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Romania's Energy Crossroads

Strategic Options for Improving Energy Security

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A Word from the Project Coordinator

Central and Eastern European energy security has gained new urgency since the beginning of the Ukraine crisis, considering in particular the region's dependence on imported Russian natural gas. Romania is in a somewhat privileged position since it has energy resources of its own and a strategic location at the crossing point between east-west and north-south energy transit routes.

To address these pressing challenges, the Center for European Policy Analysis (CEPA) initiated Romania's Energy Crossroads Program. Structured as a targeted 12-month effort, it builds on the momentum of CEPA's highly successful U.S.-Romania Initiative, focusing this time on Romania's need for durable energy security.

The program concentrated on improving resource and supply diversification to achieve energy security for Romania, with special emphasis on the oil and gas sectors, in a complicated regional environment. It aimed at:

- advancing policy options
- promoting best practices (domestic and regional) in energy sector governance
- improving the national legal and regulatory framework
- developing measures to enhance transparency and accountability.

It sought to examine realistic ways to turn to good account Romania's potential role in the regional energy market of Southeastern Europe and its contribution to Central Europe's interconnector infrastructure.

Drawing on a strong contingent of high-level expert contributors to the U.S.-Romania Initiative, CEPA managed to gather participants from the United States, Europe and Romania to meet regularly as part of a dedicated Energy Working Group to identify where Romania was succeeding on the energy front, where it was underperforming and what policy steps national leaders ought to consider as a result of that analysis.

The intention was to mobilize elite constituencies, which might not otherwise engage with each other, in a joint policy debate. Involvement in the program provided an opportunity to address critical issues that are of interest to the energy industry in Romania in a strategic context and to find the right way to present meaningful options to government officials and other decision-makers.

Under CEPA's competent guidance, Working Group members took part in several targeted seminars and open debates designed to reach different constituencies and stakeholders inside Romania for a results-orientated consideration of needs, options and policy alternatives. For this purpose, the Working Group was divided into several subgroups and team leaders were appointed.

The efforts of the Working Group resulted in this report, which can serve as a useful complement to the ongoing work to produce an amended and updated National Energy Strategy for Romania. The report suggests practical measures to enhance the regional dimension of Romania's energy policies and to explore the opportunities for further cooperation in the energy sector under the U.S.-Romania Strategic Partnership.

The report is intended for decision-makers, industry executives and experts. Its aim is to promote public debate on the kinds of policy changes that would benefit the energy sector in Romania and encourage greater international investment.

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Alexandra Gatej

Strategic Policy Options for Improving Romania's Energy Security

Short-term versus Long-term Approaches in the Energy Sector

Energy security is defined by the International Energy Agency (IEA) as the uninterrupted availability of energy sources at an affordable price. In the short term, it focuses on the ability of the energy system to function normally and to react promptly to sudden changes in the supply-demand balance. In the long term, it deals mainly with timely investments to supply energy in line with economic developments and environmental needs.

In the short to medium term, Romania is in a relatively good position in terms of energy security compared to most of its neighbors in Central, Southeastern and Eastern Europe. Its low dependency on imported energy resources – combined with structural changes in the economy, leading to the downsizing and relative decline of energy-intensive industries – have helped Romania avoid major disruptions during Europe's recurring energy crises.

For the time being, Romania's main assets ensuring virtual energy self-sufficiency are:

- A reasonably well-balanced mix of primary energy resources (gas, oil, coal, renewables including hydropower, nuclear).

- Still significant, though declining, domestic production of oil, gas and coal (mostly low-grade); promising new hydrocarbon discoveries in offshore deposits on the Black Sea, shelf and onshore mature deposits requiring deeper drilling or other techniques.

- Safe and duly certified nuclear units equipped with Western technology and relying on domestic production of nuclear fuel.

- A relatively well-developed wind and solar (photovoltaic) sector, plus envisaged projects for other renewables (biomass, waste-to-energy, geothermal, micro-hydro) that are likely to meet Union (EU) targets by 2030.

- Broad compliance, with few exceptions, with EU energy legislation and regulatory prescriptions under the Third Energy Package, with good prospects for fulfilling the requirements of the planned Energy Union.

Yet these comparative, and temporary, advantages have lulled successive Romanian governments into a false sense of security by obscuring the challenges and vulnerabilities that will inevitably arise in the future.

In the medium term, Romania will face considerable challenges in the energy sector that call for massive investments and technological upgrading in a coherent conceptual framework. Although several laudable attempts have been made to produce a more comprehensive, future-oriented national energy security strategy incorporating meaningful inputs from all relevant stakeholders, top decision-makers have shown only sporadic and inconsistent interest. Part of the explanation for this lies in the fact that energy planners have never received a sensible answer to the basic question, "What are Romania's development goals, tentative targets and therefore energy requirements, say, 20-30 years from now?" Without relying on some sort of assumed "vision thing," it becomes hard to tailor adequate energy policies rather than a mere collection of plausible scenarios.

For now, Romania has to cope with a number of urgent weaknesses and vulnerabilities - some of them structural - which begin to affect the continued effectiveness and operational resilience of the energy sector:

- A disjointed and partially outdated legal and regulatory system too often subjected to opportunistic and uncorrelated changes under the pressure of emergencies or unforeseen events.

- Rapid depletion of hydrocarbon reserves at a rate far exceeding new discoveries; a considerable rise in imported oil and gas resources is expected after 2020.

- Delays in launching new tenders for oil and gas concessions, coupled with depressed market prices, which have driven most Romanian companies (oilfield equipment producers, drilling, exploration and maintenance services) to the brink of bankruptcy, with the exception of major players with deep pockets (OMV Petrom and Romgaz).

- Outdated, inefficient and heavily polluting power production facilities, mainly in coal-fired thermal units approaching or already well past their technological lifetime; continued reliance on coal is likely for at least the next decade to ensure the safe functioning of the system, especially during the cold season.

- A physically worn-out and mortally obsolete energy transport infrastructure (oil and gas pipelines, high-voltage lines, transformer stations, unacceptably high losses in district heating distribution networks).

- Poor cross-border connectivity of gas and power networks.

- Slow progress in improving energy efficiency throughout the production, transit and consumption cycles, Romania being one of Europe's laggards in this regard.

- Emerging overcapacity in the power generation sector that calls for new export outlets based on commercial effectiveness in relation to average production costs and required investment in relevant cross-border infrastructure; this may accelerate the weeding out of less efficient units and, consequently, affect the traditional energy mix.

- A real danger of compromising the further advancement of renewables (solar and wind in particular) because of fluctuating taxation, feed-in price-support schemes and confusing regulatory dispositions, and a lack of balancing production, transport and storage capabilities to compensate for the intermittent character of weather-dependent output.

In the long term, considering the highly inertial nature of investments in the energy sector, Romania has to make quite a few hard choices not later than 2017 to keep abreast of the dynamic developments in world markets, technological innovation, mainstream options in EU energy policies and Romania's specific conditions and requirements. In addition to coping with the above-mentioned weak points, Romanian authorities will have to consider further practical measures in the following areas:

1. Making strategic decisions have to be made sooner rather than later about the main future sources of hydrocarbon supply and transportation to avoid one-source dependency and to secure reasonable pricing according to a pre-planned schedule that is correlated with the anticipated decline of national resources.

Various options should be considered carefully and realistically, based on cost/benefit analysis, including the possibility of tapping new sources for imported gas from Azerbaijan, Turkmenistan and Iran via Turkey, and liquefied natural gas (LNG) from planned terminals in Greece and Croatia. Another option may be resuming supplies from Russia and other politically sensitive sources, if and when there is a positive change in current political circumstances, to be ascertained in close consultation with Romania's allies and strategic partners.

2. Accelerated introduction of modern, cutting-edge technologies in power generation and use with due regard for environmental concerns (carbon capture and storage, smart grids and smart metering, advanced power storage methods – e.g., high-capacity batteries, flywheel techniques), and development of alternative or unconventional sources of energy to reduce the cost of electricity and improve the competitive edge of Romania's exports to regional, EU and other markets.

Russia is currently in the process of fully controlling the northern Black Sea littoral following its annexation of Crimea from Ukraine, incitement of the proxy insurgency in the Donbas region of eastern Ukraine and incessant attempts to further divide Ukraine territorially and politically. As the Kremlin cannot currently carve out a Novorossiya entity along Ukraine's southern coastline - largely because of Ukrainian resistance - it will likely settle for Crimea and Donbas and seek to destabilize the pro-Western government in Kyiv. Moscow's underlying goal is to prevent Ukraine from moving into Western institutions, and it pursues the same objectives in Moldova and Georgia.

3. Dealing aggressively with energy poverty - both in Romania itself and in the wider region - through coordinated national support schemes for vulnerable consumers and other measures congruent with EU legislation and regulations.

4. Rethinking the governance framework in the energy system to shield state-owned enterprises (SOEs) from political interference and to create a friendlier legal, regulatory and fiscal environment for investment and business development. A proper implementation of Ordinance 109/2011, together with the continuation of the initial public offerings (IPOs) and secondary public offerings (SPOs) program assumed by the government with the international institutions, are critical steps to achieve these goals.

5. Building long-term national energy strategy options in conjunction with actual progress made toward the EU-U.S. trade and investment partnership and rendering strong political support to that end.

Policy Options for a Regulatory Framework for the Onshore and Offshore Oil and Gas Industry

Factors affecting onshore and offshore hydrocarbon exploration and production, and the context in which they have to be approached, are more or less similar. Before making the necessary adjustments in Romania's regulatory framework, it makes sense to consider some key factors for the future of the energy sector:

- At the regional level, trends in energy production and consumption will likely follow developments on the international market. If the American experience can be replicated, these changes will potentially have the same "tectonic" effect on the region's energy security picture.

- The share of clean (including natural gas) and renewable energies will gradually increase to the detriment of crude oil and coal.

- There will be an increasingly higher degree of complexity and volatility in energy markets and confrontation between consumption markets (mainly based on free competition) and production centers (based on monopoly).

- The gas market will become globalized due to progressive development of LNG capacities.

- The offshore areas (international seas and deep maritime perimeters) and the Arctic will become the new objects of interest for the upstream sector and for the identification of new energy sources.

- The diversification of sources, resources and energy routes will become the prevailing trend of the new energy order (from a bipolar system consisting of producer and consumer countries to a multipolar system in which the positions of exporting, transit and consumption countries will need to be balanced).

- Investments in new energy-saving technologies, alternative and unconventional energy sources, and improved efficiency will increase.

When it comes to defining and implementing its energy policies, as an EU member state Romania will also have to consider the trends at the community level and contribute toward shaping such trends. At the EU level, along with the new geopolitical challenges and in the context of a prolonged financial and economic crisis, together with the launch of the EU Energy Security Strategy[1] and the EU's Energy Union strategy,[2] the key words at the energy-community level in the near future will be **solidarity, coordination and diversification.**

Briefly, the strategy toward a European Energy Union focuses mainly on five main pillars:

- Security, solidarity and trust in the energy field.

- A fully integrated European energy market.

- Energy efficiency as a contribution to consumption moderation.

- De-carbonization of the economy.

- Research, innovation, competition.

At the EU level, the strategic lines regarding hydrocarbon resources anticipate a strong focus on:

- Development of exploration and production in the North Sea, Black Sea and Eastern Mediterranean.
- Diversification of supply sources (Azerbaijan, Iraq, Iran, Turkmenistan, Algeria, Egypt) and supply routes, mainly through the Southern Corridor.
- Development of LNG facilities and supply sources, as well as natural gas storage facilities.
- Development of regional LNG "hubs" in Central and Eastern Europe and the Mediterranean.
- Simplification of administrative procedures related to projects on hydrocarbon exploration, production, transmission and processing.
- Development of energy diplomacy in relation to source and transit states, including mechanisms for the joint purchase of gas and the consolidation of EU strategic energy partnerships with source and transit states.
- Streamlined coordination of EU memebrs' energy policies with the states of the Energy Community, based on transparency and solidarity, aiming to achieve an integrated European energy market.

In Romania's case, the elaboration of a **comprehensive national energy security strategy** should also consider the expected state role in the energy sector, i.e., as a participant and direct recipient (of benefits and losses), directly involved in the economy of this sector, or as an arbiter, policy coordinator and beneficiary of the cascading economic results.[3]

Romania's prospects in the petroleum sector (crude oil and natural gas) and in a wider context of energy security must be based on the following main pillars:

- Boosting the capitalization of any kind of energy resources, both conventional and unconventional.
- A presence at the regional and continental levels through a strong and goal-oriented energy diplomacy and by turning Romanian energy companies and the areas in which they operate (production, services, transport, distribution, supply) into regional-class players.

Such goals can be achieved by means of the following **general measures:**

1. Maintaining an innovative, attractive, competitive, stable and predictable legal, fiscal and institutional framework, given the transient and highly inertial nature of energy projects (involving major investments and extended time frames). This could be achieved by a professional endeavor to develop clear legislation and de-politicization of the relevant governmental structures and of the state-controlled energy sector, by promoting professional excellence (including wage incentives), stability, integrity, accountability and efficiency of such structures, and by focusing government energy policies on strategic rather than political goals.

The purpose is to move away from the current state of affairs, dominated by the state's multiple roles as administrator, endorser of business plans, legislator, regulator, monitor and tax collector, to a restrained state intervention, in which investors can freely pursue their interests in an environment of clear and stable rules of the game – hence, to a role of the state as an arbiter and honest broker, driven by broad strategic objectives.

2. Steady harmonization of energy-sector legislation with the general legal framework and the relevant normative systems on sectoral and incidental activities at both the domestic and European level, such as environmental protection, labor safety and construction, in order to avoid contradictions and ambiguities.

3. Ensuring that representatives of all political parties agree to strategic energy policy decisions so those decisions won't be reconsidered following election cycles. Each political party must assume these mechanisms, followed by an integrated professional organization of government services for data collection, forecasting, strategic planning and follow-up monitoring of governmental policies regarding energy security.

4. To the extent that the current structure of public property or control is maintained in the energy sector, requiring full de-politicization of such participation and presence, along with full and unequivocal implementation of management based on corporate governance principles.

5. Maintaining a "neutral"[4] fiscal framework[5] that offers an attractive environment for investment, while ensuring realistic government revenues from petroleum activities.[6] In the short term, given the increasingly marginal nature of hydrocarbon deposits in Romania, a tax system designed to attract and stimulate investment is required.

6. Establishing institutional and decisional transparency[7] as a fundamental principle of administrative activity and simplifying permit procedures,[8] approval of petroleum operations (the "one-stop" shop concept), combined with real accountability of the people involved and clarification of authority; adequately educating the local authorities regarding the legislation and competencies in petroleum operations permitting, as well as the real benefits and risks triggered by such operations, in order to eliminate "local customs" that deviate from the law and impede petroleum operations.

7. Adopting and implementing economic, fiscal and educational policies to stimulate research and development along with innovation in the field of petroleum technologies and energy efficiency.

8. Adopting and implementing economic and fiscal policies and incentives that promote competitiveness in particularly inefficient segments of the petroleum sector.

9. Strengthening the autonomy and administrative capacity of relevant regulatory authorities, more specifically the National Agency for Mineral Resources (ANRM), by replicating the pattern applied to the Romanian Energy Regulatory Authority (ANRE): separating the ANRM from government authority and ensuring its financial independence; withholding taxes collected by the ANRM in order to finance its own activities; and stimulating the ANRM's transformation into a genuine partner of petroleum companies.

10. Encouraging investments in energy projects of strategic magnitude by creating an institutional and financial framework aimed at supporting such projects (e.g., converting the state-owned CEC Bank into a public-private partnership).

11. Stimulating investments in the hydrocarbon exploration and production sector, including petroleum equipment manufacturing and services, to facilitate access of the relevant Romanian companies (regardless of their stakeholder nationality) to foreign markets, and positioning Romania as a regional source of petroleum expertise.

12. Simplifying access to and circulation of geological information. Most information of this type is now considered classified, which hinders petroleum operations and investors' access to Romania.

Recommended Measures for Immediate Implementation

In the onshore sector:

1. Facilitating access of petroleum operators and services companies to exploration, development and production blocks (rights of access, use, easement); simplifying access procedures (including situations where the lands of the exploration and production blocks are not properly surveyed and recorded in the cadastre) and eliminating bureaucratic hassle.

2. Outlining and implementing government programs and legislative-institutional measures aimed at supporting science-based, accurate and transparent public communication and debate in the relationships between the general public, civil society, academic environment, the government and the petroleum industry in order to mitigate manipulative opposition against specific energy projects based on false arguments (be they environmental concerns or primitive energy nationalism) that are likely to

prevent their development; the energy security and solidarity principles enshrined at the EU level must be clearly understood by the population in Romania through regular public awareness campaigns.

3. Analyzing the possible implementation of policies to encourage the joint participation/involvement of local communities in energy projects in areas affected by petroleum operations; allocating direct economic and social incentives and even benefits deriving from such projects, to communities without prejudice to economic efficiency and profitability.

4. Providing economic and fiscal incentives to petroleum operators, focused on the use and development of mature deposits. Also worth considering are the promotion promotion, by specific laws, of CO2 capture and storage that can be commonly used to stimulate further exploitation of mature deposits.

5. Implementing EU recommendations on the minimum principles for hydrocarbon exploration and extraction by using high-volume hydraulic fracturing (2014/70/EU), likely to encourage unconventional hydrocarbon exploration and production, as well as secondary and tertiary recovery.

6. Clarifying implementation of Government Resolution No. 1076/2004 which establishes environmental assessment procedures for plans and programs on petroleum blocks.

7. Establishing clear rules regarding the location and construction of wells and, monitoring and controlling the environmental impact of petroleum operations, and any potential restrictions imposed on petroleum activities.

8. Requiring study, with well-defined environmental parameters, to assess environmental conditions at the start of petroleum operations, which would represent the standard for comparison in assessing the environmental impact of petroleum operations.

In the offshore sector:

1. The Romanian part of the Black Sea is a promising, yet challenging, area in terms of its potential energy resources. Successfully unlocking the Black Sea's offshore energy resources requires significant investments. Investors providing up-front capital need to receive an acceptable return on their investment, consistent with risks. Such investments require a stable regulatory and fiscal environment over the entire lifetime of the investment. The lack of regulatory stability jeopardizes investment decisions.

2. The required exploration, development and production investments are large and have long periods of return of investment. In order to attract and maintain offshore investments in the Black Sea, the upstream fiscal system must differentiate between the treatment of the onshore and offshore sector, and then distinguish between shallow-water and deep-water operations. The fiscal conditions offered by the Romanian government must be attractive, stable, fair and must recognize the investors' effort. Romania competes with other countries to attract investments in the offshore sector. Long-term partnership between state and offshore investors can be built only by offering a balanced fiscal system that recognizes investment efforts and accommodates Romania's needs.

3. Clarifying the legal responsibilities of Romanian authorities in the exclusive economic zone, which includes the contiguous zone, especially in environmental and construction matters. These responsibilities are, for now, being drafted only for the Border Police and the Maritime Authority.

4. Implementing on an emergency basis EU Directive 30/2013 regarding the safety of offshore petroleum and gas operations and amending Directive 2004/35/EC; more specifically, establishing and organizing on a new competent authority to implement the EU Directive 30/2013.

5. Applying, once the regulatory authority under EU Directive 30/2013 is established and functional, EU Regulation 1112/2014 (in force since October 2014) on an emergency basis. This establishes a joint pattern for the exchange of information on hazard indicators by major operators and owners of offshore petroleum and gas installations, and for publishing that information for member states.

6. Clarifying, for the purpose of stimulating investments (given the complexity, risks and extremely high costs of offshore operations), the concerns of petroleum operators and service companies regarding the taxation of staff-serving petroleum rigs to value-added tax (VAT) matters.

7. Concluding bilateral treaties with Bulgaria and Ukraine, once the political status of Crimea is clarified, concerning the blocks in neighboring exclusive economic zones. The Norwegian-British model can serve as an inspiration.

Financing of new upstream projects or reserve-based lending is an extremely specialized category in the world of investment banking. The market for such instruments gravitates around big financial hubs like London, Houston, Dallas, Paris, Amsterdam, Singapore and Geneva. Creating such a specialized market in Romania depends on favorable hydrocarbon geology (even for depleting reserves), encouragement of unconventional resource exploration and offshore exploration, an innovative and dynamic banking sector – which is not presently the case – and a friendly upstream regulatory framework.

For Romania, the easiest way to finance the upstream sector is to create and maintain a favorable fiscal framework, centered on the concept of a long upstream operational cycle (20-30 years) and on a balanced return of investment and government tax collection. A favorable deductible fiscal system together with a simple, predictable and efficient tax system is, de facto, a financing and sustaining form of oil and gas upstream industry, which in turn can favor stability and predictability for the national budget revenues from the oil and gas industry. Such an approach will generate development of the financial markets associated with such investment opportunities. Banks and the local financial market should be encouraged to develop and promote upstream financing products.

Large energy projects need an efficient legal and institutional framework for public-private partnerships. The present framework has not proved useful for such projects. It lacks perspective on financing projects, which is essential for such enterprises to succeed. The Romanian state should use the financial institutions under its control (CEC Bank, EximBank) to finance energy projects in a public-private partnership framework (the British model is worth considering), even in a syndicated manner the European Bank for Reconstruction and Development or with other IFIs - or private banks or investment funds.

Governance of the Energy Sector

State-owned enterprises still dominate Romania's energy sector, despite the recent government selloff of significant holdings in energy companies. Nevertheless, the government continues to wield significant influence over the sector, although in some cases (Petrom and some energy distribution companies) it owns only a minority share. The state is the majority stakeholder in Romgaz, Transgaz, Transelectrica, Nuclearelectrica and in the coal sector, controlling most of Romania's energy generation companies, an important part of the energy distribution and supply sector, and both national transmission operators. Implementing long-term, sustainable corporate governance systems at the SOE level is key to achieving energy security in the long term. Such a system will provide an effective framework for managing the development of Romania's natural resources, while ensuring much-needed energy security and thus contributing to Southeast Europe's stability in general.

Romania's agreements with institutions such as the International Monetary Fund (IMF), have driven the privatization process of some energy companies. This process started 10 years ago through the sale of majority stakes in state companies to strategic partners like OMV Petrom, Enel, EON and Lukoil. Recently, it appears that the government favors capital markets to attract private investors in SOEs. The nuclear energy producer Nuclearelectrica and energy transmission operators – Transelectrica and Transgaz –along with the most important gas producer of the country – Romgaz – are some examples. In 2014, the Romanian government sold 51 percent of the country's main energy distribution company, Electrica, through a successful IPO. Although the company is now private the state still makes important decisions given that the government is still Electrica's largest single shareholder.

Romania will need to invest an estimated €15 billion-€30 billion in the next decade to develop energy capacity and refurbish its infrastructure. The level depends on which scenarios are being considered. It is doubtful that investments of such magnitude could be financed outside a solid partnership with private investors, especially international institutional investors.

This is why Romania must convince investors that such partnerships are benefit both parties, proving they are economically viable and politically sustainable in the long run. To this end, several government policies toward SOEs are under consideration. Such policies refer to implementing and supporting professional, independent boards and executive management; combating corruption within SOEs; increasing transparency and accountability with regard to business decisions; publishing and implementing long-term strategic objectives; and monitoring corporate governance performance, while establishing a system of incentives and penalties for compliance and noncompliance. A clear, forward-looking and business-oriented energy strategy will ensure an adequate response to new technological and political challenges. Subsequently, a more predictable legal and normative framework needs to be put in place, having clearer objectives, milestones and key performance indicators.

Ordinance 109/2011 ensures a legal framework for recruiting professional, independent board members and executive managers in SOEs (either non-listed or publicly listed companies) based on professional qualifications. The legislation requires management to offer administration plans for approval by shareholders and defines minimal corporate governance standards. Implementation of this ordinance was not always uniform; private managers were often subject to political pressure and even dismissal without cause, well before their management contract ended. Despite setbacks, Ordinance 109/2011 proved beneficial to the energy sector, with most companies retaining a stable management, clear performance indicators and a reasonable degree of transparency. This is particularly true for those listed on the stock exchange, either in Bucharest or in London, where additional corporate governance codes imposed by stock exchange officials apply.

The Romanian government should therefore enforce the rules outlined in this legislation, especially considering non-listed companies or those where the state continues to hold a majority stake, ensuring that political interests do not lead to corporate abuse. Important steps have been taken to avoid political nominations in energy companies, especially in 2014. Certainly, more needs to be done to consolidate an image of independence and meritocracy. Some experienced foreign managers are now working for SOEs, either as executives or non-executive members of their boards of directors. It is important to continue recruiting successful and experienced international professionals, so that SOEs can take advantage of their knowledge, increase efficiency and ensure exposure to the global market, particularly the North American capital markets. In order to attract such managers, remuneration should be linked to a company's performance and long-term value for their shareholders. Current legislation does not take this into account, nor does it specifically address the situation of foreign managers.

Corruption continues to pose a serious threat to the Romanian economy, with SOEs among the enterprises most affected by this phenomenon. Significant steps have been taken, but Romania must send a clear political message reassuring investors that the changes are irreversible. Best practices with regard to combating corruption, enforcing conflict-of-interest rules and ending improper business practices should be disseminated and strongly enforced in all companies. Whistleblower policies, stricter ethical codes, conflict-of-interest procedures and proper business conduct rules are among the most notable and effective instruments.

Romania needs greater transparency and accountability to foster economic performance and reinforce sensible business practices. In 2014, the government, through the Department of Energy, asked SOEs to make public their sponsorship contracts as well as lists of bidders that won tenders exceeding €100,000 for consultancy contracts or €500,000 for other types of contracts awarded through public tenders. Although the ministerial order was not formally rescinded and most companies published the required documents, flaws persist. Investors and stakeholders in general should be able to better assess how public funds are spent, even more so because energy companies are important contributors to the state budget. They are among the largest employers in Romania, and their activity has a significant impact many communities.

Auditors should conduct regular appraisals of corporate governance performance at SOEs. Neither the general annual report on SOE performance nor the sectoral report drafted by the Ministry of Energy assesses corporate governance in a systematic manner. Boards of directors should be encouraged to self-evaluate, using corporate governance scoreboards. If necessary, they should commission - in partnership with academic institutions - external studies to evaluate the Romanian experience in the field of SOE governance.

Effective communication with relevant stakeholders and the general public on what corporate governance is (with concrete “do’s” and “don’ts”) is paramount to building public awareness about how SOEs are governed. Civil society need to be more engaged, and training of the lawmakers, journalists, key opinion leaders and political advisors is also a good idea.

Further efforts should aim to clarify the balance of power between the general shareholders meeting (GSM) and the board of directors, considering international good practices. The goals should be a clearer and uniform understanding of what types of decisions are to be taken at each decision-making level. Escalating minor decisions to the GSM level is common practice, sometimes shielding executives from properly executing their duties and opening up the company to abuse and unnecessary political interference. Board members, executives and civil servants in state-owned units need to be made aware of international good practices and principles in this respect.

Last but not least, SOEs need long-term strategies to help define a more coherent, general strategic framework for the sector as well as for Romania as a whole. There is a clear interdependence between companies’ individual strategic views and an integrated approach driven at the political level. The Romanian political establishment needs to recognize that the energy sector now depends on a more diverse capital structure. Private equity plays a more significant role, and its views should be duly taken into account.

Policy Options to Secure Romania's Role in the Southeastern European and EU Energy Markets

State of Play at the Regional Level: Centrality of Gas

Romania has the second-largest gas market in Central and Eastern Europe. It was the region'sfirst country to use natural gas for industrial purposes. In the early 1980s, following the government's elimination of imports, natural gas production and construction of distribution networks reached record levels. But intensive exploitation of domestic resources eventually depleted known reserves and caused the current decline in production.

Looking to the future, Romania may take part in the developing the Vertical Gas Corridor (VGC) aimed at connecting Greece with Bulgaria and onward to Romania - possibly all the way to the Baltic Sea, and has taken specific steps in that direction. Yet because of its fixation on energy independence, the technical particularities of Romania's gas transport system (e.g., pressure, design) still present serious obstacles for regional integration. These factors make cross-border interconnections difficult and costly. This situation needs to change, and Romania must open up to the EU energy market. Weak competition in the internal gas market, inefficient management of state-owned energy companies, the absence of a workable wholesale gas market and lack of interconnectivity all hinder regional integration.

Romania must also decide whether it wants to continue a policy of isolation (protecting indigenous resources) or actively integrate its natural gas transport and distribution systems with regional markets and seek access to new supplies that may become available in the next decade from the southeast. The offshore Black Sea resources are promising, but they should not be the only new source. The Romanian government will likely explore other alternatives as well, such as attracting much-needed investment in enhanced oil recovery (EOR) from mature fields, or in deep drilling. In the medium to long term, the diversification of gas supply sources will become a critical issue that Romania cannot address on its own. A regional and, more likely, a Europe-wide approach is required – which is why Bucharest should help shape the process of creating an Energy Union.

Romania is far less dependant on energy imports than other countries in the region, or in the EU for that matter. Despite some contradictions, ultimately, it needs to integrate its energy markets with all its neighbors. Romania is increasingly aware that it must resort to the instruments of "energy diplomacy" to effectively promote its security interests, given the current tension along its borders.

For now, Romania has not been able to produce a forward-looking, comprehensive and pragmatic energy strategy. However, the current government has taken some promising steps. With support from relevant stakeholders - both private and public - Romania will hopefully produce such a strategic document soon, based on solid economic studies and predictions. This new energy strategy will then serve as a starting point for Romania's energy policies, or for any changes to the taxation system or in dealing with investors. A sound and pragmatic energy strategy could become an integral part of the response to current and future challenges. Once adopted, the strategy would serve as a "road map" for policy decisions, including updates to the fiscal code as it affects energy infrastructure and other regulatory initiatives.

Developing New Natural Gas Pipelines and Interconnectors

Romania's main energy security vulnerability has to do with natural gas. Its gas imports from Russia sank from 25 percent of its needs in 2010 to about 5 percent in 2014, due to lower industrial demands.[9] Although the quantity is a relatively small part of the country's energy mix, it comes at a significantly higher price than domestic production,[10] which is still sold at regulated prices. Besides, Romania runs a constant risk of supply cuts, since Gazprom is Southeastern Europe's sole gas provider and war-torn Ukraine is the transit state for that gas. Depending on Romania's success in developing its own new gas sources, dependence on imports will likely grow again in future.

Romania is the least import-dependent country in Southeastern Europe, thanks to its diversified and well-balanced mix of primary energy resources. According to Romania's National Institute of Statistics (INS), Romania's 2014 domestic primary energy resources totaled 22 million tons of oil equivalent (mtoe), with the following structure: 40 percent natural gas, 17 percent oil, 20 percent coal, 15 percent renewable energy sources (including hydropower) and 8 percent nuclear energy.[11] From that, the national mix for electricity production in 2014 was 30 percent hydropower, 26 percent coal, 18 percent nuclear, 16 percent natural gas and 10 percent other renewable energy sources (7.5 percent wind, 2.1 percent photovoltaic energy, 0.4 percent biogas).

Domestic oil and gas reserves are being depleted by an aggregated 10 percent a year, although OMV Petrom and Romgaz have slowed the decline in gas extraction thanks to investments in enhanced recovery. Therefore, Romania needs to develop new gas sources.

The country's most significant recent investments in new natural gas prospects were made in the Black Sea offshore (first-time exploration of the deep-water perimeters) and shale gas exploration. U.S. majors ExxonMobil and Chevron were involved in these operations, although Chevron announced in February 2015 that it was abandoning its shale exploration activities in Romania.

The Black Sea offshore remains the most significant prospect for new Romanian natural gas in coming years. So far, the most significant discovery has been the Domino-1 well in the Neptun block, a gas field with estimated reserves of 42 billion cubic meters (bcm) to 84 bcm or more. Despite subsequent geological exploration, commercial viability is still an open question. Romania is also redeveloping old onshore fields and the exploration of onshore geological formations at greater depths (3,500-plus meters). The country's mineral resources have been barley mapped using the latest 3D seismic technology.

Exploration and subsequent production activities in the Black Sea present specific challenges. The Black Sea deep waters are highly corrosive, requiring expensive technology. Its topography and geology make laying underwater pipelines difficult. Additional expensive capital-intensive transport infrastructure must be built onshore to bring natural gas to the market.

Romania's current hydrocarbons production takes place mostly onshore in hundreds of small and fragmented fields – most of them very mature – with low yields and low pressures. The National Agency for Mineral Resources is preparing a new tender for oil and gas blocks (the 11th Round), onshore and offshore.

At the same time, Romania plays a crucial role in the region;s major natural gas pipeline projects, especially to connect the Southern Gas Corridor which will bring Caspian and possibly Middleastern gas to European markets – to the North-South Corridor, which will link the Baltic and Adriatic seas. Furthermore, with the Turkish Stream project now expected to replace South Stream, Romania could help trnasport Russian gas that would come via Turkey and Bulgaria to the CEE region. This transmission role would be achieved by a combination of larger-scale mains and small-scale interconnectors linking the region's gas grids of the region's countries.

The Romanian natural gas transport system

Romania has 12,574 kilometers (km) of gas transport pipelines, measuring 50 millimeters (mm) to 1,200 mm in diameter and operating at low pressure, between 6 and 35 bar. The transport system was designed in the 1960s and built largely in the 1970s and 1980s, to support a centralized economy. The gas value chain (production, transmission, distribution and retail) was vertically integrated, with a single dispatch center and was designed for planned industrial consumption four times as big as today's, with relatively small demand variation. Most domestic gas production took place in Romania's central region and was shipped to the major industrial consumers and urban centers. The transmission systems of neighboring countries all operate at higher pressures, which hurts Romania's ability to export natural gas.

The national gas transport system (GTS) links to neighboring states through four interconnection points (IPs):

- Medieșu Aurit, at the Romanian-Ukrainian border: entry point in northern Romania, where UkrTransGas delivers to Romania's natural gas transport system operator, Transgaz, at a capacity of 4 bcm/year; 700 mm in diameter, 70 bar pressure on the Ukrainian side.

- Isaccea, at the eastern Romanian-Ukrainian border: 8.6 bcm/year; 1,000 mm in diameter, 55 bar on the Ukrainian side.

- Csanadpálota, at the Hungarian-Romanian border: 1.75 bcm/year; 700 mm, 63 bar on the Hungarian side; 0.087 bcm/year reverse flow capacity.

- Iași-Ungheni, Romanian-Moldovan gas interconnector: 0.04 bcm/year.

Romania's entire import capacity is 14.37 bcm/year. At present, limited gas exports are only possible through the Hungary-Romania and Romania-Moldova interconnectors, at an aggregated capacity of 0.13 bcm/year. Export capacity will grow upon completion of the Giurgiu-Ruse interconnector between Romania and Bulgaria. Its capacity will start at 0.5 bcm/year and reach a maximum of 1.5 bcm/year. However, construction has already deen delayed. It was supposed to be commissioned in 2013, the interconnector has not yet managed to cross under the Danube, ostensibly because of complex geology. In August 2015, the Romanian minister of economy announced the project would not begin until late 2016.

Apart from the GTS, Romania hosts a gas transit system that crosses its southeastern corner – in fact, the Romanian portion of the Trans-Balkan Pipeline through which Russia exports gas via Ukraine to Romania and also to Bulgaria, Greece and Turkey. The total length of the Romanian transit system is 553 km, at a pressure of 53 bar. It consists of three lines (Transit I, Transit II and Transit III) that enter the country at Isaccea and exit at Negru Vodă, at the Romanian-Bulgarian border. Their respective capacities are 5.18 bcm/year, 10 bcm/year and 10 bcm/year. The transit pipelines are not connected to the transport system or to each other, as they have different entry points.

It is relevant for this analysis that the ongoing transit contracts for each of these three lines have or will run out at follows: Transit I – expires December 31, 2016; Transit II – expired December 31, 2015; and Transit III – expires December 31, 2023. After these deadlines, under European legislation (the Third Energy Package), the pipelines must be integrated into Romania's transport system and allow reverse flows and third-party access. This opens new options for Bucharest to design its role in a new regional gas market. However, because of failure to conclude interconnection agreements with the transport system operators (TSOs) of neighboring countries, Transgaz has extended the expired Transit II agreement until September 30, 2016.

Before considering Romania's strategic options of joining and developing regional gas projects, it must re-engineer the Romanian Gas Transmission System in order to integrate into the European gas market and make good on regional commitments. To cope with problems such as low pressure in mature gas fields, optimization of operational costs and attracting investors in the upstream and midstream sectors, it is strategically vital that the GTS be split into two subsystems:

- The national gas transport system, to consist of a high-pressure pipeline system (40 bar+), able to deal with gas imports at their respective parameters, to take over domestic production from geological formations of higher pressure and to withstand fluctuation caused by demand peaks.

- The local transport system, to consist of a medium-pressure pipeline system (25-40 bar), able to take over domestic gas production within that pressure interval and ensure natural gas injection in the local transmission and distribution grids, as well as to large industrial platforms.

This approach urges juridical, technical and economic separation of the two subsystems: distinct norms and rules, separate technological and operational approaches, and different tariffs and tax frameworks. It will facilitate easy implementation of European Directives and Regulations, it will much better handle and foster a liquid gas market, and it will enhance the GTS's operational efficiency.

Romania's options in the regional gas market

After the demise of the Nabucco West project in June 2013, when Azerbaijan's Shah Deniz consortium chose the Trans-Adriatic Pipeline (TAP) as a continuation toward the European market from the Turkish-Greek border, Romania was left with no participation in any of the large-scale regional gas transport projects. The country retained the prospect of access to the Southern Gas Corridor by 2020 (when natural gas from the Shah Deniz field's full development is expected to reach the EU markets) via the Romania-Bulgaria Interconnector (IRB) and the planned Greece-Bulgaria Interconnector (IGB). However, the limited scale of those pipelines would also limit their strategic relevance. Against the background of more recent regional dynamics, bolder strategic planning is necessary.

Romania can be a short and safe pathway for gas transport between the Southern Gas Corridor – which will cross Turkey, Greece and Albania on its way to Italy – and the North-South Corridor, planned to connect the Baltic and Adriatic seas and the LNG plants of Omisalj (Croatia) and Swinoujscie (Poland). Planning for this has become much more urgent since the 2014 regional crisis and has prompted the states of Central and Southeastern Europe (CSEE) to look for new supply points and transport routes.

Gazprom announced early in 2015 its decision not to renew gas transits through Ukraine after the current contract runs out at the end of 2018. This has triggered frantic planning and energy diplomacy initiatives in CSEE states, with numerous and often mutually competing pipeline projects trying to shape the new strategic landscape in their favor.

After the December 2014 suspension of South Stream – its flagship gas project for Southern Europe – Gazprom announced it would lay a new gas pipeline under the Black Sea, from Anapa on the Russian coast to Kiyikoy in northwestern Turkey. However, this project has al been dismissed amid the current diplomatic chill that has descended over Russo-Turkish relations. Future progress on Turkish Stream is uncertain.

Aside from geopolitical posturing on Syria, the two countries also expressed commercial disagreement over Turkish Stream. Russia insisted that Turkey approve construction works for the project's four lines (each with a capacity of 15.75 bcm/year), while Turkey granted a license only for the first line. The 10.28 percent price discount that Turkey obtained on the almost 30 bcm/year it imports from Russia seemed to be predicated on Ankara's approval of Moscow's request regarding the pipelines. Another factor may have been Ankara's perception that the expected reappearance of Iran in the global oil and gas markets following the recent nuclear deal will provide Turkey with more gas supply, thus strengthening its hand in negotiations with Russia.

In a parallel development, it is noteworthy that Turkey's intensified conflict with the Kurdistan Workers' Party (PKK) resulted in four explosions, in July and August 2015, of two pipelines that bring natural gas and oil into Turkey: Tabriz-Ankara (linked to Baku-Tbilisi-Erzurum) and Kirkuk-Ceyhan. This can swiftly create a perception of insecurity and associated investment risk.

Prior to Turkish Stream's suspension Southeastern Europe had harbored hopes for about a plan to ship to Hungary and possibly to Austria the Russian natural gas that would be brought to Turkey via Turkish Stream. This plan can be viewed as a renewed version of the old South Stream that would replace Bulgaria with Macedonia and continue through Serbia toward Hungary. The April 7, 2015, Budapest Declaration[12] of the five Russia-friendly CSEE countries – Turkey, Greece, Macedonia, Serbia and Hungary – in the context of the current political standoff, expresses those countries' will to "support the energy markets of Turkey, the EU and the Contracting Parties of the Energy Community through the Southern Gas Corridor" with "European Union Financial Assistance." However, that proposal was likely to face the same stringent regulatory pressure from the European Commission (EC) that South Stream did.

Complementary to these developments on Europe's southern edge, an older proposal exists to advance a south-north corridor, or vertical gas corridor, that would run across Greece with Bulgaria and Romania, possibly reaching all the way to the Baltic Sea. Indeed, Greek planners outlined the vision of an Aegean-Baltic Corridor (ABC) in May 2014 as part of Athens's natural gas strategy in May 2014. The IGB, expected to be constructed and be able to ship 3 bcm/year by 2019, is seen as part of the ABC, as well as the Romania-Bulgaria Interconnector.

At an Athens meeting in December 2014, Bulgaria, Greece and Romania agreed to start a joint working group on the Vertical Gas Corridor. The VGC will link the three countries' gas transport grids through interconnections (the IGB, the IRB, as well as the link between the IGB and TAP) on one hand, and a new Greek LNG facility on the other hand. It is intended to convey a maximum of 5 bcm/year and its basic purpose is to enhance energy security by mitigating the risks of a regional supply crisis .

In what has turned out to be a Romanian conceptual extension to the VGC, Romania's Transgaz has proposed the Bulgaria-Romania-Hungary-Austria (BRUA) corridor. This is to not only connect Romania through the VGC to the Southern Gas Corridor (SGC) and the LNG terminals of Greece, but also ensure flows of gas to and from the West, in a broad and inclusive plan to interconnect the energy grids of Europe's center and southeast.

As part of the BRUA plan, Romania intends to internally link the IPs Giurgiu and Arad by its proposed 550 km-long Danube Pipeline, due to be finished in 2019 at an estimated cost of €560 million. As shown in Figure 1 below, the Giurgiu-Arad pipeline will connect at Podișor (close to Bucharest) with a 250 km-long €250 million spur to the Black Sea coast in order to offer an outlet for potential Black Sea gas production. In September 2015, the U.S. Trade and Development Agency (USTDA) granted Transgaz nearly $1 million to fund feasibility studies for the Giurgiu-Arad and Podișor-Tuzla pipelines.

In January 2016, the EC announced that Transgaz would receive $193 million in support of BRUA's first stage, as a project selected for the Projects of Common Interest list in November 2015. Financial support for BRUA will come from the Connecting Europe Facility.

Thus, BRUA has already become a national and European priority. Indeed, the Transgaz and GasConnect Austria – the Romanian and Austrian TSOs – have already launched an open season for cross-border capacity between the two countries and Hungary, respectively.

In addition, the Slovak transport system operator Eustream has proposed a pipeline called Eastring to connect the Isaccea and Mediș u Aurit IPs in Romania and continue toward Slovakia's Velke Kapusani, either through southwestern Ukraine (Eustream's preferred version), or parallel to the Tisza River, in northern Romania, toward Hungary and then to Slovakia.

The Eastring proposal capitalizes on using Romania's transit system in reverse flow, which means an already existent infrastructure of large capacity and considerably higher pressure (75 bar+), compared to the Danube Pipeline's planned pressure (40 bar).

Nonetheless, BRUA and Eastring are functionally different. BRUA will effectively be an extension of the VGC, with moderate capacity. Its main purpose is to tap into the Southern Gas Corridor and Greek LNG. For its part, Eastring would rely on the Romanian and Bulgarian transit systems (Trans-Balkan pipelines) operating in reverse flow. Its capacity will be bigger and its main purported source would be the uncertain Turkish gas hub. More importantly, from a strategic vantage point, Eastring would in fact bypass the Ukraine transit system, which contravenes U.S., EU and Romanian stated commitments to Ukraine's energy security.

After the Danube Pipeline, Transgaz plans to build a €65 million connecting line from Isaccea to Onești. This ensures a bidirectional link between the Romanian transport system and the Bulgarian grid. From there on it would close a loop in Hațeg and join the Danube Pipeline – that is, the BRUA corridor – and thus offer supplementary capacity for the transport of Black Sea production. From Coroi (Mureș County) the project could branch out upward and basically follow in the footsteps of Eastring.

The scale and speed at which these projects unfold depends a lot on available gas volumes internally and domestically, on market dynamics, on financing, and on geopolitical calculus. They will allow not only exports of surplus domestic gas production, but also imports from new sources such as the Caspian, East Mediterranean and the Middle East. Accordingly, they will enhance Romanian and regional energy security and will ultimately, in a competitive gas market, benefit final energy consumers, who will be able to get the best deal among several choices.

The EC has an important lever to shape the region's gas transport configuration. Indeed, enjoined by the Commission, a Central East South Europe Gas Connectivity (CESEC) High Level Group was established in Sofia in February 2015. Its goal is to foster energy infrastructure cooperation among the region's countries and streamline the list of cross-border proposals for projects of common interest (PCIs) and other European funds.

CESEC's second meeting took place in Dubrovnik, Croatia, in early July 2015. It resulted in the signing of a memorandum of understanding to formally launch the initiative, a list of 21 projects, and an action plan with specific steps to be taken by the governments, national regulatory authorities, project promoters and transport system operators. Top priorities in the action plan are TAP, the LNG terminal in Croatia, system reinforcements in Bulgaria and Romania, and interconnectors between Greece and Bulgaria and between Serbia and Bulgaria. Market participants should finance the projects, but the European Investment Bank and the EBRD are expected to take a more active role. The memorandum was signed by Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Slovakia, Slovenia, Albania, Macedonia, Serbia and Ukraine. The Eastring project was not yet considered viable.

Policy Options for Protecting Critical Infrastructure

Romania's framework for critical infrastructure protection, at a conceptual level, meets and surpasses the demands and recommendation of the EU's European Program for Critical Infrastructure Project (EPCIP). It is the product of internal development, integrating with the EU framework and further adapting to special Romanian characteristics in the energy sector, other interrelated sectors and the challenging security environment.

Following completion of the Security Liaison Officer (SLO) project, which codified the professional profile for use in future European legislation, Romania has begun to contribute directly to further development of the EPCIP framework. The project was financed by the EC and developed by a European team of experts, including a Romanian contingent from the Romanian Association for the Promotion of Critical Infrastructure and Services Protection.

Romania differs from its neighbors in that it is not only an energy transit country in the strategic Carpathian-Danube-Black Sea region – which will see future energy routes beyond those available today – but also because it has a high level of primary energy resource autonomy. This became evident in 2009 when Romania's neighbors, including those further west, were more affected by shortages of natural gas supplies during Ukraine's dispute with Russia.

For the moment, Romania has significant internal energy resources, at least enough to cover most of its needs, with the possibility of future development in the nonconventional fossil fuel sector. Consequently, all types of energy-related critical infrastructure are present in Romania, from field extraction to refining, transport, electricity production (also from renewable and nuclear sources) and delivery.

The special characteristics of Romania's critical energy infrastructure and infrastructure in general are as follows:

- Because of development policies during the communist regime, Romania has an excess of refining capacity and some redundant infrastructure, which is poorly adapted to market economy requirements.

- Due to the passing of time and lack of resources, many items of critical energy infrastructure suffer from various levels of decay and technological obsolescence with significant potential for spontaneous disruption.

- Romania's economy and society are in a different stage of transition and development compared to those of some of its neighbors.

- The rapid development of a subsidized renewable energy sector places additional strain on Romania's critical energy infrastructure through the increased complexity of grid balancing to account for the number of intermittent suppliers.

- Romania's difficult security environment involves significant geopolitical risk, in addition to natural threats.

- While Romania has developed a reliable basic security framework and understanding of its strengths and weaknesses, it lacks the significant resources required to adequately manage its vulnerabilities in a manner consistent with sustainable economic growth and diversification.

- Romania is obliged to respect the European framework in the field and has a responsibility to ntain and protect regional critical infrastructure passing through its territory, both as a source of economic activity, growth and revenue, and as a security concern.

- Romania participates in anti-terrorist coalitions and peacekeeping operations, which might generate new risks of retaliation.

- Romania has significant security exposure to asymmetric risks, such as deliberate interruption of resource and information flows, fallout from frozen conflicts, transnational criminal organizations and shifting human migration patterns.

As part of critical infrastructure protection efforts, Romanian authorities have developed a legislative and institutional framework for the governance of critical infrastructure security. More than 1,000 individual parts of the infrastructure have been designated as critical and added to a classified list, which entails special responsibilities on the part of the central or local authorities as well as the owner/operator/administrator of the relevant facilities.

The newly designated critical infrastructure triggers the following steps:

- Within nine months, the owner/operator/administrator must develop an operator security plan (OPS) and present it for approval. The plan includes, among other things, identification of vulnerabilities, descriptions of existing or future security measures and procedures, and permanent measures and gradual measures to be instituted with each new alert level.

- Applicable legislation (Annex 3 of the Emergency Government Order 98 of 2010) defines the plan's minimum requirements.

- Public authorities ensure that, within a year of the designation of a new national or European critical infrastructure, an operation security plan that meets all standards and regulations will be in place.

- If an equivalent of an operation security plan already exists, it is assessed for compliance with standards and regulations and amended accordingly.

- The plan is tested, assessed, revised and updated at least every two years, or whenever circumstances warrant it, by the owner/operator/administrator.

- Existing methodologies for the protection of European critical infrastructure supersede these obligations, and the competent authority assumes and performs its responsibilities within that specific framework.

Energy Diplomacy and Expectations from the Romania-U.S. Partnership

Energy diplomacy is part of the more general notion of economic and financial diplomacy aimed at prviding a two-way linkage between a country's foreign policy goals and its economic priorities in ways that comply with relevant international law, freely assumed treaty obligations and accepted market standards. Yet, unlike other commercial or financial transactions, energy is still viewed as a major national security concern because of the long-term investment commitments of considerable value, strategic implications and political sensitivities. Energy supply and pricing have sometimes been used as tools for economic pressure or political blackmail, which tends to make decision-makers rather cautious on the subject. No wonder then that it is common for government authorities to be involved in the design of energy policies and in international démarches to promote desirable outcomes.

Suggested priorities for Romanian governmental action in the area of energy diplomacy

1. Combine diplomacy with national energy policies.

Provide a steady stream of relevant and timely information on energy developments – particularly at the regional level – to improve the stock of knowledge and facilitate informed decision-making.

- Ensure proper representation of Romanian interests in bilateral talks and multilateral energy policy debates, especially in relation to EU institutions and Romania's strategic partnership with the United States. Build up a congenial political environment in bilateral relations and at international forums to promote energy projects of particular interest to Romania.

- Carefully prepare and responsibly conduct bilateral and multilateral negotiations leading to agreements on and implementation of such projects, as well as to the development of rules-based international arrangements in the energy sphere.

- Focus as a matter of priority on the regional dimension of energy cooperation, with particular emphasis on Central and Southeastern Europe, the Black Sea basin and adjacent areas.

- Step up diplomatic démarches and conclude Romania's application to join the Organization for Economic Cooperation and Development (OECD). Become more actively involved in the activities of the International Energy Agency, including implementation of its rules and standards.

2. Develop administrative and professional capabilities.

Overhaul and restructure the representation of Romania's economic interests overseas, starting with trade offices in embassies and consulates, and develop new instruments for trade promotion through public-private partnerships.

Streamline interagency cooperation in a multilayered format according to agreed procedural protocols.

Considerably enhance regular consultations with Romanian business entities in the energy sector, both state-owned and private, international investors, professional consultants and service providers, members of the scientific and academic community, and specialized nongovernmental organizations and professional associations. The main purpose should be to build a stable network with an aim to re-evaluate, on a continuing basis, Romania's legal and regulatory dispositions related to energy. Support national scientific research and technological development activities in the energy sphere through government contracts, mobility grants and other legally acceptable measures, and encourage international cooperation and productive partnerships in that sphere.

3. Focus diplomacy on specific areas to identify, preferably in the pre-planning stage, of realistic opportunities and policy options for Romania's involvement in major European and regional energy projects and related infrastructure.

Prioritize Romania's immediate vicinity – the Balkans and parts of the Black Sea basin – with extensions east to the Caspian, Central Asia and the northern tier of the Middle East, south to the eastern and southern Mediterranean, west to Central Europe and north to the Baltic Sea. Romania's strategic partnerships with Poland and Turkey should serve as anchors for broader regional initiatives.

Assist Moldova and, whenever possible, Ukraine in securing their energy needs, political independence and European aspirations.

Accelerate the development of cross-border interconnectors for both gas and electricity on the basis of sound economic merit, while also considering regional and subregional projects involving countries that are particularly vulnerable to one-source dependency and political pressure.

Consider the economic rationality and technical feasibility of regional partnerships for the joint development and use of LNG terminals on the Aegean and Adriatic coasts.

Romanian expectations for closer U.S. cooperation in the energy sector under the Strategic Partnership

Several major U.S. energy companies have been present in Romania for awhile, mainly in oil and gas exploration, in both on- and offshore areas. They are now familiar with the Romanian energy scene in terms of policy and necessary legislative or regulatory adjustments. Their voices carry weight with Romanian authorities and experts who have already accepted some of their suggestions for improvements on such crucial issues as taxation, land use and differentiation of fees according to the risks involved. It is reasonable to expect that such a positive attitude will continue.

It is time to expand the U.S.-Romania energy relationship, in step with the remarkable progress already seen in political, military and security cooperation. The following practical points seek to go beyond hydrocarbons and embrace a more comprehensive set of promising areas:

- Consider arranging a special mission of select U.S. energy companies to explore realistic business and investment opportunities in Romania and adjacent countries. This undertaking could follow the pattern set by the U.S. Department of Commerce with its information and communication technology (ICT) mission to Romania in May 2015.

- Explore the possibility of extending U.S. technical assistance to prepare a long-term energy master plan for the wider region, possibly using Romania as an operational base for implementation on terms congruent with the planned EU Energy Union and EU-U.S. trade and investment pact. Defining the notion of vulnerable consumers and coping with energy poverty in a regional format could be a good start.

- Examine in this context the opportunities for initiating, even on an experimental basis, regional projects relying on advanced technology in areas such as efficient operation of utilities, integration of renewable sources, gradual introduction of smart grids and smart metering, carbon sequestration and underground storage, and power storage in industrial-type batteries or other systems. One such project could be a joint Romanian-American research team to develop applications in the energy sector at the state-of-the-art laser facility at Măgurele, Romania.

Endnotes

1. COM (2014) 330: Communication from the Commission to the European Parliament and the Council "European Energy Security Strategy," May 28, 2014, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2014:0330:FIN#text.

2. COM (2015) 80: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, "A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy," February 25, 2015, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:0080:FIN#text.

3. The "state as energy player" model is specific to developing or autocratic countries. It allows for poor management, encourages waste of resources, monopoly and corruption, and, in the case of a high potential for hydrocarbon resources, provides conditions for the propagation of mono-economies, i.e., "the resource curse." Stimulation of the energy sector from its position as referee enables a state to collect cascading benefits by increasing economic competitiveness, securing reasonable energy prices, boosting investments, creating new job opportunities and absorbing technological progress.

4. A "neutral" fiscal system must be understood as a balanced "win-win" approach, connected to the evolution of markets (e.g., a fiscal system targeting income and not profits and allowing taxation to be adjusted to market price fluctuations, to investment challenges, respectively to the nature and profitability of hydrocarbon deposits; worth considering in this regard is the fiscal system in the Canadian province of Alberta).

5. "Fiscal" means taxes and royalties, respectively, "government take."

6. Even in the current fiscal framework, the petroleum industry is the largest contributor to the Romanian state budget. Yet in Romania "energy poverty" is still manifest.

7. Romania's accession to the Extractive Industries Transparency Initiative (EITI) would constitute a significant step in this direction and a positive sign to investors, even with the implementation of Directive 2013/34/EU.

8. Government approval and ratification of petroleum concessions (including amendment thereof), a process that in some cases has lasted for years, seems an inadequate and bureaucratic procedure that brings no added value.

9. For shorter timespans, such as April-June 2015, imports fell to zero, as previously predicted by the national regulator, the Romanian Energy Regulatory Authority (ANRE) in March 2015. However, Romania's gas demand during the cold season is not covered by domestic production only, whereas stored gas availability declines after the first couple of months of cold weather because of decreasing pressure in the storage facilities. As such, February tends to be a month of supply risk in Romania, depending on weather conditions – not to mention external delivery crises. In August 2015, ANRE announced it would not likely have to import any gas at all in 2016.

10. Upwards of $350 per thousand cubic meters (kcm) until 2014, as against $240/kcm – the regulated price for domestic production. Nonetheless, as imported natural gas is oil-indexed, the current oil price slump has rendered Romanian gas substantially more affordable at around $250/kcm.

Endnotes

11. According to the National Institute of Statistics, total resources of primary energy, including imports, were 32 mtoe in 2014. The INS figures do not account for about 3.5 mtoes of unprocessed firewood, mostly used in the countryside.

12. Joint Declaration on the Strengthening of Energy Cooperation, Budapest, April 7, 2015, http://www.mfa.gr/en/current-affairs/top-story/joint-declaration-on-the-strengthening-of-energy-cooperation-budapest-april-2015.html

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