"Dominant Energy Security Issues in SE Europe and Proposed Accommodation Strategies"

Authors:

D. Mezartasoglou[1], C. Stambolis[2]

Institute of Energy for SE Europe (IENE)
3, A. Soutsou str, 106 71-Athens, tel.:0030 210-3628457, fax: 0030 210-3646144
e-mail: admin@iene.gr, website: www.iene.eu

Abstract

The paper covers the security of energy supply for the whole SE European area, covering all 13 countries that include: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Slovenia, Cyprus, FYR of Macedonia, Greece, Kosovo, Montenegro, Romania, Serbia and Turkey. The region includes various vulnerable key energy infrastructure locations. These locations constitute potential energy security hot spots and as such should be properly identified, while also crisis management plans must be prepared in order to meet any emergencies whether these include physical hazards, large scale industrial accidents or terrorist actions. Overall, there is a need for the adoption of relevant accommodation strategies for handling energy security issues.

Keywords

South East Europe; Energy Security; Hot Spots; Expanded South Corridor; Crisis Management

[1] *Head of Research IENE*
[2] *Executive Director IENE*

1. Introduction

There can be little doubt that SE Europe's economic development and prosperity depends on a stable and abundant supply of energy. For most citizens, energy is available "on tap", it is ubiquitous and un-intrusive. This has a major influence on the factors that affect national decisions on energy policy, with security of supply not being on par with other considerations. It is true that over recent years, the economies of EU member states and of the rest of the countries in the SE European region have been exposed at times to steep energy price increases leading to adverse effects on consumers and industry. Some countries have also been confronted with disruptions to gas supply, affecting gas-dependent industrial activities and households. Arguably, the region's economy will continue to be exposed to risks related to energy price instability and energy flow variability, including potential oil shocks or oil and gas shortages.

The paper covers the security of energy supply for the whole SE European area, covering all 13 countries that include: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Slovenia, Cyprus, FYR of Macedonia, Greece, Kosovo, Montenegro, Romania, Serbia and Turkey. Furthermore, the paper proposes a number of strategies to tackle and accommodate critical security issues which often arise.

Security of energy supply has never been an easy task, given the often unstable and unpredictable state of affairs at global level which affect both energy prices and the flow of energy itself, whether this is oil, gas or even electricity. It is worth recalling that in the winters of 2006 and 2009, temporary disruptions of gas supplies hit strongly EU citizens in some of the Eastern and SE European Member States.

2. Methodology

Looking at the broad energy security picture of SE Europe, we must by necessity confine our examination along two main axes. The first axis involves the security of energy supply for each individual SEE country, while the second axis addresses our concern for the whole SE European area, treated as a single regional entity from an energy security perspective, and its crucial role as an East-West energy bridge.

The consideration of the SE European region as an East-West energy bridge should not be confined alone to the transit route concept (e.g. the South Corridor or even the expanded South Corridor that is explained and analysed thoroughly) but should also consider the various vulnerable key energy infrastructure locations. These locations constitute potential energy security hot spots, which are analysed in detail, and as such should be properly identified, while also crisis management plans must be prepared in order to meet any emergencies whether these include physical hazards, large scale industrial accidents or terrorist actions.

3. Defining Energy Security

Energy security is normally defined as the uninterrupted supply of energy at affordable prices, with a more modern definition augmenting it with "while addressing environmental concerns".

Short-term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supply-demand balance, while **long-term energy security** is linked to timely investments in energy supply and infrastructure.

The focus is clearly on the security of supply and on the affordable prices for consumers, citizens and businesses, having "access to sufficient energy resources at reasonable prices for the foreseeable future free from serious risk of major disruption of service".

Therefore, consumer states, such as the ones in SE Europe, are constantly looking for alternative sources and routes to meet their energy needs, especially when the threat level is increased, as it happened in Europe during the aforementioned 2006 and 2009 gas crises and, more recently, in 2014, following the Russian-Ukrainian dispute which led to a cut-off for several months of the gas supply to the Ukraine.

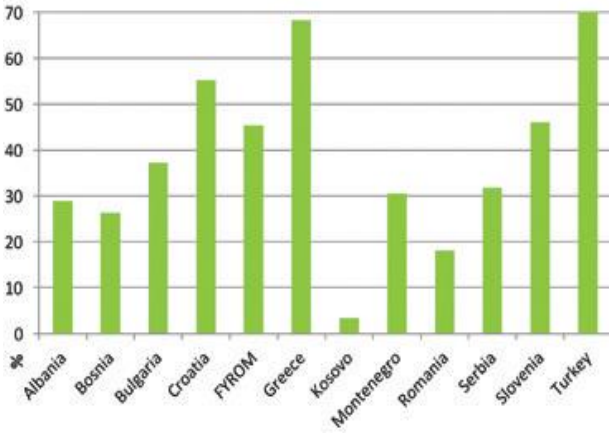
4. Security of Energy Supply in SEE

Given the importance of security of energy supply in discussing and analyzing the energy security situation in SE Europe, it is important to present some basic information in terms of the prevailing regime in the SEE countries.

Energy import dependence is the extent to which a country depends on imports to meet its energy needs. All things being equal, the higher the share of imported energy, the more vulnerable a Member State is to price increases, supply disruptions or to foreign political decisions. In the case of SE Europe, some 38.4% of energy consumed in 2015 came from imports (see Figure 1), clearly showing that SE Europe is also energy import dependent and hence vulnerable to security and conflicts episodes. This is only to be expected given SE Europe's high dependence on imported oil and gas (see Figures 2 and 3).

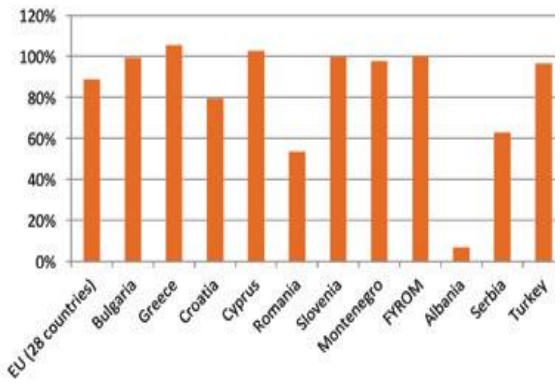
More specifically, SE Europe's oil import dependency stood at 86.8% in 2015, with Romania and Albania being 52% and 23% oil import dependent respectively, because of their indigenous oil production. In addition, the SEE countries imported about 80% of the gas they consumed. Natural gas imports reach the EU and SEE countries either via pipelines or LNG carriers. Many SEE countries import all or almost all of their gas needs. Romania and Croatia cover a substantial part of their consumption from indigenous production, while Bulgaria, Serbia and Turkey cover a tiny part, whereas Greece relies 100% on gas imports. At the same time, there are countries such as Albania, Montenegro, Kosovo and Cyprus which have not yet introduced gas into their energy mix.

Figure 1: Energy Import Dependency (%) per Country in SE Europe in 2015



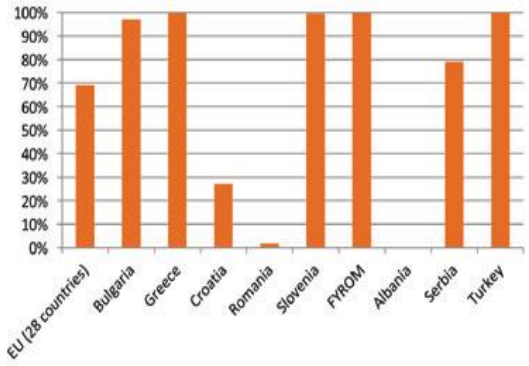
Source: IENE (2017) (1)

Figure 2: Total Petroleum Products Dependence (%) in SE Europe (2015)



Source: IENE (2017)

Figure 3: Total Gas Dependence (%) in SE Europe (2015)



Source: IENE (2017)

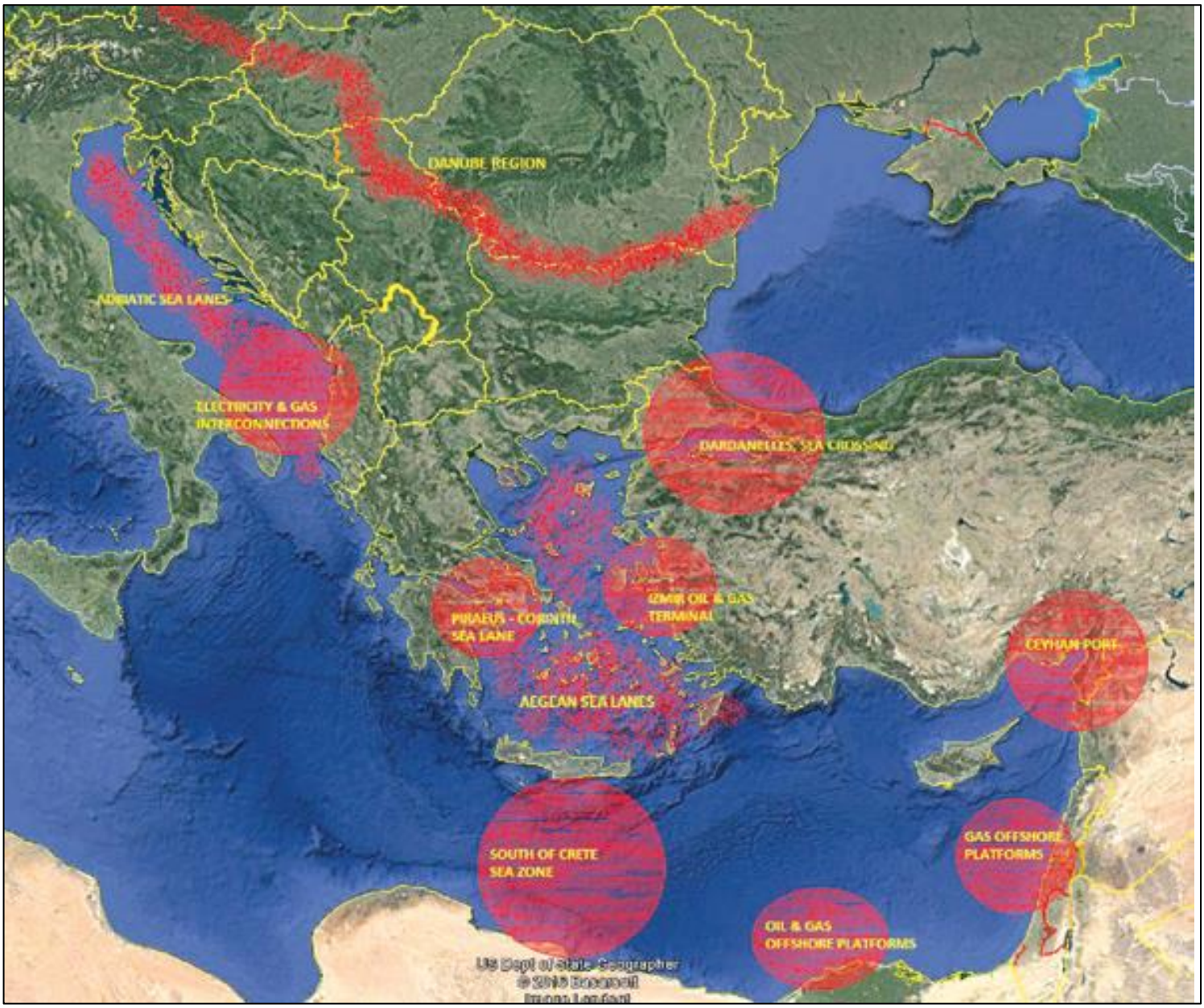
5. Energy Security Issues in SE Europe

Over the last few years, energy security has emerged as a key issue for policy makers in Europe. In view of SE Europe's critical role as an East-West energy bridge in securing oil and gas supplies to Europe, its "security" dimension has acquired a new importance. A stable and abundant energy supply to EU countries is now accepted as a key policy objective especially since the EU imports 53% of all the energy it consumes at a cost more than €1 billion per day. In this sense, we should also concern ourselves with the ability of the region to secure the safe and continuous flow of oil and gas from the Eastern suppliers (i.e. from the Caspian region, but also from Russia and tomorrow from Iran) through its land and sea areas to the Western markets.

In this context, the appearance of war conflict zones or hot spots (e.g. Eastern Ukraine, Crimea, Syria, Northern Kurdistan, Iraq) or the presence of energy choke points, such as the Bosporus, or vulnerable locations, such the Ceyhan oil hub, the Piraeus-Corinth oil-gas sea lane and parallel land strip, are areas of security concerns where emergency plans must be in place in order to meet physical hazards or terrorist threats. Therefore, the consideration of the SE European region as an East-West bridge should not be confined alone to the transit route concept (e.g. the South Corridor), but should also consider the various vulnerable key energy infrastructure locations.

These locations constitute potential **energy security hot spots** and as such should be properly identified (see Map 1), while also crisis management plans must be prepared in order to meet any emergencies whether these include physical hazards, large scale industrial accidents or terrorist actions. A cursory examination of such energy security hot spots across the region reveals potential vulnerabilities, involving disruptions of likely energy flows and in this sense a proper risk assessment analysis must be undertaken at both national and regional level by the competent national authorities and related international and regional organizations. Table 1 presents an initial and tentative list of such energy security hot spots to be found in various locations in SE Europe.

Map 1: Energy Security Hot Spots in SE Europe



Source: IENE (2017)

Table 1: Selected Energy Security Hot Spots in SE Europe

Location	Importance
Dardanelles, sea crossing	More than 3.6 mb of oil per day cross the Dardanelles and the Marmara Straits. The crossing presents high vulnerability in terms of potential accident and terrorist threats due to increased traffic.
Izmir oil and gas terminal and Ceyhan port and loading facilities areas.	Sizable maritime traffic of inbound and outgoing and loading facilities areas. Vessels over a restricted sea zone present high risk area and constitute a potential threat zone.
Piraeus-Corinth sea lane and associated land strip	High concentration of port facilities, oil and LNG terminals and refineries combined with high volume of maritime traffic presents high risk area and constitute a potential threat zone.
Danube region across Moldova, Romania, Serbia	Location of series of thermal power plants and coal yards across the Danube region in combination with high river traffic constitute a high risk area and potential threat zone.
Adriatic and Aegean sea lanes	Congested maritime traffic carrying oil and LNG cargoes could under certain circumstances present physical hazard threats and terrorist targets.
South of Crete sea zone	The presence of high migratory flows from North Africa to Europe combined with increased oil and gas sea traffic through the specific zone present potential terrorist threat.

Source: IENE (2017)

6. An Expanded South Gas Corridor

As European energy demand is set to grow over the next few years, there will be a need for increased imports as indigenous oil and gas production has reached its limits and is already declining. Today, EU-28 is more than 53% energy import dependent, with this figure step to increase; in addition to oil and gas, there is going to be a further decrease in locally produced coal and lignite in view of stringent environmental considerations. The South Corridor will play a pivotal role as an alternative entry gate for gas which will help Europe diversify both its energy supplies and its energy routes. It should be stressed that the South Corridor could strengthen the security of energy routes.

The TANAP-TAP gas pipeline system, which is now under construction, is the foundation of the South Corridor. A number of alternative plans for channeling this gas to Turkey are under discussion, either for local consumption, but also for Europe's proper transition to the continent's main gas markets. These plans include gas pipelines, liquefaction plants for LNG export and FSRU terminals to be tied up into the TANAP-TAP system.

Another option, apart from the TANAP-TAP system, is the East Med pipeline which again, due to the significant technical challenges, could also accommodate limited quantities of gas in the region of 8 to 12 bcm per year. Meanwhile, EC is actively exploring the possibility of massively increasing the member countries' LNG capabilities as part of Energy Union priorities.

The now defunct South Stream and its possible successor Turkish Stream should also be considered as a potentially vital gas supply route. Furthermore, South Stream or the Turkish Stream raises the prospect for the stalled ITGI (Interconnector Turkey-Greece-Italy) resurfacing and being developed. ITGI has also been included in the European Commission's latest PCI list although it is not linked as yet to any particular gas

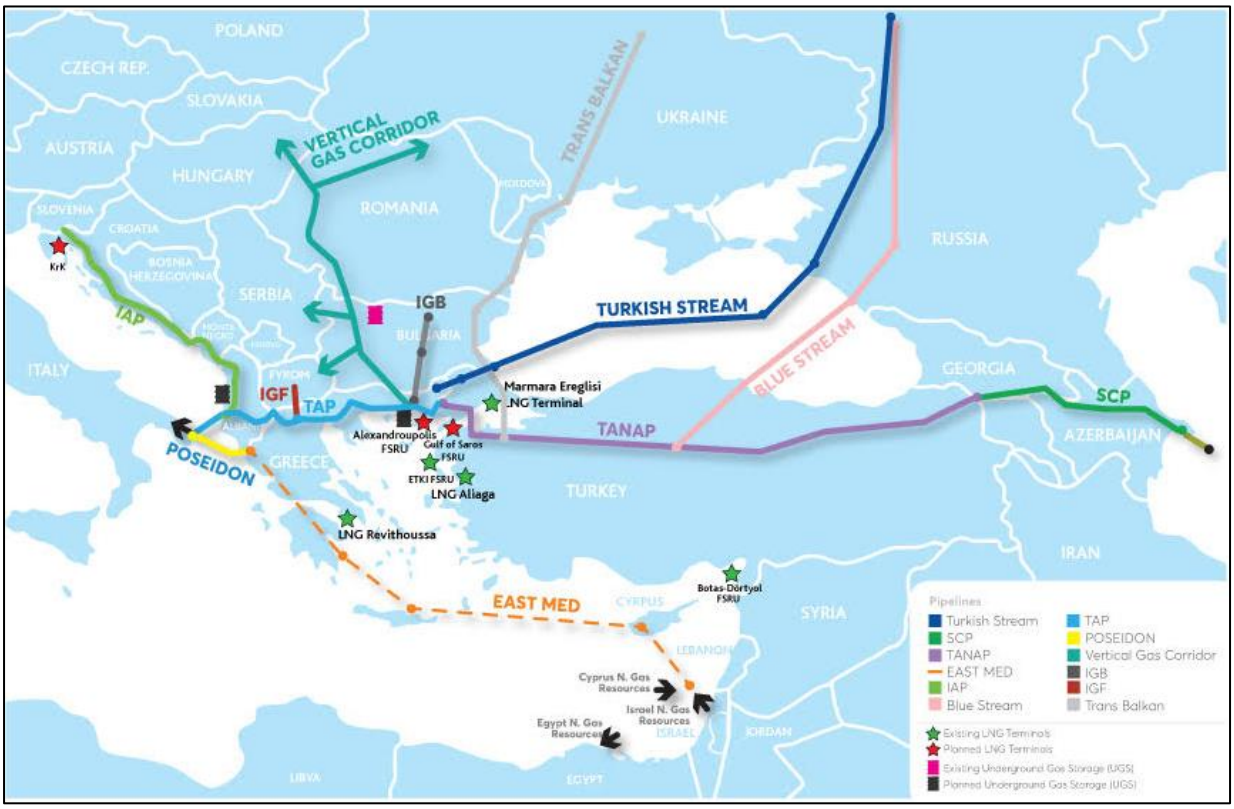
supplier. Russia's latest proposal for natural gas supply to Europe via the Greek-Turkish border could incorporate ITGI into its plan.

Alongside of the East-West route, the Vertical Corridor is a gas system that will facilitate the connection between existing national gas grids and other gas infrastructure in the East Balkans in order to secure easy gas transiting, thus contributing to energy security and market liquidity. Such a gas system (which will bring together national grids, underground gas storage facilities, interconnectors, LNG terminals) will form an important new corridor from South to North whose operation will be fully aligned with EU Directives and European energy policy.

In view of several new projects under development in the region, it is time to redefine the South Corridor by including these new potential gas supply sources and routes. Therefore, an **Expanded South Corridor** should be considered and defined as such, to include all major gas trunk pipelines and terminals which will feed gas into the system that will then be directed towards the main European markets (see Map 2).

Finally, an Expanded South Corridor with its multiple gas entry points and linked underground gas storage and LNG facilities will provide the necessary background for the operation of regional gas trading hubs.

Map 2: An Expanded South Gas Corridor



NB.: The TANAP and TAP gas pipelines as well as Turkish Stream are under construction, with IGB at an advanced planning stage with FID already taken. The IAP, the IGI Poseidon in connection with East Med pipeline and the Vertical Corridor and the IGF are still in the study phase. Blue Stream and Trans Balkan are existing pipelines.

Source: IENE

7. Strengthening SE Europe's Energy Security

Strengthening Emergency and Solidarity Mechanisms

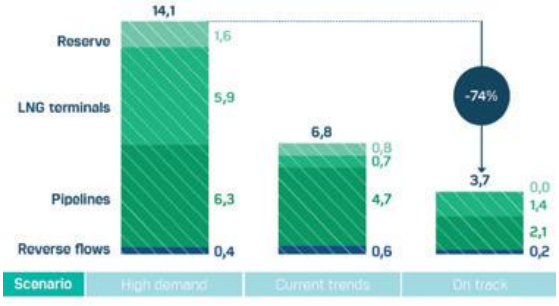
In view of the preceding information and analysis undertaken, it is obvious that SEE countries need to strengthen their energy security by a combination of policy measures and the adoption of actual provisions. In line with EU thinking, as exposed in EC's communication document on "European Energy Security Strategy" (2), SE European countries (i.e. EU Member States, Contracting Parties and Turkey) could to a large extent adopt the specific actions proposed in the above communication in order to strengthen their energy security.

These actions can be summarized as follows:

- Intensify cooperation within the Gas Coordination Group[3] and notably continue monitoring natural gas flows and the level of gas storage and coordinate at EU and/or regional level national risk assessments and contingency plans;
- Update the risk assessments and the Preventive Action Plans and Emergency Plans, as provided for by Regulation 994/2010;
- Organise and launch energy security stress tests in light of potential supply disruption risks, and develop back-up mechanisms, such as increasing gas stocks, developing emergency infrastructures and reverse flows and reducing energy demand or switching to alternative fuels in the very short term;
- Further cooperate with gas suppliers and transmission system operators to identify possible sources for short-term additional supplies, notably LNG.

However, EU's current energy security strategy, as exemplified in the above document, appears focused on gas and does not take into consideration equally important and wider energy parameters such as oil, electricity, nuclear and coal. In considering an overall policy for strengthening SE Europe's energy security, our view is that a total approach is necessary. This is of particular relevance to SE European countries which have an overriding priority in ensuring that the best possible preparation and planning is in place for improving resilience to sudden disruptions in energy supplies and that strategic energy infrastructures are adequately protected with collective support mechanisms in place. Consequently, SE European countries should adopt a holistic approach to cover all forms of energy supply concerns as follows:

Figure 4: Investment and Fixed Operation Costs to Ensure Security of Supply in Europe (in bn€) - GAS ONLY Approach



[3] Established by Regulation (EU) No 994/2010 concerning measures to safeguard security of gas supply

8. Preventing and Mitigating Gas Supply Disruption Risks

Since the 2006 and 2009 gas supply crises, the EU but also the rest of the countries in SE Europe have strengthened their coordination capabilities in order to prevent and mitigate possible gas supply disruptions (3)[4]. Investments in back-up infrastructure, as shown in Figure 4, are now obligatory in EU Member Countries so as to be able to meet peak demand even in the event of a disruption of the single largest infrastructure asset. In addition, reverse flows must function on all cross-border interconnections between Member States and the rest of the countries in SE Europe.

Today, the EU is better prepared for gas supply disruptions (4). There are European rules to secure supplies to protected customers (e.g. customers that use gas for heating) in severe conditions, including the case of infrastructure disruption under normal winter conditions, and Member States need to draw up Emergency Preparedness Plans and Emergency Response Plans. The Gas Coordination Group, involving Member States, regulators and all stakeholders, has proven to be an effective EU-wide platform to exchange information between experts and coordinate action. These rules provide a European framework that creates trust and ensures solidarity as it guarantees that Member States act on their national responsibilities and collectively enhance security of supply.

According to the EC, the experience so far with respect to security of gas supply has shown that there are synergies in further cooperation across borders, for instance by developing risk assessments (stress tests) and security of supply plans at regional and EU levels, by developing a regulatory framework for gas storages that recognises their strategic importance for security of supply, or by a more precise EU-wide definition of "protected customers". Furthermore, at international level, new security of supply instruments could be envisaged with key strategic partners. Pooling a minimal part of existing security stocks in a virtual common capacity reserve – for instance under the IEA – could allow for rapid response in the case of a limited disruption[5].

EU's experience in dealing with gas supply disruptions and the subsequent steps that have been taken to tackle potential threats, as described above, present a most useful and practical approach which could be applied by all countries in SE Europe, including Member States, Energy Community Contracting Parties and Turkey.

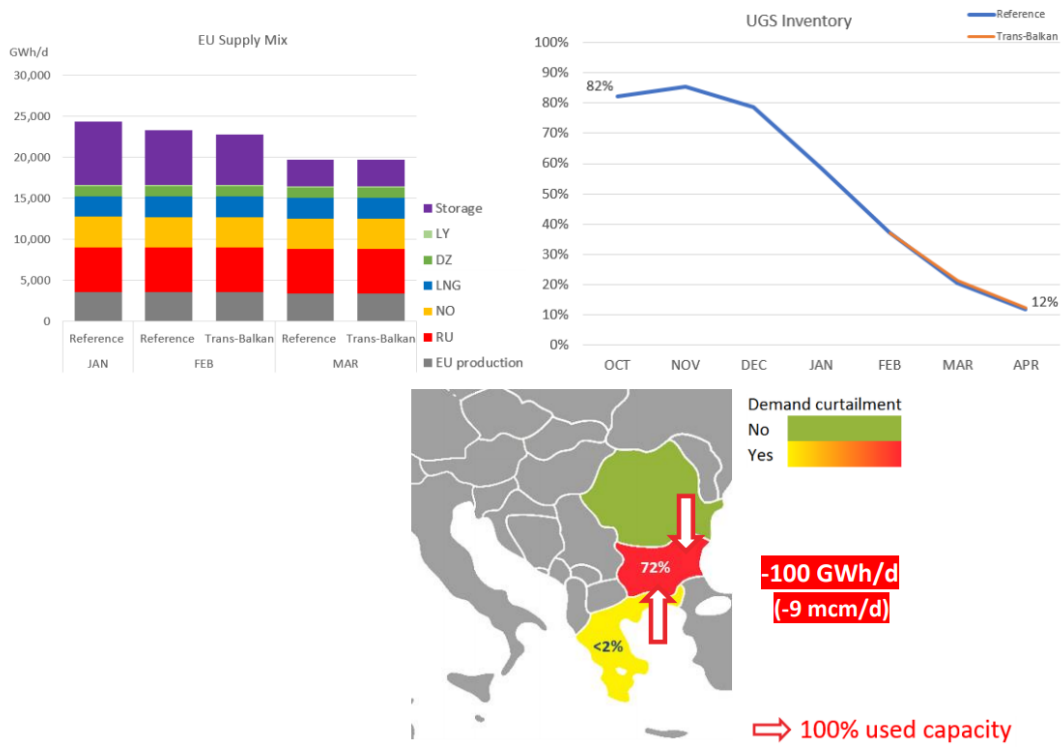
A related example is the ENTSOG's Union-wide security of supply simulation report (5), which run a gas supply and infrastructure disruption scenario out of a total of 17 scenarios for the Balkan region (i.e. Romania, Bulgaria and Greece). In case of a 2-month disruption of all gas imports to the EU via Ukraine, infrastructure limitations would result in the need to curtail gas demand in

[4] Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC.

[5] This possibility was highlighted in the Joint Statement adopted on 6 May 2014 at the Rome G7 Energy Ministerial meeting.

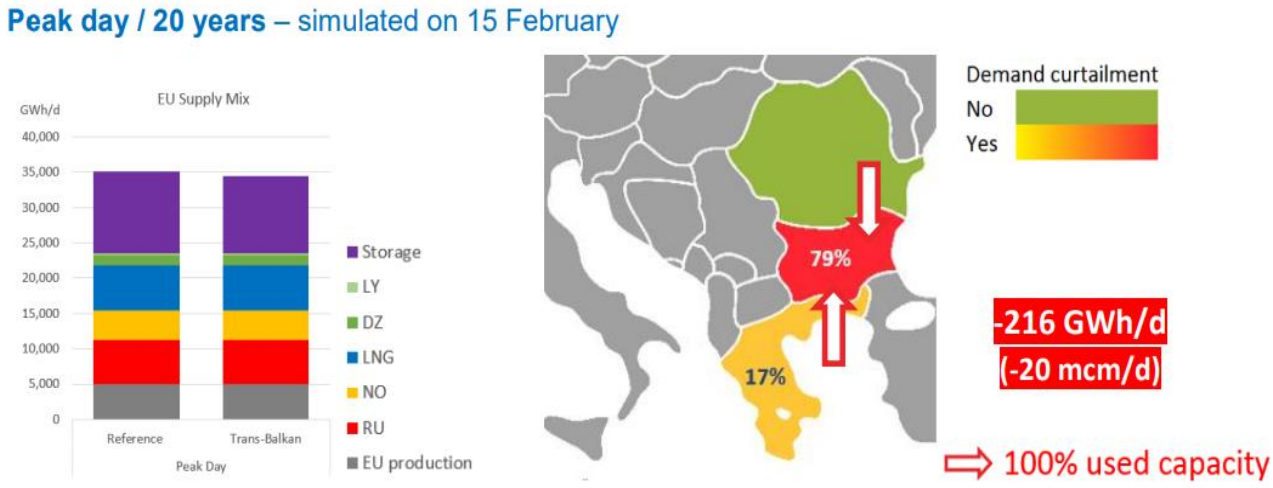
Romania by 9%, in Greece by around 2% and in Bulgaria by 72% of gas demand (see Figure 5). These figures are even worse when modelled for a disruption via the same route during a peak day of exceptionally high gas demand, arising with a statistical probability of once in 20 years (see Figure 6).

Figure 5: Disruption of the Largest Infrastructure to the Balkan Region (Romania-Bulgaria-Greece) (I)



Source: ENTSOG Union-Wide Security of Supply Simulation Report 2017

Figure 6: Disruption of the Largest Infrastructure to the Balkan Region (Romania-Bulgaria-Greece) (II)



Source: ENTSOG Union-Wide Security of Supply Simulation Report 2017

9. Security of Electricity Supply

Ensuring security of electricity supply requires conducting regular assessments of whether the electricity system is adequate (i.e. capable of meeting demand) and whether it is secure (i.e. physically resistant to shocks, etc.). It also requires defining adequate responses, once risks are identified. Transmission System Operators (TSOs) and Distribution System Operators (DSOs) have important responsibilities when it comes to guaranteeing operational security, in particular in the short term (e.g. TSOs carry out balancing activities).

Beyond operational security, it falls on EU and non-EU Member States of SE European region (a) to identify the types of risks relating to security of supply, (b) to set standards of acceptable risks, and (c) to take action (or ensure that relevant action is taken) to prevent the various risks from happening. In the absence of clear pan-European rules, it appears that approaches considerably vary across the region. The EU's Market Design Communication discusses the need for a joint approach to assess system adequacy, meaning the ability for supply to meet demand at all times.

An increasing number of EU Member States and SEE countries (i.e. Contracting Parties) are taking action to secure their electricity supplies and prevent potential black-outs by introducing capacity mechanisms. Capacity mechanisms are measures taken by individual states to ensure that electricity supply can meet demand in the medium- and long-term. Capacity mechanisms are designed to support investment to fill the expected capacity gap and ensure security of electricity supply. (6)

Typically, capacity mechanisms offer additional rewards to capacity providers, on top of income obtained by selling electricity on the market, in return for maintaining existing capacity or investing in new capacity needed to guarantee security of electricity supplies.

Capacity mechanisms have an impact on competition in the internal electricity market. Many of these mechanisms involve State aid, so they are subject to EU State aid rules.

10. Protection of Critical Energy Infrastructure

The physical protection of critical infrastructure (against threats and physical hazards) which includes energy infrastructure is a basic component of an energy security strategy.

In this context, developing a strategy for the protection of strategic energy infrastructure such as gas and electricity transmission systems, major power generation plants, refineries, oil and gas terminals, which are providing a crucial service for all consumers, is of vital importance and security should form part of this strategy. As far as the EC is concerned, the control of strategic infrastructure by non-EU entities, notably by state companies, national banks or sovereign funds from key supplier countries, which aim at penetrating the EU energy market or hampering diversification rather than the development of the EU network and infrastructure, is a matter of great concern. Respect of existing EU legislation

has to be guaranteed for any acquisition by non-EU buyers of strategic infrastructure.

The advantages of an overall energy system that balances appropriately centralized and decentralized energy production, with the aim of building a system that is both economically efficient and resilient to outages of individual major assets, should also be assessed.

The existing provisions on unbundling of gas transmission activities already foresee a mechanism to ensure that transmission system operators controlled by non-EU entities comply with the same obligations as those controlled by EU entities. However, the EC is voicing its concern that recent experience of certain non-EU operators seeking to avoid compliance with EU legislation on EU territory might require a stricter application and a possible reinforcement of the applicable rules at EU and Member State level. In this context, the respect of EU internal market rules, notably as regards public procurement, also needs to be guaranteed.

11. Solidarity Mechanisms

The Article 13 of Regulation (EU) No 1938/2017[6] introduces the principle of "solidarity" and a solidarity mechanism. More specifically, this Regulation introduces, for the first time, such a solidarity mechanism between Member States as an instrument to mitigate the effects of a severe emergency within the Union including a burden-sharing mechanism. The European Commission should, therefore, review the burden-sharing mechanism and the solidarity mechanism in general in the light of future experience with their functioning, and propose, where appropriate, modifications thereto.

Member States should adopt the necessary measures for the implementation of the provisions concerning the solidarity mechanism, including by the Member States concerned agreeing on technical, legal and financial arrangements. Member States should describe the details of those arrangements in their emergency plans.

The European Commission issued its recommendation (EU) 2018/177[7] on February 2, 2018 on the elements to be included in the technical, legal and financial arrangements between the Member States for the application of the solidarity mechanism. By December 1, 2018, the Member States must adopt the necessary related measures.

The solidarity that is the hallmark of the EU requires practical assistance for those Member States most vulnerable to severe energy supply disruptions. This solidarity can and should be extended to apply to all countries in SE Europe. Proper contingency planning, based on stress tests of the energy systems and discussions with national authorities and industry, should therefore be organized and regularly reviewed, with the aim of guaranteeing minimum levels of intra-EU and SE European region-wide deliveries of alternative fuel supplies to complement emergency stocks. In this context, the EC

[6] https://ec.europa.eu/info/sites/info/files/20170914_roadmap_implementation_web.pdf

[7] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018H0177

underlines that in "view of latest experience, the immediate focus should be on Member States on the eastern border of the EU; where appropriate, candidate countries and potential candidates could be associated to such mechanisms".

However, such an approach is grossly inadequate in meeting the region's energy security threats as it treats non-Member Countries in a derogatory way although their importance, as transit countries, is of paramount importance for EU energy supplies.

12. Optimum Energy Mix as Key to Attaining Effective Energy Security

Notwithstanding solidarity mechanisms, moderating energy demand and the adoption of preventive measures such as provision for adequate oil stock and gas storage to mitigate supply and disruption risks, perhaps the best way to face potential energy security threats is to strive, primarily at country level, for an optimum energy mix. Of course, there are no set rules to determine how a country may be able to achieve an optimum energy mix since the building up of a country's energy resource base is a long term process normally determined by strong historic precedents, political calculations and diplomatic ties but also, and most important in most cases, the availability or scarcity of indigenous energy resources.

In view of growing supply uncertainties combined with external (and quite predictable) price volatility, a country may achieve a relatively secure energy flow by ensuring that its energy balance and particularly its power generation is not dominated by a single one fuel. In that sense, countries, such as Romania which enjoys a strong indigenous energy supply (i.e. oil and gas) and uses a variety of fuels for its electricity production (i.e. solid fuels, large hydro, RES and nuclear) has a much healthier and safer energy mix compared to, let's say, Albania, which although rich in terms of local energy resources (i.e. oil and hydro) lacks a balanced electricity supply mix.

It has often been demonstrated that a well-balanced energy mix can offer adequate protection against potential oil and gas flow disruptions as was, for instance, the case of Greece in the summer of 2015 when following the abrupt introduction of capital controls, serious energy security threats became apparent as the country's major oil, gas and electricity companies faced considerable problems in meeting their obligations to supplies in paying for energy imports. Greece's energy mix, much improved to what was back in the mid 1990's, was able to withstand the looming supply gap and hence, consumers did not suffer a single hour of disruption of basic energy provisions (i.e. oil, gas, electricity).

Another well-known example of the key role of a well-balanced energy mix in energy flow occurred in February 2012 when because of severe winter conditions (which affected equally Europe and SE Europe with more than 800 casualties) Turkey was unable for more than 10 day in a row to supply Greece with gas, through the Greek-Turkish interconnector in Eastern Thrace, through which Greece covers almost ¼ of its gas requirements. At the same time, due to the same adverse climate conditions, gas pressure

dropped from Greece's northern gas entry point from Bulgaria, from gas originating from Russia through the Trans Balkan Pipeline.

Because of its well-balanced energy mix, the country was not only able to survive but thanks to adequate provisions at the Revithousa LNG terminal, it was able to augment gas supplies to Bulgaria for several days by introducing a reverse flow capability to the leg of its main gas pipeline, north of Thessaloniki. In responding to this weather induced crisis, some of Greece's main industrial clients, including power generation, switched to other fuels (i.e. lignite, hydro), thus, freeing gas capacity for serving the needs of domestic household consumers and for exports to Bulgaria. In a reverse sense, Turkey's overdependence on imported gas for power generation industry and domestic heating prevented it from continuing gas exports to Greece as normal.

13. Discussion and Conclusions

The exposition and analysis undertaken in the paper clearly shows that energy security is a complex issue and as such cannot be considered in isolation. There are no easy ways or readily available formulae to mitigate potential threats or provide fail safe solutions in order to guarantee uninterrupted energy flows. SE Europe, because of its geography, its proximity to high risk conflict zones (i.e. Syria, Iraq, Ukraine), a growing and uncontrolled refugee flow from the Middle East and North Africa and the location of some of its countries (i.e. Turkey, Greece, Romania) at vital energy supply entry points, faces higher energy security threats than the rest of Europe.

A corollary of the paper indicates that the strengthening of Emergency and Solidarity Mechanisms and the maintenance of adequate oil, coal and gas stocks, constitute a short- to medium-term relief solution, whereas the achievement of a balanced energy mix provides the best long-term option in enhancing energy security both at country and regional level.

It is, therefore, obvious that the SE European region needs a well-defined and pragmatic strategy for energy security, which promotes resilience to shocks and disruptions to energy supplies in the short-term and reduced dependency on particular fuels, energy suppliers and specific routes in the long-term. Consequently, policy makers at national and regional level are faced with an important challenge as they must be prepared to inform the citizens of the available hard choices that reducing this dependency requires.

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