



EUROPE'S NATURAL GAS SUPPLY PROSPECTS, THE
SOUTH CORRIDOR AND THE ROLE OF GREECE

An IENE Study Project
(M 10)

EXECUTIVE SUMMARY

January 2012,

Athens, Greece

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With more than half of the energy consumed in the European Union coming from third countries, the EU is already the world's largest energy importer. Furthermore, given the fact that its own domestic energy production is on the decline, it will increasingly compete with other importing countries and regions for energy supplies. The EU also seeks to become cleaner with the use of gas as the primary fuel for electricity generation and thus to establish, stabilize and diversify transit routes. In this framework, SE Europe's role is considered to be very important in natural gas developments in view of current plans to secure enough gas for EU's domestic demand.

The idea of establishing a transport corridor for European gas suppliers, the so called South Corridor, from the Caspian region and the Middle East countries is one of the most crucial and strategic plans currently under development that will contribute towards EU's energy security. The South Corridor comprises a number of competing potential gas pipelines transcending SE Europe and Greece in particular.

The region of South East Europe and the Black Sea consists of a variety of exporting, transiting and importing states that make it difficult to make a clear distinction on each state's specific role. Overall one could distinguish between the net exporting states of the Caspian Sea, namely Azerbaijan, Kazakhstan and Turkmenistan, even though the latter does not export directly to any regional state and the net importing states that include everyone else with the partial exception of Romania (for oil & gas) and Croatia (only for gas) which cover the majority of their hydrocarbon needs through indigenous production. One major common characteristic for both exporting and importing states is that they aspire to become transiting hubs for the transportation Caspian/Middle East oil & gas resources to European markets.

The present study aims at comparing these pipelines and discussing their relative advantages and shortcomings with reference to Greece, which as a host country stands to benefit considerably from such major infrastructure works. Greece's benefits are twofold, comprising geopolitical and financial gains. A thorough analysis of these gains is also attempted in the current study.

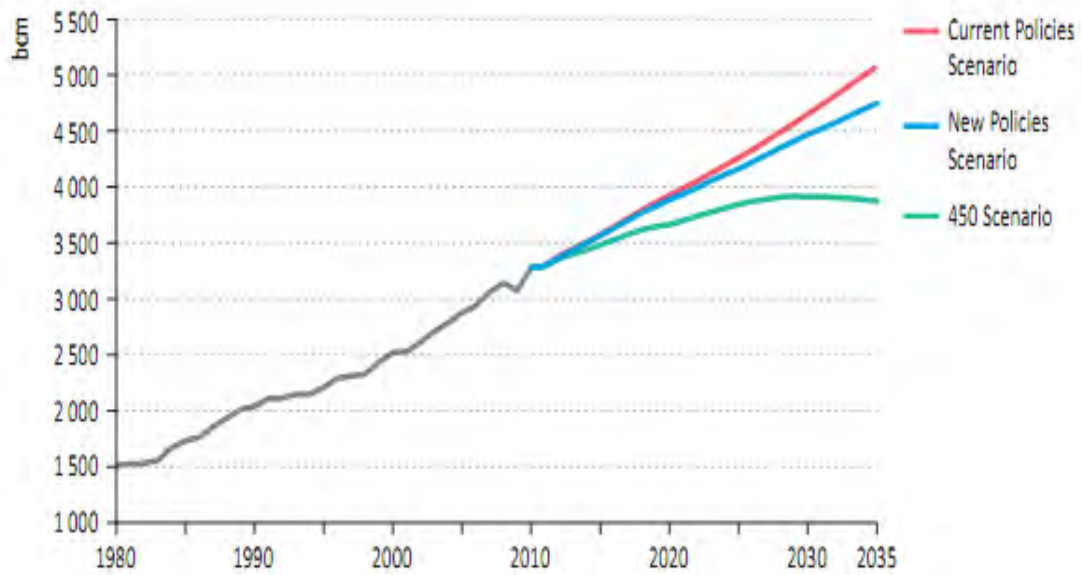
The **first and second chapter** of this study provides an overview of the global and European natural gas markets and how these have developed over the past two to three years with projections for the next 20 to 25 year period. This analysis is structured on "demand" and "supply" basics. The basic trends regarding the global natural gas market indicate that global demand for natural gas is expected to increase strongly over 2010-16, reaching around 3,800 bcm by 2016. The bulk of this incremental gas demand originates from the non-OECD regions, especially the Middle East and Asia, while the growth of gas consumption in most OECD countries will be dampened by high gas prices. On the other hand the FSU region will be by far the most important producing region by 2016 and will help meet demand in Asia. OECD gas production should also increase, as additional output from Australia and North America compensates for rapidly declining European gas production.

Regarding the LNG market, growth of LNG trade is set to continue expanding over 2011-16 as new plants come on stream. Global LNG trade now represents 9% of global gas demand. Qatar was the largest contributor to additional LNG supplies and now represents one-quarter of global LNG supplies, twice as much as Indonesia, the second-largest LNG supplier. One should take into consideration that unconventional gas continues to impact gas markets as the interest in unconventional gas is spreading fast all over the world.

Several scenarios and trends for global gas demand and supply are also presented in **Chapter 2**. Most of the information included in this section has been abstracted from IEA publications, mostly the Medium – Term Oil & Gas Markets for 2011, the Golden Age of Gas special report and the most recent World Energy Outlook 2011.

Figure 1:

World primary natural gas demand by IEA scenario

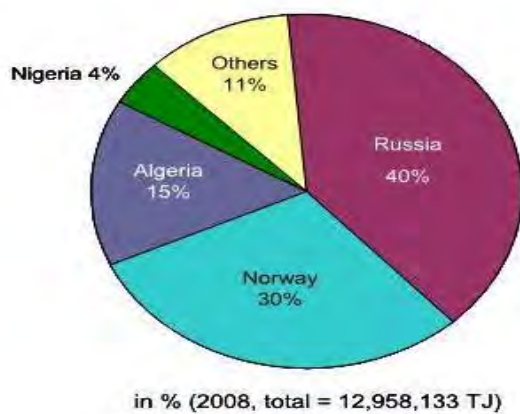


Source: IEA, World Energy Outlook 2011, Paris, 2011

A brief look at the European gas supply prospects in **Chapter 3** reveals that the European region will remain largely dependent on gas imports while indigenous production is steadily decreasing in most areas in the region, with Norway being the only exception. Total natural gas consumption in Europe in 2010 was 522 bcm of which 261 bcm corresponded to pipe-gas imports, 84,8 bcm to LNG imports and 176 bcm to indigenous production.

Figure 2:

EU Imports of Natural Gas by country of origin

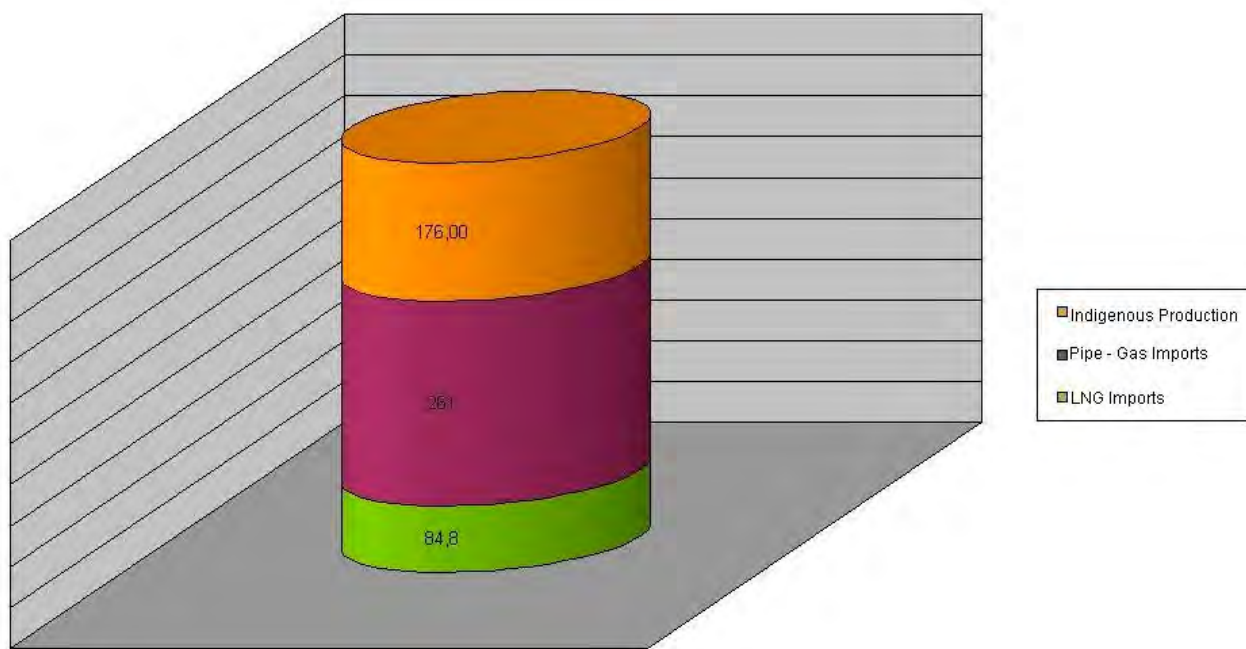


Source: Europe Commission

During the last two decades, natural gas consumption in Europe nearly doubled. From around 300bcm in 1990, gas demand in Europe, including EU-27 countries and other SE European countries reached 550bcm in 2007 and 522bcm in 2010, a drop attributed to recessionary pressures since 2008. The main driver for this spectacular increase in gas demand was without any doubt the power generation sector. Only during the last 5 years, gas consumption in the European power generation sector increased by some 60 bcm and more than 60 percent of gas consumption in Western Europe between 2010 and 2025 is projected to be used for electric power. Therefore by 2015 industry specialists estimate that imported natural gas will grow by more than 40 percent and rise to over 50 percent by 2025.

Figure 3:

Natural Gas Consumption in Europe in 2010, including E-27 and other European countries (in BCM's)



Total European Gas Consumption 522 Bcm

Chapter 3 presents also a comprehensive review of European Energy Policies and Strategies on security of gas supply. The European Commission believes that suitable conditions must be created for the promotion of alternative sources and routes so the supply of natural gas from the Caspian and Central Asia countries can

be secured, and interregional pipeline projects can be realized giving special emphasis to Azerbaijan and Turkmenistan as potential new gas suppliers. On the other hand Azerbaijan and Turkmenistan have confirmed the availability of substantial gas volumes and have expressed a clear willingness to sell it to Europe.

Chapter 4 provides a comprehensive review on South Corridor and the several competing pipeline project plans. It should be pointed out that the “South Corridor” concept is promoted by EU for a number of other highly important reasons among which are the following:

- (a) The need of creating a liquid and gas competitive market, part of a process in building a pan-European gas market where the free movement of gas is of paramount importance
- (b) The implementation of EU’s internal energy market (by 2014) and the ending of energy islands (by 2015) where integrated gas networks play a key role.
- (c) The recognition of the corollary that an internal energy market and integrated gas networks guarantee political and economic stability

The South Corridor offers also an excellent opportunity to SE European countries to reinforce their regional role as part of a broader energy bridge. The struggle for control over regional gas supply routes between competing projects will propel certain countries to international attention as they will vie for influence and recognition as key transit gates.

In addition, **Chapter 4** provides a brief and updated description of the 7 gas transmission projects (ITGI, TAP, Nabucco, SEEP, South Stream, White Stream and AGRI Project). All these highly promoted pipeline schemes added together promise to deliver some 160 BCM’s of new gas supply to European destinations. At first glance there is no way that there is room, from a capacity viewpoint, for more than two such pipeline projects and for total gas quantities not exceeding at most 50.0 BCM’s over the next 15-20 years. There is little doubt that seen over a longer time horizon Europe will need these extra supplies and perhaps more.

Figure 4:

The South Corridor Gas Pipelines



Source: SE Europe Energy Outlook 2011, An IENE study, Athens, June 2011

However, there are two important factors that need to be carefully considered at present. First of all from a demand point of view in the short term, and given the current economic downturn, such huge additional gas quantities cannot be absorbed by the European market. Secondly, gas supplies are still limited on the Caspian end since all the above pipelines, with the exception of the South Stream, are competing for the same Azeri gas sources and for limited, and as yet unavailable, inputs from Iraq. Even if the Shah Deniz Phase II offshore field in the Caspian Sea is fully developed, an unlikely outcome before 2017, and more gas is secured from other major Azeri gas fields and from Kazakhstan's yet unexploited Caspian gas reservoirs

and somehow Turkmenistan’s gas is transported over to Azerbaijan, there is no way that the predicted shortfall in gas supplies will be covered from these sources alone by 2020 – 2025.

These pipeline projects, with the exclusion of the South Stream, are competing projects for the same Caspian gas supplies. It is clear that by 2020, and in view of little additional European gas needs, and limited Caspian gas supplies, there is going to be room for only two of the above projects, of which one will most likely be the South Stream.

Table 1:

Basic Characteristics of the South Corridor Natural Gas Pipelines

Project	Capacity (bcm/y)	Distance (kms)	Gas Origin	Estimated Project Cost (in Billion Euro)	Sponsors	Anticipated Start Up Date
ITGI	10 - 16	796	-Shah Deniz II	1.74	DEPA, Edison	2017
TAP	10 - 20	686	-Shah Deniz II	1.70	EGL, STATOIL, E.ON	2017
Nabucco	31	3.300	-Shah Deniz II -Iraq -Turkmenistan	15.0	OMV, TRANSGAZ, BEH, MOL, RWE, BOTAS	2017
South Stream	63	2.950	-Russian Fields	15.0	Gazprom, ENI, Wintershall, EDF	2016
White Stream	8 - 32	1.440	-Azerbaijan -Turkmenistan -Iraq	N.A	Not Disclosed	2016
SEEP	10	~1.000	-Shah Deniz II	1.0 - 1.5	BP	2017

As far as Greece is concerned the gas pipelines of immediate interest include ITGI, TAP and the South Stream. **Chapter 5** is taking into consideration a wide variety of criteria and well established economic and technical parameters and attempts a comparison between these projects in order to find out the direct benefits that each of these pipelines will bring to Greece and the degree of preparedness of each pipeline in terms of implementation. Furthermore the comparison aims in finding

out the degree of compliance of each pipeline to the criteria which are presented in Tables 2 and 3.

Table 2:

Export route selection criteria as defined by the Shah Deniz consortium

<i>Commerciality</i>	based principally on full export chain value, including market prices and infrastructure access charges and tariffs
<i>Project deliverability</i>	technical and organisational capability to execute the project plans on schedule and within budget
<i>Financial deliverability</i>	ability to cover development costs through equity, loans, grants or other funding
<i>Engineering design</i>	scope and quality of the engineering plans
<i>Alignment and transparency</i>	willingness to cooperate technically with Shah Deniz and to align with the timeline of Shah Deniz FFD
<i>Operability</i>	the long-term capability to manage physical and commercial operations safely, efficiently and reliably
<i>Scalability</i>	the potential for expansion or addition of export facilities to allow transportation of increased volumes as further gas supplies become available
<i>Public policy considerations</i>	meeting the EC's stated objective of enhancing supply diversity of European natural gas markets, and ensuring sustained support from all stakeholders

Table 3:

Additional route selection criteria

➤	<i>Environment, Safety, Society</i>
➤	<i>Stakeholder support</i>
➤	<i>Technological maturity</i>
➤	<i>Economic risk</i>
➤	<i>Political risk</i>
➤	<i>Social risk</i>
➤	<i>Economic Development Impact</i>

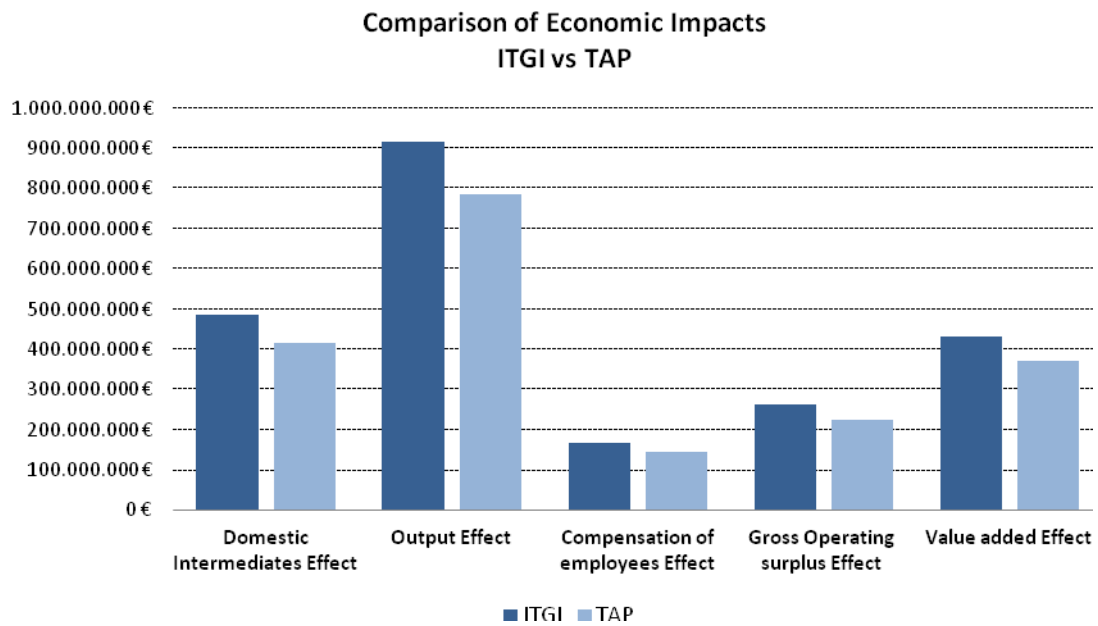
Of special interest is the comparison in terms of enhancing security of energy supply and economic impact. Security of energy supply is being dealt as part of stakeholder support and political risk criteria as it is generally accepted that all proposed pipelines to a larger or lesser extent contribute positively in this respect. However, it is important to establish which of the pipeline schemes provides the best option and the greatest degree of energy security for Greece itself, as the first transit stop in improving the European gas market supply. Understanding the economic impact of the various pipeline projects is equally important as the flow of new gas supplies will inevitably lead to new investments and increased business activity at local and regional level.

In considering the economic impact from the construction and operation of major gas pipelines through Greece, the comparison was by necessity confined between ITGI and TAP as substantial economic and technical information was lacking in the case of South Stream. Economic impact was calculated for both pipeline projects under two broad time phases. The first being the construction phase and the second the 25 year operation phase.

Table 4

Table 4: Economic Direct, Indirect and Induced Effects for Construction Phase						
Projects	Domestic Intermediates Effect	Output Effect	Compensation of employees Effect	Gross Operating surplus Effect	Value added Effect	Employment Effect, in persons
ITGI	484.381.822 €	915.680.328 €	168.455.123 €	262.246.190 €	432.474.750 €	10.563
TAP	415.184.419 €	784.868.853 €	144.390.106 €	224.782.449 €	370.692.643 €	9.054
Difference	69.197.403 €	130.811.475 €	24.065.018 €	37.463.741 €	61.782.107 €	1.509 €

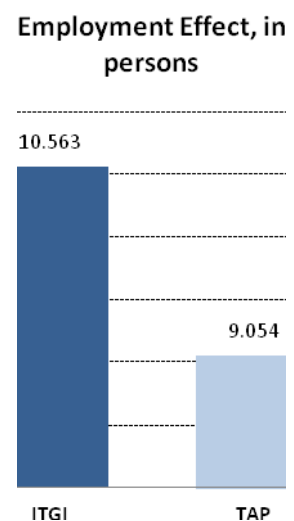
Table 5 (a)



By utilizing the input – output modeling methodology the economic impact of the two projects was assessed. This approach quantifies the spill – over effects to other sectors of the economy from the increased demand for intermediate goods (indirect effects) and increased final consumption due to higher household income (induced effects). This is achieved by utilizing a Leontief matrix, which takes into account the interdependencies across various economic activity sectors.

By cross – comparing the two projects and due to the fact that ITGI is much longer regarding its onshore section, it was established that the construction of the project is expected to stimulate the domestic economic activity more than TAP. In focus, ITGI’s construction is anticipated to produce 61.7 million euro more added value and 24 million euro more income for employees. Furthermore approximately 1.509 more persons are expected to be employed by ITGI than TAP during the construction phase (see *Table 4*).

Figure 5 (b)



In evaluating the contribution of the ITGI and TAP pipelines during the operational stage we must note that the ITGI project has a clear edge over TAP since it will be responsible for the creation of a regional distribution company in Western Greece (ΕΠΑ) and that will constitute a key driver for increased economic activity. Although, its operation does not require intense utilization of primary inputs its long term economic impact is substantial.

Table 5

Natural Gas Investment Scenarios for Western Greece

Table 5:	Scenario 1: Pesimistic		Scenario 2: Medium		Scenario 3: Optimistic	
	ITGI	TAP	ITGI	TAP	ITGI	TAP
Years	25		25		25	
<i>Investment Cost</i>	150.000.000	0	150.000.000	0	150.000.000	0
<i>Average Projected Inflows (EBITDA Terms)</i>	25.000.000	0	30.000.000	0	35.000.000	0
<i>Rate</i>	3,50%	0	3,50%	0	3,50%	0
NPV of Cash Flows in €	262.037.865	0	344.445.438	0	426.853.011	0

Figure 6

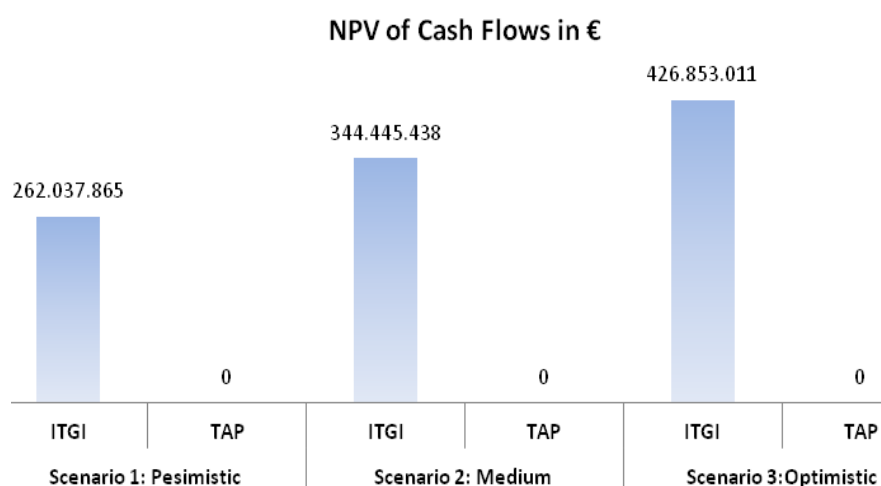


Table 5 summarises the financial analysis (based on assumptions deriving from the operating experience of other ΕΠΑ's in Greece) concerning the economic impact over a 25 year period for both ITGI and TAP. As the TAP project is not

foreseen to have any impact whatsoever on the development of local and regional gas markets, ITGI's supremacy in that respect is self-evident. Assuming an investment cost of 150 million and cash inflows for 3 scenarios, the project returns in any case are positive in terms of Net Present Value (NPV). On the other hand, the TAP project is expected to deliver no cash inflows from operating activity.

Furthermore, the creation of an EPA in the West Macedonia and Epirus region creates asymmetric economic opportunities and impacts for businesses. In the case of ITGI, NPV of cash flows varies from EUR 262 million in the pessimistic scenario rising to EUR 427 million in the most optimistic one (see *Table 6*). Likewise, as shown in the same table, total employment in terms of permanent jobs, varies from 663 in the pessimistic scenario rising to 859 in the optimistic one.

Table 6(a)

EPA related Employment Scenarios During Pipeline Operation Phase

Employment of EPA (25 years projections)	Scenario 1: Pessimistic	Scenario 2: Medium	Scenario 3: Optimistic	TAP
Total Employment	663	766	859	0
<i>Subcontractors</i>	330	360	380	0
<i>Installation technicians & Studies</i>	190	240	280	0
<i>Permanent Personnel</i>	130	150	180	0
<i>Third Party employees</i>	8	10	12	0
<i>Resellers</i>	5	6	7	0

Table 6 (b)

Employment Involved in Pipeline Operational Phase

Employment Involved in Pipeline Operations	ITGI	TAP
<i>Pipeline Operations</i>	25	20
<i>Maintenance</i>	50	35
<i>Procurement</i>	5	5
Total Employment	80	60

In summary, ITGI when compared to TAP in terms of short and long term economic impact emerges as a clear winner since it is a much larger net contributor with regard to employment opportunities and overall investments.

In addition to the considerable socio- economic benefits it will bring to Greece, ITGI's prominence is also due to its broader regional significance. This is based on its capacity to expand immediately northwards to Bulgaria and Romania and further afield and later through the necessary network adjustments to Serbia, thus helping these countries diversify their gas supplies which up to now relied almost entirely on imports from Russia. In the case of Bulgaria plans are already fairly advanced as construction for the 170 kms Komotini – Stara – Zagora interconnector is already scheduled for 2013/2014, which means that by 2014 gas coming to Greece from the Turkish- Greek interconnector, which is part of ITGI, will start flowing into the Bulgarian grid. Another important regional aspect of ITGI is its direct link to planned LNG terminals in Kavala and Alexandroupolis and its access to a sizeable underground natural gas storage facility situated offshore in the depleted South Kavala gas field, some 15 kms offshore from Kavala. This 400.00 m³ gas storage facility, by the time it becomes operational in 2015, it can guarantee adequacy of supplies during peak demand periods for Greece and it creates synergies with the ITGI system. ITGI's direct access to LNG terminals and a large gas storage facility underlines its enhanced regional role in a way that no other (of the planned) pipeline schemes offers.

The role of the **Interconnector Greece – Bulgaria (IGB)** must be underlined in connection with the regional possibilities of ITGI. The IGB is a very important regional project directly related to ITGI which will ensure energy security through diversification of gas supply not only for Bulgaria, but through the Bulgarian gas transmission network for Romania, Serbia and FYROM and further to other SEE and CE countries. Having a length of approximately 170 km, IGB will connect the Bulgarian with the Greek gas transmission grid starting from Komotini to Stara Zagora with a projected capacity of 3 bcm/ y and a possibility for extension to up to 5 bcm/ y. The pipeline will be commissioned in 2014 and planned investments are approx 150 M Euro from which 45 M Euro is an EU grant through EEPR. This fact confirms the importance of the project for the EU energy policy. Komotini is also the ending point of the TGI pipeline which is an integral part of ITGI project.

Shareholders in the IGI Poseidon pipeline project between Greece and Italy, which is part of the ITGI system, are also participants in IGB together with BEH. This means that the shareholders of IGI support the regional dimension and the common EU target to bring Azeri gas to the heart of the SEE region using TGI and IGB.

Figure 7:

The ITGI and IGB pipeline system



Source: DEPA

IGB will practically be the first piece of infrastructure to bring Caspian gas to the heart of SEE and CE through Greece and Bulgaria and provide the opening of the Southern Gas Corridor to the region. Both countries will be able to take direct part in generating revenue from regional gas transmission and trade. The scalability of the project, along with the granted EU financing, does provide assurances for its economic viability by taking into consideration the development of regional gas demand. In short IGB is an important project for Greece because it increases the Greek geopolitical role as a transit hub for Caspian gas to the SEE region. For the first time, Greece could become a major transit country, i.e. not only a final destination for gas supply, and will benefit from transit and trading opportunities.

Table 7:

Comparison of Albania related Political Risk between ITGI and TAP

Corridor Acronym	Status	Country of Origin	Region of Origin	Transport	Option A	Option B	Option C	Option D
ITGI	Planned	Azerbaijan	Caspian Region	Pipeline	52,80	41,24	47,24	206,20
TAP	Planned	Azerbaijan	Caspian Region	Pipeline	52,97	43,19	48,08	259,17

Source: Economic and Socio Political Risk Assessment for ITGI and TAP Natural Gas Pipeline Projects, National Technical University of Athens. A study prepared by the School of Electrical and Computer Engineering, Athens, September 2011.

Through this detailed and exhaustive comparison between the three pipeline projects, and having considered a large number of technical, geopolitical, economic and financial criteria, ITGI emerges as the most desirable option for Greece and the broader S.E. European region. *Table 8* presents the results of the comparison between all three pipelines based on 15 specific criteria. ITGI emerges a clear front runner having scored the highest marks. From Greece's point ITGI will undoubtedly bring in higher investments at local level and will also enhance regional development especially in Western Greece, while at the same time it will help strengthen the country's security of energy supply. Likewise ITGI tops the list in terms of implementation preparedness as the pipeline's construction prospects appear clearly well ahead of those of the other pipelines, because of its advanced engineering design, the issuing of the necessary permits and licenses.

From a regional perspective the ITGI pipeline will provide immediate access to much needed alternative gas supplies, will also strengthen regional energy security, facilitate cooperation and help spearhead gas market development, by ensuring adequate volumes and a continuous gas flow. In short ITGI will help increase gas market liquidity which is the basis for integrated gas and electricity markets; a prerequisite for the smooth functioning of the EU singlet (energy market).

Table 8*Evaluation for the 3 Greece related South Corridor Pipeline Projects*

EVALUATION CRITERIA	SCORE		
	ITGI	TAP	South Stream
Commerciality	4	3	3
Project Deliverability	4	3	3
Financial Deliverability	4	4	3
Engineering Design	5	4	1
Alignment and Transparency	5	4	NA
Operability	5	3	2
Scalability	5	3	2
Public Policy Considerations	5	3	2
Environment, Safety, Security	5	4	1
Stake holder support	4	3	3
Technical Risk	4	4	2
Economic Risk	3	4	3
Political Risk	4	3	3
Social Risk	4	4	4
Economic Development Impact	5	3	2
TOTAL MARKS	66	52	34
COMPLIANCE TO CRITERIA	88%	69.3%	45.3%

Finally from a European stand ITGI appears as the most mature project in terms of licensing, risk minimization, engineering design and funding with the full involvement of key European institutions (i.e. EC – EEPR, Export Credit Agencies). It must also be stressed that ITGI, unlike the other projects, enjoys the full support and cooperation of the governments of Turkey, Bulgaria, Greece and Italy. Consequently, ITGI is accepted as the pipeline which is most ready to undertake the task of bringing new gas supplies from the Caspian region to the European markets and keep supplying them at competitive market prices and with full security in terms of uninterrupted gas flow.

Figure 8:

The ITGI, TAP and S. Stream pipeline routes



Source: Oxford Institute for Energy Studies

KEY MESSAGES

1. In spite of a notable market slump across Europe over the last two years, because of the economic recession, natural gas demand in E27 appears resilient with a small if negligent drop. Likewise in non EU countries in S.E. Europe gas demand appears to have suffered little with long term demand forecasts remaining positive.
2. Medium and long term market forecasts for EU27 gas demand indicate marginal growth by 2020 but much higher growth in the period 2020 to 2035, as the transition to gas fired power generation will move full speed ahead and the economy will have fully recovered.
3. In line with EU energy policy as adopted in a strategy document of Nov. 2011, the need for gas supply diversification has received full attention as an EU

strategic priority. In that sense the development of the South Corridor is being supported through a variety of actions at both EU and national levels.

4. Officially South Corridor projects include; (i) The so called Nabucco pipeline which aims in transporting Caspian gas – excluding gas from Iran – to the centre of Europe, via a 3.000kms route through Turkey and the Balkan peninsula. (ii) The ITGI project which is a partially built pipeline already delivering Caspian gas to Greece and in future to Italy, via the Adriatic sea (iii) the TAP pipeline which is a completely new pipeline aspiring to deliver Caspian gas to Italy via Greece, and Albania and also through the Adriatic. (iv) The SEEP, AGRI and White Stream projects.
5. Officially not part of the South Corridor, as viewed by EU, but nevertheless serving the same purpose, is the Russian backed “South Stream” pipeline which will bring Russian gas to Europe through a south route, i.e. underwater via the Black Sea and then overland through the Balkans and onward to central Europe. Although this pipeline does not offer supply diversification – as in effect substitutes Russian exports and Europe via Ukraine – it does offer geographical diversification.
6. At the same time gas supplies prospects in the Caspian region appear tight in the short and medium term with the Shah Deniz II field expected to come on line in 2016/17 and offering limited gas quantities to the market. Some 16.0 BCM/y is envisaged during the field’s first year of operation with only 10.0 BCM/y being made available to European customers, with Turkey having already signed for the 6.0 BCM/y. Additional gas supplies from other Azeri fields such as Umid and Absheron are not expected to come on stream before 2022, with Turkmenistan appearing unwilling or unable or both to direct some of its gas export potential to Europe. Gas exports from Iraq, via Turkey, still remains a credible option but it remains to be seen if oil and gas production in Iraq is going to increase substantially over the coming years, while at present it is curtailed because of security concerns.
7. In addition to the above 4 pipelines (excluding S. Stream) there are at least another 3 gas transportation projects which aim in satisfying the same goal, i.e. to bring Caspian gas to Europe. These include the SEEP pipeline,

promoted by BP, the White Stream pipeline and the AGRI plan, an ambitious project which aims to transport significant gas quantities via LNG through the Black Sea and then onwards to Europe. All in all we have today a total of six (6) competing projects for the same Caspian gas supplies and one more project, the South Stream which although it does not draw directly from Caspian gas resources, it does direct gas to the same European markets. It is abundantly clear that by 2020, and in view of little additional European gas needs, and limited Caspian gas supplies, there is going to be room for only two of the above projects, of which one will be the South Stream.

8. As far as Greece is concerned the gas pipelines of immediate interest include ITGI, TAP and the South Stream. Consequently, it is useful to find out the direct benefits that each of these pipelines will offer Greece and the degree of preparedness of each pipeline in terms of implementation.
9. A comparison of all three pipelines in terms of maximizing economic and social benefits to the host country, and having taken into consideration a large number of technical, geopolitical, economic and financial criteria, has shown that the ITGI pipeline is going to deliver most benefits. These benefits include the maximisation of investment prospects at local level, the creation of short and long term employment opportunities, and the substantial strengthening of energy security supply at national level. ITGI's role in regional development is very important because of the pipeline's considerable length within Greece and its branching off to Western Greece which will benefit enormously from the establishment of a regional gas distribution company (ΕΠΑ). In addition ITGI tops the list in terms of implementation preparedness as the pipeline's construction prospects appear clearly well ahead of those of the other pipelines, because of its advanced engineering design, the issuing of the necessary permits and licenses.
10. The prominence of ITGI, in addition to the considerable socio- economic benefits it will bring to Greece, is also due to its broader regional significance. This is based on its capacity to expand immediately northwards to Bulgaria and Romania and further afield (i.e. Hungary) and also through the necessary

network adjustments to Serbia, thus helping these countries diversify their gas supplies which up to now rely almost entirely on imports from Russia. In the case of Bulgaria plans are already fairly advanced for the construction of the 170 kms Komotini – Stara – Zagora interconnector, known as IGB, already scheduled for 2013/2014. This means that by 2014 gas coming to Greece from the Turkish- Greek interconnector, which in practice is part of ITGI, will start flowing into the Bulgarian grid. Another important regional aspect of ITGI is its direct link to planned LNG terminals in Kavala and Alexandroupolis and its access to a sizeable underground natural gas storage facility situated offshore in the depleted South Kavala gas field, some 15 kms offshore from Kavala. This 400.00 m³ gas storage facility, by the time it becomes operational in 2016, it can guarantee adequacy of supplies during peak demand periods not only for Greece but also for Bulgaria and beyond. ITGI's potential access to LNG terminals and to a large gas storage facility underlines its enhanced regional role in a way that no other (of the planned) pipeline schemes offers.