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Central Europe Energy Partners (CEEP) is an organisation of companies and scientific institutions, mainly from Central Europe, involved in the energy and energy-intensive sectors within the European economy. It was established almost four years ago, (June 2010), and has got, as of now, 26 members from 5 countries, representing 300,000 employees, and an overall turnover in excess of Euros 50 billion. CEEP is very active at the EU level (see the activities of CEEP on the website: www.ceep.be).

CEEP's position represents the opinions of its members from energy and energy-intensive sectors, as well as from scientific institutions.

Central Europe Energy Partners
Position re:

A Public Consultation on an EU strategy for liquefied natural gas and gas storage.

Question 1: Do you agree with the assessment for the above regions in terms of infrastructure development challenges and needs to allow potential access for all Member States, in particular, the most vulnerable ones, to LNG supplies either directly or through neighbouring countries? Do you have any analysis or view on what an optimal level/share of LNG in a region or Member State would be from a diversification / security of supply perspective? Please answer by Member State / region

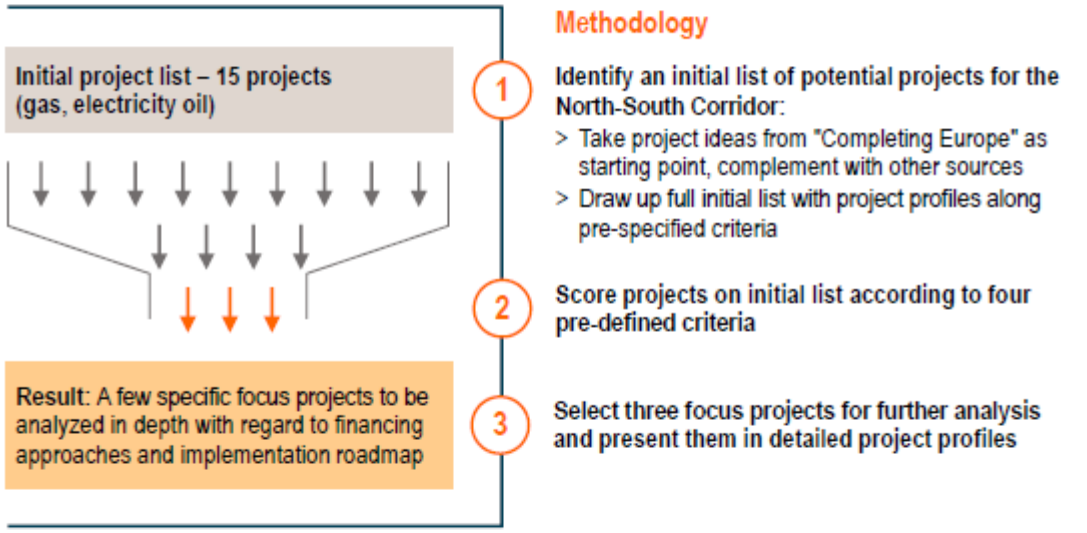
The assessment of the regions is generally correct. To deepen awareness of the regional lack of gas infrastructure in Europe, especially within the Central European region, the report prepared by Roland Berger, in co-operation with Central Europe Energy Partners (CEEP) titled: 'Making it happen: Paving the way for the Central European North-South Infrastructure Corridor' detailed information in this regard - see the extract from the Report (pages 28-31), as well as being available under the link:

http://www.ceep.be/www/wp-content/uploads/2015/09/CEEP_North_South_Corridor_Making-it-happen4.pdf

2 The North-South Corridor: A project-based perspective

To get the North-South-Energy-Corridor off the drawing board, the overarching idea needs to be fleshed out and translated into specific projects. To identify and select a set of promising project ideas for further analysis and discussion, we apply the approach shown in figure 11. First, we build an initial list of potential projects for the North-South Corridor, covering the gas, electricity and oil sub-sectors. In a second step, we score the projects on the list by applying pre-defined evaluation criteria, resulting in a ranking of projects for each of the three subs-sectors. Finally, we select the top-ranked project for each subs-sector as an archetypical focus project for our detailed financing analysis.

Figure 11: Methodology used to select the focus projects



Source: Roland Berger

2.1 Identifying projects

The starting point for building an initial list of energy transmission infrastructure projects along the Corridor is the study "Completing Europe" put forth by the Atlantic Council and Central Europe Energy Partners (CEEP) in 2014 and the projects identified and analyzed therein. "Completing Europe" discusses a wide range of projects deemed essential for closing connectivity gaps in Central Europe's energy infrastructure and fostering security of supply and effective integration into the European Union's energy system. Thus, the projects assessed in the study "Completing Europe" align

with the focus of this analysis and serve as a useful starting point for compiling a first broad overview of key investments.

To make sure that our analysis captures the full picture and takes into account the most recent developments of the energy infrastructure debate in the Corridor region, we cross-check the projects discussed in "Completing Europe" with a number of complementary public sources. First, we review the projects included in the ten-year network development plans (TYNDP) of the European Network of Transmission System Operators for Electricity (ENTSO-E) and Gas (ENTSO-G). Furthermore, we examine which of the projects listed as Projects of Common Interest (PCI) by the European Commission could contribute to our list. Both sources provide valuable details on the respective projects. As a final check we took into account recent studies of major European energy think tanks in order to identify additional projects, which may prove relevant for our analysis. By combining and integrating the relevant information from all of the aforementioned sources we arrive at a comprehensive initial list of potential energy infrastructure projects along the Central North-South Corridor. In the following sections we will present the listed projects for each energy sub-sector (gas, electricity, oil).

2.1.1 Natural gas sector

Our initial list of natural gas projects includes five projects which are presented in Figure 12. The list outlines a non-exhaustive selection of essential infrastructure projects contributing to the North-South Corridor in the natural gas sector, mainly taking CEEP's policy proposals as per the 2014 study "Completing Europe" as a starting point.

The first project is the North-South Backbone Pipeline connecting future LNG terminals in Poland and Croatia, thus providing natural gas along its route through Lithuania, Poland, the Czech Republic, Slovakia, Hungary and Croatia. The project is in fact an agglomeration of several projects that seeks to enable continuous gas transmission between the Baltic, Adriatic and Black Seas, even in the absences of Russian supplies. Some parts of the Backbone Pipeline are already in place or are currently being planned or built as part of several Projects of Common Interest (PCI). The Backbone Pipeline aims at bridging missing links and implementing a full trunk line that connects supply anchors from all directions. "Completing Europe" estimates the total investment for the Backbone Pipeline to be EUR 3-3.5 bn.

Figure 12: Initial list of natural gas transmission projects

Project Name	Cross-border	Countries involved	Routing (from to)	Investment (est.)	Status
North-South Backbone Pipeline	yes	PL, CZ, SK, HU, HR	Świnoujście (PL) to Omišalj (HR)	EUR 3-3.5 bn	Some sections are in place or in progress
LNG main gas transit pipeline Zlobin-Bosiljevo-Sisak-Kozarac-Slobodnica	no	HR	Zlobin (HR) to Slobodnica (HR)	EUR 450-500 m	FEED
Ionian Adriatic Pipeline	yes	HR, BA, ME, AL	Fier (AL) to Split (HR)	EUR 580 m	FEED
Gas Inter-connector PL-LT (GIPL)	yes	PL, LT	Rembelszczyzna (PL) to Jauniūnai (LT)	EUR 558 m	Permitting
West-East Corridor: Inter-connector DE-PL (beyond FGL304) & Interconnector PL-UA	yes	DE, PL, UA	Schwennenz (DE) to Szczecin (PL) & Drozdowichi (PL) to Bilche-Volytsya (UA)	EUR 440-460 m	Origination

Sources[3]: European Commission, ENTSO-G, CEEP, Roland Berger

The second project, the LNG main gas transit pipeline routed from Zlobin to Slobodnica, has a much smaller price tag. The pipeline will cost approximately EUR 500 m and passes only through the territory of the Republic of Croatia. However, it has regional strategic significance since it is the main evacuation gas pipeline from the designed LNG terminal on the island of Krk towards Hungary.

Connecting Croatia's gas transmission system with the Trans-Adriatic Pipeline is the main task of the Ionian Adriatic Pipeline from Fier in Albania to Split in Croatia. Thus, it could both transport gas from the Middle East and Caspian regions to markets in Central Europe and from the planned LNG terminal in Croatia to Albania and Montenegro.

The Gas Interconnection Poland-Lithuania has already gained PCI-status and receives funding under the European Union's Connecting Europe Facility. The main rationale for implementing this pipeline is the integration of the isolated gas markets of the Baltic countries into a single European gas market. The project would help to diversify gas supply sources and routes and improve the security and reliability of gas supplies for the Baltic States.

[3] Project proposals as well as investment cost estimates are based on CEEP "Completing Europe" (2014) as well as ENTSO-G's TYNDP 2015 and the European Commission's lists of Projects of Common Interest. FEED refers to a project's Front End Engineering Design.

The West-East Corridor refers to an integrated proposal of strengthening the bidirectional transmission capacities among Germany, Poland and Ukraine – as key complementary infrastructure to the Backbone Pipeline. It is supposed to connect the diversified gas markets in Western Europe with its gas hubs and Non-Russian supplies (e.g. from Norway) with Poland's and Ukraine's gas transmission systems. Thus, the pipeline would be able to connect Ukraine to the Central and Eastern European gas market and the Backbone Pipeline as well as to global gas supply channels via the designed LNG terminal in Świnoujście in Poland. Specifically, it refers to two new interconnectors while otherwise building on existing infrastructure: one from Germany to Poland and one from Poland to Ukraine.

Question 2: Do you have any analysis (cost/benefit) that helps identify the most cost-efficient options for demand reduction or infrastructure development and use, either through better interconnections to existing LNG terminals and/or new LNG infrastructure for the most vulnerable Member States? What, in your view, are reasons, circumstances to (dis)favour new LNG investments in new locations as opposed to pipeline investments to connect existing LNG terminals to those new markets?

See our answer to point no. 1 - our proposal should be valued as diversification of suppliers, in contrast to Nord Stream 2, which enforces the position of one supplier.

Question 3: Do you think, in addition to the already existing TEN-E Regulation, any further EU action is needed in this regard? Do you think the use of LNG gas and existing LNG infrastructure could be improved e.g. by better storage possibilities, better network cooperation of TSOs or other measures? Please give examples.

See our answer to point no. 1 - the North-South gas pipeline backbone should be supported by (still not sufficient) storage facilities from Poland through the Czech Republic, Slovenia, Romania, Hungary, Bulgaria and Croatia. As concerns network co-operation, we have no negative remarks.

Question 4: What in your view explains the low use rates in some regions? Given uncertainties over future gas demand, how would you assess the risk of stranded assets and lock-in effects (and the risk of diverting investments from low carbon technologies such as renewables and delaying a true change in energy systems) and weigh those against risks to gas security and resilience? What options exist in your view to reduce and/or address the risk of stranded assets?

At the moment, many countries, especially from the Central and Eastern part of Europe, do not have access to LNG supplies, and the price level of LNG is difficult to predict. LNG infrastructure determines lower prices from existing gas suppliers. We have a positive example concerning the Klaipeda LNG Terminal (Lithuania), where, due to its commissioning, the price of gas from Russia was revised downwards by 23%. From this point of view, the existence of LNG assets are more important than their actual usage rates.

Question 5: The Energy Union commits the EU to meeting ambitious targets on greenhouse gas emissions, renewable energy and energy efficiency, and also to reducing its dependency on imported fossil fuels and hence exposure to price spikes. Moderating energy demand and fuel-switching to low carbon sources such as renewables, particularly in the heating and cooling sector, can be highly cost-effective solutions to such challenges, and ones that Member States will wish to consider carefully alongside decisions on LNG infrastructure. In this context, do you have any evidence on the most cost-efficient balance between these different options in different areas, including over the long term (i.e. up to 2050)?

As concerns Central European countries, we believe that the demand for gas will increase if the internal infrastructure of the pipelines is developed. Lower prices of gas will stimulate this process, as well as the development of gas power plants. This will require EU funds to support the investments, which have local character, but influence the EU's energy security and decrease CO2 emissions. It will also contribute to the concept of an Internal Energy Market.

Question 6: What in your view are the most critical regulatory barriers by Member State to the optimal use of and access to LNG, and what policy options do you see to overcome those barriers? Have you encountered or are you aware of any problems in accessing existing LNG terminal infrastructure, either because of regulatory provisions or as a result of company behaviour? Please describe in detail.

The biggest barriers are the lack of infrastructure, especially interconnectors and storage facilities, rather than regulatory problems.

Question 7: What do you think are the most critical commercial, including territorial restrictions and financial barriers at national and regional level to the optimal use and access to LNG?

The most critical issue, in this respect, is a lack of infrastructure (LNG terminals, pipelines, gas storages, technical parameters) and sufficient funds for investments. One should remember that infrastructure investments cannot always be conducted on a commercial basis. Governmental and EU funds are needed as vital supports.

According to CEEP, the regulatory measures are quite sufficient, but Central Europe should be treated even more favourably to help the EU-11 catch up with the EU-15. We strongly believe that the situation in energy investments will not be repeated, as witnessed in the years, 2008-2012, when the EU-15 received 81.7 billion Euro of support, whilst Central European countries received 5.7 billion only.

Question 8: More specifically, do you consider that on-going EU policy initiatives and/or existing legislation can adequately tackle the outstanding issues, or there is more the EU should do?

The EU should focus on the free trade agreement with the U.S. (TTIP), as well as develop gas infrastructure within the EU, and to efficiently support the investors, by sharing financial efforts more broadly, by participation in the overall costs related to those investments.

Question 9: How do you see worldwide LNG markets evolving over the next decade and what effects do you expect this to have on EU gas markets? Do you expect a shift away from oil-indexed LNG contracts, and if so under what conditions?

Although LNG presently represents only about 10% of worldwide gas consumption, its share is rapidly growing. This is mainly due to the expansion of infrastructure and the opening up of new markets. In 2014, global LNG supplies were estimated at 243 million tonnes – about 1.5% more than a year earlier.

As for the indexation of LNG gas prices in the future, we still expect a shift away from oil-indexed LNG contracts, at least partially replaced by major hub gas spot prices.

Question 10: What problems if any do you see with the functioning of the international LNG market, particularly at times of stress? Are there specific actions the EU should take, in dialogue with our international partners, including in trade negotiations, to improve its functioning and/or to make the EU market more attractive as a destination for LNG? Could voluntary demand aggregation be helpful in some way?

The EU should promote and facilitate direct LNG supply for industrial consumers, probably aggregated, in order to limit their risks, especially with gas-intensive consumers. This requires regulatory measures to facilitate direct access to LNG terminals, and to decrease the price of the necessary associated storage (again, especially for gas-intensive consumers), and also promote mid-term/ long-term direct contracts between industrial consumers and LNG producers.

The specific actions of the EU could perhaps concentrate on developing partnership activities, also within some diplomacy fields. Voluntary demand aggregation could be helpful. Any solution must be in line with EU competition and the WTO's rules.

Question 11: What technological developments do you anticipate over the medium term in the field of LNG and how do you see the market for LNG in transport developing? Is there a need for additional EU action in this area to reduce barriers to uptake, for example on technology or standards, including for quality and safety?

Industrial consumers must take into consideration the safety, costs, and process management in using pipeline natural gas or LNG, particularly in chemical/ fertilizer plants. It is imperative that the gas quality standards are now quickly established as EU projects to receive multiple-sourced LNG. Technological development in liquefaction and transportation is very much expected to lower gas prices.

Question 12: Do you think there are any sustainability issues specific to LNG that should be explored as part of this strategy? What would be the environmental costs and benefits of alternative solutions to LNG? Please provide evidence in support of your views.

The basic benefit of LNG is to decrease GHG emissions, but we have to consider LNG as an alternative to a single source of supply (energy security), and the fuels used by supportive power plants to RES. Changing habits from coal to gas, in households, is also very important.

Question 13: What opportunities or challenges do the supply projections for different sources, in particular LNG and pipeline gas and low carbon indigenous sources, present for the use of gas storage / for gas storage operators?

More opportunities, more energy security. Gas storage means storage by energy, which is now more efficient than storage by RES electricity. Nevertheless, gas storage operators should get some support from their governments.

Question 14: Are, in your view, current market and regulatory conditions adequate to ensure that storages can fully play their role in addressing supply disruptions or other unforeseen events (e.g. extreme cold spells)?

This may differ for the Member States, or from region to region, and should become necessary in times of disruption and unforeseen events, when MS and regulators intervene in the marketplace.

Question 15: As an alternative to mandatory reserves, how could market based instruments ensure adequate minimum reserves?

This should be agreed between the governments and TSOs as to how the market-based instruments can be implemented.

Question 16: Do you have any analysis or view on what an optimal level/share of storage in a Member State or region would be? What kind of initiatives, if any, do you consider necessary in terms of infrastructure development in relation to storage?

This issue is a subject for MSs and TSOs.

Question 17: Do you think, in addition to the existing TEN-E Regulation, any further EU action is needed in this regard?

Further implementation of the 3rd Energy Package is still needed.

Question 18: Given uncertainties over future gas demand, how would you assess the risk of stranded assets (and hence unnecessary costs), lock-in effects, the risk of diverting investments from low carbon technologies such as renewables, delaying a transition in energy systems and how would you and weigh those against risks to gas security and resilience? What options exist in your view to reduce the risk of stranded assets?

Currently, we are not in the position to evaluate the risk of unnecessary costs. However, concerning the stranded asset discussions, we believe that industrial end consumers should not pay for transport tariff exemptions for storage users.

Question 19: What do you think are the most critical regulatory barriers to the optimal use of storage in a regional setting?

This issue is a subject for MSs, and the storage owners.

Question 20: Do you think ongoing initiatives and existing legislation can tackle the remaining outstanding issues or is there more the EU could do? Do initiatives need to include additional issues further to the ones described here?

Further implementation of the 3rd Energy Package is still needed.

Question 21: Do you consider EU-level rules necessary to define specific tariff regimes for storage only or should such assessment be made rather on a national level in view of available measures able to meet the objective of secure gas supply?

Further discussion on this issue with Member States is needed.

Question 22: Have you ever encountered, or are you aware of, difficulties in accessing storage facilities? Has this concerned off-site or on-site storage facilities? Please describe the nature of the difficulties in detail.

The only difficulty that industrial consumers face with gas storage is the price level in some Member States. Beyond that, specific storage conditions will have to be developed, in order to facilitate the access of LNG terminals to industrial end consumers.

Question 23: Have you ever encountered, or are you aware of, difficulties related to feeding LNG gas from the storage site back into the gas network? If so please describe the nature of these difficulties (regulatory provisions, company behaviour, technical problems) in detail.

We do not have enough experience in this field.

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