

4.9 Important infrastructural projects

A comprehensive examination of the region under scrutiny demands that infrastructural projects in which the states of the region play an important role (mostly as transit countries) be explored. The following section is therefore devoted to a brief overview of the main cross-border projects with the potential to influence energy security in the region. This subsection offers only a brief introduction of the main projects that involve more than a single state. Infrastructural projects related to individual states (such as interconnectors or intrastate infrastructural projects) are thoroughly examined in the pertinent case studies. The list of projects does not include every project that is or has been planned in the region. Rather, it takes in those projects that are currently the most frequent subjects of debate in the states or within the region as a whole.

4.9.1 South Stream

This pipeline was intended to bring Russian supplies to European markets through the Black Sea, Bulgaria, Serbia, Hungary, Austria, and Italy. An alternative route was also considered that would have run through Romania. Spur lines were planned for Greece, Slovenia, Croatia, and Bosnia and Herzegovina, further penetrating markets along the way (Gazprom, 2014d). The project was officially announced in June 2007, and after years of negotiations with countries along the course of the pipeline and struggles with the European Commission, was officially abandoned at the end of 2014.

The economic rationale behind the pipeline was subject to question throughout its history, and Russia was accused on more than one occasion of using the pipeline as leverage to exert pressure on countries along the way. Although financially the pipeline might have had an eventual chance to justify its existence at some point, changes in the routing, which were often related to changes in Russia's foreign policy discourse towards the states in question or to legislative issues, showed no evidence of a sound, rational investment logic.

The South Stream pipeline was subject to great controversy, as it was in breach of the EU's liberalization principles, namely third party access

and unbundling. The likely conflict with the European Commission, along with the costs of the project and complicated negotiations with transit countries, ultimately led to the project's cancellation in November 2014, and its later replacement with the less ambitious Turkish Stream project (see below).

FIGURE 1: South Stream Pipeline



Source: (Gazprom)

4.9.2 Nabucco Pipeline

This project was aimed at bringing natural gas from non-Russian – mainly Caspian – sources. It was the chief project in competition with Gazprom's South Stream pipeline. The project was initiated in 2002 by Austria's OMV, BOTAS of Turkey, the Hungarian firm MOL, Romania's TRANSGAZ, and Bulgaria's Bulgargaz (Nabucco gas pipeline project, 2010). The original route was planned to go through Turkey using the Trans-Anatolian Pipeline (TANAP) and then through Bulgaria, Romania, Hungary, and Austria—essentially a very similar route to the South Stream pipeline. Despite support from the European Union, the project was abandoned in June 2013 after a competing project, the Trans-Adriatic Pipeline (TAP), was chosen by the Shah-Deniz Consortium (the main supplier) to carry supplies from Turkey to Europe. The project was part of the so-called Southern Gas Corridor – the EU's initiative to supply Europe from Caspian and Middle Eastern sources,

FIGURE 2: Nabucco pipeline



Source: (Gotev, 2015a)

encompassing various projects along the way (EurActiv.com, 2009; European Commission, 2008, European Commission, 2015d).

4.9.3 Trans-Adriatic Pipeline (TAP)

A project whose objective is to connect to the TANAP, supplying Europe with non-Russian gas. The project is part of the Southern Gas Corridor and was also in competition with the Nabucco Pipeline (EurActiv.com, 2013a). Plans call for it to connect to the Trans Anatolian Pipeline (TANAP) on the Turkish-Greek border and ship gas through Greece and Albania to Italy (Trans Adriatic Pipeline, 2016a).

FIGURE 3: Trans Adriatic Pipeline



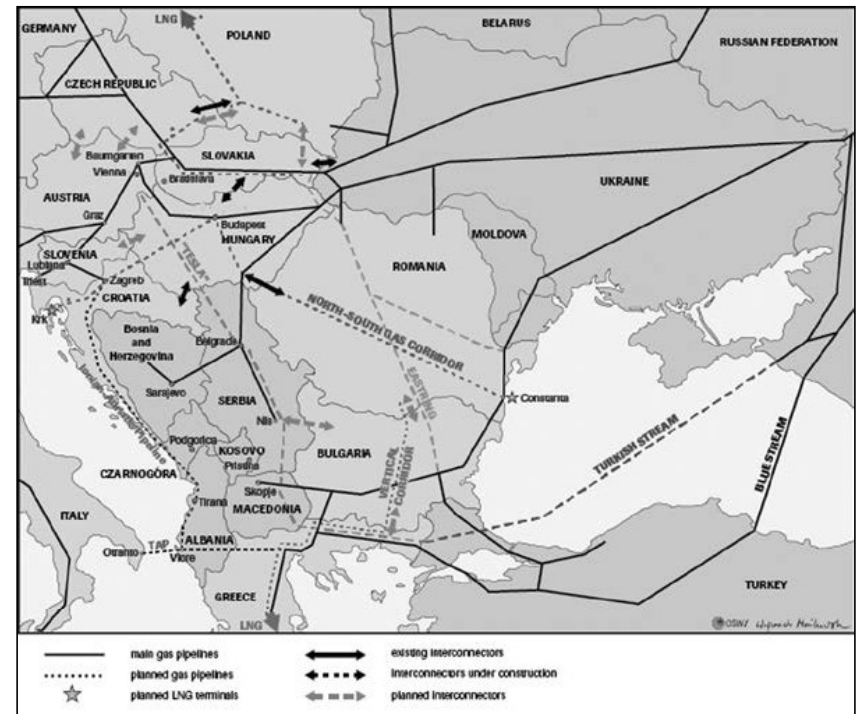
Source: (Trans Adriatic Pipeline, 2016b)

4.9.4 Ionian-Adriatic Pipeline (IAP)

This project was introduced in 2011 with the aim of connecting the Western Balkan states with TAP and with existing (and planned) infrastructure in the Balkans. The countries that will lie along the pipeline's route are Croatia, Bosnia & Herzegovina, Albania, and Montenegro. The pipeline will introduce natural gas deliveries to Montenegro for the first time (to some extent also to Albania).

Despite being warmly welcomed by countries along the way, both the TAP & IAP are yet to successfully solve the problem of economic viability, and anchor loads of natural gas will thus need to be secured.

FIGURE 4: Map of existing and proposed pipelines in the Southeastern Europe



Source: (Daborowski, 2015)

4.9.5 Tesla Pipeline

The pipeline was introduced in August 2015 as an extension of the Turkish Stream (see below) through the Balkan states (Novinite, 2015a). The pipeline is meant to connect the Turkish stream at the Greek border and ship Russian gas through Greece, Macedonia, Serbia, and Hungary all the way to Central Europe.

4.9.6 Eastring

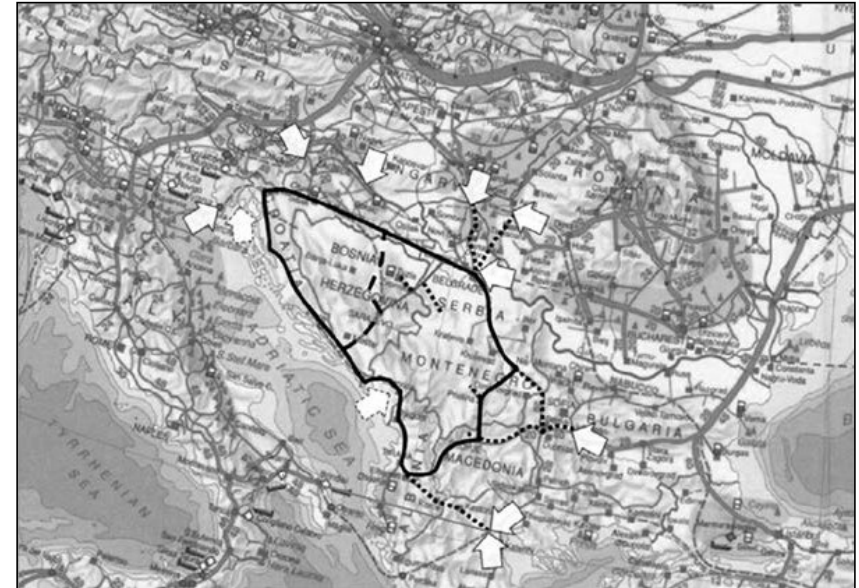
Another project to bring Russian gas from Turkey through Bulgaria, Romania, and Hungary all the way to Slovakia. The project was introduced in the second half of 2015, building on the momentum remaining after the cancellation of the South Stream project the year before. Its main proponents are the Slovak government and the Czech-Slovak company EPH (Denková, 2015a; Eastring, n.d. a).

4.9.7 Energy Community Gas Ring

This project is aimed at gasification, diversification, and infrastructure enhancement within the Western Balkan region, building on multiple existing and proposed projects intended to supply states in the Western Balkans with natural gas of varied origin. The project is an initiative of the Energy Community (see below) and was introduced in 2010. It would connect seven countries (Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, and Serbia²²), allowing them to get both Russian and non-Russian gas and would form a ring infrastructure facilitating the gasification of the entire Western Balkan region. The price of the project is estimated at USD 1 billion, but it would need a significant increase in the gas consumed within the region to justify its costs. The so-called anchor load (see above) is estimated to be worth 2000 MW of gas-based power generation capacity. The related grid investments to reach customers in nearby cities would require another USD 1.7 billion in investment (Energy Community, 2008).

²² These countries are also members of the Energy Community, hence the name of the proposed project.

FIGURE 5: Energy Community Gas Ring



Source: (Energy Community, 2008)

4.9.8 Turkish Stream

The Turkish Stream is a project intended to replace the original South Stream after its demise in late 2014. The aim of this project is to supply Russian gas via the Black Sea, as was the case with the South Stream, but instead of carrying the gas to Bulgaria, the pipeline would divert to Turkey and extend only as far as the Greek border. Gazprom would thus get its gas to Europe, but would avoid struggling with the rules of the Internal energy market, which helped to bury the South Stream project in 2014. In November 2015, the project was shelved after Turkey downed Russian fighter jet and a period of cold relations between the two states ensued. However, in October 2016 the dispute was settled and the deal was signed (Natural Gas World, 2016). In late June 2017, the construction works off the Russian coast commenced (Gazprom Export, 2017).

FIGURE 6: Turkish Stream pipeline – planned route

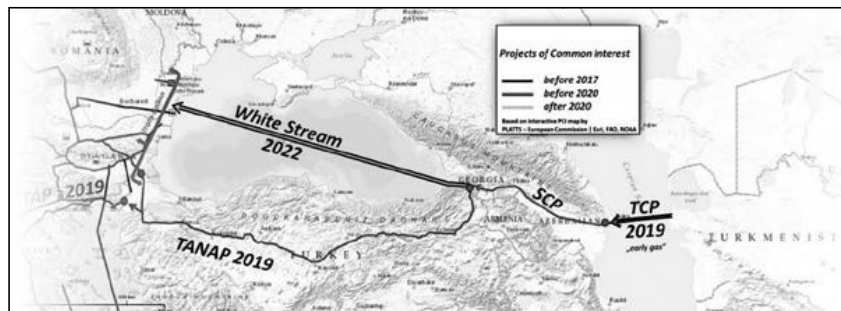


Source: (Gazprom Export, n.d. i)

4.9.9 White Stream

The White Stream pipeline was a planned offtake pipeline from the South Caucasus Pipeline in Georgia, crossing the Black Sea and reaching European shores in Constanta, Romania. The project was meant as part of a broader Southern Gas Corridor concept and in 2013 was listed among the European Commission’s Projects of Common Interest (European Commission, 2013a). But when other projects were ultimately selected to deliver Caspian gas to Europe (TANAP & TAP), the project

FIGURE 7: White Stream Pipeline



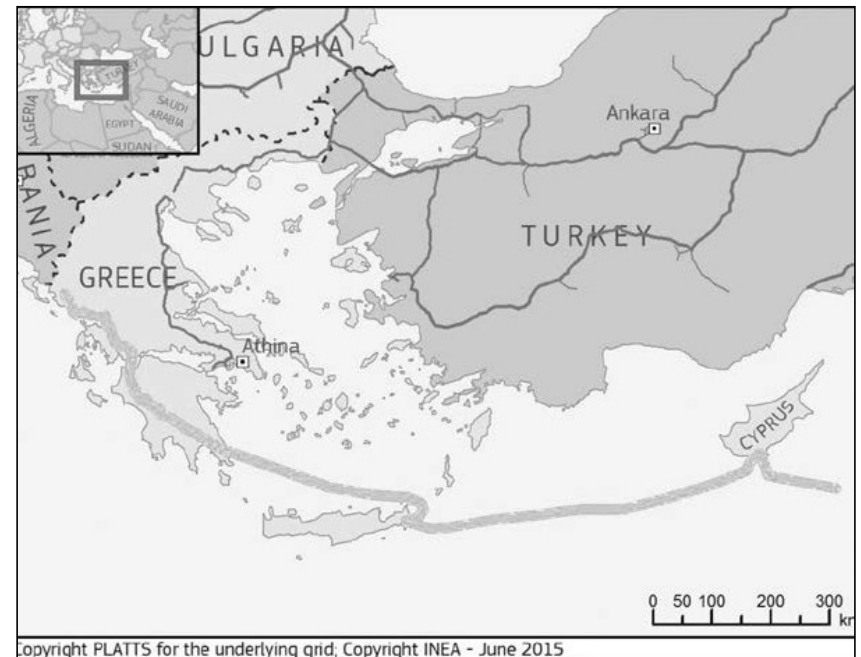
Source: (White Stream, n.d.)

was shelved and did not appear on the latest Projects of Common Interest list (European Commission, 2016).

4.9.10 EastMed Pipeline

A pipeline project whose objective is to deliver gas supplies from the offshore gas fields of Cyprus and Israel, through Crete, to mainland Greece. The project was included in the European Commission’s 2016 Projects of Common Interest List (European Commission, 2016).

FIGURE 8: EastMed Pipeline



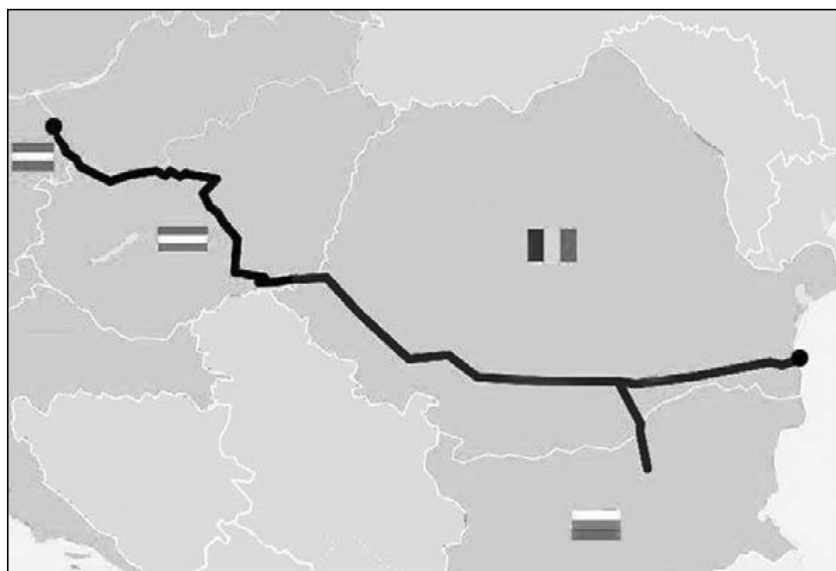
Source: (European Commission, n.d.)

4.9.11 BRUA Pipeline

The route of this pipeline was sketched out in 2016 as a way of tapping into Black Sea and Caspian natural gas resources by connecting Central Europe to the Turkish network. The pipeline consists of sections built through Bulgaria, Romania, Hungary, and Austria. It should be ready

for operation in 2019, with a capacity of around 4.5 bcm and is sponsored by the Romanian company Transgaz (see the pertinent chapter on Romania). The project is on the European Commission's latest Projects of Common Interest List (European Commission, 2016). Recently, though, the project has been rife with internal disputes between contracting parties, mainly Hungary and Austria (ICIS, 2017; Euronews, 2016; European Bank for Reconstruction and Development, 2017).

FIGURE 9: The BRUA Pipeline



Source: (Industrie Magazin, 2017)

5. COUNTRY CASE STUDY: ALBANIA

Albania, a country lying on the Western Balkan Peninsula, suffers many economic ills, the legacy of its past as one of the most isolated totalitarian regimes in Europe. The country has seen only limited development and utilization of its natural gas sector. Development has mostly centred on the discovery of natural gas fields in the southwest of the country. From the early 1960s forward, new gas fields began to be developed along the western coast, continuing to come online until the end of the 1980s. For the most part, they were associated with oil fields (AlbPetrol, 2016). Peak production came in 1982; in the 1990s, there was a sharp decline in gas output attributable to underdevelopment in the sector, a lack of needed technology, and a deep economic crisis which eliminated the need to expand existing pipelines or engage in further development. The result has been that the sector is in a rather poor overall technical state (Interviewee 2, 2016).

At the present time, most natural gas fields in Albania have been depleted, and the import of foreign supplies is impossible due to a lack of connectivity with the European gas markets (AlbPetrol, 2016). Several news reports in 2008 indicated there might still be gas resources capable of development in Albania, but these remain under exploration. This exploration was initially conducted by Royal Dutch Shell and Petromanas Energy Inc., but the latter corporation ended its operations in the country in late 2015-early 2016, selling its assets to Royal Dutch Shell, which is now the only company conducting exploration in the country (Interviewee 2, 2016; Petromanas Energy Inc., 2016). During the second half of 2015, Navitas Petroleum Ltd., a subsidiary of Israel's Delek Group, began exploring the Dumre area (Reuters, 2015a; Invest in Albania, 2015; Interviewee 1, 2016).

In the beginning, natural gas was mostly utilized in the industrial sector, mainly to generate electricity, produce fertilizers, and so on. This is still true today: power plants are by far the biggest natural gas consumers. In 2011, state-owned KESH Sh.a. completed a 97 MW combined