

Nabucco and the opening of the Southern Corridor

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Nabucco could bring gas to Europe starting in 2014

Nabucco – Facts & Figures

- > Pipeline Diameter: 56"
- > Distance: 3,300 km
- > Investment: ~8 bn €
- > Transport Capacity: max. 31 bcm/a
- > Construction of pipeline is expected to begin in 2011 and first operations in 2014
- > Capacity in phases:
 - Phase 1: 8 bcm/a (2014)
 - Phase 2: 15.7 bcm/a (2016/17)
 - Phase 3: 25 bcm/a¹⁾ (2019/20)
- > Third Party Access: 50% of the capacity will be marketed via open season process
- > Shareholders:
 - RWE²⁾ (Germany)
 - BOTAS (Turkey)
 - MOL (Hungary)
 - OMV (Austria)
 - Transgaz (Romania)
 - Bulgarian Energy Holding (Bulgaria)



Nabucco pipeline



Nabucco transit countries

The Nabucco business model is attractive to gas producers, gas shippers and gas buyers

> Access to capacity

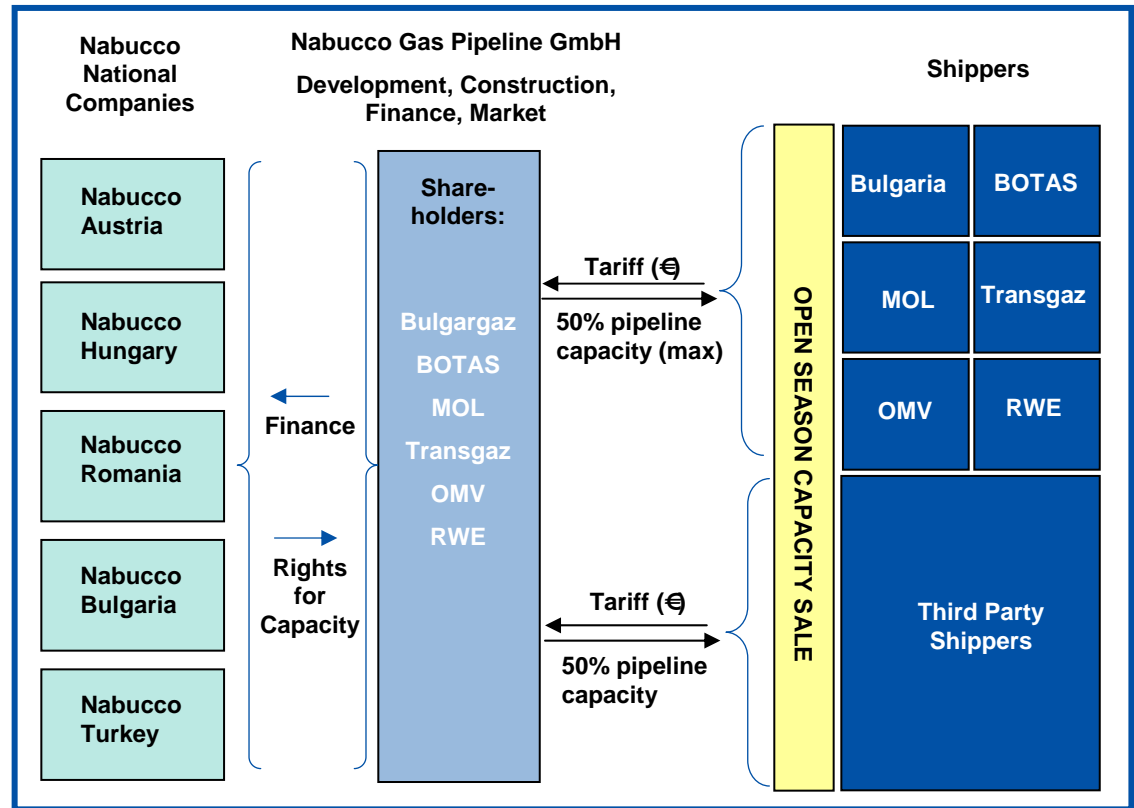
- Open to Nabucco shareholders and 3rd parties

> Non discriminatory capacity booking

- Capacity sale and allocation will take place in a transparent Open-Season-Procedure

> Fair capacity tariff

- Tariff fixed upfront over the term of the contract
- Same tariff to all parties
- Not linked to the value of the gas



Openness, transparency and security of delivery characterise the business model of Nabucco. Nabucco is a dedicated transportation pipeline under the full ownership, control and operatorship of the Nabucco International Company

Nabucco is open to various potential suppliers in the Caspian Region and the Middle East

Turkmenistan

- > Significant potential gas resources
- > Developing diversification strategy (China, Europe and Iran)
- > Infrastructure export solution across Caspian for Europe required

Azerbaijan

- > Dedicated gas export quantities from Shah Deniz phase-2. Amounts will be dedicated to export for Europe
- > Transport via the South Caucasus Pipeline to Turkey and then into Nabucco

Kazakhstan

- > Significant potential gas resources
- > Developing diversification strategy (China, Europe and Iran)
- > Infrastructure export solution across Caspian for Europe required



→ Nabucco pipeline
 → Potential gas supply sources for Nabucco

Egypt

- > Egypt is reviewing its export strategy and priorities based on demand/supply scenarios
- > 2 to 4 bcm/a export gas could be made available in short term
- > Transport via the Arab Gas Pipeline and Turkey into Nabucco

Russia

- > Current export to EU (27) is 140 bcm – export forecast in 2020 is 180 bcm
- > Its Caspian gas commitments could be transported economically through Nabucco

Iran

- > Significant potential gas resources but large domestic demand market and large investment required
- > Currently constrained given international political environment

Iraq

- > Significant potential gas resources
- > Export infrastructure could be easily developed

Saudi Arabia

- > Saudi Arabia has the potential to become a gas exporter in the more distant future
- > At the moment gas is utilized for domestic needs only – no export of gas

EU plans a gas link to Turkmenistan and Kazakhstan – RWE has set up a Company ‘CEC’ to build that link

The Commission considers [...] as energy security priorities of the Community:

A southern gas corridor must be developed for the supply of gas from Caspian and Middle Eastern sources, which could potentially supply a significant part of the EU's future needs. This is one of the EU's highest energy security priorities. The Commission and Member States need to work with the countries concerned, notably with partners such as Azerbaijan and Turkmenistan, [...] with the joint objective of rapidly securing firm commitments for the supply of gas and the construction of the pipelines necessary for all stages of its development.

EU Energy Security and Solidarity
Action Plan (13th Nov 2008)

- > RWE together with OMV of Austria have incorporated a Caspian Energy Company (‘CEC’) to develop, construct, own and operate an east-to-west pipeline connection across the Caspian Sea
- > CEC is open to further partners e.g. from Azerbaijan or Turkmenistan, if desired
- > CEC is seeking political patronage from EU and German high-level politicians to support an agreement of the regional countries involved



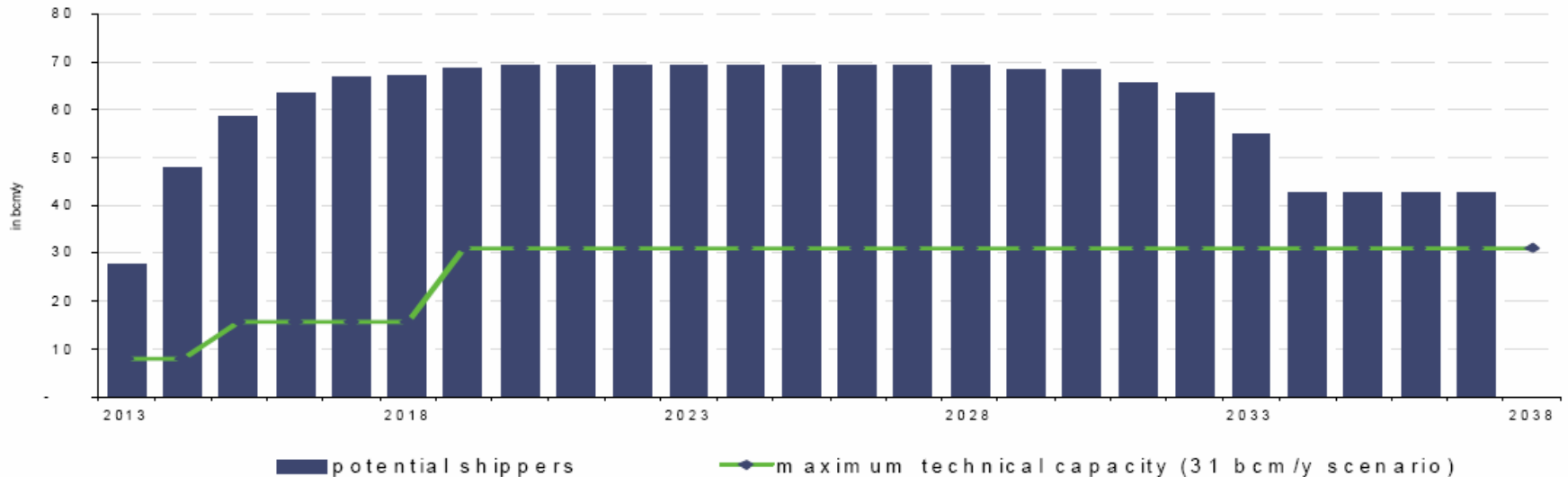
RWE progresses thoughts on linking Europe to the Caspian Region with founding a real company developing a gas infrastructure connection

Market Survey: Demand for Nabucco capacity 100 % higher than the capacity offered

- > A market survey was launched to 54 potential shippers in June 2008 to provide non-binding capacity booking indications. Positive response has been received from 16 shippers with a considerable 100% over-subscription for capacity in Nabucco from 'day 1' in 2014 on a long term basis

Result of the Market Survey

Requested capacity in total
compared to planned maximum technical transportation capacity



Nabucco current project activities and next steps (1/2)

> **Inter Governmental Agreement (IGA):**

- The IGA is a Government to Government framework agreement that records the political commitment of the Transit Country Governments to facilitate the development, construction and operation of the Nabucco pipeline system for the transmission of natural gas in and across their territories
- The IGA has currently been sent to the Nabucco National Governments and the European Commission for their approval
- Political discussions took place at the Inter Government Conference in Brussels on 22nd-23rd January and at the Nabucco Summit in Budapest on 26th-27th January 2009
 - finalisation of IGA is being progressed at speed

> **Host Government Agreements (HGAs):**

- The HGAs are agreements between each Nabucco National Government and the Nabucco project company (NIC) that set out the details referred to in the IGA
- HGAs are currently being developed by the project company

> **Financing Arrangements:**

- Discussions are currently ongoing with selected Export Credit Agencies (Hermes, COFACE, SACE, ECGD, OeKB, USEXIM and JBIC), the European Investment Bank (EIB) and the European Bank of Reconstruction and Development (EBRD). All have indicated a strong commitment to support the financing of Nabucco

Nabucco current project activities and next steps (2/2)

> **EU Regulatory Exemption:**

- Nabucco has received exemption from two national EU regulators:
 - 50% third party access
 - Non-regulated tariff
- Two outstanding exemptions expected within Q1/2009

> **Capacity 'Open Season':**

- The 'Open Season' process for third party access to Nabucco will commence later in 2009
- The long term transportation capacity agreements are well advanced

> **Front End Engineering Design (FEED) and Environmental Impact Analysis (EIA):**

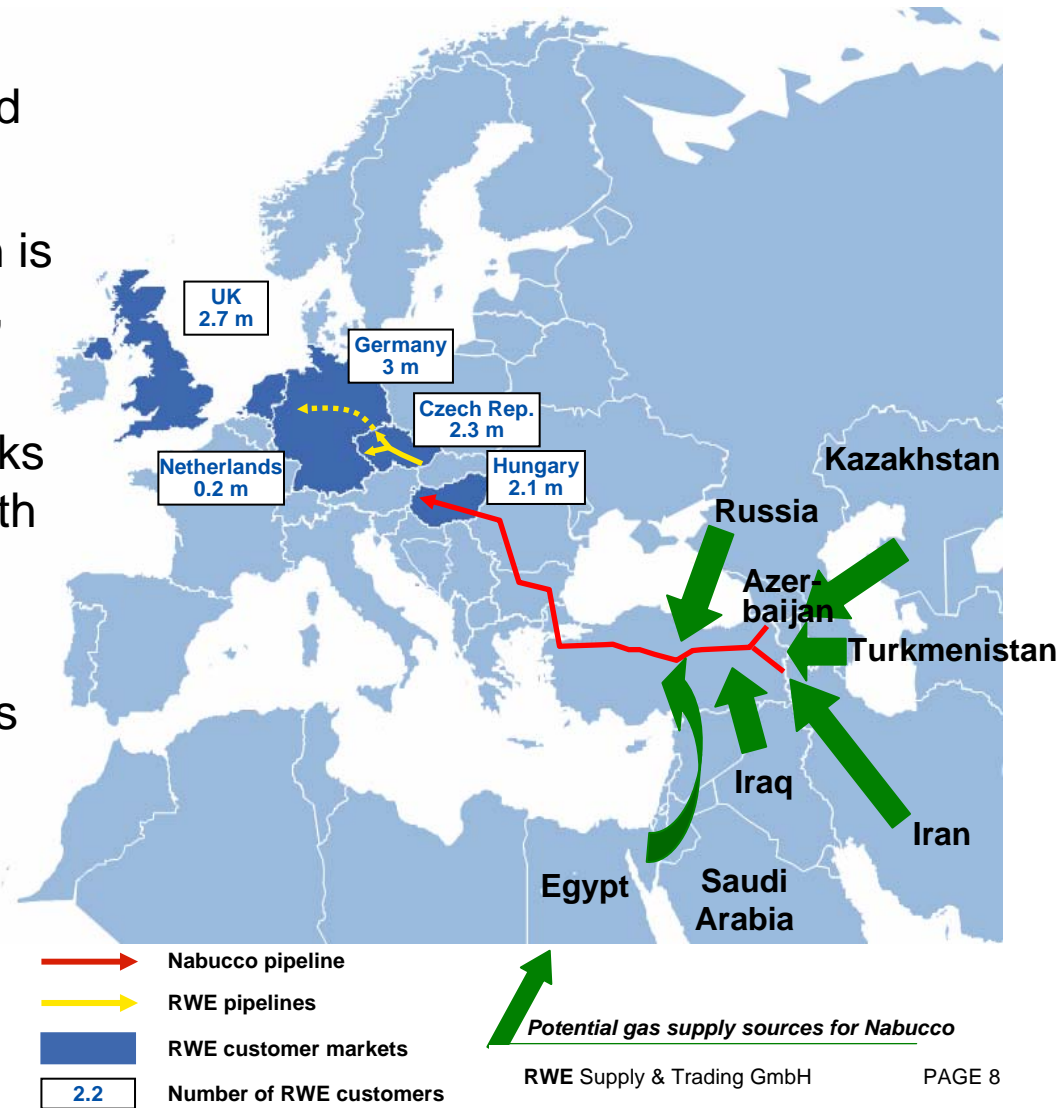
- Selection finalised with appointment of the local FEED engineers in each transit country is targeted for 2009
- The EIA is waiting to be undertaken accordingly

> **Final Investment Decision (FID):**

- The overall aim is to reach the FID in 2010

Through Nabucco Caspian / Middle Eastern gas could reach some 10 million RWE customers

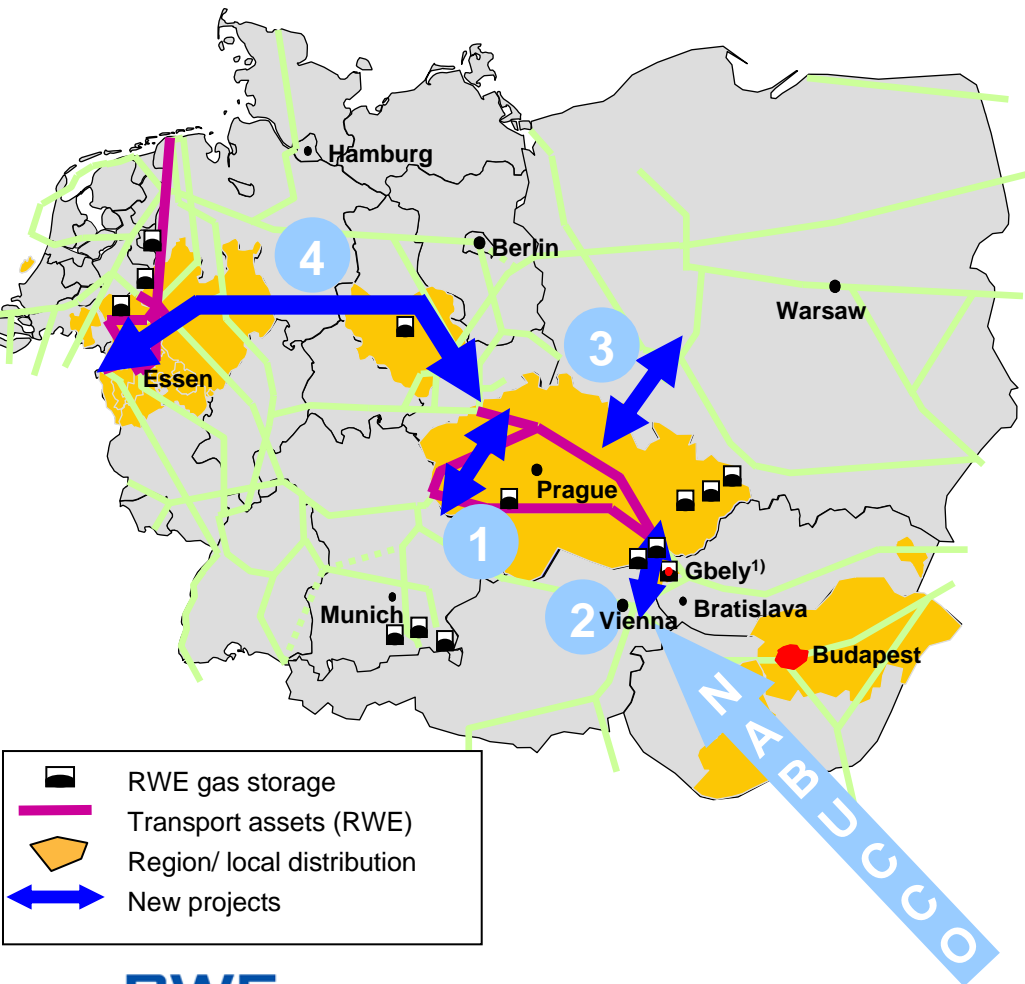
- > RWE serves some 10 million end customers in Europe with gas
- > RWE's gas downstream position is strongest in the Czech Republic, Germany, Hungary and the UK
- > The Nabucco pipeline project links RWE's downstream positions with the Caspian region and other potential gas resources
- > Nabucco will also support RWE's development activities in Turkey and South East Europe
- > And ...





Nabucco links into other gas projects of RWE in Europe and will increase inter-connectivity of our markets

- > Gas storage capacities of approx. 5 bcm at the end of the Nabucco pipeline in the Czech Republic and Germany help to modulate both the gas supply and the gas demand
- > With numerous pipeline projects RWE currently optimises its pipeline grid and connects Europe via interconnectors
 - (1) Domestic Czech North-South Axis
 - (2) Austria – Czech Republic
 - (3) Czech Republic – Poland
 - (4) Czech Republic – Germany – Belgium

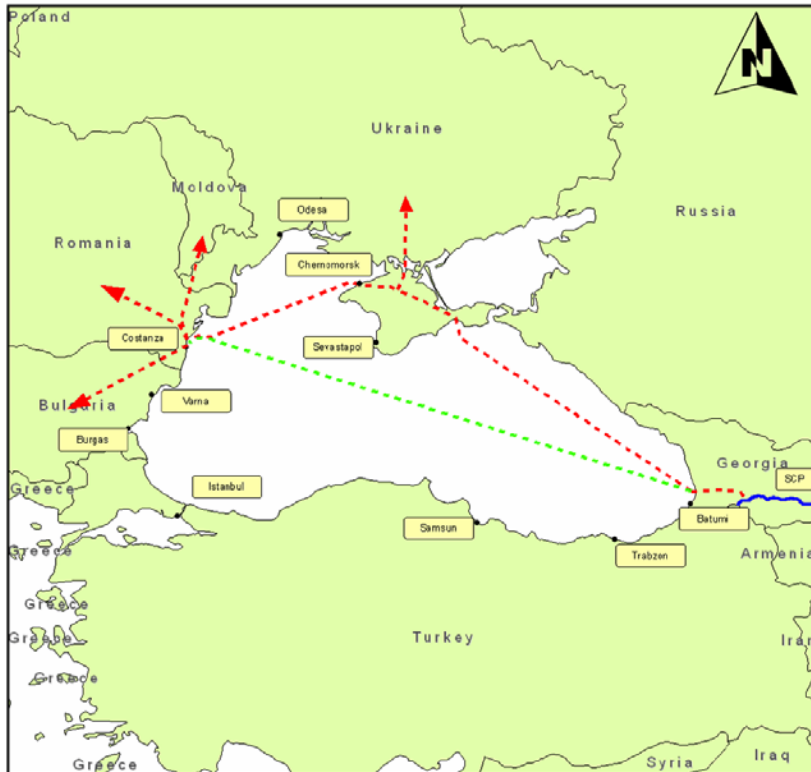


| | |
|--|----------------------------|
| | RWE gas storage |
| | Transport assets (RWE) |
| | Region/ local distribution |
| | New projects |

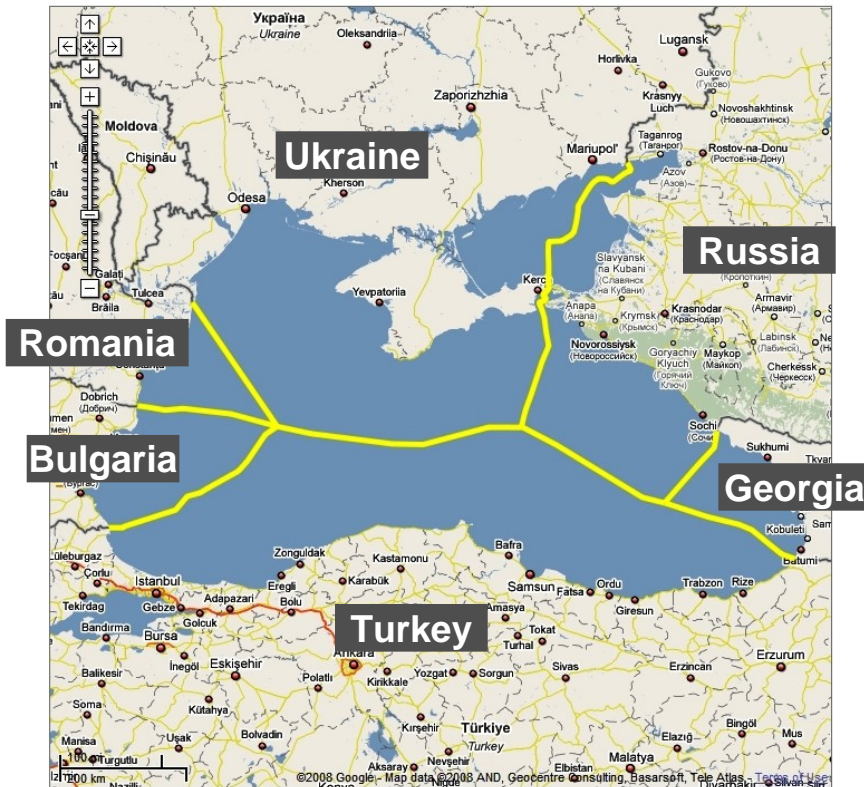
There are no alternatives for a Southern Corridor other than Nabucco – White Stream?

White Stream – Facts & Figures

- > 30bcm/a gas pipeline project driven by Georgia and Ukraine to bring Caspian gas to Europe and the Ukraine
- > Two route options
 - (1) Georgia to Romania via the Crimea Peninsula (1,400 km)
 - (2) Directly from Georgia to Romania (1,250 km)
- > BUT the project involves a sub-sea pipeline below the Black Sea.....

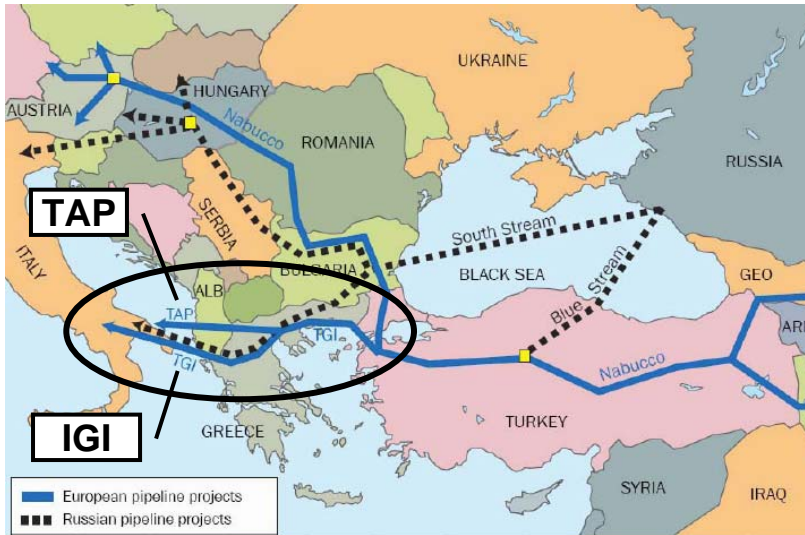


Any alternative that involves the Black Sea means Russian and Turkish approval is required ...



- > The waters of the Black Sea do not constitute 'international waters' – the control is divided between the coastal States (yellow line)
- > Each coastal State has the right to control the routing of the pipeline projects and to apply its national laws to establishment & use of installations, exploration, exploitation conservation and management of the seabed within its territory
- > White Stream – leaving Georgian waters – would need to go through either Turkish or Russian territory and thus need their consent
- > **Both countries would veto White Stream for strategic energy reasons and for security of supply concerns**

There are no alternatives for a Southern Corridor other than Nabucco – IGI and/or TAP?



- > TAP and IGI – are destined for local markets (Italy) with no diversification benefit for Europe and limited third party access
- > Transportation capacities are small and thus offer no investment incentive in Turkey nor in the gas supply countries (i.e. upstream or further gas infrastructure development)
- > Relies on Turkish transmission grids to transit gas (Nabucco is a secure dedicated pipeline)

| | Trans Adriatic Pipeline (TAP) | Interconnector Greece-Italy (IGI) |
|-------------------------|--|--|
| Connection | > Greece - Italy (via Albania) | > Greece - Italy |
| Planned Capacity | > 10 bcm/a (phase 1), up to 20 bcm/a (phase 2) | > 10 bcm/a (phase 1), up to 12 bcm/a (phase 2) |
| Operational in | > 2012 | > 2012 |
| Status | > FEED on-going, FID expected end of 2009, construction to begin in 2010 | > FEED on-going, construction to begin in 2010 |
| Shareholders | > EGL (50%), Statoil (50%) | > DEPA (100% onshore, 50% offshore), Edison (50% offshore) |

Thank you very much for
your attention and let's
collectively be:

