

# Recent developments in the Gas Market in SEE

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- Setting the scene: The SEE Gas Market
- The legal and regulatory framework and challenges
- The current and potential role of the Greek gas system in the SEE and European markets
  - Market opportunities
  - Interconnections/Transit pipelines and regulation

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# Setting the scene: The SEE Gas Market

# Energy Community Supply/Demand



	2005	2015 (f)	2025 (f)
Demand (bcm)	26,2	32,8	45,0
Supply Gap (bcm)	-	15,0	29,4

Source: World Bank "South East Europe Gasification Study", 2007 ([www.energy-community.org](http://www.energy-community.org))

# The Energy Community Gas Market

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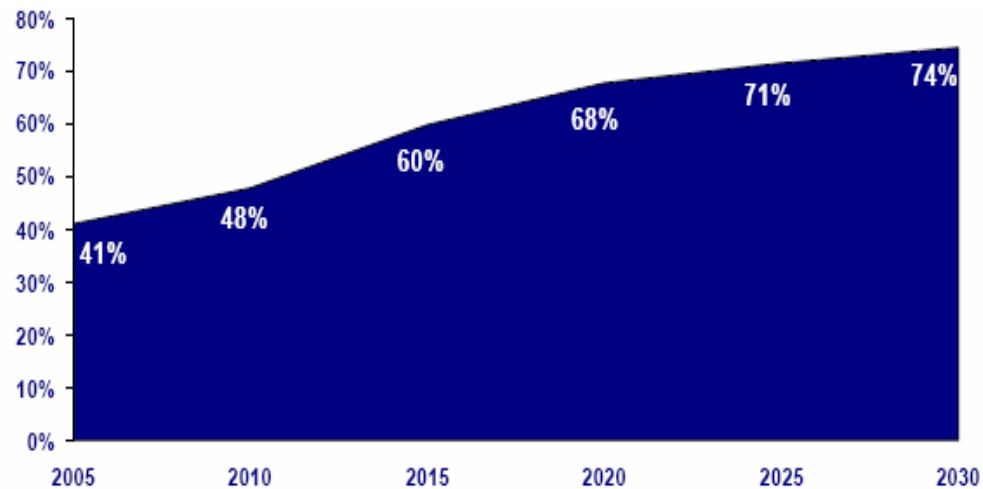
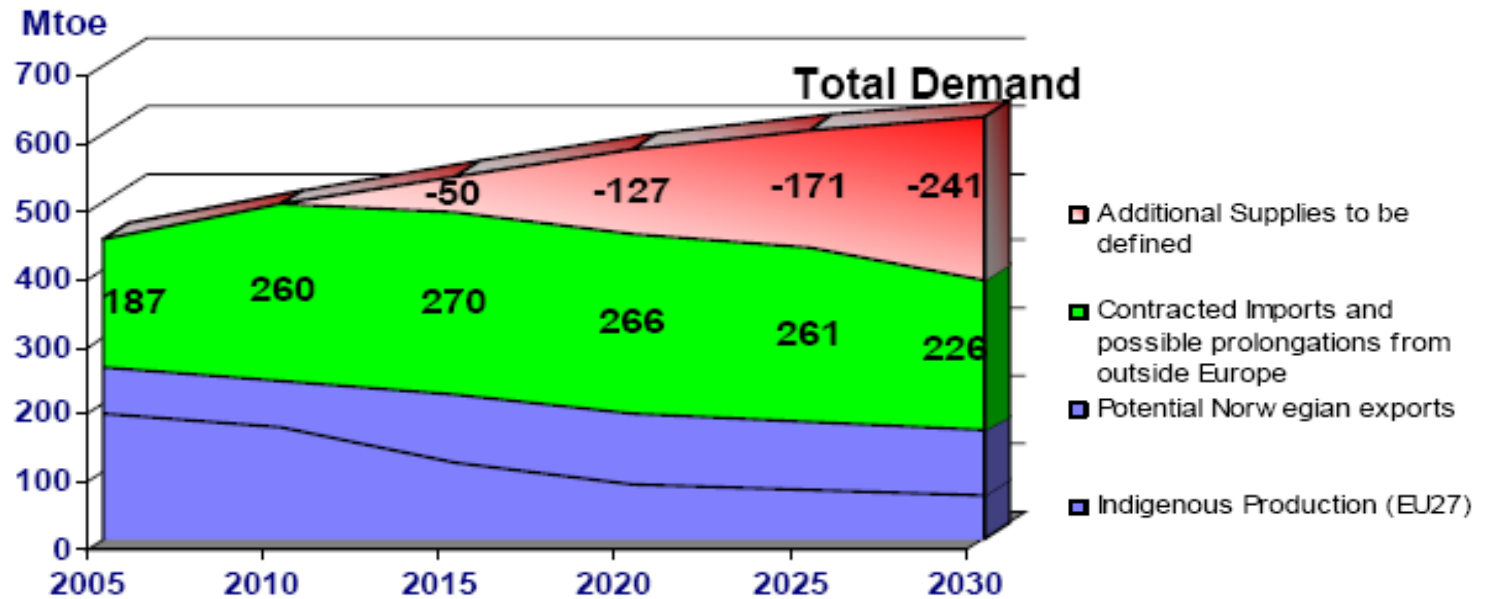
- Huge differences between the countries:
  - Mature gas markets for the EU-MS (Greek market emerging, Turkish market also growing)
  - Developed gas markets in some of the Contracting Parties' markets (Croatia, Serbia)
  - Minimal development in FYR of Macedonia, Bosnia and Herzegovina
  - Negligible or non existent consumption, infrastructure and supply in UNMIK, Montenegro, Albania

# Gas Supply

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- Strong dependence on imports
- For the vast majority, long term contracts govern gas supply
- Limited supply side options (main suppliers Russia and Algeria)
  - Imports of Russian gas via existing routes
  - Imports of LNG (Greece, Turkey and Italy)
- Poor interconnection in the region
- Backhaul opportunities, cross border storage and LNG facilities not exploited
- Contractual rather than physical congestion in transit, spare capacity

# European Union Supply/Demand



Source: Eurogas  
(<http://www.eurogas.org>)

# Market Opportunities...

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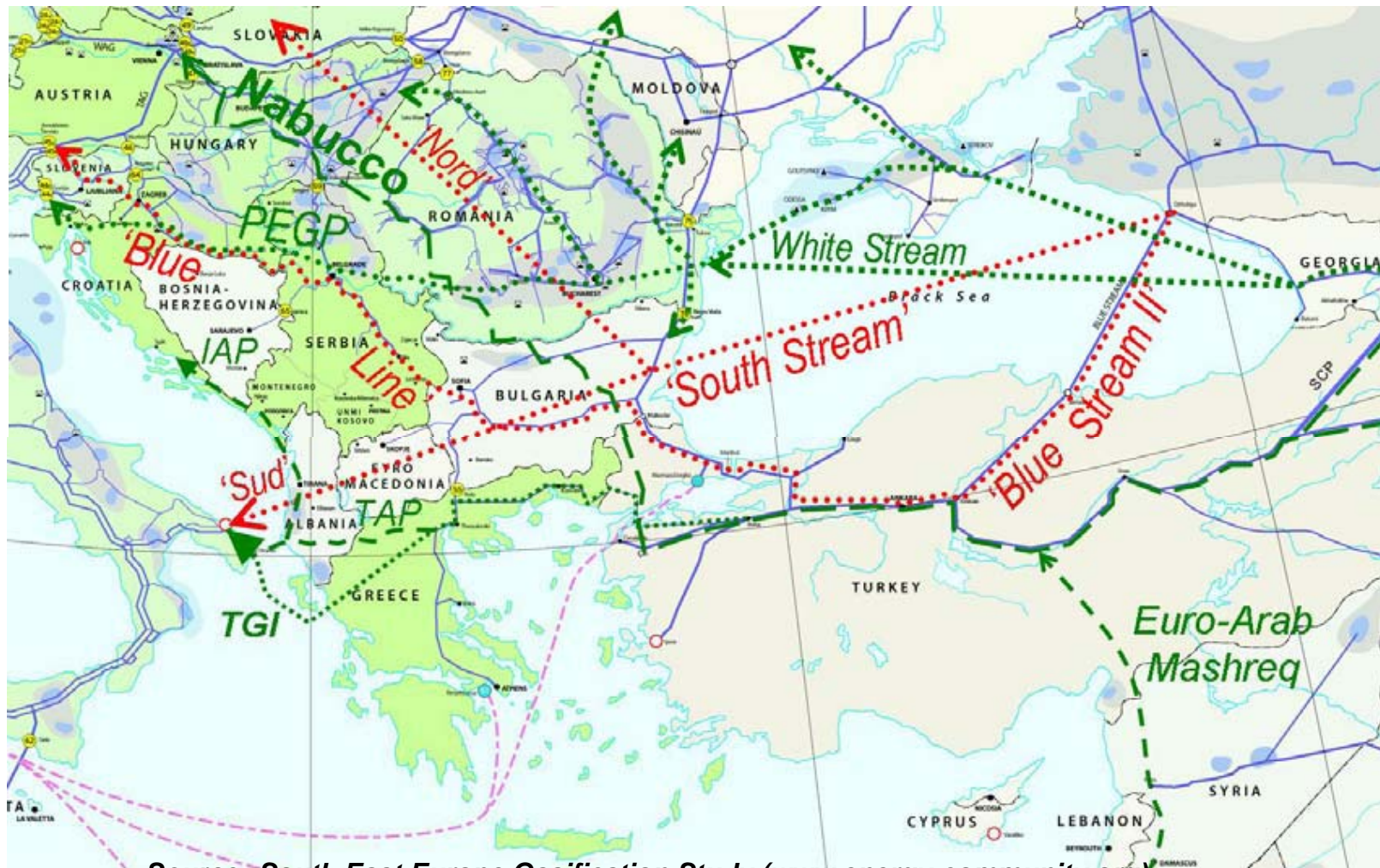
- **South East Europe:** WB SEE Gasification Study presented: Potential for a market, provided gas is nearby...and transmission is developed
- **European Union:** The need for more gas is stressed in several studies and occasions (*“Southern Corridor”*)
- **Greece:** The eligibility of power generators and the rapidly increasing electricity demand represent a significant market for new gas suppliers
  - Four newly built power generators (including a CHP unit), of a total capacity of 1260 MW are still without long term gas supply contracts
  - one 400 MW (most probably gas fired) power station is expected to come into operation each year, from 2009 onwards



There is an increasing gas supply gap, and the need for transmission development in a region with immature gas markets but with an increasing importance for Europe...



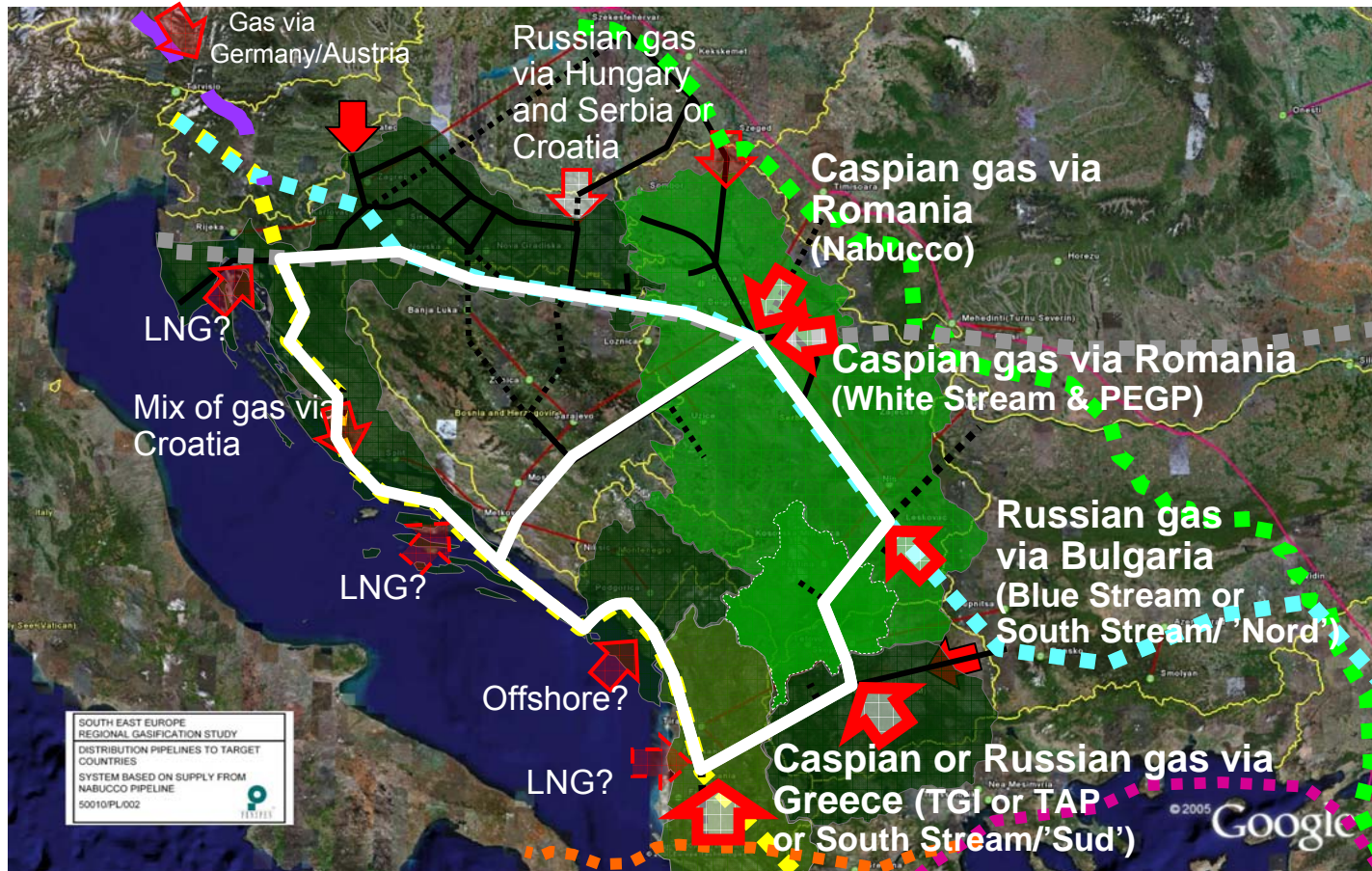
# A new picture for transit ?



Source: South East Europe Gasification Study ([www.energy-community.org](http://www.energy-community.org))



# The Energy Community Gas Ring



SOURCE : ECA, SEE Regional Gasification Study World Bank and KfW

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# The legal and regulatory framework and challenges

# Legal and Regulatory Framework (1)

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In terms of the *legal and regulatory framework*, many forward steps have taken place in the last year or two:

- Primary gas legislation passed or about to be passed, consistent with EU requirements/Energy Community Treaty
- Independent regulators for the gas sector have been set up in all GWG countries except BiH
- In Bosnia and Herzegovina draft legislation is pending to give the existing electricity regulators competence in the gas sector as well

# Legal and Regulatory Framework (2)

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- Unbundling is underway, with accounting completed in every case where applies; legal and organizational unbundling in most cases – TSO and DSOs established in majority
- Transmission tariff methodologies are being developed
- The licensing regime varies greatly
- Hard to build necessary infrastructure in third countries
- Much work needed to make the framework operational

# Preliminary Lessons

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## *Large projects in the planning stages:*

- Mainly for pipeline gas, few LNG terminals
- Different models exist for infrastructure development (e.g. Nabucco, IGI...) but harmonized access and trading rules needed anyway
- Limited legal and regulatory provisions for infrastructure development (pipelines, LNG and storage)
- Significant idle import capacity already exists, but cannot be used due to legal obstacles

# Preliminary Lessons (2)

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- Need to overcome a vicious circle:
  - Inadequate regulation
  - Low investment
  - Low supply
  - High costs
  - Low gas competitiveness
  - Small gas market
  - Weak gas industry
  - Low pressure for better regulation

# Some encouraging starting points

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- Market rules have hardly been developed, thus regional harmonization easier, starting from mature countries
- Few strong interests hinder gas market development
- Gasification is economically feasible under certain conditions (WB/KfW study)
- Substantial benefits to accrue to the region:
  - Gas (and hence energy) cost reductions from economies of scale
  - Fast development of much needed power generation
  - Interconnection with EU minded projects and West European market
  - Urban, regional and global environmental benefits



# Key Regulatory Challenges

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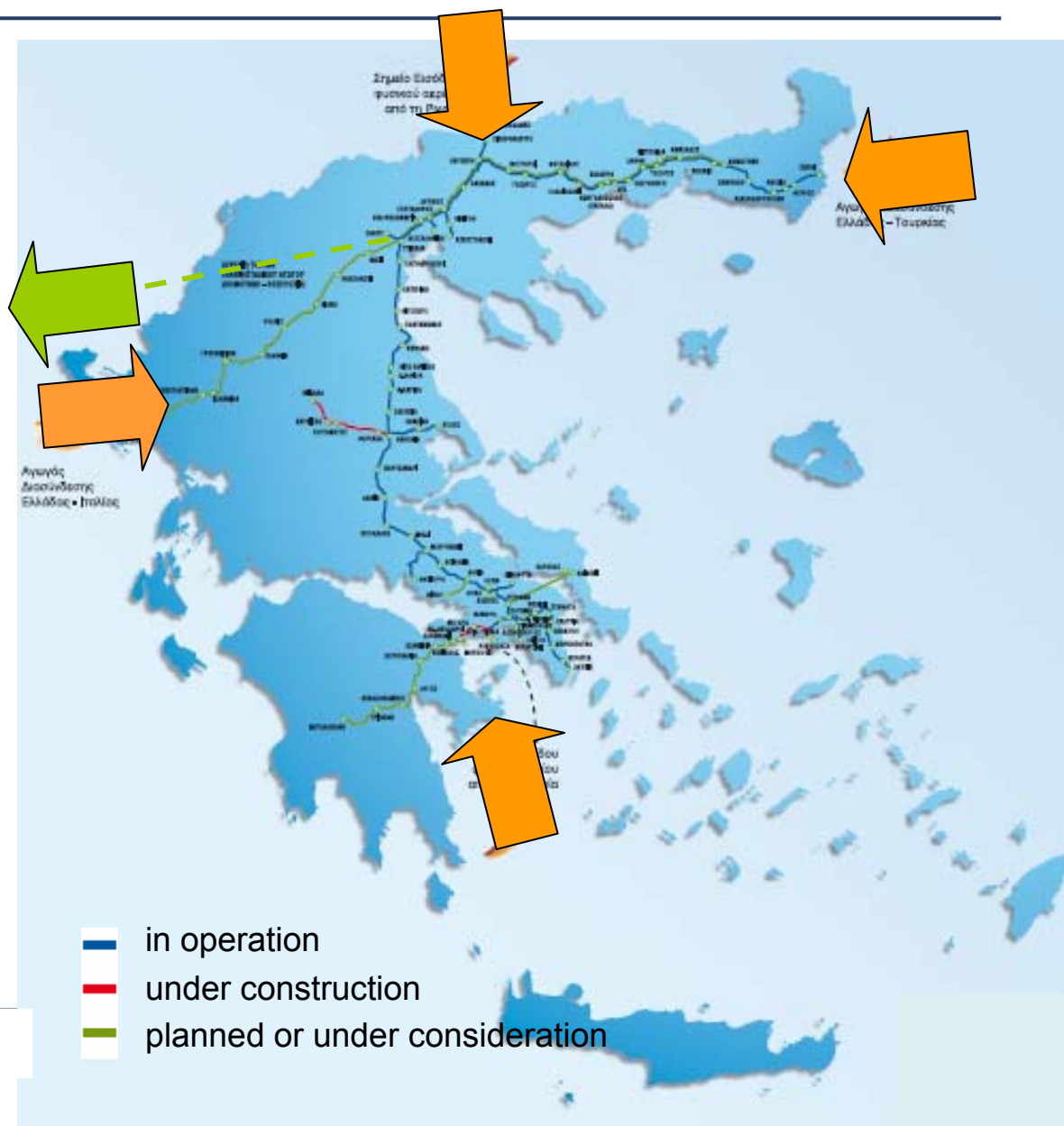
- Foster and accelerate implementation of the EU acquis
- Develop the framework for new infrastructure under mainly emerging markets conditions
  - New gas interconnectors between the countries
  - regulatory certainty to be provided for West Balkan Ring
- Foster cross-border trade:
  - full exploitation of existing infrastructure needed
  - develop a framework for transit and its “convergence” with domestic transmission
- Foster security and diversity of supply
- Enhance competition

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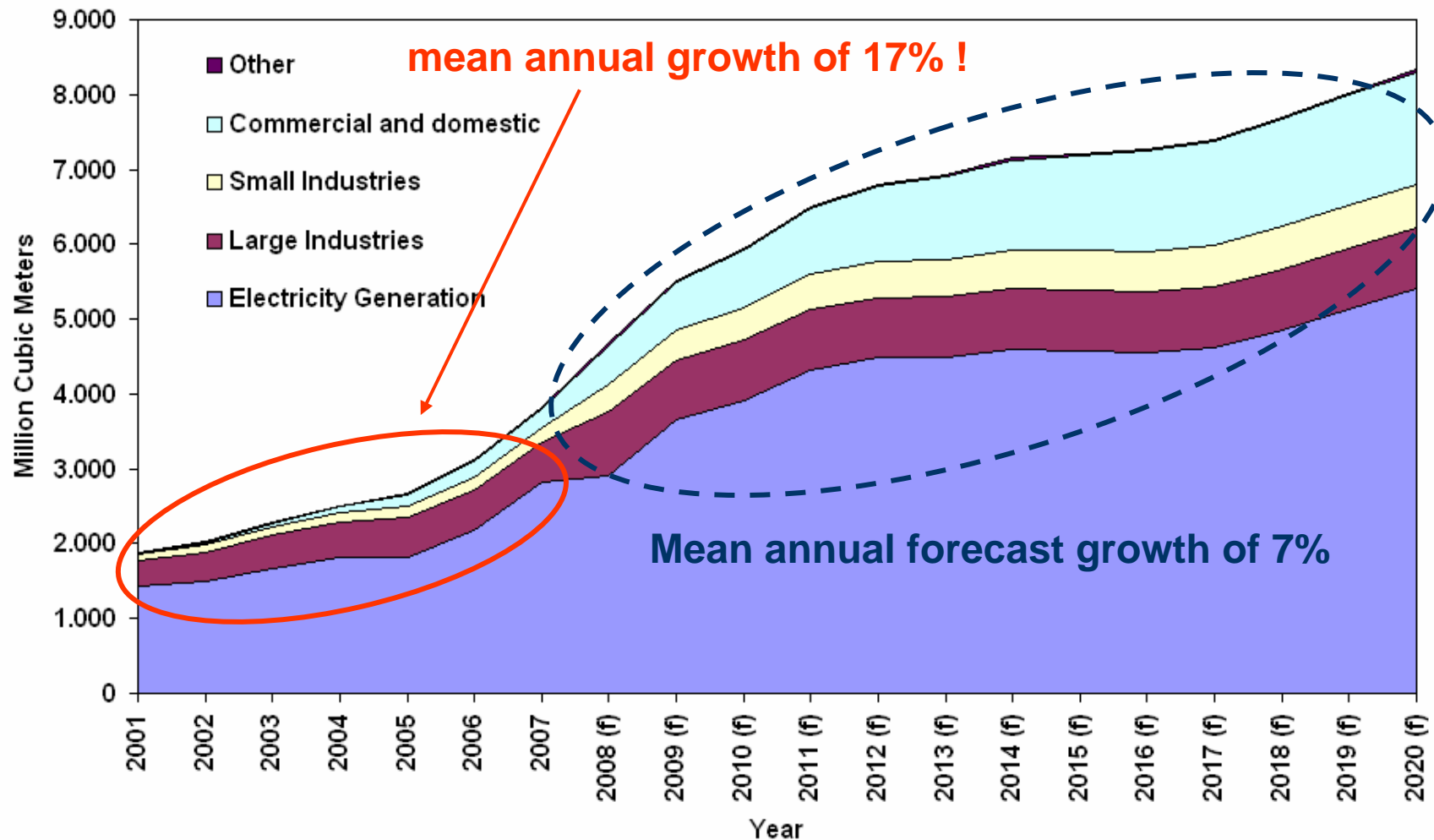
# The current and potential role of the Greek gas system in the SEE and European markets

# Natural gas in Greece : Past & Near future

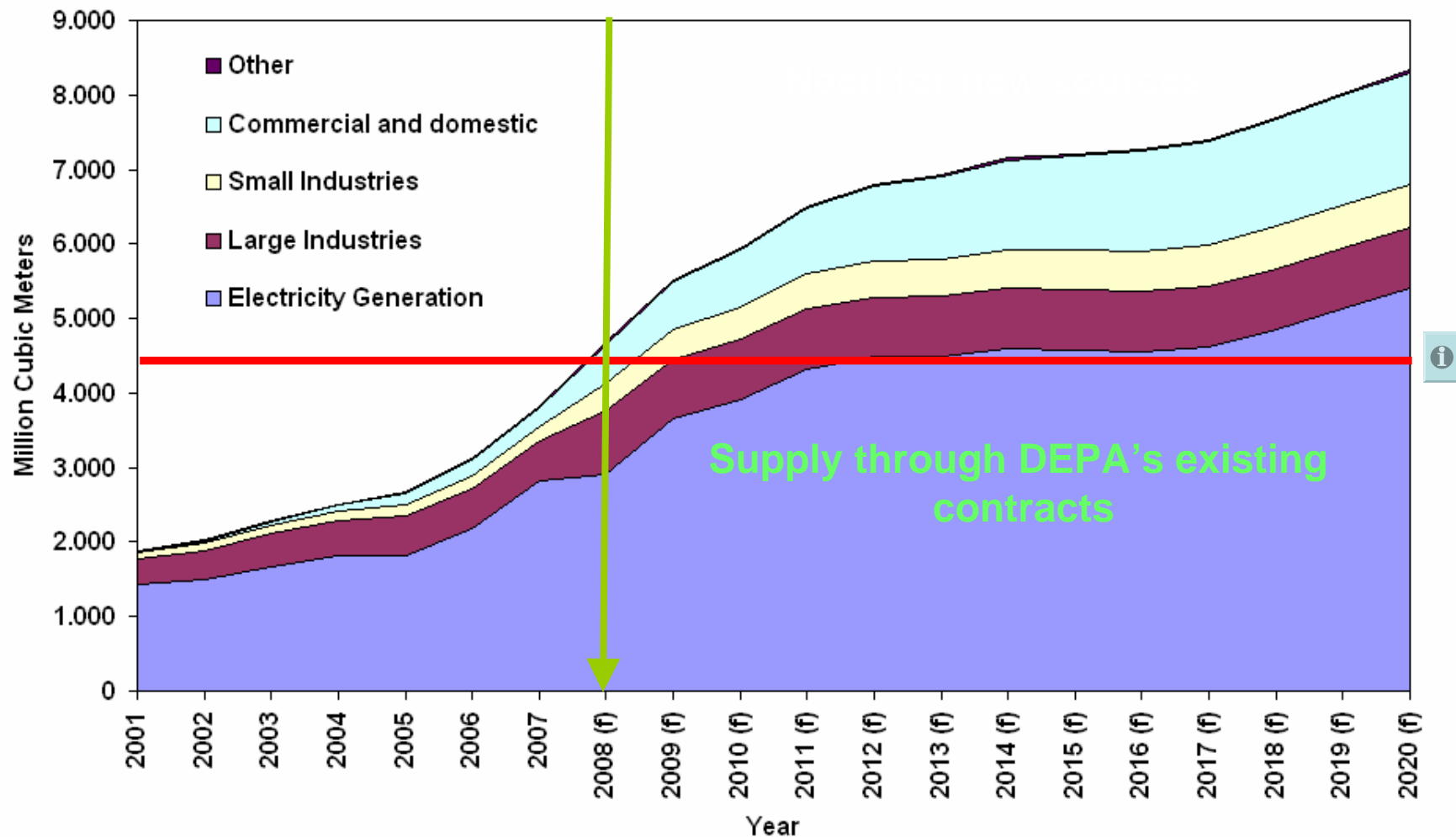
- **1996** : Natural gas is introduced into the Greek energy mix (pipeline gas from Russia via Bulgaria)
- **2000**: Completion of the Revithoussa LNG terminal.
- **2007**: Gas from Turkey (Caspian)
- ~**2013** Gas to Italy (and from Italy)



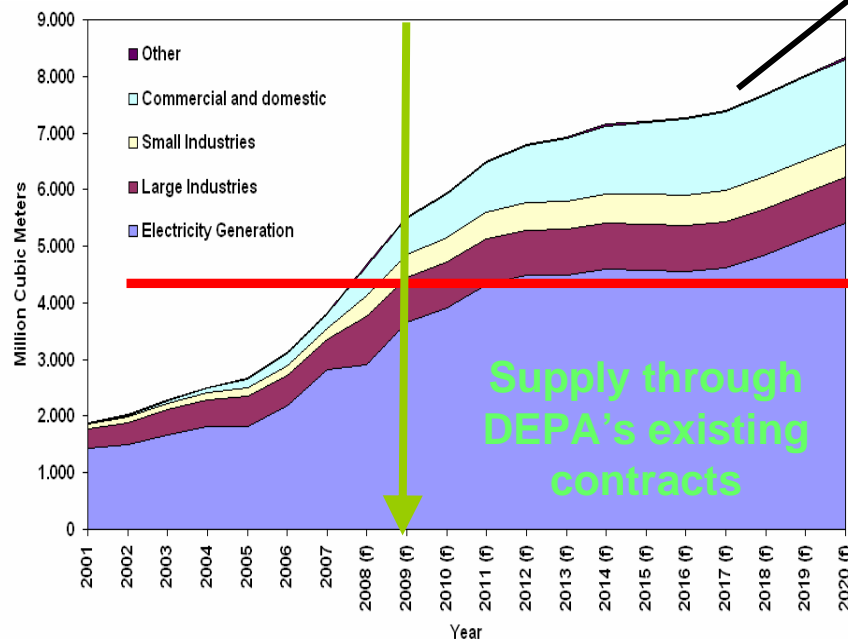
# The Greek Natural Gas Market: Demand



# The Greek Natural Gas Market: Supply/Demand



# The Greek Natural Gas Market: New Supply Portfolio



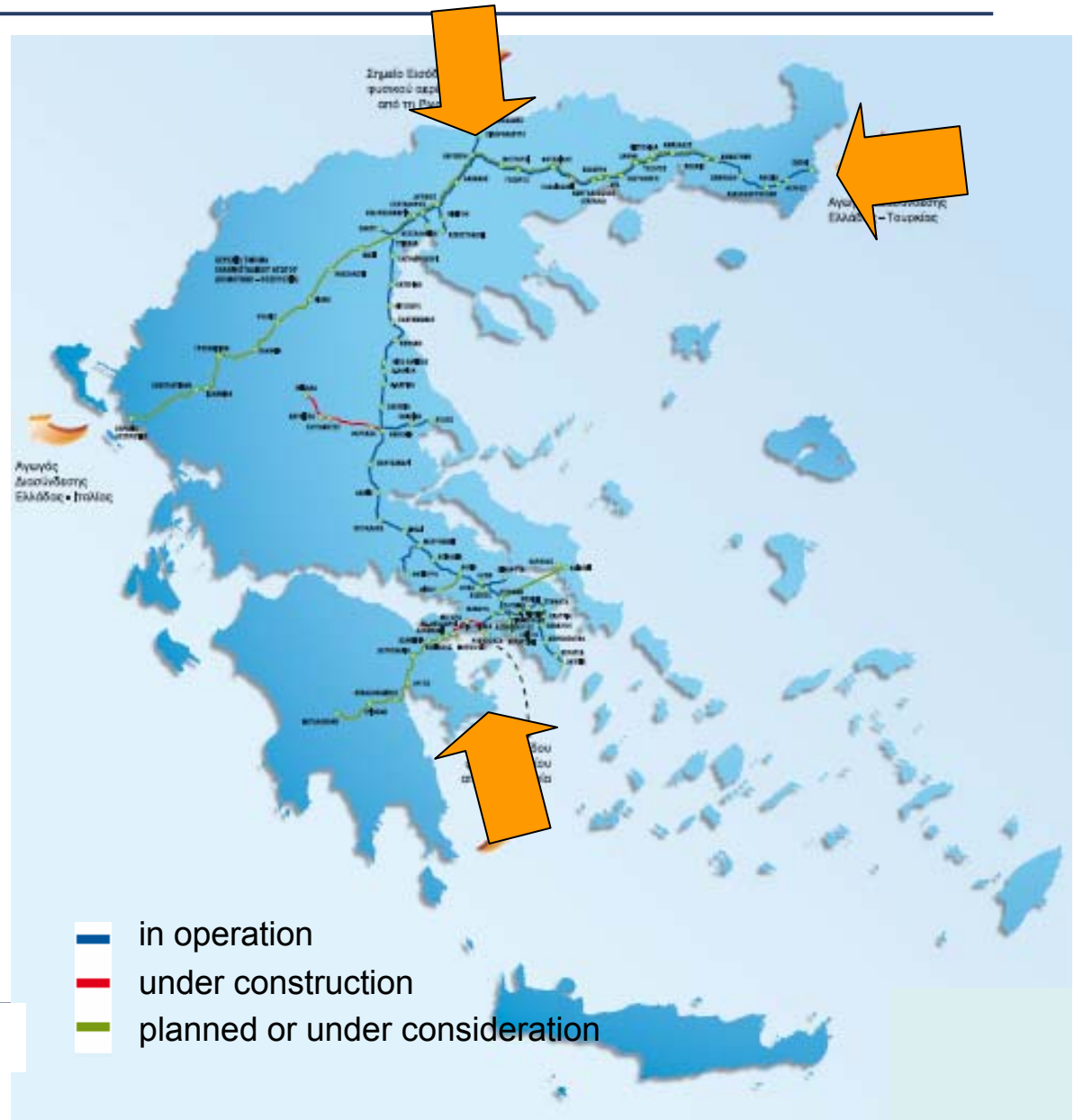
## ➤ New contracts

- It is not clear where new supplies will come from
- DEPA is looking for new gas supplies, but
- Other market players are also investigating new supply schemes
- LNG seems to be the most promising entry for newcomers, at least for the short term
- What is **certain** is that new supplies are needed immediately

## ➤ RAE can provide a list of interested parties to those willing to investigate opportunities

# Capacity of the Greek NGTS

- **Bulgaria** : ~5.6 bcma;  
bottleneck in Bulgaria
- **LNG** : 3-5 bcma
- **Turkey** :  
current: 3.2 bcma, can go up to 11.6 bcma.

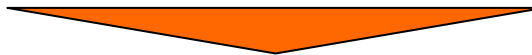




# The potential role of the Greek GTS in the markets of South East Europe and beyond

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- The design capacity of the existing Transmission System is estimated between 6 and 7 bcm p.a. (equal to forecast demand by ca 2017)
  - There is sufficient spare capacity for the current market levels
  - The capacity of the LNG terminal is large compared to the overall capacity of the system and the size of the Greek market, probably even for the longer term
  - This spare capacity could be exploited to supply gas to SEE or even EU through backhaul flows (South/North) and swaps with the transit pipelines in the wider region→Gas moving to many directions



- The crucial links to exploit the opportunities:
  - ✓ Existence of interconnections/transit pipelines and a suitable regulatory regime promoting synergies...



# Legislation and Regulation : Unbundling & TPA (I)

- Until November 2006 : an emerging gas market according to the provisions of Directive 98/30 (granted derogation).
- **2005** : Directive 2003/55/EC is transposed into the Greek legislation (Gas Law (3428/2005)).
  - The existing National Gas Transmission System (including the LNG Terminal at Revythoussa) and its expansions (including storage and Transit) are open **to a fully regulated TPA regime**.
  - Access to the National Gas Transmission System (NGTS) is implemented following the provisions of the **Network Code**, under **standard contracts** and published **regulated tariffs**.
  - The Network Code, the standard contracts and the tariffs are approved by the Minister of Development, following the consenting opinion of RAE.
- **2007**: The Greek TSO (DESFA), a 100% subsidiary of DEPA, is established.
  - DESFA owns the NGTS and
  - has full responsibilities regarding the provision of TPA services under non-discriminatory terms and the operation and the maintenance of the NGTS.

# Legislation and Regulation :

## Unbundling & TPA (II)

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- A Standard Transportation Contract for the use of the NGTS is available ([www.rae.gr](http://www.rae.gr) or [www.desfa.gr](http://www.desfa.gr)).
- A similar contract for the use of the Revithoussa LNG Terminal is under elaboration. However shippers can already use the Terminal without it
- Detailed Jetty and Terminal Information is available for potential users of the Revithoussa LNG terminal ([www.desfa.gr](http://www.desfa.gr))
- Tariffs have been published
- All remaining secondary legislation is being finalised. The secondary legislation includes :
  - The Licensing Code,
  - The Supply Code and
  - The Network Code
- The public consultation for all documents is already completed;
- Licensing and Network Codes to put into entry –hopefully- by the end of 2009
- Supply to eligible customers is already possible in this transition phase

# Legislation and Regulation : Unbundling & TPA (III)

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- The main provisions of the Law include, inter alia:
- An entry-exit capacity allocation system,
  - Market-based rules (auctions) for the management of congestion (should this occur in the future),
  - Implementation of Use-It-Or-Lose-It principles regarding capacity reservation,
  - Secondary trading of both transmission capacity and gas quantities (facilitated by the development of an electronic bulletin board),
  - Long term capacity contracts are permitted, however, specific provisions oblige DESFA to expand capacity once physical congestion is anticipated mainly in the entry and exit points,
  - Possible limitation of the capacity that any shipper is allowed to reserve at specific entry points (including the LNG Terminal)

# Market opening - Provisions

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- According to the Greek Law 3428/2005 eligible customers are:
  - Since July 2005:
    - All electricity producers (including CHP) : more than 70% of current demand, over 65% in the long term
  - From November 2008:
    - Non-household customers (except those supplied by the three Local Distribution Companies - EPAs), representing almost 20% of the consumption, even in the long term.
    - The three EPAs (but not their customers) for the gas quantities over and above the existing long term contracts with DEPA
  - From November 2009:
    - Household customers who do not reside in the territories of the three EPAs

# The market players until 2009 and beyond ...

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- DEPA is currently the only natural gas importer in Greece (pipeline & LNG) and the only supplier
  - A large part of the existing DEPA contracts is “captured” under (mostly long term) obligations with either the EPAs or the dominant electricity producer (PPC)
- The eligibility of power generators and the rapidly increasing electricity demand represent a large potential market for new gas suppliers.
  - As an example:
    - ◆ Four newly built power generators (including a CHP unit), of a total capacity of 1260 MW are still without long term gas supply contracts
    - ◆ One 400 MW (most probably gas fired) power station is expected to come into operation each year, from 2009 onwards
- Transit projects through Greece are moving ahead
- There is an increasing gas supply shortage, in a system with sufficient capacity, especially LNG

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# Interconnections/Transit pipelines and regulation

# Regulating transit flows: 1. The IGI project (1)



- Part of a broader project, the ITGI (Interconnection Turkey-Greece-Italy) Corridor
  - natural gas from the Caspian and Middle East through Turkey and Greece to Italy
  - diversification of energy sources and the security of supply in Europe.
  - included among the EU Priority Interconnection Plan
- Two parts: Onshore and Offshore (Poseidon pipeline)
  - The onshore part will be built as part of the Greek National Grid, under rTPA
  - The offshore part will be built by the “Poseidon” company (Edison & DEPA)
- “Poseidon” will sign a long term transportation contract with DESFA
- “Poseidon” has asked for an exemption from rTPA for 8 bcma and 25 years
  - Italian and Greek Authorities have granted the exemption - The EC has approved



# Regulating transit flows: 1. The IGI project (2)

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- Main provisions of the exemption:
  - 8 bcma and 25 years - min 0,8 bcma to Third Parties
  - granted for the direction Greece to Italy
  - ***the reverse (commercial) flow from Italy to Greece is under rTPA***
  - ***This means that, when in operation, and additional import point of almost 12 bcma will exist for the Balkans (linking Balkans to the Italian wholesale market)***
  - Additional provisions for not hindering competition in Italy
- Open Season for the allocation of an additional capacity of 1,0 bcma
- Commercial Operation Date (currently foreseen for 2012), as will be notified by Poseidon Co.



## Regulating transit flows: 2. Other Projects



### ➤ TAP (Trans Adriatic Pipeline):

- Sponsored by EGL and Statoil Hydro
- 10 bcm/ya from Caspia to Italy
- Petition filed in June 2008

### ➤ South Stream

- An intergovernmental agreement between Greece and Russia was signed;
- The agreement for the joint company was also signed



# Regulating transit flows

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- Two options for transit through:
  1. Under a (long term) Standard Transportation Contract with DESFA, through the National Grid (i.e. under a fully regulated TPA regime)
  2. By developing an Independent Transportation System, which, by default, will be under a rTPA regime
    - ◆ In this case, exemptions maybe requested, under the provisions of Art. 22 of the Directive 2003/55/EC. Exemptions are decided by the Minister of Development following the consenting opinion of RAE

# Promote synergies of transit pipelines with the national grid by...

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- Standard TPA rules for access to national and x-border systems
- Standard long-term contracts for future capacity:
  - Tied with commitments on the part of the proponent Shipper in order to guarantee the investment of the TSO
  - Offering long-term stability of tariffs to the proponent
- Ensuring that all interested parties in a planned or proposed system expansion can express their interest in an open way
- Switching from a postage-stamp to a cost-reflective tariff regime, that accommodates both transit and national flows
- Developing tariffs for backhaul flows to facilitate use of the LNG terminal for transit



- ✓ Accommodate the needs of transit projects sponsors without discrimination or structural x-subsidies between transit and domestic flows
- ✓ Same treatment for all equivalent situations : national or x-border

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# Thank you for your attention!

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