Nabucco Gas Pipeline Project -
A challenging project in the prequalification phase

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1 Introduction
With a length of approx. 3.300 km, the Nabucco Gas Pipeline is among the longest pipelines in the world. The Nabucco Pipeline is designated to serve as a transit and transport pipeline and runs from Turkey to Austria via Bulgaria, Romania and Hungary. The projects main goal is the establishment of a pipeline system that will connect several gas reserves in the Caspian Region and the Middle East to Europe.

The Nabucco Gas Pipeline is owned and operated by the Nabucco Gas Pipeline International GmbH (hereafter NIC) and consists of 6 Shareholders: BOTAS (Turkey), Bulgarien Energie Holding (Bulgaria), Transgaz (Romania), MOL ( Hungary), OMV (Austria) und RWE (Germany).

2 Task of TÜV Rheinland
TÜV Rheinland supported NIC during the prequalification phase for suppliers of Long Lead Items in terms of the preparation of the prequalification document (technical short questionnaire and audit questionnaire) and the execution of vendor site visits.

In preparation of the prequalification process TÜV Rheinland reviewed and verified the material specifications for line pipes, coating, valves and bends which have been prepared by the owner’s engineer. The material specifications had to be reviewed according to international codes / standards and on special request according to national codes and standards of the Nabucco transit countries.

The vendor site visits were the qualification process’ core. Every vendor site has been audited by a TÜV Rheinland audit team, consisting of a lead auditor and a material inspector.

Finally, the results of the complete process (questionnaires and audits) have been evaluated and summarized in an evaluation matrix.

The task of TÜV Rheinland can be described as the following:
Review and verification of OE material specifications documents according to:
- national codes and standards
- International codes and standards
- Support of NIC during the preparation of vendor prequalification documents.
- Support of NIC during the prequalification phase
- Desktop study: incl. preparation of detailed document describing an absolutely traceable and non-discriminating evaluation model and criteria
- Production site visits / Auditing of Suppliers for LLIs
- Support in final evaluation and preparation of a final bidder’s shortlist
- Recommendations for further steps

3 Prequalification of potential bidders

The prequalification phase started with the international announcement of the Nabucco Gas Pipeline Project. Interested suppliers and producers had the opportunity to register at NIC from April 21st, 2010 to May 17th, 2010. During the prequalification period approx. 100 companies announced their interest for the project. Finally 73 companies provided their prequalification document to NIC and TÜV Rheinland.

During the prequalification process it was the intention of NIC to identify capable bidders for the Nabucco Gas Pipeline project, by evaluating technical competences, quality and performance ability.

In a first step, all registered companies were provided with a commercial and a technical questionnaire to analyze their general performance. The commercial part asked for clarification in regard to economical or judicial issues whereas the technical part gave indication about technical, organizational and quality related aspects.

The commercial part has been reviewed by NIC while the technical part has been reviewed by TÜV Rheinland during a desktop study. Only those companies, who were able to demonstrate their capability in both, have been considered as capable suppliers / producers.

Companies who were obviously not able to demonstrate their capability have been excluded from the following auditing process. In the first step 13 companies have been excluded. 2 other companies were doubtful with further need for clarification. Reasons of exclusion can be outlined as the following:
- Submission of prequalification documents after deadline
- No submission of questionnaire
- Majority of questions has not been answered
- Exclusion due to technical or production-related reasons
- Exclusion on behalf of NIC due to obviously weakness in the commercial part
Those companies found capable in the first evaluation step have been audited on site by a TÜV Rheinland audit team. The Companies have been contacted in order to arrange and coordinate the logistics for the vendor site visits. During a timeframe of 7 weeks, 6 teams audited 73 vendor sites in 20 different countries. TÜV Rheinland was able to manage this logistic challenge due to TÜV Rheinland’s presence in 61 countries on all continents. Moreover, TÜV Rheinland profited from its international network of inspectors to ensure the requested high quality.

The vendor site audits were performed by a TÜV Rheinland team. The audit considered aspects such as production, quality management, safety and environmental issues. The team consisted of a TÜV Rheinland lead auditor and a material inspector and were approved by NIC. The inspectors operated homogeneous and where prepared to the suppliers profile. Partly, NIC joined the Audit teams, to get an insight of the high expertise and quality of the audits.

For optimization and calculation purposes, schedules, travel dates, estimated expenses and further relevancies have been shared among TÜV Rheinland and NIC.

The challenge of the evaluation process was the objective outline of subjective gained impressions. To approach this evaluation, TÜV Rheinland implemented two types of questions in the audit plan in combination. First, exclusion criteria were defined in order to stick to production related aspects and elemental quality features. Secondly, informative questions helped to understand and outline the certain processes. All questions have been evaluated with a grade from 1 to 3.

The traceability of the process had a special significance for NIC. Therefore TÜV Rheinland prepared an absolutely traceable and non discriminating evaluation model to ensure that no claims will occur at a later stage of the procurement process and to identify the top performers. The methodology was calibrated in close cooperation of NIC and TÜV Rheinland.

In the back office, the TÜV Rheinland project management team evaluated the audit plans and was supported by the audit teams to clarify upcoming questions.

All questions have been reported in the evaluation matrix and have been weighted according to their relevance. The weighing was made in two levels: each chapter has been weighted (1st level-weighing) and each question within the chapter has been weighted (2nd level-weighing). Due to this approach every question gained an individual weight and enabled TÜV Rheinland to identify all capable suppliers (top, midfield and weak performers).

Finally, the following amount of world wide suppliers for the production of long lead items has been identified to be able to support the Nabucco Gas Pipeline Project. Some companies mentioned below are only recommended under restrictions and need a higher extent of surveillance during production.

- 27 Line pipe producer (for 36 inch up to 56 inch)
- 10 Bend producer
• 13 Valve producer
• 6 Coating companies

The result of the prequalification is of high value as it gives a worldwide overview of all capable suppliers for the Nabucco Gas Pipeline Project. Implemented research criteria enable NIC to select potential suppliers fast and easily. Moreover, the prequalification process provides valuable information for both the procurement and the production process.