profit with the corrupt high-level management or other decision making employees in procuring company. In the case of embezzlement of funds at the South Ukraine Nuclear Power Plant (SUNPP), a son of the former head of the SUNPP and Energoatom, has allegedly arranged winning tenders for the supply of equipment at inflated prices. The SUNPP could purchase the necessary equipment directly from the manufacturer, but the contract was signed with the companies 'Unis-Center' and 'Arstrade', managed by a person close to the former NPP's management. According to the NABU investigation, the loss due to the purchase of equipment through the intermediary companies amounts to UAH 27 million. ⁴⁰⁵

⁴⁰³Ekonomichna Pravda (2017), A Memo to the Corrupt, or Top 25 Ways to Bypass ProZorro, https://www.epravda.com.ua/publications/2017/10/30/630567/.

⁴⁰⁴HB Business (2018), The AMCU Has Ordered Ukrenergo To Cancel The Tender Due To Discrimination Against Auction Participants, https://biz.nv.ua/ukr/markets/amku-zobovjazav-ukrenerho-skasuvati-tender-cherez-diskriminatsiju-uchasnikiv-auktsionu-2445939.html

⁴⁰⁵NABU(2021), Seizure of South Ukrainian NPP funds: indictment filed against another person, https://nabu.gov.ua/novyny/zavolodinnya-koshtamy-yuzhno-ukrayinskoyi-aes-do-sudu-skerovano-obvynuvalnyy-akt-stosovno

In some cases, after the announcement of the winning bidder, the results can be cancelled and a new tender can be announced. The winner of the new tender is often the same, but the purchase price significantly increases in most of the cases. 406 The intentional cancellation of the procurement, justified by the lack of further need to procure goods, might present corruption red flags if the same tender is announced again and a non-credible bidder wins the tender.

The above mentioned schemes are often implemented due to the use of satellite companies as fictitious bidders, represented by the companies whose beneficial owners are family members or friends from the circle of political elite or energy companies' leadership. None of the described violations would happen if there were proper measures to identify the conflict of interest during the procurement procedures. The Prozorro electronic procurement system is integrated with the Unified State Register of Legal Entities (USR), and information on beneficial owners is automatically pulled from the USR in the form of a specially generated report. On this basis, the procuring entity can verify the ultimate beneficial owner. The procuring entity is obliged to reject the tender offer of the bidder or to refuse to participate in the negotiated procurement procedure, if the Unified State Register of Legal Entities, Individuals - Entrepreneurs and Public Associations does not contain information about the ultimate beneficial owner. However, it is not clear how the tender committees verify the potential risks of conflict of interest, especially in the cases when the performance of services or works is later subcontracted to a third company.

3.2.6. Corruption risks at the stage of the implementation of the contract

The Law on Public Procurement foresees a possibility to amend the final price requiring justification of the price raise. If not properly controlled, this option may be abused by corrupt officials and business in form of artificially lowering tender price to gain ill-founded advantage over other companies and raising the price even above the market level once the contract is concluded.⁴⁰⁷

It became a common practice when the bidding vendor wins the tender and significantly increases the price in the course of performing the procured works. In particular, the companies use a "dynamic contractual price" in circumstances, where such mechanisms should not in principle be applied. The unreasonable conclusion of additional agreements to the procurement contract, which reduce the quality or volume of procured works or goods without changing their value, raises questions of possible corruption. In addition, the amendments of the terms of the contract, which lead to the increase of the contract price, can be exploited for corrupt purposes. ⁴⁰⁸ In case of prior agreement between the SOEs management and the private companies, a failure to establish control (or insufficient control) over the implementation of the contract allows companies not only to review the contractual terms, but also to not deliver the procured goods or services. Furthermore, in some cases the SOEs in the energy sector decide to outsource services previously carried out by the SOE to an external provider who then bribes the SOEs officials to use the SOEs own resources (equipment and staff) to carry out the procured services.

In January 2019, the NABU launched investigation in regards to the embezzlement of more than UAH 14 million allocated to prevent man-made emergencies at the coal mine "Zolote". In order to prevent a man-made catastrophe, the Cabinet of Ministers of Ukraine in 2018 allocated funds to finance the relevant works at the Zolote mine. The SE "Pervomaisk Ugol", as the owner of the coal mine, has been designated as the

⁴⁰⁶ ExproConsulting (2020), Ukrenergo Case: Successful Corporate Experience VS Political Accusations, https://expro.com.ua/en/articles/ukrenergo-case-successful-corporate-experience-vs-political-accusations

⁴⁰⁷ Ekonomichna Pravda (2017), A Memo to the Corrupt, or Top 25 Ways to Bypass ProZorro, https://www.epravda.com.ua/publications/2017/10/30/630567/.

Lough, J., Dubrovskiy, V. (2018)6 Are Ukraine's Anti-corruption Reforms Working? Research Paper, Chatham House, https://www.chathamhouse.org/2018/11/are-ukraines-anti-corruption-reforms-working

⁴⁰⁹ OECD (2020), State-Owned Enterprise Reform in the Electricity Sector in Ukraine, http://www.oecd.org/corporate/soe-reform-electricity-sector-ukraine.htm

administrator of these funds. Based on the negotiated procedure, Pervomaisk Ugol has selected a company for the implementation of the necessary services. The latter subcontracted the works to another company that asked the employees of the Zolote mine to perform the necessary works. The investigation established that the heads of the state enterprise, its subdivision and private company acted in conspiracy. As a result, the money settled in the accounts of the private company, although some pre-paid services have not been performed.⁴¹⁰

3.2.7. Conclusions and recommendations

The corruption risk factors, as well as the actual corrupt schemes do not differ much among the SOEs and private companies that operate in various energy subsectors in Ukraine. A lack of comprehensive analysis of procurement efficiency, including the performance of procurement contracts, increases the likelihood of corruption in energy-related public procurement. The recent reforms of the public procurement legislation have significantly improved transparency and competition in the procurement. Nevertheless, market players in the energy sector have adjusted to the new rules. Despite of the high openness of the procurement procedures and their oversight both by the state bodies and the public, corruption continues to flourish in the energy procurement, but in a much more concealed manner. It became more difficult to detect and, therefore, to tackle procurement related corruption that channels large amounts of public funds given the energy sector's share in the Ukrainian economy. Without reforming prevention and enforcement response to corruption in the public procurement, there is no way to prevent siphoning of the state funds, allocated for the development of the energy sector in Ukraine.

Recommendations:

- Ensure that energy sector public procurement is carried out in line with provisions of the Law on Public Procurement and no exceptions are introduced, unless clearly grounded to ensure competition, transparency and accountability.
- Consider developing a system that proactively screens a priori in the course of procurement proceedings and a posteriori the general practice of public procurement to detect red flags of unresolved conflicts of interest or other abuse.
- Ensure a uniform, comprehensive and effective approach in all SOEs of the energy sector regarding management of conflicts of interest when managers of the SOEs who can influence the results or procurement proceedings have private interests related to any of the bidders.
- Ensure proper financial and investment planning that fully reflects the procurement needs of the SOEs in the energy sector.
- Determine clear and comprehensive principles for purchases carried out by SOEs outside the framework of the Law on Public Procurement and adopt relevant company policies.
- Develop methodology for the public procurement units of the energy sector SOEs with detailed guidelines on (a) technically adequate and supplier neutral tender documentation, (b) the price monitoring and (c) conducting preliminary market consultations.
- Ensure that developed tender documentation is properly verified in regards to compliance with the requirements for the subject of procurement to eliminate unjustified discrimination of potential suppliers and related corruption risks.
- Explore possibilities to encourage and facilitate legal challenges of potential suppliers against discriminatory qualification criteria and other discriminatory elements in tender documentation.

⁴¹⁰ NABU (2020), Officials of the state-owned coal mine were exposed to embezzlement of more than UAH 14 million, National Anti-Corruption Bureau of Ukraine, https://nabu.gov.ua/novyny/posadovciv-derzhshahty-vykryto-na-rozkradanni-ponad-14-mln-grn

- Clearly define the responsibility of the responsible structural units within SOEs in energy sector to prevent conspiracy with the management of the bidding companies.
- Ensure corruption risks and due diligence assessment of the potential suppliers that participate in the bidding process and of the third companies that implement contracts.
- Establish effective cooperation and information sharing between the state authorities that perform
 the oversight and control functions in the field of public procurement and anti-corruption law
 enforcement bodies at the state level.
- The National Agency for the Prevention of Corruption, the Antimonopoly Committee of Ukraine and the State Audit Service of Ukraine should raise awareness of the participants of the public procurement in the energy sector about public procurement legislation in order to avoid violations, and encourage them to notify the authorities of violations of the legislation.
- Ensure that the Antimonopoly Committee of Ukraine and the State Audit Service of Ukraine effectively control compliance with public procurement legislation, in particular, in the activities of energy enterprises.
- Establish effective cooperation and information sharing between the internal procurement, audit and anti-corruption units of the SOEs operating in the energy sector.

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3.3. Licensing and permits

As energy sector activities often entail safety risks, their prevention or mitigation requires thorough control from respective authorities. This also applies to the construction and operation of facilities and procedures of connection to the energy infrastructure. Moreover, given the strategic importance of the energy sector for meeting basic public needs, any manipulations on energy markets cause high costs for consumers; thus, not only the generation but also trading of some energy resources is subject to regulation and control, including licensing.

Two central licensing authorities in the energy field are the National Energy and Utilities Regulatory Commission (NEURC) and the State Service for Geology and Subsoil (SSGS). The NEURC is responsible for awarding licenses for electricity generation, transmission, distribution, wholesale trade and supply, natural gas transmission, distribution, storage, and supply, heat production by combined heat and power plants, thermal power plants, nuclear power plants, oil and oil products transportation⁴¹¹. Additionally, the NEURC performs licensing functions with respect to the electricity market operator. The SSGS issues licenses for subsoil use, including the exploration and production of energy resources – oil, gas, coal and uranium ore being the main ones.

Among other licensing bodies is the State Tax Service, which, starting from June 2019, issues licenses for the production, storage, wholesale and retail trade of oil products. Local authorities are licensing bodies for most enterprises in heat production, transportation and supply⁴¹². The State Nuclear Regulatory Inspectorate licenses activities related to the use of nuclear energy, management of radioactive waste, transportation of radioactive materials. The State Architectural and Building Inspection of Ukraine (currently subject to transformation into the State Inspection of Architecture and Urban Development⁴¹³) is responsible for granting permits for construction activities, including new generation capacities.

⁴¹¹ Decree of National Energy and Utilities Regulatory Commission № 548 dated 3 March 2020 (https://www.nerc.gov.ua/?id=50007).

⁴¹² Decree of National Energy and Utilities Regulatory Commission №308 dated 22 March 2017 (https://zakon.rada.gov.ua/laws/show/v0308874-17#Text).

⁴¹³ Ekonomichna Pravda (2021), *The Government liquidated SABI – new building inspectorate will be created instead* (https://www.epravda.com.ua/news/2021/09/15/677862/)

The State Regulatory Service (SRS) exercises general oversight of licensing and regulatory activity of other state authorities. The SRS, through its Experts and Appeal Committee on Licensing, is entitled to consider appeals from companies regarding licensing authorities' compliance with legislation on issuing permitting documents. The SRS also approves unscheduled inspections of businesses subject to regulation, including holders of licenses. All regulatory acts in the field of licensing are to be agreed with and developed with the participation of the State Regulatory Service⁴¹⁴.

3.3.1. NEURC as the main licensing body in the energy sector

Especially due to the extensive regulatory framework combined with the complex technical nature of the regulated issues and potentially major economic effects of the decisions, licensing activities of state authorities involve significant corruption risks. The risks may materialize in many ways, for example, under the disguise of safety or lawfulness considerations (e.g. discretionary denials of licences) or, to the contrary, under the pretence to reduce the regulatory burden on business (e.g. discretionary and ungrounded awards of licences). Due to the complexity, public control over such activities is cumbersome. As a result, the independence, competence and integrity of licensing bodies is of special importance for preventing corruption in the energy sector.

With respect to independence, the case of the NEURC is particularly relevant. The Law No. 1540-VIII of 22 September 2016 on the National Commission (Regulator) prescribes functions and powers of the NEURC, establishes a procedure for appointing its members, etc. The first edition of the Law provided for safeguards of the NEURC independence⁴¹⁵ and the specific status of the Regulator, which was defined as a permanent independent collegiate authority –considered as compliant with the relevant requirements of the Third Energy Package of the EU.

However, in June 2019, the Constitutional Court of Ukraine recognized certain provisions of the Law unconstitutional, including those that refer to the legal status of the Regulator and thus, guaranteed independence. Consequently, the parliament was obliged to amend the respective clauses, thus changing the legal status of the NEURC to "central executive body with special status", i.e. its activity would have to be directed and co-ordinated by the Cabinet of Ministers. Yet other guarantees of independence, like the appointment procedure through a competitive selection by an independent commission, specific rules for remuneration, and the prohibition of illegal interference in the NEURC activity, remained. This, however, did not prevent the government and the President (also using the National Security and Defence Council decisions) from different forms of 'recommendations' to be implemented by the NEURC as instructions. Currently, these recommendations are aimed either at preventing the growth of tariffs or at amending or adopting certain regulations hut such interference in the Regulator's activity may also constitute a corruption risk factor.

Another debated issue in 2020 was the legitimacy of current members of the Regulator, which also became a subject of constitutional review.⁴¹⁹ Some experts deem such attention to the NEURC as a planned information campaign aimed at discrediting and delegitimizing the Regulator⁴²⁰. In any case, the

⁴¹⁴ Державна регуляторна служба України (2021), "Управління ліцензування та дозвільної системи", http://www.drs.gov.ua/licensing/departament-litsenzuvannya-ta-dozvilnoyi-systemy/

⁴¹⁵ Law of Ukraine № 1540-VIII on The National Commission, which Implements the State Regulation in the Areas of Energy and Communal Services in version dated 22 September 2016 (https://zakon.rada.gov.ua/laws/show/1540-19/ed20160922#n56).

⁴¹⁶ Decision of Constitutional Court of Ukraine № 5-p/2019 dated 13 June 2019 (https://zakon.rada.gov.ua/laws/show/v005p710-19#Text).

⁴¹⁷ Deutsche Welle (2021), the *Government of Ukraine* set ceiling gas prices for the households (https://www.dw.com/uk/uriad-ukrainy-vstanovyv-hranychnu-tsinu-na-haz-dlia-naselennia/a-56259819)

⁴¹⁸ Presidential Decree №452/2021 dated 28 August 2021 (https://www.president.gov.ua/documents/4522021-40021)

⁴¹⁹ Ekonomichna Pravda (2020), 50 MPs ask Constitutional Court to revoke the appointment of Members of 'tariff commission' (https://www.epravda.com.ua/news/2020/11/5/666937/#comments)

⁴²⁰ Oleksandr Formagei (2020) Legality and legitimacy of the NEURC as necessary conditions for just state regulation

independence and legal status of the Regulator remain in limbo, which, in the opinion of the Energy Community Secretariat, violates the *acquis*⁴²¹. Such a state of uncertainty regarding the independence of a key authority in the energy field poses potential corruption risks for the whole sector. Independence safeguards of the Regulator are necessary for preventing discriminatory decisions, political and/or market players' influence, and clientelism. As all regulators, the NEURC also faces other risks such as possible conflicts of interest due to personal interests of members and employees related to certain licensees or attempts of licensees to exert influence upon individuals within the NEURC.

3.3.2. Extraction of energy resources

The other key licensing body in the energy sector – the State Service for Geology and Subsoil – is the key authority in awarding special permits (licenses) for subsoil use, and therefore, a subject of political struggle during its entire existence. 422,423

Bypassing of competitive procedures and calculation of costs of permits

Numerous scandals with respect to the SSGS were related to the award of licenses by way of bypassing competitive procedures⁴²⁴ and/or inadequate calculation of the initial costs of special permits. Regarding the calculation of costs of the permits, the core of the problem was the Methodology of calculating the initial cost of a license for subsoil use of 15 October 2004. The early editions of the act envisaged vague criteria for determining the initial cost of the license, such as capital investment and operational costs required for the use of the field. Calculating and verifying these indicators beforehand is quite problematic, especially with respect to unexplored fields. Such uncertainty paves the way for the risk of artificial lowering of the initial cost as a result of a conspiracy between the state authorities and businesses.

Among recent cases of misuse was the scandal related to the Svystunkivsko-Chervonolutske field in the Poltava region⁴²⁵. In May 2017, the license for natural gas production was granted without the auction procedure to Arkona Gaz-Enerhiia LLC. Having in mind the fact that the partially state-owned Ukrnafta company carried out prior exploration of the field, the decision to grant the special permit to a little-known private company was deemed controversial and was challenged in court by Ukrnafta. Among the claims of Ukrnafta was the artificially lowered initial cost of the special permit for the field, as Arkona Gaz-Enerhiia LLC paid only 3.8 million UAH for the license, while Ukrhafta was ready to make a bid of 45 million UAH. The cost of the license was significantly diminished by artificially lowering the estimate of the potential reserves of the Svystunkivsko-Chervonolutske field. In July 2020, the Kyiv Administrative District Court recognized awarding a license to Arkona Gaz-Enerhiia unlawful and annulled the respective decisions of the SSGS⁴²⁶, but subsequently, this court ruling was successfully challenged in the Sixth Administrative

⁴²¹Energy Community (2021), 2021 Annual Implementation Report (https://www.energy-community.org/dam/jcr:93722964-1ab1-404f-85b7-45cd7da1ffd0/EnC_IR2021_151121.pdf).

Serhii Holovnov (2017), Who divided subsoil?, Biznes Tsenzor (https://biz.censor.net/resonance/3027827/kto_podelil_mejdu_soboyi_nedra_ukrainy).

⁽https://www.hsa.org.ua/blog/10718/).

⁴²³ Dmytro Riasnyi (2018), *Harassment in Ukraine: how Kononenko's associate 'pestered' gas business of Ivaniushchenko*, Ekonomichna Pravda (https://www.epravda.com.ua/publications/2018/03/29/635427/).

⁴²⁴ Nashi Hroshi (2015), 'Nadra Ukrainy' restored 'family scheme' giving out Black sea oil and gas fields without an auction, (https://nashigroshi.org/2015/08/12/nadra-ukrajiny-vidrodyly-simejnu-shemu-rozdayuchy-rodovyscha-nafty-i-hazu-na-chornomu-mori-bez-auktsionu/).

⁴²⁵ Oleksandr Chornovalov (2018), *New gas business of Petro Poroshenko's surroundings (investigation)*, Radio Svoboda (https://www.radiosvoboda.org/a/29049145.html).

Pecision of Kyiv District Administrative Court № 826/14653/17 dated 01 July 2020 (<a href="https://www.uacourt.openregister.info/administratyvni-spravy-z-01-01-2019-40000/spravy-z-pryvodu-okhorony-navkolyshnogo-pryrodnogo-seredovyshcha-zokrema-shchodo-40102/zabezpechennya-ekologichnoyi-bezpeky-u-tomu-chysli-pry-vykorystanni-pryrodnykh-resursiv-ekologichnoyi-bezpeky-povodzhennya-z-vidkhodamy-40103?document=90298321).

Court of Appeal⁴²⁷. The company still possesses the license⁴²⁸ and even started drilling⁴²⁹. According to media, Arkona Gaz-Enerhiia LLC was connected with former government officials, although in March 2020, it was purchased by Regal Petroleum⁴³⁰, which is part of the Smart Energy group of an influential Ukrainian MP and businessman⁴³¹. Investigation of the case by the NABU was completed in September 2021, with 196.8 million UAH of suspected losses to the state budget⁴³².

In general, the problem of artificial lowering of the initial cost of a special permit was partially dealt with in amendments to the Methodology in September 2020. Potential operational costs and capital investment were removed from the calculations, while the main criteria for determining the initial cost are now the price of the commodity product, which is extracted (oil, gas, etc.). Such criteria are verifiable, while manipulations with volumes of reserves (which also influence the initial cost) are still possible.

The cases of awarding licenses bypassing competitive procedures are numerous. Such awarding *de jure* may be lawful, as paragraph 8 of the Procedure for granting special permits for subsoil use prescribes conditions of granting a license without an auction⁴³³. At the same time, certain provisions of the Procedure were manifestly abused for the concentration of permits. Thus, in 2011-12 the company Golden Derrick, which, according to media reports, was related to government officials, obtained app. 30 special permits. According to the 2011 edition of the Procedure for granting special permits for subsoil use, which was in force at that time, companies with at least 25% share owned by the state could get a special permit without auction. Since 33% of Golden Derrick was owned by the state enterprise Nadra Ukrayny, it obtained licenses without any competition. Later, the licenses were re-registered to 19 affiliated companies⁴³⁴, which eventually became subject to sanctions imposed by the National Security and Defence Council⁴³⁵ - currently being challenged in courts⁴³⁶.

Based on public sources of information, interpretations regarding corruption in many cases cannot be unequivocal or exhaustive. Private actors may have used loopholes of regulations without the corrupt involvement of public officials. It may also be that representatives of the public authorities or SOEs collude with the private actors to enable the schemes in certain respects, for example, by ensuring the participation of an SOE as in the above example. Moreover, the flawed regulations themselves may stem from corrupt decision-making processes where vested interests capture the formation of rules.

⁴³² National Anti-Corruption Bureau of Ukraine (2021), NABU completes probe into illegal gas production permit scheme (https://nabu.gov.ua/novyny/1968-mln-grn-zbytkiv-cherez-nezakonnyy-dozvil-na-vydobutok-gazu-rozsliduvannya-zaversheno).

⁴²⁷ Decision of Sixth Administrative Court of Appeal dated 29 September 2020 (<a href="https://www.uacourt.openregister.info/administratyvni-spravy-z-01-01-2019-40000/spravy-z-pryvodu-okhorony-navkolyshnogo-pryrodnogo-seredovyshcha-zokrema-shchodo-40102/zabezpechennya-ekologichnoyi-bezpeky-u-tomu-chysli-pry-vykorystanni-pryrodnykh-resursiv-ekologichnoyi-bezpeky-povodzhennya-z-vidkhodamy-40103?document=92019409)

⁴²⁸ Геоінформ України, "Інформація щодо спеціального дозволу", https://geoinf.kiev.ua/wp/spedozvoli-rep.php?pr=1&urls=https://geoappl.kiev.ua:4445/reports/rwservlet?us*report=lic_sp1.rdf*sequn=1527858

⁴²⁹ Smart Energy(2021), Smart Energy Group spudded first well at Svystunkivsko-Chervonolutske field (https://smart-energy.com.ua/ua/media-center/news/detail/smart-energy-spudded-first-well-/)

⁴³⁰ Expro (2020), Regal Petroleum bought Arkona Haz-Enerhiia (https://expro.com.ua/novini/regal-petroleum-pridbala-arkona-gaz-energya).

⁴³¹ https://opendatabot.ua/c/35665790

⁴³³ Decree of Cabinet of Ministers №615 in the version dated 16 November 2021 https://zakon.rada.gov.ua/laws/show/615-2011-%D0%BF#n11
https://akon.rada.gov.ua/laws/show/615-2011-%D0%BF#n11
https://akon.rada.gov.ua/laws/show/ako

⁴³⁵ Finbalance (2021), National Security and Defense Council Imposed sanctions aganist 19 companies from Golden Derrick case. Media connected them with Fuks (https://finbalance.com.ua/news/mbo-vvelo-sanktsi-proti-19-kompaniy-zi-spravi-holden-derrik).

⁴³⁶ Nadra Info (2021), Special permits owners against the President. Subsoil users challenge the sanction of Security Council (https://nadra.info/2021/09/holders-of-special-permits-against-the-president-subsoil-users-massively-challenge-the-sanctions-of-the-national-security-and-defense-council/).

Permits for selected SOEs

The most recent cases of controversial award of special permits bypassing the auction procedure are related to offshore gas fields in the Black Sea and Yuzivska unconventional gas field in the Donetsk region. In both cases, the beneficiary was the state-owned company Naftogaz. With respect to the Yuzivska field, Naftogaz obtained permits for its use indirectly by purchasing from another state enterprise, Nadra Ukrayny, 99% participation in Nadra Yuzivska LLC⁴³⁷. The deal between the two SOEs was made public several days before it was concluded (18 December 2020).438 No details regarding the price of the purchased assets and conditions of the concentration were publicly known until January 2021⁴³⁹. The Chairman of the Board of Nadra Ukrayny explained such lack of information by considerations of commercial secrecy440. Another important aspect of this deal is the impact of the concentration on the natural gas market. Naftogaz, which controls major gas production assets Ukrgasvydobuvannya and Ukrnafta, has a considerable share in the wholesale segment. According to the Antimonopoly Committee, this share exceeds 50% of domestic gas consumption in Ukraine. Additional 3.8 billion cubic metres of gas that can be produced on the Yuzivka field can increase this share to 60%, thus posing a risk to the competition⁴⁴¹. Having that in mind, the Antimonopoly Committee obliged Ukrgasvydobuvannya JSC (owned by Naftogaz) to sell 15% of its gas production on the commodity exchange and to report on compliance with this obligation. The further effects of granting exploration rights to Naftogaz are open to debate, but the procedure of the transfer was not transparent.

The Cabinet of Ministers granted licenses for the exploration of offshore gas fields in the Black Sea to Naftogaz without auctions⁴⁴². This decision amends paragraph 8 of the Procedure for granting special permits for subsoil use by adding to the list of reasons for awarding license without auction one more clause, which is specifically related to Naftogaz and the Black Sea offshore gas fields (without specification). In comparison, other clauses of paragraph 8 describe general grounds for obtaining licenses without auction, which are not tied to a specific company or field. In this context, the new clause can be deemed at least selective (or even discriminatory). Besides, such a decision conflicts with long-established plans of the Ukrainian government to involve major foreign companies in exploration⁴⁴³. It is fair to say that such anticipations were considerably marred by the security situation in the Black Sea and the proximity of occupied Crimea. In terms of increasing domestic gas production, the decision to hand over offshore fields to Naftogaz may be reasonable, but in terms of transparency and investment attractiveness of Ukraine, such a decision is controversial. These awards of licenses do not appear as manifestations of corruption, but possibilities to make discretionary and non-transparent decisions concerning significant assets represent vulnerabilities to abuse, while the integrity of the involved decision-makers is the main remaining safeguard.

⁴³⁷ Naftogaz (2020), Naftogaz and Nadra Ukrainy signed contract on purchasing share in authorized capital of Nadra Yuzivska LLC (https://www.naftogaz.com/www/3/nakweb.nsf/0/A1BBCEFB3C8AE95DC22586420042F32C?OpenDocument).

https://amcu.gov.ua/news/zbir-informaciyi-shchodo-nabuttya-nak-naftogaz-ukrayini-u-vlasnist-chastki-u-statutnomu-kapitali-tov-nadra-

⁴³⁹ Mind.ua (2021), Naftogaz purchased Nadra Yuzivska for USD 15 mln. (https://mind.ua/news/20220542-naftogaz-ukrayini-pridbav-nadrayuzivska-za-15-mln)

⁴⁴⁰ Nadra Info (2021), Kuzmych Year: Quiet war for special permits and 15 ml dollars for Nadra Yuzivska, (https://nadra.info/2021/01/taraskuzmych-nak-nadra-ukrainy-interview/).

Decision of Anti-Monopoly Committee Ukraine Nº 811 dated December 2020 (https://amcu.gov.ua/storage/app/uploads/public/5ff/d5c/6fd/5ffd5c6fd631d800848975.pdf)

⁴⁴² Decree of Cabinet of Ministers of Ukraine №1172 dated 25 November 2020 (https://www.kmu.gov.ua/npas/pro-vnesennya-zmin-doporyadku-nadannya-specialnih-dozvoliv-na-koristuvannya-t251120).

⁴⁴³ Hroisman will initiate new tender for gas production on Black Sea shelf https://www.pravda.com.ua/news/2019/07/28/7222114/

Co-ordination with local authorities

Coordination with local authorities was an important procedural stage in obtaining special permits for subsoil use until December 2019. Then the Subsoil Code was amended, and the co-ordination was cancelled⁴⁴⁴ as an arguably corrupt practice. Relatively recent examples of local authorities blackmailing investors with a view of receiving unlawful financial benefits include the case when the major state-owned subsoil user Ukrgazvydobuvannya expressed complaints regarding the Poltava Regional Council, which in 2015-17 declined 60 special permits to the company⁴⁴⁵. Meanwhile, the mentioned Council had been approving licenses for little-known private companies without proven financial and technical capabilities to implement extractive projects⁴⁴⁶. As observers note, the case of Arkona Gaz-Enerhiia LLC would also not be possible without the 'goodwill' of Poltava regional authorities⁴⁴⁷. In connection with the agreement on the special permits, the Poltava Regional Council was interested in concluding so-called 'social agreements', which provide for funds transfer from subsoil users to the regional budget⁴⁴⁸. At the same time, the conclusion of such agreements was not legally obligatory as, according to the Budget Code of Ukraine, local budgets already receive up to 5% of royalties for subsoil use⁴⁴⁹.

On the one hand, the cancellation of local authorities' co-ordination of awarding licenses prevents such abuse of office. Even when the officials of the local authorities did not abuse the situation for their private advantage, possibilities to pose arbitrary requirements associated with granting the permits create a major corruption risk factor. On the other hand, the absence of the co-ordination requirement deprives local communities of mechanisms to hold extractive companies accountable. Thus, a more balanced decision with respect to local participation is required, with more leverage given to local communities (*hromadas*).

Environmental impact assessment

One of the prerequisites for obtaining a special permit for subsoil use is environmental impact assessment (EIA), which is to be carried out on both stages of exploration and production – with an EIA report to be approved by the Ministry of Environmental Protection and Natural Resources (MEPNR) or the relevant local authority. The procedure is prescribed by the EIA Law, 450 which implements provisions of the Directive 2011/92/EU. Yet, the practice of EIA still contains some loopholes that enable companies to restrict citizen participation. The main mechanism for such participation in public discussions take place before the publication of an EIA report. The law provides for two main forms of public discussion – public hearings and written proposals/comments regarding the scope and results of the EIA. The MEPNR or the relevant local authority is responsible for informing the public of the timeframe, location of public hearings, etc. The same responsibilities of informing rest with the company, planning to carry out an activity subject to the EIA.

As of December 2019, in the course of 373 environmental impact assessments that were carried out for extractive projects, 136 public hearings were held with no public participation⁴⁵¹. According to the Procedure for conducting public hearings in the course of Environmental Impact Assessment⁴⁵², even if community representatives fail to attend a public hearing, it may be considered as held. Subsoil users

⁴⁴⁴ Law of Ukraine №402-IX dated 19 December 2019 https://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=67039

https://ua-energy.org/uk/posts/ukrhazvydobuvannia-otsinylo-vtraty-hazu-cherez-poltavsku-oblradu

⁴⁴⁶Ukrainska enerhetyka (2018), *Ukrhazvydobuvannia* estimated gas losses from Poltava oblrada (https://ua-energy.org/uk/posts/derzhheonadr-dozvolyla-trom-malovidomym-kompaniiam-dobuvaty-haz-na-poltavshchyni-do-2038-roku)

⁴⁴⁷ Slovo i dilo (2021), NABU calls for interrogation former MP Kononenko (https://www.slovoidilo.ua/2021/01/05/novyna/polityka/nabu-vyklykaye-dopyt-eksnardepa-kononenka)

⁴⁴⁸ Zmist (2018), Who will produce Poltava gas? (https://zmist.pl.ua/blogs/hto-vidobuvatime-poltavskii-gaz).

⁴⁴⁹ Law of Ukraine №1793-VIII dated 20 December 2016 (https://zakon.rada.gov.ua/laws/show/1793-19#Text).

⁴⁵⁰ Law of Ukraine №2059-VIII in version dated 20 August 2021 (https://zakon.rada.gov.ua/laws/show/2059-19#Text)

⁴⁵¹ DiXi Group (2020), Environmental impact assessment in extractive industries: practice and problematic issues of application (https://dixigroup.org/wp-content/uploads/2020/10/dixi-ovd-ukr-13.01.pdf).

⁴⁵² Decree of Cabinet of Ministers of Ukraine dated 13 December 2017 №989 (https://zakon.rada.gov.ua/laws/show/989-2017-%D0%BF#Text)

sometimes abuse this provision to hold "fictitious" public hearings. Thus, companies may organize public hearings in locations, which are significantly remote from the actual place of the planned activity. One of the cases includes Ukrgasvydobuvannya JSC, which in the course of prolonging five special permits, held five simultaneous public hearings in Kharkiv, thus making public participation problematic, as the actual extractive activities were carried out in different parts of the region, some as far as 100 km from Kharkiv⁴⁵³. Some companies fail to devote enough time for Q&A sessions, which are integral parts of public hearings⁴⁵⁴. Besides, in considering public proposals and comments to the draft EIA report, the MEPNR or relevant authorities have been given significant discretion, as there is no formalized criteria for evaluation of such proposals. If to consider public accountability as the key counterweight to corruption, weaknesses associated with the EIA procedures represent significant corruption risk factors.

In general, among the drawbacks of the current EIA procedure is red tape, as the EIA report has to be prepared not only for the extractive project as a whole but also for drilling each new well or for any related type of activity, such as the construction of processing facilities. This demotivates companies from organizing due public discussions of EIAs and makes communities more reluctant to participate. On the other hand, since December 2019, EIA isn't required for product sharing agreement (PSA) projects. The investor is obliged to carry out EIA of planned activities only following the conclusion of PSA. This clearly bears the risk of project "freezing" in case of obtaining a negative EIA following the PSA conclusion, as the agreement will have to be either amended or terminated.

Dormant licences

Among the historical problems of subsoil use licensing are the so-called "dormant licenses". This term is used to describe fields with licenses awarded, yet with no exploration or production activity without a legitimate reason. As reported, due to clientelism or other types of corrupt relations, special permits for such fields were obtained for lower prices with the sole intention to resell them at market prices⁴⁵⁵. According to expert estimates based on the UAEITI reporting, at least 63 licenses for oil and gas fields are "dormant"⁴⁵⁶, i.e. licensees do not pay rent for subsoil use, create jobs or supply energy resources. Also, according to the SSGS, the estimated number of "conditionally dormant" licenses owned by the state-owned "Ukrhazvydobuvannia" was 63 in 2017⁴⁵⁷.

Several legislative and executive initiatives were aimed at solving the problem of 'dormant licenses'. In 2021, the National Security and Defence Council initiated an audit of all special permits for subsoil use ever issued⁴⁵⁸. The SSGS announced extraordinary inspections of the fields obtained under the beyond-auction procedure and fields with no extractive activity. Both initiatives are aimed at identifying 'dormant licenses'.

⁴⁵³ Yelyzaveta Aleksieieva (2019), *Public hearings in the EIA procedure: practice analysis and recommendations for improvement*, Environment-People-Law, (http://epl.org.ua/wp-content/uploads/2019/07/OVD_kejsy_analit_10.07.19-1.pdf).

⁴⁵⁵ Oilpoint (2019), *Take or pay: for whom the government awakens dormant licenses* (https://oilpoint.com.ua/beri-abo-plati-navishho-i-dlya-kogo-uryad-budit-splyachi-liczenzi%D1%97/?lang=uk).

⁴⁵⁶ DiXi Group (2021), "Понад 60 "сплячих" нафтогазових спецдозволів – аналіз звіту ІПВГ за 2019 рік", https://dixigroup.org/ponad-60-splyachyh-liczenzij-zvit-ipvg-2019-infografika/

⁴⁵⁷ Ministry of Energy and Natural Resources of Ukraine (2020), Regulatory impact analysis of the Subsoil Code of Ukraine https://mepr.gov.ua/files/docs/Proekt/2021/17022021/%D0%90%D0%A0%D0%92 %20%D0%9F%D1%80%D0%BE%D1%94%D0%BA%D1 %82%20%D0%9A%D0%BE%D0%B4%D0%B5%D0%BA%D1%81%D1%83.docx

⁴⁵⁸ National Security and Defense Council (2021), The President chaired meeting of the Security Council, during which the sanctions was applied against former President Yanukovych, high-level officials as well as companies in the field of subsoil use (https://www.rnbo.gov.ua/ua/Diialnist/4849.html)

To eradicate the 'dormant licenses', a new draft version of the Subsoil Code⁴⁵⁹ and other draft laws⁴⁶⁰ envisage the introduction of a fee for subsoil use, levied from all licensees, whether they develop mineral resources on their fields or not. Such an approach, as conceived by legislators, has to incentivize subsoil users to start an activity or sell the special permits (the possibility of alienating special permits is provided for in the draft Subsoil Code). Some businesses perceived such proposals negatively, indicating that a new fee will affect both "speculative" companies and good-faith investors, who did not start development due to objective reasons⁴⁶¹. Besides, in the opinion of licensees, executive authorities already have all the necessary tools for dealing with "dormant licenses". The SSGS is entitled to cancel a special permit if, during two years (for oil and gas fields – 180 calendar days), the subsoil user has failed to start its activity⁴⁶². Precedents of cancelling special permits, resulting from inspections by the Department of State Geological Control of the SSGS, did take place. Nevertheless, according to the head of the SSGS Roman Opimakh, such decisions are successfully challenged in courts⁴⁶³.

At the same time, there is an opposite extreme, when licenses of mala fide subsoil users are annulled, bypassing lawful procedures. An example of such annulment is the termination of special permits of 19 companies by the SSGS, which took place in March 2021 and was based solely on the National Security and Defence Council decisions⁴⁶⁴ bypassing court procedures. The subsoil users tried to challenge such annulment in court, but as of November 2021 in one of the cases the court ruled in favour of the SSGS⁴⁶⁵.

One of the solutions to improve licensing in the extractive sector was the introduction of electronic auctions for selling special permits based on a respective governmental resolution 466. The initiative has made the procedure of awarding licenses for subsoil use transparent, although the provision allowing the award of a license without auction remains in force. In the course of an auction held on ProZorro. Sale platform, the organizer and participants do not interact directly, which also prevents corruptive conspiracy. The only criteria for the selection of a winner is the price proposed, which is absolutely transparent. Such auction design is perfectly fit for commodity exchange auctions, but in case of selling special permits, more detailed criteria for extractive activity, which requires long-term investments and technical capacities, are not considered. The procedure for conducting electronic auctions does not provide for integrity checks of the participants, and the only grounds for cancelling the results of the auction are: 1) failure to pay for license; 2) refusal to sign the contract on license purchase; 3) imposition of sanctions against the winner or its officials 4) terrorism financing by the auction winner confirmed by law enforcement agencies. The SSGS must also have other instruments for ruling out mala fide investors.

3.3.3. Heat supply sector

An important trait of efficient licensing policy is integrity, which is to be ensured by, *inter alia*, a clear and non-contradictory regulatory framework and a coherent approach of public authorities in implementation.

459Проект, Кодекс про надра, https://mepr.gov.ua/files/%D0%9F%D1%80%D0%BE%D1%80%D0%BE%D0%BA%D1

⁴⁶⁰ Draft Law of Ukraine № 4187 dated 5 October 2020 (http://w1.c1.rada.gov.ua/pls/zweb2/webproc4 1?pf3511=70117)

⁴⁶¹ Association of Gas Extraction Companies of Ukraine, proposals for draft laws, 8 February 2021, (https://itd.rada.gov.ua/billInfo/Bills/pubFile/532298).

⁴⁶² Subsoil Code of Ukraine in version dated 26 August 2021 (https://zakon.rada.gov.ua/laws/show/132/94-%D0%B2%D1%80#Text)

⁴⁶³ State Service for Geology and Subsoil of Ukraine (2020), *Head of Derzhoenadra Roman Opimakh: We are making revolution* (https://www.geo.gov.ua/golova-derzhgeonadr-roman-opimax-mi-robimo-revolyuciyu/).

⁴⁶⁴ Економічна правда (2021), "Зеленський ввів у дію санкції проти 19 надрокористувачів", https://www.epravda.com.ua/news/2021/03/26/672328/

⁴⁶⁵ Надра.Инфо (2021), "Санкційні надра: перше рішення суду про спецдозвіл, анульований PHБO", https://nadra.info/2021/11/sanctional-subsoils-the-first-court-decision-in-the-case-of-a-special-permit-annulled-by-rnbo-decree-has-been-published/

⁴⁶⁶ Decree of Cabinet of Ministers of Ukraine №848 dated 17 October 2018 (https://www.kmu.gov.ua/npas/pro-realizaciyu-eksperimentalnogo-proektu-iz-789).

Excessive decentralization that exists in heat production, transportation and supply licensing significantly precludes such integrity and raises questions regarding the distribution of functions between the NEURC and local authorities.

In 2017, the regulation of most heat supply enterprises was transferred from the NEURC to local authorities⁴⁶⁷. The NEURC remained responsible for licensing enterprises that supplied more than 170 thousand GKcal of heat annually and whose share of consumers equipped with heat meters exceeded 70%. As of March 2019, only 26 out of 1644 district heating enterprises were licensees of the NEURC. The rationale behind the decision was to give local authorities powers to lower tariffs for heat supply, which in their opinion, were overinflated⁴⁶⁸. Also, in general, the decision followed the logic of the decentralization reform, which was initiated in 2014. At the same time, such redistribution of the licensing powers contained some risks.

First, risks stem from the inefficient performance in the discharge of controlling functions by local authorities. As licensing bodies, they are responsible not only for determining tariffs for heat supply but also for overseeing companies' compliance with licensing conditions, which are still defined by the NEURC, along with key tariff methodologies. In the course of inspecting three regional administrations (i.e. licensing bodies), the State Regulatory Service^{469,470,471} discovered that two of them did not carry out any inspections of heat supply enterprises, while one did so in violation of respective legislation. This suggests that representatives of local authorities do not possess the necessary expertise for such inspections. Besides, it still remains unclear whether regional authorities are entitled to sanction their licensees for violating licensing conditions. Thus, during the inspection, the Kyiv Region State Administration identified violations of licensing conditions by Ukrteplo Kyiv LLC.⁴⁷² The only effect of the inspection was the demand to fix the violations without any penalties, although, according to the Law of Ukraine on Heat Supply⁴⁷³, in case of violating licensing conditions, the licensee can be sanctioned by a fine of up to 34 thousand UAH. In fact, many heat supply enterprises are communal, i.e. they belong to the municipal authorities that oversee their activities and may be reluctant to sanction their licensees due to such conflict of interest.

The tariff policy is another aspect of the licensing activity. Leaders of municipal authorities are reluctant to raise tariffs for heat supply, as it may affect their political perspectives to be re-elected. Households are traditionally sensitive to the problems of utility tariffs⁴⁷⁴, so any raises may cause social distress. However, as heat supply enterprises are in multi-billion debts⁴⁷⁵ due to low-tariff revenues, heating bills have to be

⁴⁶⁷ НКРЕКП (2019), "Перелік ліцензіатів НКРЕКП у сферах теплопостачання, централізованого водопостачання та водовідведення, що переходять під регулювання місцевих органів влади", https://www.nerc.gov.ua/?id=24259

⁴⁶⁸ НКРЕКП (2018), "Незважаючи на власні обіцянки знизити тарифи при стабільних цінах на газ місцева влада протягом 2017-2018 років їх підвищувала - моніторинг НКРЕКП", https://www.slideshare.net/NKREKP/20172018-120413022

⁴⁶⁹ Державна регуляторна служба України, "Акт планової перевірки додержання Полтавською обласною державною адміністрацією вимог законодавства [..] від 08.06.2018 № 7/58-Л-2018", teplovoyi-energiyi-transportuv/

⁴⁷⁰ Державна регуляторна служба України, "Акт планової перевірки додержання Рівненською обласною державною адміністрацією вимог законодавства у сфері ліцензування господарської діяльності від 17.03.2020 № 3/15-Л-2020", <a href="http://www.drs.gov.ua/state-supervision/akt-planovoyi-perevirky-doderzhannya-rivnenskoyu-oblasnoyu-derzhavnoyu-administratsiyeyu-vymog-zakonodavstva-u-sferi-litsenzuvannya-gospodarskoyi-diyalnosti-vid-17-03-2020-3-15-I-2020/

⁴⁷¹ Державна регуляторна служба України, "Акт планової перевірки додержання Житомирською обласною державною адміністрацією вимог законодавства у сфері ліцензування господарської діяльності від 09.07.2019 №7/106-Л-2019", http://www.drs.gov.ua/state_supervision/akt-planovoyi-perevirky-doderzhannya-zhytomyrskoyu-oblasnoyu-derzhavnoyu-administratsiyeyu-yymog-zakonodavstva-u-sferi-litsenzuvannya-gospodarskoyi-diyalnosti-vid-09-07-2019-7-106-I-2019/

⁴⁷² Київська обласна державна адміністрація (2019), Про усунення порушень ліцензійних умов у сфері виробництва, транспортування та постачання теплової енергії за результатами перевірки суб'єкта господарювання товариства з обмеженою відповідальністю "Укртепло Київ", http://koda.gov.ua/normdoc/pro-usunennya-porushen-licenziynikh-um/

⁴⁷³ Law of Ukraine №2633-IV in version dated 13 November 2021 https://zakon.rada.gov.ua/laws/show/2633-15#Text

⁴⁷⁴ Razumkov Center (2021), *Ukrainians perception of tariff policy (March 2021)* (https://razumkov.org.ua/napriamky/sotsiologichni-doslidzhennia/stavlennia-gromadian-ukrainy-do-taryfnoi-polityky-berezen-2021)

⁴⁷⁵ Naftogaz 2021, Naftogaz's counterparties increased the debts for gas by UAH 8 057 mln to UAH 98,1 bln

raised to cover costs. Besides, beginning from May 2021, the government terminated the regulation of prices for gas used in heat production. Thus the financial problems of district heating enterprises could even deepen. In 2020 the Antimonopoly Committee initiated 11 investigations against 7 heat supply enterprises and 4 local authorities suspected of violation of competition law⁴⁷⁶. In 2020, the total number of violations in the heat supply sector identified by the territorial departments of AMCU amounted to 89.

Given such a complex situation in the heating sector, it requires integrated regulation, currently complicated with multiple local authorities as licensing bodies and lack of public control. In July 2021, the NEURC again amended the licensing conditions for the heating sector, transferring all the powers related to the regulation of heat production, transportation and supply to local authorities who are eligible to set tariffs and approve investment programs⁴⁷⁷. The general framework of regulation would remain a domain of the NEURC, but this does not solve the issue of the dispersed licensing and controlling policy. From the purely anti-corruption point of view, no a priori recommendation in favour of centralisation or decentralisation can be made. Finding the preferred solution would require a detailed assessment of the relevant risks on both the local and central levels. However, in view of the mentioned weaknesses of the local capacity and institutional conflicts of interest, a higher degree of centralisation appears to have significant advantages.

3.3.4. Licensing in the oil products market

In July 2019, the Law No. 2628-VIII amending the Tax Code and other legal acts came into force⁴⁷⁸. Among the novelties was the introduction of a licensing regime for oil products storage, production, wholesale and retail trade. The rationale behind the law was the eradication of the shadow market of oil products that should result in greater revenues for the state budget. According to expert estimates, in 2020, losses resulting from tax avoidance by illegal refineries and petroleum stations amounted to 19 billion UAH⁴⁷⁹. In this context, stricter control for petroleum products turnover seemed logical.

On the other hand, the new law was criticized for excessive red tape, which was manifested in an extensive list of documents required for obtaining licenses⁴⁸⁰. The State Regulatory Service warned that businesses, especially small enterprises, were not ready for the licensing regime and pointed out some contradictions in administering oil products turnover⁴⁸¹. Besides, the new regulations significantly affected the agricultural sector of the economy, as both small farmers and influential agro-holdings possessed capacities for oil products storage, which also are subject to licensing⁴⁸². Permitting documents had to be obtained for all immovable reservoirs of petroleum, with volume exceeding 5 liters. 483 Sanctions for the absence of license were set quite strict and ranged from 250,000 UAH to 1 million UAH, depending on the type of activity. As

(https://www.naftogaz.com/www/3/nakweb.nsf/0/28107ADE23EBC247C22586B7004C59F6?OpenDocument).

Committee Ukraine (2021),Anti-Monopoly of 2020 Annual Report

⁽https://amcu.gov.ua/storage/app/uploads/public/605/4a0/e26/6054a0e268fc0702551413.pdf)

477 National Energy and Utilities Regulatory Commission (2021), NEURC transferred powers on regulating activity of heat producing enterprises at the local level (https://www.nerc.gov.ua/?news=11717).

⁴⁷⁸ Law of Ukraine №2628-VIII in version dated 2 April 2020 (https://zakon.rada.gov.ua/laws/show/2628-19#Text).

⁴⁷⁹ Enkorr (2021), "Budget Losses from illegal schemes on oil products market will exceed UAH 20 bln in 2021 -"A-95"", (https://enkorr.ua/uk/news/poteri_gosbyudzheta_ot_nelegalnyh_shem_na_rynke_nefteproduktov_v_2021_godu_prevysyat_20_mlrd_grn_a-

⁴⁸⁰ M.E.Doc (2019), "Ліцензування на ринку пального: запитання-відповіді від ДФС", https://medoc.ua/blog/licenzuvannja-na-rinku-palnogo-

⁴⁸¹ State Regulatory Service of Ukraine (2019), Businesses in Ukraine, especially small ones, are not prepared for introduction of licensing fuel storge, which is to come into force form 1 of June (http://www.drs.gov.ua/press-room/biznes-v-ukrayini-osoblyvo-malyj-ne-gotovyj-vvedennyalitsenzuvannya-zberigannya-palyva-yake-maye-nabuty-chynnosti-z-1-lypnya/)

⁴⁸² Mykola Topalov, Oksana Pyrozhok (2019), New rules on petroleum products market: who will be affected by the war with illegal petroleum stations (https://www.epravda.com.ua/publications/2019/07/1/649203/).

Головне управління ДПС у Житомирській області (2021), Порядок ліцензування торгівлі на зберігання пального, https://zt.tax.gov.ua/media-ark/news-ark/463447.html

a result of the unpreparedness of business to the introduction of the licensing regime, the collection of fines for its violations was postponed two times and became effective only on 1 April 2020⁴⁸⁴.

The licensing regime has not generally reached its goal, as the shadow market of oil products still poses a problem for fiscal authorities (see the section on oil and gas)⁴⁸⁵. Moreover, there is evidence that illegal filling stations and mini-refineries successfully adapted to the licensing regime and obtained the permitting documents⁴⁸⁶. In July 2020, the media inspected a number of licensed petroleum stations in Kropyvnytskyi and concluded that most of them do not meet basic requirements of safety and have all traits of illegalness. This suggests that licenses for such stations were obtained in a corrupt way under the auspices of local law enforcement agencies, which are often said to "protect" illegal stations⁴⁸⁷. As a result, the licensing regime, due to deficiencies and lack of political will, did not address corruption practices and likely even turned into a factor generating more corruption. On the face of it, the situation appears to be an example of overregulation where the capacity of enforcement does not match the strictness of the rules.

3.3.5. Conclusions and recommendations

While it seems rather obvious that flaws in regulations regarding regulatory bodies or procedures and criteria for awarding permits and licences represent significant corruption risk factors, it is also clear that public bodies with high standards of integrity would not allow the materialisation of corruption risks due to the flawed regulations alone. The assessment of internal corruption risks (including risks associated with individuals in official positions) in the regulatory bodies is beyond the scope of this assessment, but such risks are an integral part of the full picture of uncertainties caused by possible corruption.

Some kinds of the corruption incidents or appearances thereof described in this chapter took place several years ago, and, since then, the legal framework and implementation practices have been strengthened. Incremental improvements are visible such as the reduction of the risk of artificial lowering of the initial cost of special permits or efforts to eradicate the "dormant licenses". On the other hand, further actions are needed to tackle a number of vulnerabilities.

Recommendations:

- Ensure independent status of the National Energy and Utilities Regulatory Commission from any
 public or private body, including to prevent political interventions into the decision-making process
 of the National Energy and Utilities Regulatory Commission in law and practice. Introduce
 necessary safeguards in appointment and dismissal of commissioners through a clear and meritbased procedure.
- Minimize the list of grounds for awarding special permits bypassing the auction procedure.
- Take steps to ensure that proposals within environmental impact assessments are evaluated based on clear criteria, that such evaluation is done in a transparent and inclusive manner enabling meaningful participation the interested stakeholders.
- Integrate qualitative criteria in the procedures of selecting subsoil users, with the view to determining the financial and technical capacity of bidders to carry out exploration and production.
- Consider introducing a legal obligation to disclose contracts on subsoil use (which are an integral
 part of a special permit) as well as their essential conditions.

⁴⁸⁴ Law of Ukraine № 391-IX dated 18 December 2019 https://zakon.rada.gov.ua/laws/show/391-20#n222

⁴⁸⁵ Kosatka.Media (2021), Fight with illegal petroleum stations: how does it work and what are the results (https://kosatka.media/uk/category/blog/news/borba-s-nelegalnymi-azs-kak-proishodit-i-kakie-rezultaty)

⁴⁸⁶ Enkorr (2020), Under cover of licenses (https://enkorr.ua/ru/publications/pod_pokrovom_licenzii/242146).

⁴⁸⁷ Volyn Regional Prosecutor's office (2018), Officials of State Service of Ukraine for Food Safety and Consumer Protection and State Emergency Service found guilty in obtaining unlawful benefits (https://vol.gp.gov.ua/ua/news.html?_m=publications&_t=rec&id=238212&fp=1601).

Strengthen oversight over local authorities as licensing bodies, particularly regarding the
performance of their controlling functions, sanctioning functions in cases of violations of licensing
conditions and conflict of interest rules.

3.4. Electricity markets

Ukraine launched the new model of the electricity market on 1 July 2019 following the adoption of the Law of Ukraine "On the electricity market" (the Law) in 2017. Between the adoption of the Law and opening of the market, Ukraine undertook all preparation measures, including the adoption of the required secondary legislation, unbundling, implementation of the key IT solutions.

After the launch of the new electricity market, Ukraine faced many challenges. There are still many system issues that lead to potential corruption risks and should be resolved in order to provide data transparency, market competition, fair rules of electricity trading and monitoring.

3.4.1. Public service obligations (PSO)

In order to ensure lower electricity tariffs for households at the new electricity market, the Law on Electricity Market determined the special mechanism – public service obligations (PSO). Under the PSO, the lower electricity tariffs for the households are subsidized by the state-owned Energoatom and Ukrhydroenergo.

The PSO was introduced at the electricity market by the Resolution of the Cabinet of Ministers of Ukraine (CMU) No. 483 dated 5 June 2019. According to it, up to 90% of the electricity generated by Energoatom and 35% by Ukrhydroenergo should be sold at a fixed rate (i.e. regulated price) to the Guaranteed Buyer (GB)⁴⁸⁸. Under this model, Energoatom and Ukrhydroenergo sold electricity at lower prices than the market level, comparing to other electricity producers, which had market preferences.

The last iteration of the PSO model was introduced by the CMU Resolution No.239 dated 24 March 2021⁴⁸⁹, changing the functions of the main PSO players. Beginning with 1 June 2021, the GB was excluded from the model of electricity supply to the households, while Energoatom and Ukrhydroenergo were assigned to ensure the supply of electricity directly to the universal service suppliers⁴⁹⁰.

All the above PSO models are the so-called "commodity-based PSO" when a defined volume of electricity is sold by state-owned producers at fixed prices below the market level⁴⁹¹. It leads to market distortion when the state-owned producers are under conditions different from the market conditions for private-owned producers. The optimal model is the financial PSO when state-owned producers sell electricity at market prices and compensate suppliers for the difference between the market price and the fixed price for households⁴⁹². A significant risk associated with the PSO is a financial destabilization of the SOEs, if the costs associated with the PSO jeopardize the recovery of production costs. An SOE in financial difficulties also becomes more prone to corruption risks.

⁴⁸⁸ It should be noted that these figures have been subject to repeated adjustments over the course of the last year. For Energoatom, this figure has fluctuated from 90 to 75 %, and for Ukrhydroenergo this figure has fluctuated from 20 to 50 %.

⁴⁸⁹ CMU Resolution No.239 dated 24 March 2021

⁴⁹⁰ According to the CMU Resolution No.239 dated 24 March 2021, the price of electricity at which generating companies sell it to universal service suppliers (USS) is defined as the difference between the weighted average fixed price for the households (UAH 1.68/kWh) and tariffs for transmission, distribution, and USS service but not less UAH 10/MWh (UAH 0.01/kWh). Currently, a fixed tariff of UAH 150/MWh is set for Energoatom and UAH 10/MWh for Ukrhydroenergo

⁴⁹¹ https://www.cms-lawnow.com/ealerts/2021/09/changes-to-ukrainian-electricity-market?cc_lang=en

⁴⁹² Energy Community report – to be added:

3.4.2. Limited competition in the market

The current power sector is characterized by a limited competition, but the generation mix is balanced for different types of generators. Overall, the four largest generators – Energoatom, Ukrhydroenergo, DTEK and Centrenergo – produce around 85% of the country's electricity output. On the generation side, at least 60% of the generation capacity is with state-owned companies, and most of the remainder (with the exception of the renewables-based production) is produced by DTEK⁴⁹³.

During one year of the transition period, the heavy regulation is motivated by the objective, from the start of the launch of the wholesale market, to keep the prices for households under control. However, existing anti-monopoly measures to protect consumers from these incumbents' market power lack stringency.

Following the initial design of the PSO, Energoatom was de-facto blocked from the bilateral agreements segment. Thermal generators, mainly represented by DTEK, were not constrained by any limitations and faced no competition from the country's biggest generator. As a result, thermal generators dominated the bilateral agreement segment.

DTEK controls large shares in most market segments and:

- dominates the bilateral contracts market (BM),
- controls around 40% of retail (estimate based on the NEURC reports),
- can influence the market price in the day-ahead market (DAM) by shifting away demand volumes via intragroup trading,
- controls 43% of distribution via 7 of 32 DSOs in Ukraine⁴⁹⁴.

14,000 Fotal Available Capacity, 12,000 10,000 8,000 6,000 4,000 2,000 EΑ GB UHE DTEK CE DE Others www special sessions PSO Aug'20 - min load - max load

Figure 3.1. Market concentration on the bilateral contract market

Source: Low Carbon Ukraine

In the Burshtyn energy island (BEI) trading zone, there is a classical monopoly, where a single generator, the Burshtyn power plant owned by DTEK, can cover the whole demand, only contested by the priority dispatch of energy from RES and cogeneration (CHP). Besides, DTEK can exercise market power on cross-border allocation auctions and influence the import-export volumes. No specific regulations have

⁴⁹³ https://www.oecd.org/corporate/SOE-Reform-Electricity-Sector-Ukraine-ENG.pdf

⁴⁹⁴ https://www.lowcarbonukraine.com/wp-content/uploads/20200922_MEMO_5_ENG.pdf

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been imposed on DTEK in the BEI trading zone since the market opening, besides market-wide price caps, which are above its marginal costs of production. DTEK exercises its power via:

- control over cross-border allocations,
- limitations to import volumes due to reserves requirements,
- intragroup trading to related suppliers,
- bidding at the highest possible prices, and
- withholding volumes from the DAM and shifting to the BM (which features higher price caps).

3.4.3. Auction design for state-owned producers

According to the Law on the electricity market, all companies with more than 50% of state ownership are obliged to sell electricity at the bilateral contract market by the special auction platform. The CMU has adopted the relevant rules for such electricity sale. 496 The Ministry of Energy is responsible for designating the relevant auction platform. Since the market opening, the Ukrainian Energy Exchange (UEEX) was selected as the sole auction platform.

The main SOE sellers at the auction platform are Centrenergo, Energoatom, Ukrhydroenergo. Following the analysis of SOE activity at the auction sessions, we can define certain issues:

- Starting prices are always higher than strike prices;
- Strike prices for Centrenergo were considerably lower than on the DAM;
- Sellers tend to increase the financial guarantee requirement;
- The variability of buyers is low. Only a limited set of companies has enjoyed access to long-term contracts with state-owned generation on most of the trade sessions observed⁴⁹⁷.

Such problems are related to the auction design, which allows to create the artificial entry barriers, limit access to electricity from SOEs to smaller players, provide benefits for big industrial players which can buy electricity at lower prices at big volumes with further ability to re-sell it with a significant margin. The media had reported on cases when Centrenergo and Energoatom sold electricity through the auction sessions at lower prices to the individual companies related to Ukrainian oligarchs⁴⁹⁸. Notwithstanding the merits of the particular reported episodes, such observations attest to the presence of significant risks of corrupt depletion of resources of the SOEs.

3.4.4. Price caps

In the transition to the new market model in Ukraine, price caps were considered the best way to prevent possible price shocks. Such measures should be temporary, but they remain, depriving participants of full participation in all market segments and failing to stimulate competition⁴⁹⁹.

The NEURC takes the decisions on setting price caps at the electricity markets without long-term planning and manually, thus creating the potential risk of serving the interests of certain market participants. For example, on 16 June 2021, the NEURC increased the maximum price caps on the day-ahead and the intraday electricity markets in the trade zone of the United Energy System of Ukraine, for "day" hours

⁴⁹⁵ https://www.lowcarbonukraine.com/wp-content/uploads/20200922 MEMO 5 ENG.pdf

⁴⁹⁶ Cabinet of Ministers https://zakon.rada.gov.ua/laws/show/499-2019-n#Text

⁴⁹⁷ https://www.lowcarbonukraine.com/wp-content/uploads/20200922 MEMO 5 ENG.pdf

⁴⁹⁸ https://www.epravda.com.ua/news/2020/11/16/668049/

⁴⁹⁹ https://razumkov.org.ua/statti/udoskonalennia-diiuchoi-modeli-optovogo-rynku-elektrychnoi-energii

(07:00-23:00) – up to 2655.99 UAH / MWh, for "night" hours (23:00-07:00) – up to 1243.71 UAH / MWh⁵⁰⁰. In less than two months, on July 30, 2021, the NEURC increased the level of price caps again, much higher than before – on the day-ahead and the intraday electricity markets in the trade zone of the United Energy System of Ukraine, for "day" hours (07:00-23:00) – up to 4000.00 UAH / MWh, for "night" hours (23:00-07:00) – up to 2000.00 UAH / MWh. The official justification was related to the increase of prices for fuels (coal) on the spot markets, crucial for the costs of thermal power generation⁵⁰¹. Such 'manual' decision by the NEURC could create an extra margin for traders who might have known about such decision by the NEURC before its official publication and purchased the cheaper electricity in order to re-sell it after the new price-caps are fixed.

Such dependence of market players on the 'manual' decisions by NEURC is not justified and far from the market-based principles, thus creating different corruption risks.

3.4.5. Monitoring electricity markets

In European practice, energy markets are monitored in accordance with the provisions of Regulation 1227/2011 of the European Parliament and of the Council of 25 October 2011 on the integrity and transparency of the wholesale energy market, or the so-called REMIT regulation. The regulation establishes a legal framework for identifying and penalising insider trading and market manipulation in wholesale electricity and gas markets across Europe⁵⁰². The REMIT regulation requires market participants to report all trade to the regulator and the Agency for Co-operation of Energy Regulators (ACER). The national regulators and ACER analyse the information and start investigations if something strange is detected⁵⁰³.

Ukraine is obliged to implement REMIT into its legislation taking into account its obligations in accordance with the Law of Ukraine "On Ratification of the Protocol of Accession of Ukraine to the Treaty Establishing the Energy Community" and the decision of the Council of Ministers of the Energy Community No. 2018/01 / MC-EnC from 29 November 2019⁵⁰⁴. Currently, the draft of the REMIT Law is discussed by the Parliament.

3.4.6. Debts accumulation

Since the launch of the new electricity market, the debts between market participants have accumulated. The nature of such debts varies, and their causes include cross-subsidies, the imperfect PSO mechanism, imperfect market rules, and market failures. All chains of debts are shown in the Figure .

⁵⁰⁰ https://expro.com.ua/novini/nkrekp-zblshila-prays-kepi-na-rdn-ta-vdr-v-oes-ukrani

⁵⁰¹ https://expro.com.ua/novini/nkrekp-zblshila-prays-kepi-na-rdnvdr-v-oes-ukrani--do-2000-ta-4000-grnmvt-god

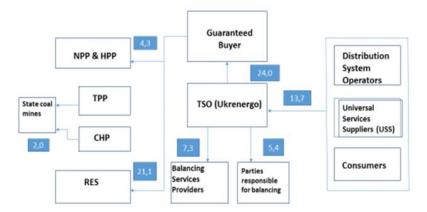
 $^{^{502} \ \}text{https://www.cms-lawnow.com/ealerts/2020/1} \\ \underline{^{2020/12/ukraine-proposes-implementing-remit-for-energy-markets-in-2021?cc_lang=en} \\ \\ \underline{^{502} \ \text{https://www.cms-lawnow.com/ealerts/2020/1} \\ \underline{^{2020/12/ukraine-proposes-implementing-remit-for-energy-markets-in-2021?cc_lang=en} \\ \underline{^{502} \ \text{https://www.cms-lawnow.com/ealerts/2020/1} \\ \underline{^{2020/12/ukraine-proposes-implementing-remit-for-energy-markets-in-2021?cc_lang=en} \\ \underline{^{502} \ \text{https://www.cms-lawnow.com/ealerts/2020/1} \\ \underline{^{2020/12/ukraine-proposes-implementing-remit-for-energy-markets-in-2021?cc_lang=en} \\ \underline{^{502} \ \text{https://www.cms-lawnow.com/ealerts/2020/1} \\ \underline{^{50$

⁵⁰³ https://www.lowcarbonukraine.com/wp-content/uploads/Reforming-Ukraines-electricity-market.pdf

⁵⁰⁴ AMCU Report 2020 https://amcu.gov.ua/storage/app/uploads/public/605/4a0/e26/6054a0e268fc0702551413.pdf

Figure 3.2. Debts at the electricity market as of May 2021, UAH billion

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Source: Razumkov Centre⁵⁰⁵

Such situation leads to a lack of funds for fuel and scheduled repairs for thermal power plants (TPP) and nuclear power plants (NPP) and can create an energy crisis. Ensuring that the repair campaign is carried out in due time requires a prompt review of the electricity balance for 2021 (developed by Ukrenergo and approved by the Ministry of Energy)⁵⁰⁶.

Taking into account that the settlement of some debts depends on the state and regulatory decisions, it can lead to the dependence of certain market players on such decisions.

3.4.7. Conclusions and recommendations

The large state-owned electricity producers Energoatom and Ukrhydroenergo are subject to significant public service obligations, which at least potentially involve certain risks of financial destabilization. The Ukrainian electricity market has limited competition. The lack of competition, the auction system for the BC market, and the practice of setting price caps open opportunities for different kinds of abuse, for example, sales by SOEs to certain buyers at deliberately lowered prices. The significant and somewhat discretionary impact of regulatory decisions on the market operation together with insufficient monitoring and transparency, create favorable conditions for possible collusion between certain market participants and state bodies.

In order to resolve or minimize the described issues in the electricity market of Ukraine that relate to potential corruption risks, it looks reasonable to take the relevant measures:

Recommendations:

- See Recommendations for Section 2.6.
- Explore opportunities and take steps to strengthen competition at the electricity markets and ensure effective role of the Anti-Monopoly Committee of Ukraine.
- Ensure that the price caps are set in the transparent procedure and define deadlines for revoking the price caps.
- See General recommendations for Chapter 2.

⁵⁰⁵ https://razumkov.org.ua/en/articles/improving-the-wholesale-electricity-market-model-in-ukraine

⁵⁰⁶ https://razumkov.org.ua/en/articles/improving-the-wholesale-electricity-market-model-in-ukraine

4 Anti-Corruption Measures

4.1. Anti-corruption policy

4.1.1. National anti-corruption policy

Currently, Ukraine does not have an anti-corruption strategy. The previous Anti-Corruption strategy expired in 2017, development and adoption of the new strategy has taken 4 years and is not yet finalised. This has created a certain vacuum in the policy area in regards to anti-corruption measures, and the state efforts are not clearly directed or defined. To some degree, this may explain why anti-corruption issues are not among clear policy priorities for many of the state institutions, including in the energy sector, as described later in this section.

Draft Law on adopting the basic principles of state anti-corruption policy for 2021-2025 (draft Anti-Corruption Strategy) was prepared by the NACP and is currently pending its second reading in the Parliament⁵⁰⁷. This draft Anti-Corruption Strategy does not focus specifically on the energy sector. However, many of the proposed measures contained within would help address existing corruption and corruption risks in the sector.

In particular, the draft Anti-Corruption Strategy addresses issues, which pose corruption risks in the areas of governance of the state-owned enterprises, such as the absence of a clear definition of persons obliged to submit asset declarations; absence of clear obligation to transfer responsibilities for oversight over anticorruption measures to the supervisory boards, in the SOEs where such boards are to be established; no mandatory introduction of internal controls and risk management systems in the strategically important SOEs. It also addresses issues of unregulated and non-transparent lobbying in the Parliament; the lack of transparency in privatisation processes; the discretionary or selective state control and inspection of the businesses, etc. Other parts of the draft Anti-Corruption strategy address issues in regards to the effectiveness of the anti-corruption units and officers; unregulated issues in regards to the management of the conflict of interest – all of which are most relevant to the energy sector.

There is no clear positive prognosis for the adoption of the draft Anti-Corruption strategy, as the draft has been in the Parliament for over a year; it was originally registered in September 2020. Many of the non-government stakeholders, interviewed by the OECD expert team, have expressed scepticism in regards to its expedient adoption for various reasons – it being too progressive a document, the MPs being not positively inclined towards documents originating from the NACP due to their effectiveness – these have been named as a few reasons. Regardless, the absence of an anti-corruption policy sends a clear signal of country's challenges to tackle the problem in a consistent and coherent manner with a strategy in mind.

As regards to the energy sector, NACP reported that no risk assessments have been carried out by the state in the energy sector as a whole or in any of its subsectors, including oil and gas, coal, nuclear energy, hydro energy, or renewable sources of energy. In 2020, NACP prepared an analytical study to determine top areas of public administration and economy with high potential of corruption risks. The aim of this study

ENERGY SECTOR IN UKRAINE © OECD 2021

⁵⁰⁷ Верховна Рада України (2021), "Проект Закону про засади державної антикорупційної політики на 2020-2024 роки", http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=70007.

was to select areas for further in-depth strategic analysis of corruption risks with the view to eliminate and prevent corruption schemes. The energy sector was identified among the top five. Moreover, the energy sector featured among the top two according to statistical data on criminal proceedings completed in corruption cases between 2017-2019, the number of persons registered in the Unified register of corruption offenders between 2017-2020, and the list of high-profile corruption cases compiled based on mentions in reports of the criminal justice bodies between 2017-2020. Similarly, it was second most frequently featured in publications of investigative journalists and those from civil society activists. ⁵⁰⁸

As a result, the NACP has shared its intention to carry out a strategic risk analysis of the energy sector in line with the newly developed methodology starting from the end of 2021-first part of 2022. NACP representatives further shared that the OECD Anti-Corruption Review of the Energy Sector in Ukraine will give initial grounds for their work, and the Agency intends to build on the findings of this report.

4.1.2. Institutional anti-corruption documents

In addition, to the nationwide anti-corruption policy document, each state institution is obliged to carry out its own risk assessment and develop anti-corruption programmes at its institutional level. This exercise is being carried out with various consistency by all state institutions with functions in the energy sector that are reviewed in this report, including the Ministry of Energy, NEURC, Ministry of Environmental Protection, State Regulatory Service, State Inspectorate for Energy Supervision, State Geologic and Subsoil Service (Derzhgeonadra), State Ecological Inspectorate, State Agency for Energy Efficiency and Energy Saving, Ministry of Economy, State Nuclear Regulatory Inspectorate (SNRI), and the State Property Fund. Most of these institutions have adopted or are in the process of adopting of the anti-corruption strategy, and such documents can be found on their respective websites.

For example, State Agency for Energy Efficiency and Energy Saving, State Inspectorate for Energy Supervision have adopted anti-corruption programmes. Others are preparing such programmes and are at different stages. At the time of the meetings with the government for this review, NEURC and (Derzhgeonadra) were finalising the adoption of their anti-corruption programmes after incorporating feedback from the NACP. The Ministry of Energy was in the process of developing its anti-corruption programme. The OECD experts received no information regarding the Ministry of Environmental protection and its progress or work in this direction.

The process of development of the strategies is similarly organised in all these institutions. A Commission composed of representatives of this state body (often heads of departments) with secretariat support of the anti-corruption unit/officer both develops and, in most cases, monitors implementation of the anti-corruption programme in the energy sector state institutions. Civil society representatives are in most cases invited to take part. This is done through announcements on the website and calls to submit information in regards to corruption risks by filling out special forms posted on the websites of the agencies. Participation of the civil society and external experts does not seem to be established practice, and very few agencies report having received any inputs from external stakeholders.

Currently, such Commission has been established and is working in the Ministry of Energy. The Commission is composed of various heads of the Ministry's departments and structural units, the Secretary of the Commission is the anti-corruption officer, and this Commission includes representatives of the Civil Society. The Commission was due to finalise risk assessment in December of 2021 with the view to develop its anti-corruption programme.

To develop a sound anti-corruption programme, any public institution needs to rely on evidence. Such evidence should be collected and analysed in order to determine risks, prioritise them and develop measures to mitigate or prevent them – this is normally done through corruption risk assessment. Energy

National Agency on Corruption Prevention (2020), "Priority Areas for Stategic Analysis of Corruption Risks: analytical study", https://nazk.gov.ua/wp-content/uploads/2020/10/Priorytetni-galuzi-dlya-analizu.pdf

sector state institutions have all conducted risk assessments when developing their anti-corruption programmes. However, both risk assessment and anti-corruption programmes differ in quality and in many cases – they are of formalistic nature and follow the template provided by the NACP.

Some specific issues with risk assessment at the institutional level in the energy sector have been identified through meetings with various anti-corruption units, the NACP and non-governmental stakeholders who take part in these exercises and some of them are given as examples below.

The risk analysis appears to be focusing on the functions of the institutions, without proper analysis of the risks in the area that this institution regulates or oversees, i.e. of the external environment. This is partially due to the fact that in many cases, state institutions in the energy sector report that no external stakeholders volunteered to take part or provided information in response to the call for inputs. This seriously narrows the scope of the anti-corruption programmes and their adequate response to mitigating the risks in and around each institution.

The focus is also on risks that in the opinion of the "assessors" can be addressed. If they are too big, complex or political, or require solutions, which go beyond one institution – they are not included. For example, the lack of independence of the anti-corruption officers, which puts them in a vulnerable position vis-à-vis the management, etc. is not being included since the solution is sought to be outside of the institution. The civil society stakeholders provided another example when they identified "improper capture of the management of the state institution" as both potential and real risk and proposed to include it into the anti-corruption strategy – the proposal was rejected in the past. The same risk is now being proposed for inclusion in the new anti-corruption programme; the result of this new proposal is still pending. The same risk was identified as relevant for several institutions; however, it did not so far appear in any of the anti-corruption programmes. Again, such an approach creates the impression that the big issues are left unaddressed.

The OECD was presented with little follow-up on the impact of the developed programmes and evaluation of the effectiveness of the proposed measures – i.e., the institutions do not appear to rely on lessons-learnt and previous experience. Some energy sector institutions publish short reports on progress made on the implementation of their programme, but it is not very informative and formalistic. In some institutions, many of the representatives involved in the risk assessment could not tell what measures from the previous programme have been implemented.

Finally, the risk analysis is often conducted with limited resources and limited qualifications for such an exercise. Members of the Commissions do not have anti-corruption qualifications, are generally aware of the anti-corruption legislation and requirements, as well as notions of corruption risks and their mitigation. The anti-corruption units or officers which hold such expertise are understaffed and have many responsibilities. No information in regards to their having undergone specific training on risk-assessment has been provided to the OECD, and it doesn't appear to have happened.

Formally, Ukraine has adopted a model of risk assessment in 2018. However, according to NACP, state institutions have demonstrated an inability to carry out evidence-based risk assessment.⁵⁰⁹ In meetings with OECD, the NACP representatives shared that the state institutions in the energy sector were no exception but have been rather representative of this trend.

The NACP currently has no role in the risk assessments carried out by other institutions or in the development of institutional anti-corruption programmes. It can only not approve the anti-corruption programme and send it back for further revisions with proposals and comments. Such proposals, however, need to be based on an understanding of the actual and potential risks, which NACP does not have unless it carries out its own risk-assessment. This creates a closed circle in the development of anti-corruption

National Agency on Corruption Prevention (2020), "Priority Areas for Stategic Analysis of Corruption Risks: analytical study", https://nazk.gov.ua/wp-content/uploads/2020/10/Priorytetni-galuzi-dlya-analizu.pdf

policy at the institutional level. To break it, NACP needs to either take part in the risk assessments of other institutions or conduct its own risk assessment with their involvement and support, as they hold the expertise and understand the sector or area which they regulate and administer.

Even less is known in regards to what happens vis-à-vis the adopted programmes, aside from formal reporting on the websites of the agencies and to the NACP on regular intervals or after the expiration of the anti-corruption programme of each institution.

Monitoring of the implementation of the AC programmes seems to be another formal exercise. For example, in 2017 the Ministry of Energy has adopted an Anti-Corruption Programmes that was considered to be among the best institutional anti-corruption programmes at that time; however, currently, the Ministry reports that only a few measures have been implemented. Feedback from the civil society stakeholders confirmed the low level of implementation. It was also pointed out that the proposals of the civil society, including a review of the results of the non-governmental oversight expertise, should be discussed and reacted upon during the meetings of the collegium of the Ministry. According to the civil society representatives met by the OECD team of experts, no meetings of the Collegium of the Ministry of Energy took place since 2017.

Overall, it was shared by both NACP and civil society that corruption and anti-corruption is not at the top list of concerns and priorities at the leadership level of many state institutions in the energy sector. They focus on economic indicators, with corruption risks being overlooked or under-prioritised. At the moment of this review to the knowledge of the OECD, none of the sectoral development programmes or strategies for energy sector reforms addressed corruption risks in the energy sector. So, while in discussions, political rhetoric, and official statements, all institutions, including the leadership agree corruption is a problem and needs to be addressed – this does not translate into sector specific strategic vision and planning.

Frequent leadership and structural changes in the energy sector are other factors, which negatively contribute to both instability and inconsistency and eventually slow down or undermine anti-corruption responsibilities in the sector. For example, the Ministry of Energy has been restructured multiply, with both its organisational set-up being changed and changes in the top to middle-management with every new Minister appointed. Naturally, each minister brings in his team and his set of priorities and strategies on how to address these priorities. However, the impact of these frequent changes on the efficiency of the anti-corruption measures implemented by the Ministry of Energy has been evaluated as significant by various stakeholders within the government and by outside stakeholders in the civil society, business and the international community. There appears no consistency to the approach on how to tackle corruption-related problems, no strong message to the staff of the ministry of the importance of anti-corruption issues and the anti-corruption unit is not sufficiently supported in their mission and tasks.

4.2. Prevention of corruption in the sector by the state

Prevention of corruption in all sectors, including the energy sector, falls under the preview of the NACP. It has a wide range of functions encompassing policy setting and monitoring of its implementation, coordination and methodological support to the anti-corruption infrastructure at the level of state institutions and SOEs that are in the ownership of the state, including in the energy sector. It is also responsible for the implementation of various preventative tools, such as management of the conflict of interest, collection and verification of the asset declarations, whistleblower protection etc. and how these are implemented by the energy sector state institutions. To be successful, the NACP needs to have support and feedback from the sector institutions.

4.2.1. Anti-corruption officers and units

On the level of individual institutions in the energy sector, there are authorised persons or units in anticorruption matters (anti-corruption officers/units) created in the ministries and other state institutions active in the energy sector. Some variation of the above function exists in all state institutions operating in the energy sector.

They are set up following a similar model, in which the head of this unit or anti-corruption officer is appointed by the State Secretary in the case of ministries (i.e. Ministry of Energy, Ministry of Environmental Protection, Ministry of Economy, etc.), the head of the institution (i.e. State Geological Service, State Agency for Energy Efficiency and Energy Saving, State Inspectorate for Energy Supervision), or the head of the Secretariat of the body (NEURC) and reports to him or her. The anti-corruption officer can be dismissed from the position by the decision of the person who appointed him or her (i.e. the head of the body or institution or a person of similar position) only with consent from NACP to ensure that he or she is not fired for blowing the whistle on corruption. However, this does not appear to function well in practice or provide adequate independence and protection.

Firstly, entrusting the safeguards of independence of the anti-corruption officers to the head of the institution creates a situation in which the anti-corruption officer is directly dependent on the head of the institution. He or she could be reluctant to raise corruption concerns or address corruption risks if they relate to the head of the institution or in some way can be linked to the management team or may undermine the overall activity of the institution (for example, its delivery of key financial indicators).

Secondly, NACP has to establish a person as a whistleblower in order to refuse the approval of the dismissal. There could possibly be other scenarios in which the anti-corruption officer is being dismissed by the head despite efficiently carrying out his or her duties, even if no corruption-related whistleblowing report was made. In addition, the anti-corruption officers can be penalized without dismissal, and there appear to be no efficient mechanisms for redress apart from the court.

Finally, there are examples of anti-corruption officers being removed without consent from the NACP, and under the previous management of the NACP, the agency didn't follow up on such instances. In some cases, the anti-corruption officers were penalized in disregard of NACP's refusal to approve the dismissal.

The size and capacity of these units somewhat differ among the various institutions, which exercise functions in the energy sector. At the time of this review, NACP was carrying out its analysis of the effectiveness of such units in state institutions, including those in the energy sector. The results of the analysis were not yet available; however, NACP shared preliminary findings.

According to these findings, the anti-corruption units in the energy sector were not adequately staffed. In some state bodies, the anti-corruption officers have been appointed only recently despite a mandatory requirement to have such persons or units under the anti-corruption law. In most cases, the anti-corruption officers felt isolated and did not have good or direct links with the leadership of the institution and did not feel they had "the tone from the top" necessary to establish the integrity culture within their state institutions. The anti-corruption officers in the energy sector institutions didn't feel leadership support or that the anti-corruption issues were among the priorities for their ministers or heads of their institutions; their positions in the structures of the state institutions are not key in these institutions. In the opinion of the NACP, some of them lacked qualifications and training; most were not proactive, and there was a big turn-over in these units — as the job does not appear to be attractive or interesting.

Nevertheless, NACP commented that some anti-corruption officers in the energy sector still managed to be efficient; the anti-corruption unit of NEURC was given as one such example as it was able to develop integrity and corruption prevention policies and procedures of good quality. However, the limited human resources pose questions in regards to possibilities for follow up on these policies; the anti-corruption unit of NEURC currently employs two persons and this unit, in addition to the central office, covers regional offices of NEURC, which are established in all oblasts of the country. The same issue of limited human

resources is applicable to the Ministry of Energy. It employs over 300 persons, it holds control over approximately half a million state assets in the energy sector, and three persons work in its anti-corruption unit.

In general, human resources for the anti-corruption work are very scarce across all state institutions operating in the energy sector. The unit in the State Inspectorate for Energy Supervision has the biggest number of anti-corruption staffers – set at five; in reality, only three of these positions were filled at the time of this review. However, in many institutions reviewed in this report, there is only one person who is responsible for all anti-corruption issues. This is the case in the Ministry of Environmental Protection, in the State Geological Service, and in the State Agency for Energy Efficiency and Energy Saving – in which two persons are foreseen for this area of work, but only one position was filled. Such scarce staffing presents an apparent problem in terms of the quality of implementation of the anti-corruption functions.

In principle, such functions should at the very least include:

- development, organisation and control over the implementation of measures for the prevention of corruption and corruption-related offences;
- the organisation of assessment of corruption risks in the activities of the respective body, preparation of measures for their elimination, submission of the relevant proposals to the head of such body;
- providing methodological and advisory assistance on compliance with the anti-corruption legislation;
- implementation of measures to identify conflict of interest, facilitate its resolution, informing the head of the relevant body and the National Agency on conflict of interest identified and measures are taken to resolve it;
- verification of the fact of submission of declarations and notification of the National Agency on cases of non-submission;
- exercising control over the observance of anti-corruption legislation, including consideration of reports of violations of the requirements of this Law, including at subordinate enterprises, institutions and organisations;
- ensuring the protection of employees who have reported violations of the requirements of this Law from the negative influence by the manager or employer in accordance with the legislation on protection of whistleblowers;
- informing the head of the relevant body, the National Agency or other specially authorized entities on combating corruption about the facts of violation of legislation on preventing and combating corruption.⁵¹⁰

4.2.2. Anti-corruption officers and compliance officers in SOEs

Separate attention should be paid to AC officers in state-owned enterprises. SOEs are obliged to establish authorised persons or units for an anti-corruption programme in the SOE (anti-corruption officers) according to comply with national legislation. These anti-corruption officers have responsibility for the anti-corruption programmes of the SOEs, which are also required under national law. They interact with anti-corruption officers of the ownership entities and the NACP.

Through interviews with various SOEs and other representatives of the business community, the OECD team of experts has learnt that there is no consistent approach to implementing this requirement. In particular, some SOEs create stand-alone anti-corruption officers, which are established to meet the

⁵¹⁰ These functions are listed in the Law of Ukraine On Prevention of Corruption (Article 13) and are also provided for in the Model provision on the authorized unit (authorized person) on the prevention and detection of corruption.

requirement of the national legislation and carry out only those functions prescribed by the law. These are often supplemented by a separate anti-corruption compliance team, which often carry out their functions fully independently of each other. The anti-corruption compliance units are geared towards compliance with international standards and requirements of the OECD Anti-Bribery Convention and relevant national legislation of its signatories. These tend to interact with shareholders other than the state and carry out a broader set of functions related to internal controls. Yet other SOEs have three functions, which have interrelated responsibilities – the anti-corruption officer or unit, the anti-corruption compliance officer or unit and general compliance officer or unit. Again, these often function independently without due coordination or exchange of information; their functions, competencies and mandates are not always clearly defined. There are SOEs, however, which united these functions under the umbrella of one anti-corruption compliance team. Such a multitude of approaches appears confusing, and the overall rationale behind several anti-corruption functions is not clear – both in the context of resources and comprehensiveness and consistency of the anti-corruption policy of the company. This should be clarified by the NACP and the state, and if necessary, through legislation.

Another issue of concern raised in the interviews with compliance officers and other representatives of the SOEs, as well as was shared by business initiatives in an anonymised manner, is the lack of the "tone from the top". This was cited as one of the biggest problems in terms of building the culture of integrity in SOEs. It was shared that the management often had a limited understanding of compliance function or its value. In fact, it was attributed to one of the reasons why multiple positions (compliance officer, anti-corruption officer, etc.) were created, and there was no unification of these functions. Compliance officers in SOEs were also isolated from the management and lacked interest or support for any of their work. The business community has opined that the management needs to be educated and persuaded that this is important and should also participate in the training, promote training, promote integrity issues, etc.

The independence of these officers is another issue of concern. The anti-corruption officers under the anti-corruption legislation, similarly to the anti-corruption officers in the state institutions, can be dismissed only with approval from NACP. However, in practice, this appears to be circumvented in several ways. In some cases, SOEs are reportedly changing their Charters to exclude Anti-Corruption officers or compliance officers from the list of employees to allow for their dismissal outside of regular procedures. In other cases, they are dismissed without consent from NACP. The OECD was provided with two concrete examples in energy sector SOEs. In one, the Anti-Corruption officer of the state-owned company reported misconduct, was fired and appealed this decision to the Anti-Corruption officer in the ministry exercising ownership rights. Subsequently, the anti-corruption officer of the Ministry, who requested that the person be reinstalled reported the case to NACP and to the management in his Ministry. The dismissal of the anti-corruption officer was maintained, and an internal investigation was initiated against persons in the Ministry working in the anti-corruption unit. The NACP did not react at the time. The second case is of the recent whistle-blower, who held a position equivalent to the anti-corruption officer in this SOE and was dismissed without consent from NACP. In this case, the NACP has reacted, but the case is still not settled, and the person is factually dismissed.

In conclusion, the anti-corruption officers and units both in the energy sector institutions and in the SOEs in which they exercise ownership rights do not appear to adequately fulfil their functions. In most cases, they lack resources, mandate and necessary powers. They are not protected, not well regarded and struggle to carry out their functions beyond formality.

4.2.3. Anti-corruption expertise

NACP can initiate anti-corruption expertise of any legislative act, which is either put forward for review to the Cabinet of Ministers or to the Parliament. This function was not utilised until recently when with the "reload" of the agency, it started to conduct such expertise. In 2020, NACP carried out the anti-corruption expertise of five draft legal acts, which regulate the energy sector. The results of the anti-corruption

expertise are published on the website of the agency. According to the NACP, their recommendations are mostly taken on board, and they find this tool to be effective in preventing corruption in the energy sector in particular. No existing law in the energy sector has yet undergone anti-corruption expertise.

Taking into account the dynamic law-making processes in Ukraine and the number of draft laws registered in the Parliament, it does not appear to be feasible for NACP to conduct anti-corruption expertise of even legal drafts in the energy sector, which are referred to in this report and encompass areas of public procurement, licensing and permits, subsidies and special statuses, state aid, privatisation, electricity market, renewable sources of energy, etc. There are simply too many of them and many of them can and do have an impact on the potentials for corruption in the energy sector.

4.2.4. Coordination and methodological support

One of the functions of the NACP is to coordinate anti-corruption activities and provide methodological support to the rest of the government institutions in regard to the anti-corruption issues. This is the case in the energy sector as well. To this end, NACP provides training, develops methodological recommendations and other materials for the use of anti-corruption officers and units in the energy sector institutions. It provides advice and consultations in order to support the anti-corruption officers and units in implementing of their functions, including the development of the anti-corruption programmes. However, when asked if the anti-corruption officers turned to NACP with requests for support or advice in regards to their functions – the NACP could not think of such instances in regards to the anti-corruption officers from state institutions operating in the energy sector in the last year.

4.2.5. Oversight and inspections

NACP approves the anti-corruption programmes of the energy sector institutions, as was already described in the section above and monitors their implementation.

NACP carries out inspections and detects violations of the anti-corruption in the energy sector. Since the "reload of the agency", it has been active in this function, and several such high-profile cases have been picked up and widely covered in the media, including violations of the anti-corruption legislation in regards to SOEs Energoatom⁵¹¹ (violation of the procedure for dismissal of the anti-corruption officer and provisions on whistleblower protection) and Naftogaz⁵¹² (conflict of interest). NACP also carries out inspections of the organization of work on prevention of corruption, including in the state institutions of the energy sector. In October 2020, these were negatively impacted by the Constitutional Court Decision, which abrogated powers of the NACP, including conducting these inspections. This has had an impact on the energy sector, as one of the ongoing inspections was that of Energoatom, as well as the inspection in the ARMA, which has relevance to the investigation of corruption in the energy sector. ⁵¹³

⁵¹¹⁵¹¹ NACP (2021), The Head of the NACP Oleksandr Novikov issed the order of the CMU to eliminate violations of anti-corruption legislation in Energoatom's activities and cancel the company's illegal order to release whistleblower Oleg Polishchuk <a href="https://nazk.gov.ua/uk/novyny/golova-nazk-oleksandr-novikov-vnis-prypys-kmu-dlya-usunennya-porushen-antykoruptsijnogo-zakonodavstva-v-diyalnosti-energoatomu/?hilite=%D0%BF%D1%80%D0%B8%D0%BF%D0%B8%D1%81

⁵¹² NACP (2021), The NACP sent an order to the Chairman of the Supervisory Board of Naftogaz of Ukraine NJSC to terminate the illegal contract with the Chairman of the Board of this company <a href="https://nazk.gov.ua/uk/novyny/nazk-napravylo-prypys-golovi-naglyadovoyi-rady-nak-naftogaz-ukrayiny-pro-prypynennya-nezakonnogo-kontraktu-iz-golovoyu-pravlinnya-tsogo-tovarystva/?hilite=%D0%BF%D1%80%D0%B8%D0%BF%D0%B8%D1%81

⁵¹³ NACP (2020), Due to the decision of the CCU, inspections of the organization of work on prevention of corruption in Ukravtodor, Energoatom, ARMA and the Secretariat of the Ukrainian Parliament Commissioner for Human Rights were suspended, https://nazk.gov.ua/uk/novyny/cherez-rishennya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-koruptsiyi-v-ukravtodori-energoatomi-arma-ta-sekretariati-upovnovazhenogo-vru-z-prav-">https://nazk.gov.ua/uk/novyny/cherez-rishennya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-koruptsiyi-v-ukravtodori-energoatomi-arma-ta-sekretariati-upovnovazhenogo-vru-z-prav-">https://nazk.gov.ua/uk/novyny/cherez-rishennya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-koruptsiyi-v-ukravtodori-energoatomi-arma-ta-sekretariati-upovnovazhenogo-vru-z-prav-">https://nazk.gov.ua/uk/novyny/cherez-rishennya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-koruptsiyi-v-ukravtodori-energoatomi-arma-ta-sekretariati-upovnovazhenogo-vru-z-prav-">https://nazk.gov.ua/uk/novyny/cherez-rishennya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-koruptsiyi-v-ukravtodori-energoatomi-arma-ta-sekretariati-upovnovazhenogo-vru-z-prav-">https://nazk.gov.ua/uk/novyny/cherez-rishennya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-prypyneno-perevirky-organizatsiyi-roboty-iz-zapobigannya-ksu-prypyneno-perevirky-prypyneno-perevirky-prypyneno-perevirky-pry

lyudyny/?hilite=%D0%B5%D0%BD%D0%B5%D1%80%D0%B3%D0%BE%D0%B0%D1%82%D0%BE%D0%BC

Again, the results of this work are a definite achievement of the agency and stand in contrast to the lack of violations found in the energy sector prior to the "reload" of the agency. However, the lack of follow up or resistance from state institutions and other relevant stakeholders to implement the correctional orders from the NACP is not a good indication of anti-corruption success in the energy sector.

4.2.6. Asset declarations

Asset declarations requirements cover all high-level officials who work at the energy sector state institutions, including officials responsible for public procurement, members or board members of independent regulators and supervisory authorities, and top executives of SOEs with caveats discussed further in this section. According to the anti-corruption OECD report, Ukraine's asset and interest disclosure system is highly advanced for the region; the law requires comprehensive disclosure of assets and interests by public officials, civil servants and their family members. The system is fully electronic, easily searchable and provides a high level of transparency.⁵¹⁴

To verify asset declarations, the NACP carries out special inspections within its competence, conducts full inspections of declarations and selective monitoring of the way of living of the declarants. There is no energy sector-specific statistics; however, the NACP representatives shared that they conduct such inspections in regards to the public officials in the energy sector.

With the "reload" of the NACP, the enforcement has been steadily increasing. Verification results led to investigations and sanctions, but a recent Constitutional Court decision paralyzed the verification of asset declarations and sanctioning process, declaring some of the related powers of the NACP unconstitutional and abolishing criminal responsibility for intentional failure to declare or false declarations. The powers of the agency have been restored, and criminal responsibility was reinstated; however, the "restored provisions" do not have retroactive effect and apply to the following cycle of declarations, leaving a time gap in enforcement and a large number of terminated cases. According to NACP, this has had an impact on the energy sector, with the impossibility to apply sanctions for violations of asset declarations regime to over 10000 public officials, including those in the energy sector.⁵¹⁵

Further issues appear with regards to the application of these requirements to the SOEs in the energy sector. This requirement is still not equally applied to management and officials in the SOEs and depends on its legal form. According to Ukrainian legislation, legal entities, depending on the procedure for their creation, can be legal entities of private law or legal entities of public law. Currently, there are SOEs in the energy sector that belong to each of the categories. For example, many SOEs in the energy sector undergoing corporatisation are becoming legal entities of private law. The anti-corruption legislation however covers only officials, including top management and supervisory boards of SOEs, which are legal entities of the public law. Therefore, different rules apply. This is the case for provisions on COI, asset declarations, and some other integrity-related restrictions.

4.2.7. Conflict of interest

Identification and management of conflict of interest is among anti-corruption instruments, which are introduced under Ukrainian anti-corruption legislation. In general, Ukraine was evaluated as having a comprehensive legislative framework governing conflict of interests (COI) by the recent OECD anti-corruption review. However, its efficiency is less positively assessed due to the low level of enforcement

⁵¹⁴ OECD (2021), Anti-Corruption Network for Eastern Europe and Central Asia, Istanbul Anti-Corruption Action Plan Pilot Monitoring Report – Ukraine, *forthcoming*.

⁵¹⁵ NACP (2021), More than 10,000 officials will not be held criminally liable for failing to submit a declaration due to the decision of the CCU <a href="https://nazk.gov.ua/uk/novyny/ponad-10-tysyach-chynovnykiv-ne-ponesut-kryminalnoyi-vidpovidalnosti-za-nepodannya-deklaratsiyi-cherez-rishennya-ksu/?hilite=%D1%80%D1%96%D1%88%D0%B5%D0%BD%D0%BD%D0%BD%D1%8F+%D0%9A%D0%A1%D0%A3

of the COI provisions of the anti-corruption legislation by courts. The report found that although the NACP and the National Police were active in bringing violations to court, the number of decisions resulting in final sanctions was extremely low, with a short statute of limitation for administrative offenses, and courts closing cases due to the "insignificant nature" of the offense.⁵¹⁶

This overview finds that similar issues translate into how the COI regime works on the sectoral level – in the energy sector, in addition to non-compliance by some institutions with the requirements of the law. For example, according to information received from NACP, as of 17.09.2021, the Unified State Register of Declarations of Persons, Authorized to Perform the Functions of the State or Local Government contained declarations for 2020 of all current members of the Commission, but at the same time, the National Agency did not receive any report of conflict of interest from the Head of the Commission and its members.

Each state institution in the energy sector had provisions of the anti-corruption legislation on the COI posted on their website, reported that these are included in the on-boarding of the new staff, but there is no information in regards to actual enforcement of the COI in these institutions in practice.

NACP monitors and controls the implementation of legislation on the prevention and resolution of a conflict of interest in the activities of officials, including in the state bodies in the energy sector. It does not keep separate statistics on the management of COI in the energy sector. However, apart from instances when COI violations have been detected by the NACP itself (see examples under oversight and inspections), there were very few cases when anti-corruption officers of energy sector institutions referred COI violations to the agency. When reviewing available reports on the implementation of the anti-corruption programmes by the agencies of the energy sector, the OECD also found little, if any, mentions of identified and resolved COI situations.

4.2.8. Reporting channels

General reporting channels can be used to report corruption in the energy sector. In particular, corruption violations can be reported to the NACP and to the law enforcement agencies – specialised and of general competence.

In addition, most of the state institutions in the energy sector also have established their own reporting channels, in the form of hotlines, online communication channels, special email boxes. These are usually managed by the anti-corruption unit or anti-corruption officers in energy sector institutions. For example, in the Ministry of Energy – this is the responsibility of the anti-corruption unit. Similarly, such reporting channels have been established in many SOEs in the energy sector.

The questions of security and management of these reporting channels need further analysis. It is not clear if the security of such channels can be properly ensured outside of the NACP and if the state institutions in the energy sector have the necessary resources and training to receive and review the reports. In any case, the agencies and SOEs interviewed by the OECD team of experts either stated that there were no corruption-related reports in their institutions or they did not think that the number of such complaints was significant. The available reports on the implementation of the anti-corruption programmes from the websites of the energy sector state institutions similarly cite no instances of reporting. NACP could not think of examples of received referrals of the reports from energy sector state bodies.

4.2.9. Whistle-blower protection

Protection of whistle-blowers merits a separate close look. Again, most state institutions in energy sector have introduced some sort of procedures and internal policies on how to handle whistleblowing and what measures can be applied to protect whistle-blowers. Most of them provide information from NACP on

⁵¹⁶ OECD (2021), Anti-Corruption Network for Eastern Europe and Central Asia, Istanbul Anti-Corruption Action Plan Pilot Monitoring Report – Ukraine, *forthcoming*.

whistleblower protection and provisions of the law on their website. Some have developed their own procedures to supplement the national ones – NEURC is a good example - it has developed regulations, which appear to be of good quality. Others institutions attempt to do the same.

However, the cases of whistleblowers, with particular examples in the energy sector - being punished, dismissed, and otherwise sanctioned have been cited in this report. Examples have been presented to the OECD experts during the meetings with state institutions — one official from a state institution's anticorruption unit, when asked if she/he would go to blow the whistle, said that would do it but with no hopes of getting protection, including from the NACP. These raise serious concern and put under question the efficiency of whistleblower protection in the sector and overall.

In conclusion, while the NACP is well resourced and has a broad mandate, it appears to not have enough outreach into the state institutions in the sector and struggles to carry out its functions or have a real impact at the sectoral level. Examples of instructions of the NACP not being complied with by various state institutions, attest to that. The example cited throughout this report, including those of Naftogaz, Energoatom and other cases, illustrate the lack of support to the NACP in its functions and sometimes even resistance from some state institutions.

4.3. Non-governmental initiatives for preventing and countering corruption in the sector

There are many examples of successful non-governmental integrity and anti-corruption initiatives in the context of the energy sector in Ukraine.

In particular, the Business Ombudsman Council of Ukraine (BOC), which was created as an alternative complaint mechanism and has helped many businesses, including in the energy sector, to address corruption-related problems. It also serves as a good source of analytics for state institutions. For example, NACP shared that they use analytical notes from BOC when conducting risk analysis or devising particular recommendations in areas, including the energy sector. Corruption related investigations have also been initiated by NABU and other competent authorities based on reports from BOC.

Ukrainian Network for Integrity and Compliance (UNIC) is a collective action initiative, which unites 50 different businesses that want to conduct business honestly and not involve in corrupt practices. Their members include companies in the energy sector. UNIC also partners with SOEs and has established a Club of Compliance officers of the SOEs, which comprises many of the biggest SOEs in the energy sector. UNIC promotes compliance and integrity standards, raises awareness and works on capacity building, most recently through its newly created Virtual Business Integrity Academy.

In Ukraine, multiple civil society organizations, think tanks and energy-related associations make regular contributions to the debate on how Ukraine's energy future should look like. For example, the European-Ukrainian Energy Agency (EUEA) and the Ukrainian Wind Energy Association (UWEA) played a pivotal role in establishing the Memorandum of Understanding between the government and the renewable energy producers.⁵¹⁷

There are other ambitious projects, which called on Ukrainian policymakers and energy infrastructure planners to proceed with the reforms. DiXi Group, a think-tank, publishes annual, quarterly and monthly monitoring reports of the implementation of commitments to the Energy Community, weekly analytical reviews of energy developments at the international level and in Ukraine, as well as energy-related thematic studies. It actively participates in the development of legislative acts in almost every subsector of

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⁵¹⁷ Government portal (2020), Government signs Memorandum with green energy producers https://www.kmu.gov.ua/en/news/uryad-pidpisav-memorandum-z-virobnikami-zelenoyi-elektroenergiyi

the energy industry. ⁵¹⁸ It is also a co-founder of the "EnergoTransparency" Association, which promotes the Extractive Industries Transparency Initiative (EITI) standard in Ukraine. ⁵¹⁹ TAPAS Project, financed by the USAID – the Project aims to enhance Ukraine's energy security by helping key government agencies and the energy regulator meet European Union requirements and establishing competitive energy markets. ⁵²⁰ Construction Sector Transparency Initiative (CoST) Ukraine is a global initiative improving transparency and accountability in public infrastructure. The CoST works with public, industry and civil society stakeholders to increase the transparency of infrastructure projects. The aim is to reduce mismanagement, inefficiency, corruption and the risks posed to the public from poor quality infrastructure. ⁵²¹ Ukrenergo has signed a memorandum of co-operation with CoST. ⁵²² ⁵²³

Many civil society organisations, investigative journalists and civil activists successfully carry out watchdog functions in the energy sector. In terms of anti-corruption efforts in the energy sector, notable contributions are made by Transparency International Ukraine (TI), which carries out extensive monitoring of public procurement using the DoZorro platform. The TI developed anti-corruption principles for SOEs and permanently reports corruption cases to the relevant state authorities. ⁵²⁴ Anti-Corruption Action Centre (AntAC) unites experts from legal, media and civic-political sectors fighting corruption as a root cause of the key state-building problems in Ukraine. AntAC is also at the root of investigations of the biggest corruption scandals in the energy sector. ⁵²⁵ Bihus info, a group of anti-corruption and information projects created by the team of journalists, lawyers, IT professionals and activists, has conducted a number of high-resonance corruption media investigations. Some of the uncovered allegations have been used to initiate criminal investigations by specialised anti-corruption bodies, such as NABU.

In addition, many of the civil society groups take part in the oversight through participating in various Councils created at the energy sector state institutions, working groups and commissions, which develop policy and regulatory documents, etc. The instrument of public consultations appears to work well in practice, and various representatives of the civil society and business community attested that they do take part in the legislative processes to the extent possible.

Business associations are very active in this area as well - theAmerican Chamber of Commerce, European Business Association, the Ukraine-Norway Chamber of Commerce are all working with their businesses to help ensure corruption-free operations in the energy sector. They are involved in building the dialogue between the government and their business constituents, providing an analysis of the draft legislation in the energy sector and weighing in if corruption risks arise.

The various government structures are perceived as overall open, but their effectiveness in preventing and reducing corruption risks has been evaluated as fairly low by various non-governmental and business community representatives met by the OECD expert team. They further shared that anti-corruption institutions were more open and receptive to cooperation and dialogue, while other state bodies or institutions in the energy sector tended to be more closed. In addition, the representatives of the business community opined that more could be done by the state in terms of creating incentives for integral business

⁵¹⁸ http://dixigroup.org/about-us/

⁵¹⁹ Ukraine has joined EITI in 2013 and published annual EITI Reports. Ukraine's first Validation under the EITI Standard concluded in 2018, in which the EITI Board found that Ukraine had made 'meaningful progress' in implementing the EITI Standard. Eight corrective actions were identified by the Board and were subsequently assessed in the second Validation in the course of 2020.

⁵²⁰ http://tapas.org.ua/en/about-project/

⁵²¹ CoST (2020), CoST Infrastructure Transparency Initiative - About Us, http://infrastructuretransparency.org/about-us/

⁵²² Ukrenergo (2020), CoST Initiative, https://ua.energy/activity/cost-initiative/

⁵²³ OECD (forthcoming), Fighting bid rigging corruption in the energy sector in Ukraine: A review of public procurement at Ukrenergo

⁵²⁴ OECD (2018), Anti-Corruption Reforms in Ukraine: Prevention and Prosecution of Corruption in State-Owned Enterprises, https://www.oecd.org/corruption/acn/OECD-ACN-Ukraine-4th-Round-Bis-Report-SOE-Sector-2018-ENG.pdf

⁵²⁵ OECD (forthcoming), Fighting bid rigging corruption in the energy sector in Ukraine: A review of public procurement at Ukrenergo

in the energy sector included. Currently, they mostly see punitive functions exercised by the state with various degrees of success and fairness.

4.4. Conclusions and recommendations

Ukraine's elaborate anti-corruption framework aims to control corruption throughout the public sector and in the state's economic activity, and this includes the energy sector. In many respects, the anti-corruption laws and institutions of Ukraine are exemplary and innovative. However, there also are factors that limit the effectiveness of this system. Notably, while certain institutions and individual officials espouse strong commitment to engage in countering corruption, this commitment has not become mainstream throughout the public institutions and SOEs of the energy sector. The credibility of the integrity of managers of some SOEs is low, and hence also the internal anti-corruption functions of the SOEs fail to become reliable safeguards of integrity. The rules-based rationale of the anti-corruption framework contradicts and sometimes succumbs to the personalized and "manual" modes of governance in parts of the energy sector. Apart from specialized anti-corruption bodies, anti-corruption functions suffer from scarcity of resources. The realisation that saving on control of corruption may and often does lead to many times higher losses has not been internalized throughout the sector. The definition of the appropriate approach to countering corruption in SOEs of private law has not received sufficient attention and appears largely left up to the discretion of individual competent state bodies and SOEs.

Recommendations

- Without further delay adopt anti-corruption strategy to ensure stewardship and coherence in the reforms and to confirm Ukraine's commitment to anti-corruption.
- Conduct strategic risk assessment of the energy sector at the national level.
- Ensure proper and continuous risk assessment at the level of the energy sector state bodies. It
 should be based on evidence and analysis of the effectiveness of the previous measures; be
 comprehensive and include potential and real risks pertinent to the state functions exercised by
 the state body, the external environment of the state body, and areas regulated by this body, and
 cover at least major state-funded energy sector projects in its portfolio.
- Take measures to increase civil society and other stakeholders' participation in the risk assessment
 and other anti-corruption activities of the energy sector state bodies, including by proactively
 reaching out to the non-government stakeholders, providing them feedback on their contributions,
 etc.
- Ensure efficient monitoring of the implementation of the anti-corruption programmes by the energy sector state bodies, including through development of qualitative indicators, involvement of the non-governmental stakeholders in such oversight, etc.
- Promote and encourage tone from the top in the energy sector state bodies in regards to anticorruption, place priority on this issue, including through regular communication from the management of its importance and other similar actions. Ensure that the effective performance of the anti-corruption function is a key criterion for the performance assessment of managers.
- Take steps to establish integrity culture in the energy sector state bodies and widely communicate zero tolerance of corruption within them.
- Enhance capacities of the anti-corruption units in the energy sector state bodies, including by
 properly staffing them, providing them with the necessary training, and affording them appropriate
 level of importance in the organisational structure to ensure that the head of this unit is recognised
 among key positions of this body.

- Ensure independence of the anti-corruption officers in the energy sector state bodies, consider delegating their appointment to an outside body, such as the National Agency on Corruption Prevention. Anti-Corruption officers can be delegated into the institutions by the National Agency on Corruption Prevention and report to the agency.
- Ensure in practice that dismissal of the anti-corruption officers is possible only with consent from the National Agency on Corruption Prevention and such consent is conditioned on a comprehensive review of the grounds and legality of the proposed dismissal.
- Promote and encourage tone from the top in the energy sector SOEs in regards to anti-corruption,
 placing priority on this issue, including through regular communication from the management of its
 importance and other similar actions. Ensure that the effective performance of the anti-corruption
 function is a key criterion for the performance assessment of managers.
- Take steps to encourage SOEs to streamline various anti-corruption functions to ensure that their activities in this area are coherent and consistent. Clarify state's position in regards to requirements of the anti-corruption legislation vis-à-vis this function and provide guidance on a unified approach in meeting these requirements (in particular, including in SOEs of private law).
- Take steps to comply with the OECD Anti-Corruption and Integrity Guidelines for SOEs and consider undergoing the Review against these Guidelines.
- Ensure that the energy sector state bodies proactively implement and use the available anticorruption tools, such as management of conflict of interest, asset declarations, reporting and whistleblower protection.
- Enhance the dialogue between the energy sector state bodies, ownership entities and anticorruption bodies, and the business, with the view to develop joint initiatives or take joint steps towards increasing transparency of the business operations in the energy sector of Ukraine.
- Consider introducing incentives to promote integral business practices.

5 Investigation and Prosecution Of Corruption In The Energy Sector

5.1. Institutions responsible for investigation and prosecution of corruption in the energy sector

Under the note to Article 45 of the Criminal Code of Ukraine, a criminal offence of corruption is a criminal offence as envisaged in Articles 191, 262, 308, 312, 313, 320, 357, 410, where they are committed by way of abuse of authority or office, as well as a criminal offence as envisaged in Articles 210, 354, 364, 364-1, 365-2, 366-1, 368 – 369-2 of the Criminal Code of Ukraine.

Article 216 of the Criminal Procedure Code of Ukraine defines the jurisdiction of the law enforcement agencies. Under paragraph 5 of Article 216 of the Criminal Procedure Code of Ukraine, investigators from the National Anti-Corruption Bureau of Ukraine conduct a pre-trial investigation of the criminal offences envisaged in Articles 191, 206-2, 209, 210, 211, 354, 364, 366-2, 368, 368-5, 369, 369-2, and 410 of the Criminal Code of Ukraine, where at least one of the following criteria is met: (1) the criminal offence is committed by a person as defined in the law⁵²⁶ or/and (2) the amount of the subject matter of the offence corresponds to the amount as envisaged by the law⁵²⁷. The list of such persons is contained in paragraph 5 (ii) of Article 216 of the Criminal Procedure Code of Ukraine.

Paragraph 1 of Article 216 of the Criminal Code of Ukraine also envisages that a prosecutor who oversees pre-trial investigations conducted by investigators of the National Anti-Corruption Bureau of Ukraine, may by their decision attribute a criminal proceeding to the jurisdiction of investigators of the National Anti-Corruption Bureau of Ukraine, provided the respective criminal offence caused or could have generated severe consequences for the legally protected freedoms and interests of individuals and legal entities, as well as for state or public goods.

To prevent, expose, stop, investigate, and solve criminal offences, being under their jurisdiction according to this Article, investigators of the National Anti-Corruption Bureau of Ukraine can also investigate criminal violations under the jurisdiction of other investigators according to the decision of the Director of National Anti-corruption Bureau of Ukraine and in agreement with the Prosecutor of a Specialized Anti-Corruption Prosecutor's Office.

In criminal proceedings concerning criminal offences envisaged in Articles 209 and 209-1 of the Criminal Code of Ukraine, the pre-trial investigation shall be carried out by the investigator of the agency which initiated the pre-trial investigation or under whose jurisdiction the criminal offence preceding property legalization (laundering) case is, except when these criminal offences are under the jurisdiction of the National Anti-Corruption Bureau of Ukraine.

⁵²⁶ The list includes high-level officials, and other officials, who exercise functions with high corruption risks.

⁵²⁷ If the amount of the subject of the criminal offence or the damage caused by it is five hundred times more than the subsistence level for ablebodied persons established by law at the time of the criminal offence.

The criminal offences committed by senior officials that are not under the jurisdiction of the National Anticorruption Bureau of Ukraine are investigated by the investigator of the State Bureau of Investigations.

Where the investigation of the criminal offences does not fall under the jurisdiction of the National Anticorruption Bureau of Ukraine or the State Bureau of Investigations, such criminal violations shall be investigated by investigators of the National Police.

None of the law-enforcement agencies or prosecutor's offices maintains statistics on the crimes of corruption committed in the energy sector. Moreover, none of these agencies has developed formal criteria or characteristics to qualify a criminal violation as a crime committed in the energy sector.

Collection of the static data on the results of investigating the criminal offences is established by a joint order of Chief Prosecutor's Office, Ministry of Internal Affairs, State Security Service of Ukraine, State Bureau of Investigations, and National Anti-corruption Bureau of Ukraine "On approval of reporting forms on the work of pre-trial investigation agencies" No.337/564/206/123/363/85 as of July 28, 2020. The relevant statistic reports are compiled automatically from the Unified Register of Pre-trial Investigations.

Criminal offences are defined and registered in the Unified Register of Pre-trial Investigations, *inter alia*, based on the types of economic activities using the National Classifier of Ukraine "Classification of Types of Economic Activity (KVED)" approved by the State Committee of Ukraine for Technical Regulation and Consumer Policy as of October 1, 0210 No. 457. Specifically, certain crimes in the energy sector may fall under the following KVED: Construction of power supply and telecommunications facilities; Construction of pipelines; Gas production; Manufacture of electric lighting equipment; Manufacture of electric motors, generators and transformers; Electricity generation; Production of electrical distribution and control equipment; Production of refined products; Activities of intermediaries in trade of fuel, ores, metals and industrial chemicals; Extraction of brown coal; Coal-mining; Extraction of natural gas; Extraction of crude oil; Extraction of peat; Installation of water supply networks, heating and air conditioning systems; Provision of ancillary services in the field of oil and natural gas production; Wholesale of solid, liquid, gaseous fuels and related products; Electricity transmission; Supply of steam, hot water and air conditioning; Exploratory drilling; Distribution of gaseous fuel through local pipelines; Electricity distribution; Gas trade through local channels; Electricity trade; Pipeline transport.

Thus, although separate statistical records of crimes of corruption in the energy sector are not envisaged and are not maintained, it is possible to obtain information on the investigation of such crimes by applying a filter for relevant economic activities provided the correct definition of KVED for each such crime in the register of pre-trial investigations.

5.2. Types of cases

Based on the analysis of information from open sources on the progress and results of criminal investigations of crimes of corruption in the energy sector, data from the Unified State Register of Court Decisions and information on investigated corruption schemes provided by law-enforcement agencies and prosecutors, it is possible to identify typologies of relevant corruption schemes that are either specific to the energy sector or have certain features associated with their implementation specifically in this area.

Generally, crimes of corruption can be classified into the following five corruption schemes:

- 1. Corruption scheme "Assignment of claim or transfer of debt"
- 2. Corruption scheme "Participation of intermediaries (earnings on the difference in prices)"
- 3. Group of corruption schemes "Erosion of the company's assets and other actions in favour of counterparties"
- 4. Group of corruption schemes "Abuse during public procurement"

5. Group of corruption schemes "Abuse by regulators/abuse of tariffs"

Considering specific differences between crime schemes within the "Erosion of the company's assets and other actions in favour of counterparties" group, it is expedient to divide them into different variants of typology, specifically:

- Erosion of the company's assets;
- Conclusion of clearly unfavourable transactions;
- Unjustified transfer of funds to dubious counterparties;
- Sale of generated electricity at discounted prices.

There are several typical schemes of abuse within the group "Abuse during public procurement" that have certain features, in particular:

- Unjustified overpricing by intermediaries;
- Development of tender conditions for a specific participant;
- Procurement under the negotiated procedure;
- Cartel conspiracy of bidders;
- System control over procurement procedures;
- Extortion of bribes from bidders.

Crimes in the "Abuse by regulators/abuse of tariffs" group are more difficult to describe in a single pattern; they instead have some standard features and joint problems in their investigation. Such crimes can be divided into two conditional subgroups: (1) those committed by regulators in violation of the law, and (2) those made possible by regulatory gaps that are created and/or exist through the actions or inaction of relevant regulators.

Box 5.1.

1. «Waiver of claim or debt assignment» Corruption Scheme

In order to obtain funds from companies in the electricity sector, their managers collude with representatives of private companies to reassign financial obligations in favour of private companies, which afterwards do not transfer the funds to the energy company in order to meet their obligations but withdraw them through a chain of transactions via companies that have signs of fictitiousness.

This creates a situation where energy utility debtors may then insist that they have fulfilled their obligations by paying to a party identified by the creditor, but the energy utility creditor of a state or municipal property has not received these funds and has effectively missed the opportunity to recover them from the intermediary company (as it has no assets and no property, and the funds received have been withdrawn and legalised).

2. Corruption scheme "Involvement of middlemen (earning on the price difference)"

In order to cash out and seize state-owned funds, the managers of these enterprises collude with representatives of private companies to enter into agreements with formal intermediaries. Such deals involve either selling products at reduced prices and then reselling them to intermediaries at market prices (often to other state-owned enterprises) or buying overpriced products that were previously purchased from other state-owned enterprises.

Thus, instead of direct, economically viable transactions for the sale or purchase of products produced by state-owned companies, formal intermediaries are involved in order to benefit from artificially created price differentials. The funds generated in that way can later be moved abroad and legalised.

3. Corruption Schemes Group "Disgorgement of Company Assets and Other Actions to Benefit Counterparties"

There are several common schemes used by the management of companies in various areas of the energy sector to transfer funds and other company assets to private entities.

These schemes are often used by interim energy managers (acting directors, directors before dismissal, liquidators) who seek to use their short-term power for criminal purposes in a short period of time.

4. Corruption Schemes Group "Abuse during Public Procurement"

One of the most common corruption schemes in the energy sector is the misuse and embezzlement of public funds in public procurement.

Corruption Schemes Group: "Abuse of Regulators/Tariff Abuse"

A separate category of energy crimes should include those that are made possible by the decisions, actions or inactions of state regulators. Regulators are responsible for establishing and controlling the conditions and rules under which the market as a whole functions and businesses in the industry operate.

It should be noted that the losses caused by such crimes to the state usually amount to lost profits in the form of lost revenues and fees to the state budget, or lost profits to state-owned enterprises. Even more complicated are cases where the pre-trial investigation body believes that the crime has caused damage to users who have paid for services in accordance with set tariffs. This adds a degree of complexity to the formal investigation process and to the process of gathering evidence and proof. The pre-trial investigation body needs to involve specialised experts to determine the extent of the damage. In addition, such findings are often subject to appeal.

Note: The above-listed schemes are described as examples in this report and are discussed in detail in the OECD analytical report "Typologies of crimes of corruption in the energy sector". 528

5.3. Challenges in detection, investigation and prosecution

5.3.1. Conducting examinations

Examinations in these cases were named one of the main challenges by both prosecutors and investigators who met with the OECD expert team. Considering the specifics of the field and the complexity of regulation, the absence of the necessary expert methods and experts with the required qualifications for some expert studies makes it impossible to conduct them (for example, determining the cost of electricity).

The bias of the experts is another aspect of this problem: since investigations often involve the most prominent players in the energy market, they have long-standing relationships and ample opportunities to influence relevant expert institutions, including expert institutions that are part of other law-enforcement agencies (Ministry of Internal Affairs, Security Service of Ukraine).

The involvement of private expert institutions that are able and willing to conduct relevant expert examinations may serve as a tool to reduce this risk; however, given the higher cost of their services, the cost of such a study can often exceed the minimum threshold for public procurement. In this case, the investigating authority is obliged to announce an open bid that will also become known to the persons under investigation, who may initiate participation of loyal expert institutions in that bid.

Moreover, according to national legislation, forensic examinations (for example, technical study of documents to determine the time of their creation or handwriting examination to verify the authorship of the signature) can be conducted only by state expert institutions. This further increases the risk of illegal influence on the examination results in these cases, as private expert institutions' involvement in conducting such studies is currently impossible.

This problem was pointed out by a judge of the High Anti-Corruption Court during a meeting with OECD experts. He noted that even though paragraph 6 of section 2 of Article 242 of the Criminal Procedure Code of Ukraine requires a mandatory examination to determine the amount of material damage, the relevant instruction of the Ministry of Justice of Ukraine does not provide for this type of examination. Due to the lack of an appropriate kind of examination, investigators order various kinds of studies, most often accounting or economic, to meet this requirement of the Criminal Procedure Code of Ukraine. However, to conduct economic examinations, experts require a preliminary audit on relevant issues. However, investigators and prosecutors are not authorized to initiate audits as part of criminal investigations, the Criminal Procedure Code does not grant such authority, and the Supreme Court has established clear case law on declaring the results of such audits as inadmissible evidence, and therefore the conclusions of economic expertise based on such audits as unacceptable as well. Given this, investigators resort to the preliminary involvement of specialists, whose findings are provided to experts instead of audit reports. The judge of the High Anti-Corruption Court believes that it is necessary to additionally determine the type of examination, which would directly correspond to the tasks outlined in paragraph 2 (vi) of Article 242 of the Criminal Procedure Code of Ukraine; the judge also believes that investigators and prosecutors should be given the right to initiate audits within criminal proceedings.

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5.3.2. Involvement of victims in criminal proceedings

Involving victims in a criminal proceeding is another significant difficulty in the energy sector. As a rule, the relevant state-owned energy enterprises are victims of such corruption schemes that suffer material losses. However, due to the specifics of the national energy market, most of these state-owned enterprises are subject to the informal control of private businesses or individuals lobbying for the appointment of loyal and controlled management for years.

Given this, upon detection of a particular corruption scheme at such enterprise and even in case of suspension of the suspected managers from performing their responsibilities, the informal control nevertheless rests in the hands of the same persons who were the beneficiaries of the identified scheme. Considering this, new or temporary management of the enterprise usually refuses to participate in the criminal investigation as a victim and to file a civil lawsuit against the suspects to compensate for the material damage.

However, considering that according to the provisions of criminal procedure legislation, only a legal entity that suffered material damage from the crime can be qualified as a victim of a crime, any other state institutions that are founders or shareholders of such energy enterprise cannot act in such status.

This problem already has specific negative consequences. The High Anti-Corruption Court of Ukraine has found a head of the board of a regional heat energy company to be guilty of abuse of office and sentenced him to five years in prison. At the same time, while the court has established the fact of the violation of the law, it has denied the satisfaction of the civil lawsuit to compensate the damages caused by the crime as the improper plaintiff had filed the claim. In this case, the inactiveness of the energy company's management led to the State Property Fund, a shareholder of that company, being recognized as the victim of the crime. The State Property Fund only filed a civil lawsuit to claim the damages, although they were caused to the energy company.

5.3.3. Litigation activity

During the discussion with OECD experts, representatives of both the National Anti-Corruption Bureau of Ukraine [("NABU")] and the Specialized Anti-Corruption Prosecutor's Office noted that NABU's previous practice of filing commercial lawsuits based on criminal investigations to invalidate illegal agreements by managers of energy enterprises was an effective tool. However, NABU can no longer exercise such powers after the Constitutional Court of Ukraine declared them unconstitutional on June 5, 2019. At the same time, the respective lawsuits can be filed by the prosecutors, including prosecutors of the Specialized Anti-Corruption Prosecutor's Office, who are authorized under Article 131-1 of the Constitution of Ukraine and Article 23 of the Law of Ukraine "On the Prosecutor's Office." However, the Specialized Anti-Corruption Prosecutor's Office representatives noted the lack of the required resources within the Specialized Anti-Corruption Prosecutor's Office to carry out these activities, such as insufficient number of prosecutors in general and absence of prosecutors with the relevant experience in civil and commercial court processes.

At that, both prosecutors of the Specialized Anti-Corruption Prosecutor's Office and the NABU investigators noted the expediency of expanding the staff of the Specialized Anti-Corruption Prosecutor's Office and formation of a separate department that would focus on litigation activity. All respondents agree that this would restore the effective litigation practice previously performed by the NABU representatives and effectively use the civil confiscation mechanism for which the Specialized Anti-Corruption Prosecutor's Office does not currently have sufficient resources.

Engagement of experts in the relevant energy spheres

Considering the specificity and complexity of the regulation of the relevant energy sectors, the need for a competent explanation of these aspects for the court's understanding during the trial is justified. While

meeting with the OECD experts, the prosecutors of the Specialized Anti-Corruption Prosecutor's Office noted that it was sufficient to engage specific experts during the trial to interrogate them as witnesses to explain certain specifics to the judges relevant for the case. However, the prosecutors admitted that they had not tried to engage such experts during the trial and did not know whether judges would allow such interrogation, given that these witnesses would not provide specific information about the imminent crime but would instead provide qualified explanations regarding general rules and procedures for specific operations in the relevant energy sector.

The judge of the High Anti-Corruption Court also agreed during the meeting with the OECD experts that obtaining expert information regarding the functioning of a particular industry or undertaking certain operations in that sector may be helpful for the court to perceive and evaluate evidence provided by prosecution and defence. The judge, however, also questioned whether such experts could be interrogated as witnesses given the way this status is now established in the law. According to the judge, it would be most procedurally correct to either expand the concept of a witness in the law or introduce a separate participant in the proceedings - an expert witness.

5.3.4. Visualization and other forms of data demonstration

The prosecutors, investigators and the judge High Anti-Corruption Court all agreed during the meetings with the OECD experts that it is advisable to visualize specific chronological sequences of events, complex calculations, or expert opinions in the form of charts or detailed data compilation to facilitate the court's perception. The judge noted that paragraph6 of Article 99 of the Criminal Procedure Code allows such a form of reflecting the data contained in the evidence submitted by the parties to the proceedings. The judge also confirmed that the High Anti-Corruption Court sees no technical or organizational obstacles for such form of data demonstration; the court can ensure reflection of the data on screens or using the flipcharts.

Criminal legal measures concerning legal entities

Box 5.2.

Under Section XIV-1 of the Criminal Code of Ukraine, legal persons may be subject to criminal penalties such as fines, confiscation of property or liquidation of the legal person.

Under the p.1 of Article 93-3 of the CPC of Ukraine, the grounds for the application of such measures are:

- 1) perpetration by the authorised person on behalf and in the interests of a legal entity of any of the criminal offences set out in Articles 209 and 306, parts 1 and 2 of Article 368-3, part 1 and 2 of Article 368-4. Articles 369 and 369- 2 of this Code;
- 2) failure to enforce the duties imposed on the authorised person by law or by the constituent documents of the legal person to take measures to prevent corruption, resulting in the commission of any of the criminal offences set out in Articles 209 and 306, Article 363, parts 1 and 2, Article 368-4, parts 1 and 2, Articles 369 and 369-2 of this Code;
- 3) perpetration by the authorised person on behalf of a legal person of any of the criminal offences set out in Articles 258 to 258-5 of this Code;
- 4) perpetration by the authorised person, on behalf and in the interests of a legal person, of any of the criminal offences set out in Articles 109, 110, 113, 146, 147, parts 2 to 4 of Article 159-1, Articles 160, 260, 3, 6 438, 442, 444, 447 of this Code;
- 5) perpetration by the authorised person, on behalf and in the interests of a legal person, of any of the criminal offences set out in Articles 255, 343, 345, 347, 348, 349, 376-379, 386 of this Code;
- 6) perpetration by its authorised person, on behalf and in the interests of the legal person, of any of the criminal offences set out in Articles 152-156-1, 301-1-303 of this Code against a minor.

According to part 8, Article 214 of the Criminal Code of Ukraine, details of a legal person subject to criminal liability shall be included by an investigator or prosecutor to the Unified Register of Pre-trial Investigations immediately after a person is given notice of suspicion of committing on behalf of or in the interest of a legal person any of the offences set in Articles 109, 110, 113, 146, 147, 160, 209, 260, 262, 306, parts 1 and 2 of Article 368-3 Articles 368-4, parts 1 and 2, Article 369, Article 363, 438, 442, 444, 447 of the Criminal Code, or any of the criminal offences set out in Articles 151-2-156-1, 301-1-303 of the Criminal Code (if committed on behalf of a minor), or any of the offences set out in Articles 258-258-5 of the Criminal Code of Ukraine on behalf of such a legal entity On entering information.

During the meetings with the OECD experts, the prosecutors also noted the limited possibilities to apply criminal legal measures to legal entities. In particular, due to the limited number of offences during the investigation of which such measures can be used, they were only used twice within the proceedings on crimes of corruption in the energy sector on the grounds of legalization of funds in the interests of legal entities. Both such proceedings are currently pending in court.

The prosecutors noted that most crimes of corruption in the energy sector, and the majority of crimes of corruption related to commercial activity investigated by NABU, are qualified under Articles 191 and 364 of the Criminal Code. However, the effective legislation does not allow applying criminal legal measures to legal entities in investigating such crimes.

5.4. International cooperation

Considering the specifics of the corruption schemes in the sector, international legal cooperation in the course of their investigation is very important.

Article 542 of the Criminal Code of Ukraine provides that international cooperation during crimes investigations includes the provision of international legal assistance by way of service of documents, execution of specific procedural actions, extradition of persons who have committed a criminal offence, temporary transfer of persons, transfer of convicted persons and execution of sentences.

The Office of the Prosecutor General is the central agency of Ukraine authorised to request international legal assistance in criminal proceedings during their investigation and to consider relevant requests from foreign competent authorities. However, to ensure the independence of the National Anti-Corruption Bureau of Ukraine, Article 545 of the Criminal Procedure Code of Ukraine stipulates that NABU, not the Prosecutor General's Office, acts as the central agency of Ukraine for international cooperation in investigating corruption offences.

NABU investigators, during meetings with OECD experts, highlighted the long terms for fulfilling the relevant inquiries as to the main problematic issue in international cooperation on such cases.

Investigators confirmed that the established business relations with the competent authorities of the requesting state (police-to-police cooperation) positively impact the effective use of international cooperation. The language barrier complicates this collaboration somewhat, as not all investigators are fluent in English. The direct participation of investigators in such communication is essential, as employees of the international department of NABU who speak foreign languages do not know the details of specific investigations or procedural nuances.

Investigators noted that NABU has the best cooperation with the Baltic States, Switzerland and the Czech Republic. Difficulties in collaboration (long delays in processing requests or incomplete responses) are typical for South Korea, the UAE, the United Kingdom, and offshore jurisdictions.

During meetings with OECD experts, the prosecutors revealed that NABU's investigators mainly deal with the issues of international legal cooperation. However, where the prosecutors already have established channels of communication in a particular jurisdiction, then prosecutors may perform cooperation in such cases.

The prosecutors also noted the terms of request fulfillment to be a significant problem in international cooperation. Due to the extended timeframe for fulfilling such requests, prosecutors sometimes have to allocate the money-laundering investigation into a separate proceeding before sending an indictment for the primary predicate offence to the court. At the same time, the charge for money laundering is forwarded to court later upon receipt of responses to the request. In other cases, when prosecutors have a rough idea of what the answer to a particular request may be, they can send an indictment to the court without waiting for such an answer, and the response received is further disclosed to the defence and provided to the court as additional evidence obtained after the commencement of the trial.

5.5. Confiscation and asset recovery

According to paragraph 1 of Article 170 of the Criminal Procedure Code of Ukraine, the investigator, the prosecutor, must take the necessary measures to identify and search for a property that may be seized in criminal proceedings, in particular by requesting the required information from the National Agency of Ukraine for Detection, Search and Management of Assets Obtained from Corruption and Other Crimes (ARMA), other state agencies and local governments, individuals and legal entities.

As per paragraphs 1 and 2 of Article 15 of the Law of Ukraine "On the National Agency of Ukraine for Detection, Investigation and Management of Assets Obtained from Corruption and Other Crimes", ARMA interacts with the pre-trial investigation authorities, the prosecutor's office and court by way of:

- execution of appeals of the investigator, investigator, prosecutor, investigating judge, the court
 on detection, search, valuation and management of assets, as well as on the execution of
 decisions of foreign competent authorities on the seizure and confiscation of assets;
- assistance in the search for appropriate premises, sites for storage of assets seized in criminal proceedings or the case of recognition of unfounded assets and their recovery into state revenue and which are not managed by the National Agency;
- 3) providing clarifications, methodological and advisory assistance on detection, search, valuation and asset management issues.

Despite the sufficient authorities granted to ARMA, including in the search for assets, in criminal proceedings for corruption in the energy sector (as well as in NABU's proceedings in general), NABU investigators turn to ARMA mainly to manage the property that is already identified and seized.

For the most part, the search for property to be seized and confiscated is conducted by NABU's investigators on their own without the involvement of the ARMA.

During the discussion, during meetings with OECD experts, the NABU investigators explained this by not having sufficiently positive previous cooperation experience with this agency. In particular, at the beginning of the agency's work, the results of their work on the search for assets in corruption cases in several cases were disappointing, although investigators had to provide considerable information to the agency about the investigation to search for assets.

The investigators also noted that some aspects of the management of the seized property do not contribute to the establishment of constructive cooperation with ARMA: attempts to sell the managed property at a reduced price without notifying the investigators; shifting the responsibilities of the agency to investigators in case of problematic issues during property management.

However, at the same time, NABU investigators noted recent positive examples of cooperation with ARMA in some cases. The investigators are convinced that they would have more often involved the agency in asset search should the collaboration with ARMA had reached a more constructive level.

During the meetings with OECD experts, ARMA representatives outlined the resources they use to search for assets:

- open databases and other open source intelligence tools (OSINT);
- resources of the CARIN network and other networks in this area (including regional ones);
- communication directly with similar authorities in other countries (most effective in Germany, Austria, Lithuania).

Representatives of ARMA noted that they represent Ukraine in all specialized asset search networks, and other Ukrainian state or law enforcement agencies are not included in such networks.

At the same time, ARMA representatives noted that access to international commercial databases (such as Orbis) would be helpful for a more effective asset search; however, the access is expensive, and there are no resources in the ARMA budget to pay for it.

ARMA representatives said they had established good cooperation with almost all EU countries and the United States. However, they noted that in some jurisdictions, cooperation is traditionally complicated (offshore jurisdictions, UAE, etc.).

Representatives of ARMA named the licensing issue the main problem in managing assets in the energy sector. Most of these facilities require special licenses or permits to operate. Naturally, such licenses are available to companies that own assets; however, when there is a problem to transfer the object into management, then the management company must in advance or specifically obtain the same license.

It is at the stage of obtaining such licenses or permits for management companies when significant complications arise, and it takes a long time. As such licenses and permits require additional information from the asset owner (accounting, inventory, etc.), the owners are not interested in providing them and refuse, so ARMA is forced to involve the investigation agency to obtain the necessary information and documents.

ARMA representatives consider introducing a temporary succession of such licenses for the period of object management (from the owner of the asset to its manager) to solve this problem.

According to ARMA representatives, they proposed to the Government to make appropriate changes to the regulations; such draft amendments are currently being considered by the Ministry of Justice of Ukraine.

Representatives of ARMA also noted that until recently, the transfer of energy infrastructure to management could jeopardize the proper functioning of specific energy infrastructure (for example, the beginning of the heating season) due to the duration of the process. However, recent changes to the relevant law, ARMA specialists also developed, have made it possible to introduce a more effective mechanism for managing critical infrastructure facilities.

Box 5.3.

Law No. 1530-IX from 03.06.2021 on the National Agency of Ukraine for finding, tracing and management of assets was supplemented by new Article 21-1, which allows in exceptional cases to manage the assets seized in criminal proceedings through their transfer for the management of an enterprise, institution, organization under the authority of the Ministry, another central executive body or a business company 50 percent or more shares (stakes) of which are in the authorised capital of business companies (hereinafter, the enterprise) with a 100 percent state stake, on the basis of a decision of the Cabinet of Ministers of Ukraine.

Such exceptional cases are deemed to be those in which assets are placed under management in at least one of the following circumstances:

- 1) there is a risk of disruption and/or interruption of the functioning of such assets, which could lead to emergencies or disruptions in heat, power, electricity, water supply or drainage or the supply of natural gas;
- 2) there is a risk of interruption of the functioning of enterprises, institutions and organisations in the defence industry and/or aircraft industry that own such assets.

Once these exceptional adverse circumstances have been remedied, the assets in question are to be transferred to general management through a competitive tender process with the obligation to ensure the continuity of asset management.

5.6. Adjudication, sanction applied and execution of court decisions

The judge of the High Anti-Corruption Court noted during meetings with OECD experts that the same challenges characterize consideration of corruption cases in the energy sector as other complex corruption

economic schemes, such as significant material damage, a large number of participants, frequent attempts to delay the process made by the defence. In addition, more and more cases are pending before the High Anti-Corruption Court, and given the limited number of judges, each case is being delayed more and more, as judges need to devote time to new cases.

During meetings with OECD experts, prosecutors praised the state of criminal proceedings for corruption in the energy sector by the High Anti-Corruption Court. They noted that the sanctions currently applied by the High Anti-Corruption Court cases of this category are justified.

The prosecutors informed that the Specialized Anti-Corruption Prosecutor's Office does not currently have a well-established practice of taking into account in other criminal proceedings the court's conclusions set out in acquittals and noted that they do not see the need for such approach until all courts pass the appeal.

Prosecutors noted that it is the position of the current leadership of both the Office of the Prosecutor General and the Specialized Anti-Corruption Prosecutor's Office to appeal any acquittal unconditionally.

At the same time, both the interviewed prosecutors of the Specialized Anti-Corruption Prosecutor's Office and the interviewed NABU investigators noted a regulatory problem with the conclusion of plea agreements in corruption cases, including in the energy sector.

According to both prosecutors and investigators, the law significantly limits the terms of such agreement in terms of possible punishment that the prosecutor is authorized to agree with a suspect or an accused, which negatively affects the number of deals. Such restrictions include:

- direct prohibition of application of the provisions of Article 69 of the Criminal Code of Ukraine (imposition of a milder punishment than provided by law) in corruption offence cases;
- ambiguous legislative provisions regarding the application of the provisions of Article 75 of the Criminal Code of Ukraine (exemption from serving a probation sentence), which different courts interpret and apply differently, specifically: (i) Paragraph 1 of Article 75 of the Criminal Code explicitly prohibits the application of this procedure in corruption offence cases, however (ii) according to Paragraph 2 of the same article, the court may decide to release from serving a probation sentence in the case of plea agreement approval.

Such restrictions significantly reduce the range of criminal penalties that prosecutors may offer to suspects (accused) as a result of the agreement and thus persuade them to cooperate with the prosecution and give incriminating testimony.

Prosecutors also noted the possibility of the court refusing to approve agreements that, in the opinion of the court, do not meet the interests of society to be a negative factor. Prosecutors believe that after such court's refusals to approve the agreement, further cooperation with a person willing to enter into an agreement will be very difficult, if not impossible.

According to prosecutors, granting greater discretion to prosecutors to determine the sentence based on an agreement, and reducing the possibility for the court to refuse to approve agreements due to non-compliance with public interests, would allow more active and effective application of this legal mechanism.

During meetings with OECD experts, the judge of the High Anti-Corruption Court drew attention to the provision of paragraph 8 of Article 474 of the Criminal Procedure Code of Ukraine concerning the review of plea agreements, which excludes the possibility of re-application. According to the judge, this restriction should be lifted because if the court refuses to approve the deal because its content does not meet specific formal requirements, or its conditions, in the opinion of the court, are too lenient or otherwise not in the public interest, the prosecutor should be able to consider the court's position and enter into a new agreement of the relevant content with the suspect or accused. According to the judge, such legislative change would allow the court to control the agreements' content effectively and would enable prosecutors not to lose as a witness a person who agreed to plead guilty, where the court rejected the deal.

The judge also pointed out that in his personal opinion, it is advisable to legislate the application of the provisions of Article 69 and Article 75 of the Criminal Procedure Code of Ukraine for concluding agreements in crimes of corruption cases, perhaps at least for accomplices.

The judge also noted the need to determine the principles of sentencing, depending on the form of conspiracy, so that the court has the opportunity to impose less punishment on the accomplice than the direct perpetrator or organizer of the crime. Currently, the court is limited only to the lower limit of the sanction of the relevant article.

Regarding the effectiveness of engaging a person who had previously entered into a plea agreement with the prosecutor to be a witness, the judge informed that there were not enough of such cases in the practice of the High Anti-Corruption Court that would have already been completed. However, several such cases are currently pending. In general, the judge noted that in his opinion, the testimony of such persons is more important at the stage of the pre-trial investigation to determine what evidence and where to collect, which version to check and what way to direct the investigation. At the trial stage, the court will be somewhat biased concerning the testimony of such witnesses since there is a risk that they will give possibly unreliable testimony to avoid liability and enter into an agreement. The judge noted that in cases of this category, the court tends to rely more on the documentary form of evidence.

5.7. Conclusions and recommendations

Energy is the second most frequently represented sector in statistics on criminal proceedings completed in corruption cases in 2017-19, the number of persons registered in the Unified register of corruption offenders in 2017-20, and the list of high-profile corruption cases compiled based on mentions in reports of criminal justice bodies in 2017-20. The suspected and proven corruption cases of the sector are varied, complex and often involve actions that have spanned several years and involved high-level officials. Many of the cases involve SOEs and various forms of depleting their resources (embezzlement, ungrounded giving up of claims, overpayment in procurement, undercharging for the sale of products, etc.).

The specialized criminal justice institutions – the National Anti-Corruption Bureau of Ukraine, the Specialized Anti-Corruption Prosecutor's Office, the National Agency of Ukraine for Finding, Tracing and Management of Assets Derived from Corruption and Other Crimes, and the High Anti-Corruption Court – are in place and constitute a sound institutional framework for repressive response to corruption. The number of detected corruption cases cited throughout this report reflect the serious efforts of the institutions. On the other hand, combatting complex high-level corruption is always fraught with challenges, some of which in Ukraine are the deficit of unbiased expertise and legal barriers to informing the investigations and adjudication regarding the complexities of the energy sector, difficulties associated with the recovery and management of recovered assets, unwillingness of the management of affected SOEs to join efforts to recover losses caused by corruption, increasing backlog of cases in front of the otherwise successful High Anti-Corruption Court, legal hindrances for the effective use of plea bargaining in corruption cases, etc.

Recommendations

Consider granting permission to conduct forensic examinations in criminal proceedings to private
expert institutions and experts to strengthen objectivity of the expertise and enhance freedom of
choice in selection of experts with necessary level of qualification. Explore ways to eliminate
reasons for doubts concerning the objectivity of the opinions of state experts.

- Take steps to increase efficiency of recovery of damages from corruption in energy sector by developing a separate procedure and methodology for forensic examinations for determining the amount of material damage in criminal proceedings.
- Consider the possibility of applying the international legal cooperation mechanisms for examinations in criminal proceedings by expert institutions of foreign states along with setting up joint investigation teams and applying other efficient forms of internal cooperation.
- Consider ensuring the possibility for the shareholders, state companies or government agencies, of the legal entities whose shareholder is the state, to file civil lawsuits in criminal proceedings for compensation of damages in the interests of such legal entities.
- Expand the list of grounds for applying criminal and legal measures to legal entities for certain corruption crimes to cover all corrupt practices in energy sector.
- Improve management of seized assets taking into account specificities of the energy sector infrastructure assets, by establishing the order of temporary succession over special licenses and permits for the period of management of the seized energy infrastructure facilities (from the owner of the asset to its manager).
- Consider advantages and disadvantages of expanding the discretion of the prosecutors through providing possibilities of concluding plea agreements in criminal proceedings on corruption crimes.
- Encourage prosecutors of the Specialized Anti-Corruption Prosecutor's Office to actively use the
 powers to file lawsuits for termination of contracts if in the course of the investigation the evidence
 of their probable illegal conclusion by energy companies is established.
- Take measures to ensure that energy enterprises that suffered material damage can be recognised
 as victims and civil plaintiffs and can file the civil lawsuits in criminal proceedings or separate civil
 proceedings. Make officials who fail to claim damages without grounds liable for the inaction.
- Ensure that prosecutors of the Specialized Anti-Corruption Prosecutor's Office and investigators of
 the National Anti-Corruption Bureau of Ukraine use additional methods of laying out and presenting
 evidence in court, including by interviewing qualified experts in a specific field of energy to receive
 information on principles and rules of its functioning, as well as using visual design of complex
 evidence for the court in the form of diagrams, charts and other forms of data compilation.

6 Recommendations

6.1. Corruption risks and corruption related issues in the energy sub-sectors

6.1.1. General recommendations for the whole of energy sector

- Make strategic decisions regarding the energy sector in a transparent, well-grounded and evidence-based manner with due involvement of all relevant stakeholders and explain rationale of national importance behind the political decisions.
- Explore further opportunities and take steps to strengthen competition in the energy sector.
- Corporatise energy sector SOEs and implement corporate governance reforms in line with international best practices, including OECD Guidelines on Corporate Governance of State-Owned Enterprises and OECD Guidelines on Anti-Corruption and Integrity in State-Owned Enterprises.
- Ensure that no arbitrary political or administrative interferences are made into affairs of the SOEs in the energy sector.
- Ensure that all social obligations and objectives imposed on the energy sector SOEs are clearly
 defined in a systematic manner, their costs calculated realistically and taken into account in
 performance appraisal of the companies.
- Ensure that the legal guarantees for anti-corruption officers and compliance officers and whistleblowers in the energy sector SOEs are fully upheld.
- Refrain from adopting special legislation related to emergency situations in a manner not provided by general legislation. Ensure that any exceptions, if introduced, are clearly grounded to guarantee competition, transparency and accountability.
- Develop a clear action plan of the government for the settlement of debts in the energy sector, including gas market, electricity market, and the coal sector.
- Ensure that the procedure for repayment of the debts in energy sector is transparent and based on clear criteria and information on the relevant decisions is made public on a regular basis.

6.1.2. Oil and gas

- Clearly and indiscriminately define the category of 'vulnerable consumers', with the view to making instruments of their protection more targeted, rational and transparent.
- Develop a procedure for the establishment and functioning of the Unified register of energy resources consumers, with depersonalized data on gas consumption both by suppliers and consumers and ensure effective verification of such data.
- Ensure the installation of reliable gas metering system to prevent volume manipulations of the consumed gas and related corruption risks.
- Consider adopting the Procedure for developing, submitting, and adopting compliance programs of gas DSO with a mandatory reporting to the Regulator on the progress of the implementation.
- Ensure that the distribution tariffs cover all relevant costs, including technological losses.

- Monitor actual procurements of the natural gas by DSOs and compare them with market indicators.
- Ensure that the stocktaking and certification of gas distribution systems are performed, providing comprehensive and definite data on ownership status of the assets.
- Ensure that information on state-owned distribution systems is exchanged among all relevant state institutions, including Ministry of Energy, National Energy and Utilities Regulatory Commission and State Property Fund with the view of verifying it.
- To avoid the risk of capture of the commercial activity of Ukrnafta, ensure that sales by Ukrnafta proceed in competitive circumstances and are open to as many different potential buyers as possible.
- Strengthen control over licensees producing petroleum products and exercising retail sale of fuel, including the inspection of their operation with the view to detecting products subject to the excise fees.

6.1.3. Nuclear energy

- Corporatise "Energoatom" and implement corporate governance reforms in line with international best practices, including OECD Guidelines on Corporate Governance of State-Owned Enterprises and OECD Guidelines on Anti-Corruption and Integrity in State-Owned Enterprises.
- Ensure that all social obligations and objectives of "Energoatom" are clearly defined in a systematic manner, their costs calculated realistically and taken into account in performance appraisal of the company.
- Explore opportunities and take steps to strengthen competition in supplies for the nuclear energy sub-sector.
- Strengthen the policies and their implementation by "Energoatom" and other SOEs to detect signs
 of collusion between suppliers.
- Strengthen the implementation of due diligence regarding the suppliers of "Energoatom".
- Ensure that the anti-corruption / compliance functions within "Energoatom" are performed with due safeguards of autonomy.

6.1.4. Coal energy

- Ensure that all social obligations and objectives of SOEs in the coal sub-sector are clearly defined in a systematic manner, their costs calculated realistically and taken into account in performance appraisal of the company.
- Strengthen the practice of the relevant state bodies, exercising the ownership of SOEs in the coal sector, in setting commercial and other objectives for these SOEs in the coal sector, and ensure oversight over their implementation.
- Monitor the sales of coal by state-owned mining companies to prevent unjustified sales at prices below the market level.
- Ensure that the state aid allocated to SOEs in the coal sector is adequate and proportionate in regards to the companies' needs and their commercial and other objectives.
- Ensure that the state aid to cover costs of coal production is linked to obligations to achieve certain goals and that the level of achievement of these goals is monitored systematically.
- Review the system of regulations for the coal energy sub-sector to ensure that the regulations do not cause avoidable corruption risks.
- Introduce and strictly adhere to a transparent and fully merit-based procedure for the selection of managers of SOEs.

• Increase the institutional capacity of the governing process for SOE under privatization to mitigate and prevent corruption risks.

6.2.2. Public procurement

- Ensure that energy sector public procurement is carried out in line with provisions of the Law on Public Procurement and no exceptions are introduced, unless clearly grounded to ensure competition, transparency and accountability.
- Consider developing a system that proactively screens a priori in the course of procurement proceedings and a posteriori the general practice of public procurement to detect red flags of unresolved conflicts of interest or other abuse.
- Ensure a uniform, comprehensive and effective approach in all SOEs of the energy sector regarding management of conflicts of interest when managers of the SOEs who can influence the results or procurement proceedings have private interests related to any of the bidders.
- Ensure proper financial and investment planning that fully reflects the procurement needs of the SOEs in the energy sector.
- Determine clear and comprehensive principles for purchases carried out by SOEs outside the framework of the Law on Public Procurement and adopt relevant company policies.
- Develop methodology for the public procurement units of the energy sector SOEs with detailed guidelines on (a) technically adequate and supplier neutral tender documentation, (b) the price monitoring and (c) conducting preliminary market consultations.
- Ensure that developed tender documentation is properly verified in regards to compliance with the requirements for the subject of procurement to eliminate unjustified discrimination of potential suppliers and related corruption risks.
- Explore possibilities to encourage and facilitate legal challenges of potential suppliers against discriminatory qualification criteria and other discriminatory elements in tender documentation.
- Clearly define the responsibility of the responsible structural units within SOEs in energy sector to prevent conspiracy with the management of the bidding companies.
- Ensure corruption risks and due diligence assessment of the potential suppliers that participate in the bidding process and of the third companies that implement contracts.
- Establish effective cooperation and information sharing between the state authorities that perform
 the oversight and control functions in the field of public procurement and anti-corruption law
 enforcement bodies at the state level.
- The National Agency for the Prevention of Corruption, the Antimonopoly Committee of Ukraine and the State Audit Service of Ukraine should raise awareness of the participants of the public procurement in the energy sector about public procurement legislation in order to avoid violations, and encourage them to notify the authorities of violations of the legislation.
- Ensure that the Antimonopoly Committee of Ukraine and the State Audit Service of Ukraine effectively control compliance with public procurement legislation, in particular, in the activities of energy enterprises.
- Establish effective cooperation and information sharing between the internal procurement, audit and anti-corruption units of the SOEs operating in the energy sectorLicensing and permits

6.2.3. Licensing and permits

Ensure independent status of the National Energy and Utilities Regulatory Commission from any
public or private body, including to prevent political interventions into the decision-making process
of the National Energy and Utilities Regulatory Commission in law and practice. Introduce

necessary safeguards in appointment and dismissal of commissioners through a clear and merit-based procedure.

- Minimize the list of grounds for awarding special permits bypassing the auction procedure.
- Take steps to ensure that proposals within environmental impact assessments are evaluated based on clear criteria, that such evaluation is done in a transparent and inclusive manner enabling meaningful participation the interested stakeholders.
- Integrate qualitative criteria in the procedures of selecting subsoil users, with the view to determining the financial and technical capacity of bidders to carry out exploration and production.
- Consider introducing a legal obligation to disclose contracts on subsoil use (which are an integral part of a special permit) as well as their essential conditions.
- Strengthen oversight over local authorities as licensing bodies, particularly regarding the
 performance of their controlling functions, sanctioning functions in cases of violations of licensing
 conditions and conflict of interest rules.

6.2.4. Electricity market

- See Recommendations for Section 2.6.
- Explore opportunities and take steps to strengthen competition at the electricity markets and ensure effective role of the Anti-Monopoly Committee of Ukraine..
- Ensure that the price caps are set in the transparent procedure and define deadlines for revoking the price caps.
- See General recommendations for Chapter 2.

6.3. Anti-Corruption Measures

- Without further delay adopt anti-corruption strategy to ensure stewardship and coherence in the reforms and to confirm Ukraine's commitment to anti-corruption.
- Conduct strategic risk assessment of the energy sector at the national level.
- Ensure proper and continuous risk assessment at the level of the energy sector state bodies. It
 should be based on evidence and analysis of the effectiveness of the previous measures; be
 comprehensive and include potential and real risks pertinent to the state functions exercised by
 the state body, the external environment of the state body, and areas regulated by this body, and
 cover at least major state-funded energy sector projects in its portfolio.
- Take measures to increase civil society and other stakeholders' participation in the risk assessment
 and other anti-corruption activities of the energy sector state bodies, including by proactively
 reaching out to the non-government stakeholders, providing them feedback on their contributions,
 etc.
- Ensure efficient monitoring of the implementation of the anti-corruption programmes by the energy sector state bodies, including through development of qualitative indicators, involvement of the non-governmental stakeholders in such oversight, etc.
- Promote and encourage tone from the top in the energy sector state bodies in regards to anticorruption, place priority on this issue, including through regular communication from the management of its importance and other similar actions. Ensure that the effective performance of the anti-corruption function is a key criterion for the performance assessment of managers.

- Take steps to establish integrity culture in the energy sector state bodies and widely communicate zero tolerance of corruption within them.
- Enhance capacities of the anti-corruption units in the energy sector state bodies, including by
 properly staffing them, providing them with the necessary training, and affording them appropriate
 level of importance in the organisational structure to ensure that the head of this unit is recognised
 among key positions of this body.
- Ensure independence of the anti-corruption officers in the energy sector state bodies, consider delegating their appointment to an outside body, such as the National Agency on Corruption Prevention. Anti-Corruption officers can be delegated into the institutions by the National Agency on Corruption Prevention and report to the agency.
- Ensure in practice that dismissal of the anti-corruption officers is possible only with consent from the National Agency on Corruption Prevention and such consent is conditioned on a comprehensive review of the grounds and legality of the proposed dismissal.
- Promote and encourage tone from the top in the energy sector SOEs in regards to anti-corruption,
 placing priority on this issue, including through regular communication from the management of its
 importance and other similar actions. Ensure that the effective performance of the anti-corruption
 function is a key criterion for the performance assessment of managers.
- Take steps to encourage SOEs to streamline various anti-corruption functions to ensure that their activities in this area are coherent and consistent. Clarify state's position in regards to requirements of the anti-corruption legislation vis-à-vis this function and provide guidance on a unified approach in meeting these requirements (in particular, including in SOEs of private law).
- Take steps to comply with the OECD Anti-Corruption and Integrity Guidelines for SOEs and consider undergoing the Review against these Guidelines.
- Ensure that the energy sector state bodies proactively implement and use the available anticorruption tools, such as management of Conflict of Interest, asset declarations, reporting and whistleblower protection.
- Enhance the dialogue between the energy sector state bodies, ownership entities and anticorruption bodies, and the business, with the view to develop joint initiatives or take joint steps towards increasing transparency of the business operations in the energy sector of Ukraine.
- Consider introducing incentives to promote integral business practices.

6.4. Investigation and prosecution of corruption in the energy sector

- Consider granting permission to conduct forensic examinations in criminal proceedings to private
 expert institutions and experts to strengthen objectivity of the expertise and enhance freedom of
 choice in selection of experts with necessary level of qualification. Explore ways to eliminate
 reasons for doubts concerning the objectivity of the opinions of state experts.
- Take steps to increase efficiency of recovery of damages from corruption in energy sector by developing a separate procedure and methodology for forensic examinations for determining the amount of material damage in criminal proceedings.
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