



Policy Proposal on

EU Energy Union

Regional cooperation framework in the South-Eastern European (SEE) region

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Executive Summary

There are several challenges Europe faces in creating a Single European Energy Market. The key challenges include: securing affordable energy prices for an internationally competitive European economy and energy supply, pursuing sustainability objectives, and building up a physical energy connectivity. Regional energy cooperation initiatives provide an efficient solution to these challenges.

Considering the diverse circumstances and national resources of different regions across Europe, significant benefits of adopting a regional approach can be achieved by the *Schengenisation* of the EU energy policy. This entails opt-in schemes for national energy policies harmonization. This approach can be applied in South East Europe (SEE), which is an important connecting region between the EU and its strategic external partners and has significant potential regarding its own indigenous resources.

Using regional energy policy initiatives that have proven to work elsewhere (esp. the Baltics), it is possible to design a framework for regional energy cooperation. This proposal offers a structure for this framework by focusing on three key dimensions: economic, physical, and stakeholder dialogue.

A promising example of this approach is the Baltic Energy Market Interconnection Plan (BEMIP) which can serve as a blueprint for the SEE region. The SEE states share many similarities with the Baltic Member States: many of the SEE states are isolated from most plans of regional power markets despite the SEE states' involvement in the supply of natural gas from the South East to the EU internal market. The South-Eastern Energy Market Interconnection Plan (SEEMIP), which this policy proposal suggests, includes 14 countries, among them seven EU member states (MS), and more than 159 million people. They are in close proximity to the world's largest gas reserves and can provide strategic alternative routes. Furthermore, the SEE holds significant renewable energy potential that has to be assessed in the context of the EU's renewable energy objectives.

SEEMIP is a way to capture the significant energy potential of the region and to interconnect Europe with Turkey and the Gulf States, whilst strengthening the overall energy security in both the SEE region and the EU. SEEMIP has a considerably high potential for low carbon energy resources. SEE is the richest region in hydro, solar, biomass and onshore wind in Europe. However, SEE states are utilising just 40% of its hydropower potential.

To tackle the challenges that SEEMIP faces, three interrelated dimensions have to be addressed. Firstly, physical interconnectivity through building new and improving the existing infrastructure: gas pipelines enabling reverse flow, gas storage facilities, and LNG terminal projects facilitating trade also outside the EU. Merging the lists of Projects of Common Interests and Projects of Energy Community Interests shall facilitate the coordination of these infrastructural projects in SEE. Regional regulatory bodies should be established for the proper monitoring of these projects on both the national and

regional level – similarly, the TSOs should be merged into regional units. A similar merger between the ACER and CEER into one regulatory body is also recommended.

Enforcing the full-implementation of existing EU energy regulation within the region, as well as the SEE's high potential in renewable energy, will encourage positive investment trends, which in turn will create a competitive market, lower costs and increase efficiency. The funding of infrastructure projects should be secured through the EU Investment Plan. Citizens' active participation should be encouraged by providing information and innovative financial solutions to enable their participation in different infrastructural projects.

Regarding local communities' potential objections to energy projects, it is of crucial importance to involve them in the communication process. Informative public consultation sessions concerning energy projects are suggested, together with the involvement of local and regional authorities and NGOs.

The existing EU energy regulations already provide for a sufficient framework for the above actions. However, efficient enforcement of regulation is required to achieve these goals. Therefore, High Level Group (HLG) is suggested as a management body with decision-making competences in the SEE region, with the Commission retaining its authority for setting the agenda of HLG meetings. Within this HLG it is encouraged to establish a working group committed to the electricity sector, whereas the existing HLG for Gas Connectivity should be included as another working group.

Two regional working groups, consisting of representatives of national ministries, Transmission System Operators (TSOs) as well as EC representatives are suggested for the following areas: (1) internal market for electricity, electricity interconnections and power generation; and (2) the infrastructure and internal market for gas. A single body with the responsibility of enforcing the decisions of the HLG is recommended. The detailed proposal offers a tentative timeline of advancing the objectives.



Introduction

The completion of the internal energy market of the Energy Union aims at integrating the triangular relationship of security of supply, affordability, and sustainability. The EU energy strategy should adopt a regional approach to establish a Single European Energy Market. The strategy to achieve the European Energy Union is based on five interrelated dimensions:

1. Energy security, solidarity and trust;
2. A fully integrated European energy market based on transnational connections and free movement;
3. Increasing energy efficiency and innovation in various sectors, which eventually may contribute to moderation of market demand;
4. Decarbonising the economy, with an emphasis on renewable energy and energy efficiency;
5. Co-operation in the fields of research, innovation and competitiveness.

This proposal focuses on the South-Eastern European (SEE) region and provides a plan for the establishment of a regional cooperation framework based on enhanced interconnectedness and mutual solidarity between the respective Member States (MS) and neighbouring countries in the region (South-eastern Energy Market Interconnection Plan).

The 'one size fits all' has not proven to be functional in the past due to the diversity of European energy regions in terms of infrastructure, national jurisdiction, supplier dependency, interconnectedness and level of liberalization in domestic markets. Thus, the implementation of regional energy policies is essential in achieving the EU Energy Union. A regional cooperation approach can offer practical solutions to existing challenges on a regional scale.

Considering the diverse circumstances and distribution of national resources of different regions across Europe, significant benefits of adopting regional approach can be achieved by "Schengenising" of the EU energy policy. A recent study has provided evidence that approximately €40 billion per year can be saved as a result of a more integrated European energy market

Problem Statement

Many of the SEE states are not included in plans for the development of regional power markets, despite the SEE states' involvement in the supply of natural gas from the South-East ("Southern gas corridor") to the EU internal market. Furthermore, in the on-going discussion concerning the European Energy Superhighways, the SEE is left outside without its potential given deserved consideration.



The regional cooperation in the SEE region is a way to capture the energy potential of the region and to interconnect Europe with Turkey and the Gulf States, whilst strengthening the overall energy security in both the SEE region and the EU. The South-Eastern Energy Market Interconnection Plan (SEEMIP) which this policy proposal suggests, is a step to integrate the SEE in a pan-European Energy Union.

SEEMIP comprises 14 countries, among them seven EU members, more than 159 million people and 1726511 km². They are in close proximity to the world's largest gas reserves and can provide strategic alternative routes for Russian gas bypassing Ukraine (c.f. South Stream), as well as for non-Russian gas.

SEEMIP has a considerably high potential for low carbon energy resources. They are the EU's richest region in hydro, solar, biomass and onshore wind. However, the south-eastern states are utilising just 40 % of its hydropower potential, for example.

Although a first approach to a more integrated Gas market in SEE already exists in the High Level Group (HLG)-Central-and-South-Eastern-EU-Gas-Connectivity, further integration on a market level and in the energy market are needed.

Background – Evidence from the Baltics

The Baltic Energy Market interconnection Plan (BEMIP) is considered as a very good practice example of already existing regional cooperation initiatives. Under the leadership of the European Commission (EC), the BEMIP succeeded to create an internal market combining the national markets of Finland, Estonia, Latvia, Lithuania, Poland, Germany, Denmark, Sweden and, as an observer, Norway. The inner-organization of the BEMIP is structured under a HLG with a focus on respective sectors, with the support of joint-financing by the EIB, EU funds and national authorities:

1. Electricity
2. Gas
3. Other, relevant areas (i.a. renewable energy, low-carbon energy, oil, coal).

National implementation was accomplished by the active involvement of various actors (ministries, private companies, regulators, TSOs) with the constant supervision and monitoring of the European commission and the HLG.



Policy Proposals

This policy proposal consists of three pillars: **the physical, economic and communicative**. These pillars are essential for accomplishing energy cooperation in SEE region.

Physical Aspect

First, the physical pillar involves establishing and maintaining the necessary infrastructure and interconnections between EU MS and neighbouring countries. The SEE countries are already fairly well developed concerning gas infrastructure (c.f. gas pipelines i.e. coming from Turkey and cross border interconnectors). However, there is still a lack of necessary infrastructure regarding gas and electricity, especially regarding pipelines, LNG terminals and storage facilities in the gas sector and super grids in electricity. The following projects are proposed:

- Regulatory problems must be solved in order to make already existing infrastructure work efficiently, c.f. congestion management. Therefore, the SEE states shall fully implement the directives on gas, electricity and infrastructure.
- Furthermore, an assessment of the reasons why the current system is working sub optimally in terms of regulatory bodies is needed. If necessary, the states shall change the nature and regulation of the TSOs towards more state controlled bodies, prescribing the nature of cooperation. A merging of national TSOs towards cooperative regional bodies is conceivable.
- An assessment of the existing energy infrastructure (power plants, grids) and establishment of energy efficient solutions in inefficient infrastructure.
 - Increase the transmission capacity of the gas pipeline between Bulgaria and Greece
 - Necessary rehabilitation, modernization and expansion of the Bulgarian gas transmission system
 - JANAf-Adriatic gas pipeline: reconstruction, upgrading, maintenance and capacity increase of the existing JANAf and Adria pipelines linking the Croatian Omisalj seaport to the southern Druzhba (Croatia, Hungary, Slovak Republic)
 - Upgrade of the pipeline between Azerbaijan and Turkey via Georgia
 - Expansion of the "South-Caucasus Pipeline" (SCP-(F)X) and the "Trans-Caspian Gas Pipeline" (TCP)]
- Promotion of the deployment of technologies in the field of hydro, solar, biomass and onshore wind facilities, taking into account the specific low carbon properties and qualities of the SEE region.
- Further development of reverse flow capabilities of gas pipelines, in order to make transport in both directions possible. This enables a better functioning of the EU energy market as in times of high supply in northern Europe and shortage in SEE, gas can be transported in southern direction, and vice versa. The following pipelines shall be in focus:
 - Reverse flow at Greek - Bulgarian Border between Kula (BG) and Sidirokastro (EL)
 - Reverse flow at Romanian – Hungarian border at Csanádpalota or Algyő



- Cluster Integration of the transit and transmission system and implementation of reverse flow in Romania at Isaccea, thereby integrating the Romanian transit and transmission system
- Romanian – Hungarian reverse flow at Csanádpalota or Algyő
- As the geographical situation of the SEE states is very favourable for imports coming from the Middle-East and North-Africa, the establishment of the following LNG terminals shall be supported:
 - LNG Terminal in Greece near Alexandroupolis
 - LNG Cluster in Krk, Croatia: Regasification Vessel and evacuation pipelines towards Hungary, Slovenia and Italy
 - LNG terminal in Constanta, Romania
- The following interconnectors between the SEE Energy Union states are missing and shall be established:
 - Electricity Cluster Bulgaria - Romania
 - Electricity Interconnection Cluster between Komotini, Greece and Stara Zagora, Bulgaria
 - Electricity Cluster Bosnia-Herzegovina and Croatia between Banja Luka and Lika
 - Electricity Cluster Croatia, Hungary and Slovenia between Žerjavenec /Heviz and Cirkovce
 - Electricity Cluster Israel, Cyprus and Greece (known as the Euro Asia Interconnector)
 - Electricity Cluster Bulgaria and Greece between Maritsa East and N. Santa
 - Gas Cluster of integrated transport cluster for a minimum of 10 bcm/a for gas from the Caspian region, crossing Turkey and Greece
 - Ionian Adriatic Gas Pipeline between Fieri and Split (onshore and offshore)
 - Gas interconnection between Bulgaria and Serbia, currently known as IBS
 - Gas pipeline from Bulgaria to Austria via Romania and Hungary
 - Interconnector between Turkey and Bulgaria with a minimum capacity of 3 bcm/a
 - Electricity interconnection between Žerjavenec, Croatia, Heviz, Hungary and Cirkovce, Slovenia
 - Electricity Cluster Hungary - Slovakia between Gőnyű and Gabčíkovo
 - Electricity Cluster Hungary - Slovakia between Kisvárda area and Velké Kapušany
 - Gas pipeline from the EU to Turkmenistan via Turkey, Georgia, Azerbaijan and the Caspian, currently known as the combination of the "Trans Anatolia Natural Gas Pipeline" (TANAP)
 - Sub-marine pipeline linking Georgia with Romania
 - Electricity cluster Croatia – Hungary - Slovenia between Žerjavenec /Heviz and Cirkovce
 - Electricity cluster Italy – Slovenia between West Udine and Okroglo
 - Electricity cluster Romania – Serbia between Resita and Pancevo
 - Gas pipeline from Greece to Italy via Albania and the Adriatic Sea, currently known as the "Trans-Adriatic Pipeline" (TAP)



- Concerning the storage of gas, the construction of gas storage facilities is essential. This has two advantages: First, it helps to prevent shortages and blackouts, such as in Bulgaria in 2009. Second, the SEE states might purchase cheaper gas in low-demand summer time and store it until high-demand time in winter. The power-to-gas technology should be considered as a helpful technique to make energy storable.
- Storage facilities shall be established where it is most efficient and feasible. The SEE states agree on that:
 - South East Europe Gas Cluster: construction of new storage facility in Bulgaria, in South Kavala, Greece and in Depomures, Romania
 - Capacity increase in hydro-pumped storage in Kاونertal, Vorarlberg, and Salzburg (Austria)
 - Hydro-pumped storage in Yadenitsa, Bulgaria,
- Inclusion of the Western-Balkans into the Projects of Common Interest (PCIs) is needed to facilitate coordination of infrastructure projects.
- 10% threshold in inter-connectivity of electricity is already achieved among SEE. The focus should lay on expanding the electric inter-connectors to Turkey, which is expected to quadruple its demand of energy in the upcoming years. High voltage cables that connect EU MS' with third countries should enable the export of electricity in order to extend the internal market of energy trading

Economic Aspect

The integration of the SEE region into EU energy networks would be an important factor contributing to the stability and economic growth of SEE region. Thus, finding the most economically beneficial solutions in integrating the region to European network should be a key element in focus.

The following steps should be taken:

- Enforcement of EU legislation and EU regulatory standards in SEE to attract private investors and create a positive investment climate.
- Promoting closer cooperation, with the long-term vision of integration, of Agency for the Cooperation of Energy Regulators (ACER) and Council of European Energy Regulators (CEER) into one regulatory body in order to merge national, regional, and European regulatory standards into a coherent regulatory body under the supervision of the EC
- In order to identify possible financing solutions, financial workshops including all key stakeholders (investment banks, private and public banks, governments, TSOs, regulators) should be organized.
- Citizens financial participation should be encouraged via the creation of individual shareholding options of infrastructure projects.
- The high potential of the SEE region in renewable energies should be used as a way to create incentives for potential investors, emphasizing long-term rentability.
- The financing of the infrastructure projects should be linked with the investment plan recently announced by the President of the EC, specifically by seeking inclusion in the list of PCIs, in close cooperation with the European Investment Bank (EIB).



- Large state monopolies in the region shall be tackled via the compliance with European Competition Law, and especially the essential facilities doctrine as developed by the ECJ.
- The full implementation of and compliance with already existing legislation (i.e. the energy packages and directives) should ensure the functioning of national markets and an appropriate level of competition. The European Commission and the HLG shall put a special focus on the establishment of the internal market elements provided by the legislation, including the removal of regulated tariffs, the liberalization of the market, the harmonization of prices in the international market, the facilitation of cross-border energy trade, and the revision of existing subsidy schemes.

Stakeholders' Involvement

The European Commission should make sure that the citizens as well as local authorities of the respective countries accept the construction of interconnections.

To inform the public, the following steps should be undertaken.

- Public consultation regarding the construction of new connections should be conducted. Citizens should be informed in a fair way about the influence of the new connections on health and environment in the short and long run. Representatives of the regions, which have already established a cross-national energy cooperation (e.g. Baltic states), could participate in such information campaigns and share their experience. In order to reach out to a broader audience, the already existing platform *Your Voice in Europe* can be used.
- EC should provide a framework for all stakeholders to be involved. Information sessions should be organised at different levels including local authorities and NGOs.
- After having established a regional working group, countries further connected to the project through contracts or potential candidates should be kept informed.

Working Method and Policy Implementation

- The European Commission proposes the formation of a HLG for the electricity sector, consisting of all Head of States and Governments of the SEE. The HLG shall be chaired by the EU Commissioner for Energy Union. For the gas sector, the existing HLG-Central-and-South-Eastern-EU-Gas-Connectivity needs to extend the cooperation beyond issues that concern connectivity.
- The chair plays the crucial role of facilitating and monitoring the process. The European Commission is responsible for agenda setting, the schedule and meetings of the HLG.
- The HLG shall work as a decision-making and managing body for the SEE Energy Union.
- The HLG is maintained in order to discuss and endorse progress reports, as well as solve outstanding issues regularly. The group shall meet twice a year or when necessary. The HLG shall also report to the Council of Ministers.
- In order to support the HLG, three working groups shall be launched consisting of representatives of national ministries, Transmission System Operators (TSOs) and other stakeholders. The working groups shall be chaired by the European Commission or, alternatively, working groups can be co-chaired by the European

Commission and members of government following a rotational model. The following working groups are needed:

- Internal market of electricity
- Electricity interconnections and power generation
- Gas internal market and infrastructure (building upon the existing HLG-Central-and-South-Eastern-EU-Gas-Connectivity)
- The working groups shall work closely together with external experts and agencies such as ENTSO-G, ENTSO-E, ACER and CEER.
- The SEE Energy Union establishes implementing bodies. They are the owners of the actions and projects and responsible for the implementation of the SEE Energy Union. Depending on the specific action or project, the implementing body can be a TSO, a Regulatory body, a Ministry or any other stakeholder (private company, regional cooperation, etc).

Proposed Timetable for the Completion of Gas Pipelines:

Completion until 2017	Completion between 2017-2020	Completion after 2020
PCI 6_8_1	PCI 6_8_2	PCI 7_2
PCI 6_12	PCI 7_1_5	PCI 6_5_4
PCI 6_22_1	PCI 6_10	PCI 6_5_3
PCI 7_4_2	PCI 6_15_1	
PCI 6_3	PCI 6_21	
	PCI 6_5_2	
	PCI 6_6	
	PCI 7_1_3	
	PCI 6_23	
	PCI 6_7	

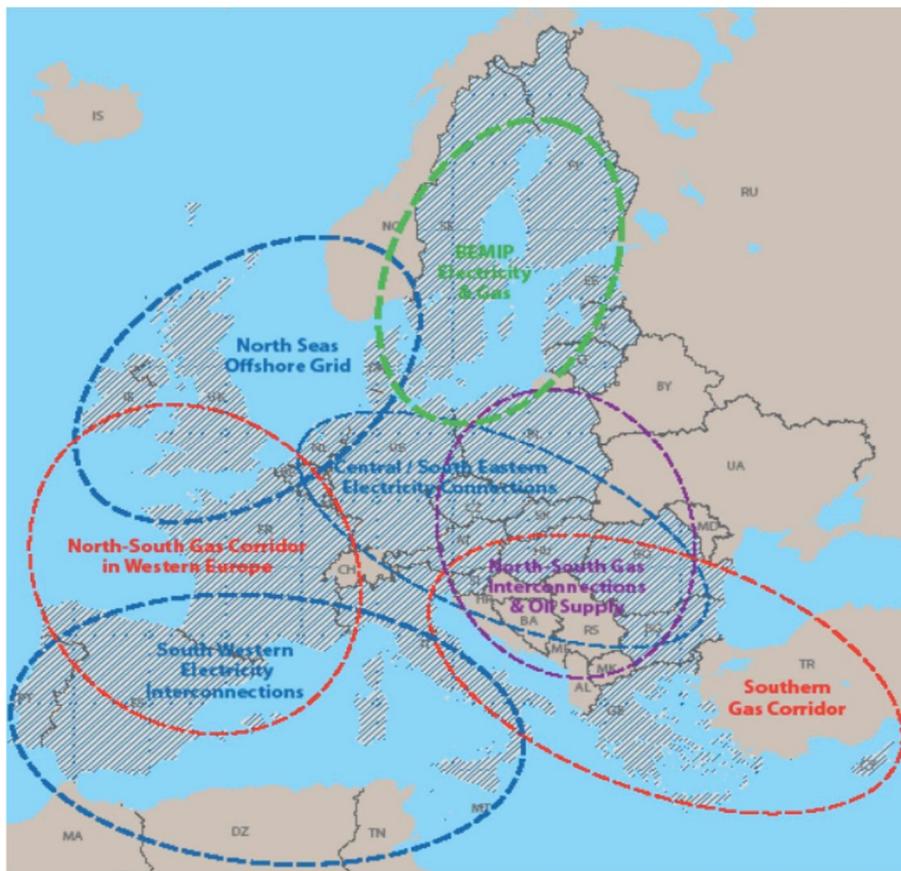
Proposed Timetable for the Completion of the Electricity Network:

Completion until 2017	Completion between 2017-2020	Completion after 2020
PCI 3_21_1	PCI 3_8_5	PCI 3_23
PCI 3_9_1	PCI 3_8_4	PCI 3_2_2
PCI 3_20_2	PCI 3_8_2	PCI 3_2_1
	PCI 3_8_1	PCI 3_21
	PCI 3_7_4	PCI 3_9_4
	PCI 3_7_2	PCI 3_9_3
	PCI 3_6_1	PCI 3_21_4
	PCI 3_5_1	PCI 3_8_6
	PCI 3_5_2	PCI 3_6_2
	PCI 3_19_1	PCI 3_7_1
	PCI 3_21	
	PCI 3_4	

Note: PCI refers to projects of common interests set out by the European Commission at <https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest>

ANNEX

Table 1: Regional Map of European Energy Markets



Source: European Climate Foundation, (2014). Presentation by J. Popov: "Energy Security Through Energy Cooperation. The case of South East Europe"