

Opportunities for Israel's natural gas sector in connection with the Nabucco Gas Pipeline Project

RWE Supply & Trading Response Paper to the MNI announcement of 3rd November 2011

(1) Introduction and background

This paper responds to an announcement regarding Israel's natural gas sector dated 3rd November 2011 on the MNI website.

RWE AG, founded in 1898, is one of Europe's five leading electricity and gas companies. The Group is active in the generation, trading, transmission and supply of electricity and gas. With more than 70,000 employees, RWE AG recorded more than € 53 billion in revenue in fiscal 2010. The Group has a customer base of over 16 million in the electricity business and 8 million in the gas business.

RWE Supply & Trading GmbH (RWEST), a 100% subsidiary of RWE AG, is one of the leading European energy trading companies and it is also among the leading companies in the European gas industry. RWEST is responsible for all of the RWE Group's activities on the international energy procurement and wholesale markets. In addition, RWEST optimises the complete gas portfolio of the Group, from short- to long-term procurement and delivery commitments. The RWE Group currently handles a 50 billion cubic meters per year (bcm/a) gas supply portfolio in Europe, a gas production of some 4 bcm/a and gas storages with a capacity of some 6 billion cubic meters (bcm).

RWEST is a shareholder in the Nabucco gas pipeline project (Nabucco), which has been established to directly transport natural gas from the Caspian and Middle East region to Europe.

Nabucco could offer gas producers and shippers from Israel an opportunity to export natural gas from Israel to Europe.

(2) Potential export of natural gas from Israel to Europe via the Nabucco gas pipeline (*see also attached slide presentation*)

Europe constitutes the world's largest interconnected market for natural gas with a volume of 516 bcm in 2010. Eurogas expects gas consumption in the EU to continue growing over the next two decades to 603 bcm by 2020 and 637 bcm by 2030 (*slide 1*).

To date, Europe is capable of covering 56% of its gas demand by indigenous gas production. However, European reserves of natural gas are declining rapidly; most notably in the Netherlands and the UK, but even Norway is unlikely to further expand its reserve base and thus increase its capability to sustainably produce more natural gas.

Imports of natural gas via pipelines and LNG make up for the remainder 44% of demand. Import sources are highly concentrated with 75% of all imported gas coming from only 2 countries: Russia and Algeria. There is a strong political and commercial commitment to import gas from diversified sources and thereby enhancing security of supply.

Declining indigenous gas production in Europe and a sustained increase in gas demand will ultimately lead to a growing supply gap which is projected to rise to c. 150 bcm/a by 2030. This shortfall can only be resolved by new and increased gas imports through (i) improved connections to non-European sources of gas; and (ii) new infrastructure to transport the required gas volumes to European markets.

Nabucco is a project that plans building a natural gas pipeline to connect Europe to the gas resources of the Middle East and Caspian Region. The main rationale for the project is increasing the security of energy supply, the diversification of gas sources and transport routes and providing gas supply countries with a direct, secure and transparent route to the European markets (*slide 2*).

The Nabucco pipeline route starts at the Turkish-Georgian and Turkish-Iraqi border and runs a total of 3,900 km through Turkey, Bulgaria, Romania and Hungary to end at Baumgarten in Austria (*slide 3*).

Nabucco is planned to have a capacity of 31 bcm per year – sufficient to supply the needs of some 30 million people in Europe. The pipeline is currently targeting the start of operations in 2017 (this date is dependent on the finalisation of gas suppliers' requirements).

The project sponsors are the 5 national gas companies of the respective transit countries, BOTAS, Bulgargaz, Transgaz, MOL, OMV, and RWEST each holding equal shares in the Austrian registered project company Nabucco International Company.

The Nabucco project enjoys the highest political support throughout the European countries, Germany, the EU, Turkey, and the US. In particular, the US strongly support Nabucco since the project's inception in 2004. Nabucco is the only pipeline project that delivers the benefits of new gas sources and a new gas transportation route to Europe. The EU Commission has made Nabucco its highest priority project in the so called "Southern Corridor" for energy to Europe. The German Government has identified Nabucco as a project which meets its objective to provide increased diversification (*slide 6*).

A ratified international treaty, the "Nabucco Intergovernmental Agreement" between Austria, Hungary, Romania, Bulgaria and Turkey, governs the project.

The starting point of Nabucco in Turkey is in reach of various gas supply sources. Potential shippers currently focus on securing supplies for Nabucco from Azerbaijan, Iraq and Turkmenistan. However, Nabucco is open to other credible supply sources – such as potentially Israel.

Nabucco could offer Israel and companies producing gas in Israel an opportunity for realising long-term exports of natural gas to Europe.

Thereby Nabucco offers significant benefits and a set of unique advantages to Israel (*slide 7*):

- Market access and security of demand: Through Nabucco, gas from Israel could be directly sold and delivered through existing or planned pipelines to a number of up to 15 customer countries in Europe including Turkey (*slide 4*).
- Stability by Treaty: The Nabucco Intergovernmental Agreement (IGA) that is ratified by all Nabucco transit countries including Turkey will provide a predictable framework for gas transit compatible with European Energy Law for over 50 years. Together, the IGA, contracts, and European Energy Law constitute a unique political and legal framework.
- Nabucco's open and transparent business model offers 50% of the total Nabucco transportation capacity to third parties. Interested gas producers and shippers from Israel could book capacity in the open season capacity sale at fair and predictable capacity tariffs (*slide 5*).
- Linking Israel to Nabucco for gas exports would attract further investment into the capital-intensive upstream sector in Israel which would encourage an accelerated build-up of the country's domestic gas sector.

Israel could physically connect to Nabucco via an offshore feeder pipeline to the Turkish southern coast near Ceyhan. Such pipeline could either start directly from an off-shore gathering point or an on-shore terminal in mainland Israel to which the natural gas production would be tied back. For the short distance from landfall point in Turkey to Nabucco, the existing Turkish BOTAS pipeline system could be used (*slide 8*).

RWE Supply & Trading GmbH, Essen, 15th of December 2011