

## Nabucco Gas Pipeline Project

### Project Background / Mission

European gas demand is expected to increase considerably in the upcoming two decades. Sufficient gas reserves around Europe are available to meet this expected increase in European future gas demand. The big challenge, however, is to transport this gas to the consumers as at present there are not enough means for transporting these gas volumes to the European gas markets.



Gas-rich regions like the Caspian Region, Middle East and Egypt are not yet connected to European markets via pipeline system. The pipeline project Nabucco is the answer to the above mentioned challenges. It will open up a new supply route for Europe, connecting Turkey with Austria via Bulgaria, Romania and Hungary.

### The main strategic goals

- Opening a new **gas supply corridor** for Europe and all involved countries, for very cost-effective gas sources.
- Raising the **transit role** of the participating countries along the route.
- Contribution to the **security of supply** for all partner countries and for Europe as a whole.
- Strengthening the role of the **gas pipeline grids** of all Nabucco partners in connection with the European gas network.

Furthermore the Nabucco project serves the idea of multicultural cooperation not only between the six countries promoting this project but also with those upstream countries, having the world's largest gas reserves on their territory.

### Markets for Nabucco

In 2007 total European gas consumption (EU 27) amounted to 526 bcm/y of which around 303 bcm/y were imported from different sources.- (source IEA)

This means that 42% of the consumption within the EU is covered by indigenous production. The other 58 % of gas is imported from Russia, Norway, Algeria and to a very small part from other sources.

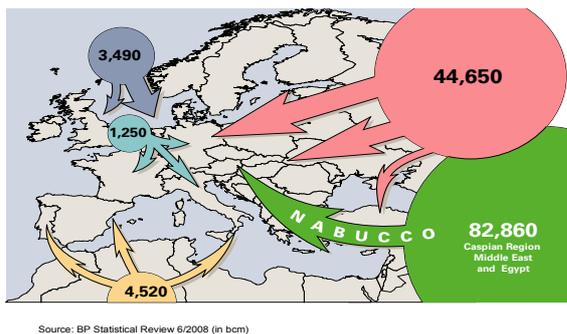
In the long run, the share of natural gas as primary energy source will increase from 23% to 34%. While the consumption will increase, Europe will face a decline of its production. These developments will lead to considerably **increased imports** to Europe.

Market studies indicate that in 2020 a volume of 25-30 bcm/y of natural gas pipeline transports from the Caspian region and Middle East is reasonable in order to cover the expected increase of European gas demands. Nabucco gas pipeline will offer competitive transportation services for the targeted markets in Central and Western Europe as well as in the Balkan countries.

## Sources for Nabucco

As indigenous gas production all over Europe is decreasing considerably, new infrastructure sources have to be established to meet further demand. Nabucco opens up a fourth main supply corridor to the Caspian Region, the Middle East as well as to Egypt. These regions provide the biggest gas reserves worldwide. For this reason these countries will play a crucial role in terms of diversification of supply as well as security of supply for Europe.

Nabucco will follow a multi-sources approach. Potential gas sources for the technical infrastructure we provide are Azerbaijan, Turkmenistan, Kazakhstan, Egypt, Iraq, Russia and Turkey.



## Gas supply sources



## Project Description

Nabucco will start at the Eastern borders of Turkey and will run via Turkey, Romania, Bulgaria and Hungary and will end in OMV's gas transit grid near Baumgarten/Austria. This gas pipeline project represents a new connection between the Caspian Region, Middle East and Egypt to the Central and Western European gas markets.

The pipeline length (56") is approximately 3,300 km with the following sections in the partner countries:

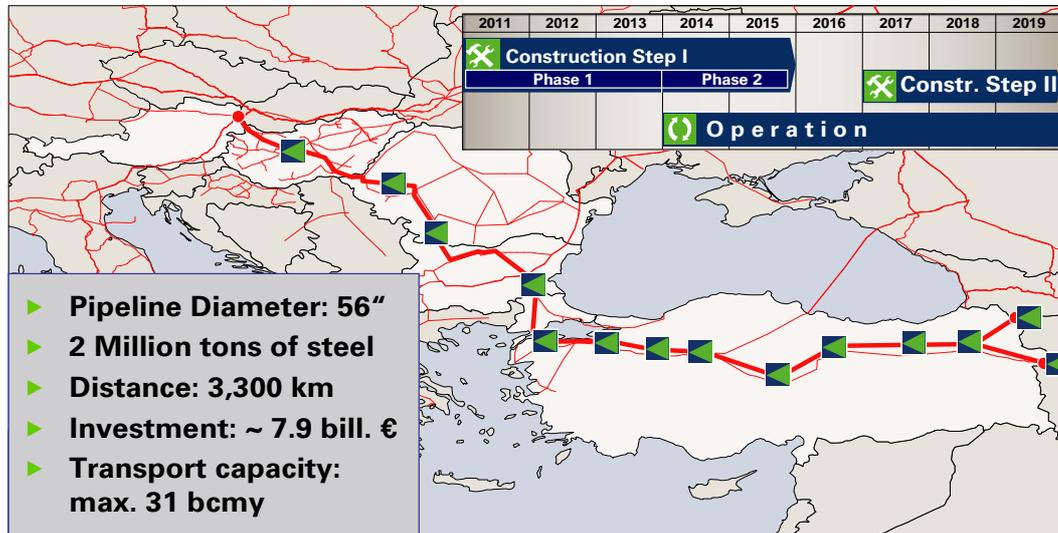
- Turkey: 2000 km
- Bulgaria: 400 km
- Romania: 460 km
- Hungary: 390 km
- Austria: 46 km

According to market studies the pipeline has been designed to transport a maximum amount of 31 bcm/y.

Estimated investment costs including financing costs for a complete new pipeline system amount to EUR 7.9 billion.

The whole project is organised into three phases. The **Development Phase** started in 2002 and will last until 2011 (see the development so far beneath). The **Construction Phase** will last from 2011 to 2015. First, the 2,000 km pipeline between Ankara and Baumgarten will be covered. Then the existing pipeline facilities in the east of Turkey will be replaced by new pipes. Afterwards, further compression stations will be installed. The first gas will flow in 2014, when the **Operation Phase** will start. At the beginning of this Phase, the pipeline is able to transport a capacity of 8 bcm/y. This amount will increase to a maximum of 31 bcm/y in 2020.

## Nabucco Gas Pipeline Project Construction Timeline



### Development of the project so far

#### 2002:

- **First talks** about the project took place in February 2002 between OMV Gas (the shares in the Nabucco Project have been transferred in 2006 to OMV Gas International GmbH hereafter referred as OMV Gas & Power GmbH) and BOTAŞ, Boru Hatları ile Petrol Taşıma AŞ, hereafter called BOTAŞ, Ankara/Turkey; later on MOL Natural Gas Transmission Plc. as partial legal successor of MOL Hungarian Oil and Gas Plc. (whereas in the year 2005 the shares in the Nabucco Project have been re-transferred to MOL Hungarian Oil and Gas Plc.), hereafter called MOL, Budapest/Hungary; TRANSGAZ S.A., hereafter called TRANSGAZ, Medias/Romania, and BULGARGAZ EAD, hereafter called BULGARGAZ, Sofia/Bulgaria followed.
- The magnitude of the project was recognized by all involved parties. Following a **Memorandum of Cooperation** in May 2002 between BOTAŞ and OMV Gas, in a meeting in June 2002 in Istanbul all five parties to the project signed a protocol on their intention to jointly construct a new gas pipeline connecting the significant Middle East, Egyptian and Caspian gas reserves with Austria and even further with the Central and Western European gas markets through a new pipeline crossing Turkey, Bulgaria, Romania, and Hungary.
- Eventually in October 2002 a **Cooperation Agreement** was signed between Botas, Bulgargaz, MOL, Transgaz and OMV Gas & Power GmbH whose main goal was to conduct a feasibility study for the construction of the new gas pipeline.

#### 2003:

- In December 2003 a **Grant Agreement** was signed between OMV Gas & Power GmbH, the other four partners as associated beneficiaries and the **European Commission** (hereafter EC). With this Agreement the EC awarded a grant in the amount of 50% of the estimated total eligible costs of the study phase i.e. feasibility study including market analysis, technical, economic and financial studies.

#### 2004:

- The various study phases of the **feasibility study** were finalised in principle by the end of 2004. Results clearly indicated that the project is technically and economically feasible and financially bankable.

#### 2005:

- The **Joint Venture Agreement** was signed by the Nabucco Partners on 28<sup>th</sup> June 2005. The Joint Venture Agreement sets out the rules of the Nabucco Partners' participation in Nabucco Gas Pipeline International GmbH (hereafter NIC) and the Nabucco National Companies.

#### 2007:

- The British company Penspen was appointed as **owner's engineer** for coordinating the detailed planning of the project. With this step Nabucco was reaching the stage of actual realisation.

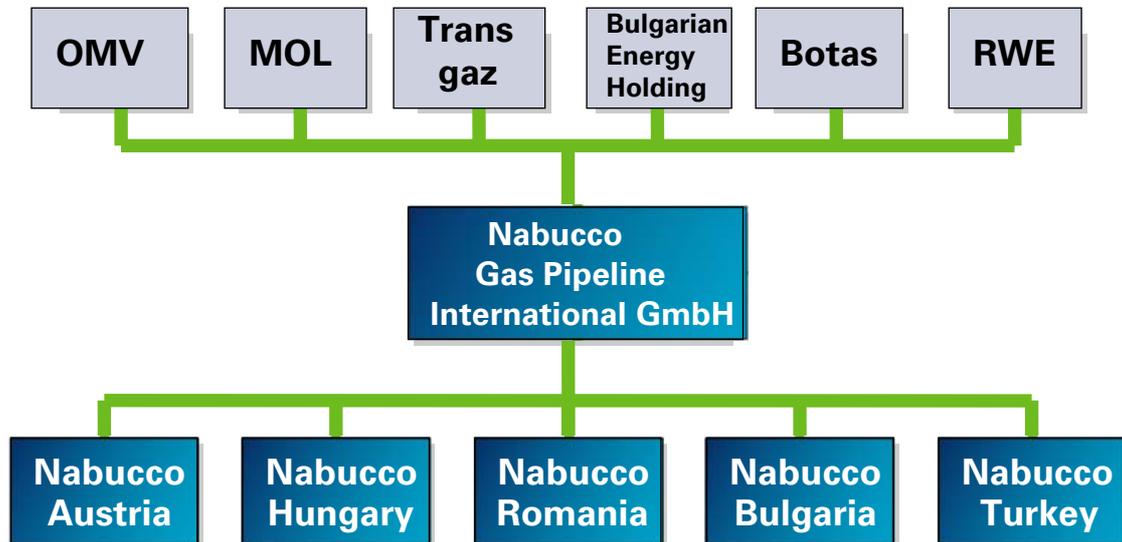
#### 2008:

- In February 2008 **RWE joined** the Nabucco Project as a 6th shareholder, as a result of which now all shareholders hold a 16,67% share of NIC.
- In preparation of the open season process a **market sounding** was undertaken by NIC in 2008. About 50 market participants were addressed to announce their interest in Nabucco capacities on a non binding basis. The outcome of the market survey is that the requested capacities are twice as high as the planned technical capacity of the Nabucco Pipeline.
- The **Exemption** documents were finally sent to the European Commission as well as to the relevant Regulators in 2008. NIC requests the benefit of an Exemption from certain Provisions of Regulated Third Party Access relating to the prior approval and publication of the tariffs, together with the terms and conditions for access to the network.

#### 2009:

- A major step within this progress of the project development was the finalisation of the **Intergovernmental Agreement (IGA)**, which was concluded in August 2009 between the states in which Nabucco operates. This Intergovernmental Agreement is necessary to establish a legal framework for gas transit between EU member states and Turkey.
- Another legal contract which is on its way is the **Project Support Agreement (PSA)** between NIC and the local governmental departments of all NIC partner countries. It is necessary for the implementation of the IGA and all processes in detail.
- Further main agreements required to establish the Nabucco Pipeline are the **General Transportation Agreement (GTA)** between NIC and the Nabucco National Companies. The Nabucco National Companies will be the owners of each part of the infrastructure for their respective territories. They will enter into a General Transportation Agreement with NIC, whereby they will transfer their marketing rights or sell their transportation capacity to NIC, which will have the responsibility for commercialisation of the capacity under transportation agreements with shippers.

- The establishment of the various **National Nabucco Companies** was another big step forward in the establishment of the project.



- **Local Feed Engineers (FEDS)** were included for realising more detailed plans. The result delivered from these FEDS will form the basis for the official approvals, the output and quality specifications and for negotiations with suppliers.
- In the first quarter of 2010 the so-called **Open Season Process** will take place, where all interested shippers will be invited to announce their particular interest in transportation of gas through Nabucco.
- Nabucco's **Final Investment Decision** is expected to be taken in the fourth quarter of 2010.