



Project Profile

Assistance to SNAM Rete Gas for the Development of the Network Code

Background

As part of the Italian gas market liberalisation, all gas transportation companies are required to prepare a “Network Code”, the rules which govern the access of shippers to their networks. The Network Code is a core element of the contract Italian transportation companies offer their customers. In July 2002, the Italian regulator (*Autorità per l’Energia Elettrica e il Gas*, or AEEG) issued the general criteria and the framework for the Network Code.

SNAM Rete Gas (SRG), a major European gas transporter, commissioned NERA to draft specific sections of its proposed Network Code to be submitted to the AEEG. NERA assisted SRG design the sections on demand forecasts, quality of service and updating procedures. NERA successfully assisted SRG also to develop the mechanism that passes price fluctuations of services for balancing the system through to SRG’s customers to meet provisions set by the Regulator.

NERA’s Work and Recommendations

According to the framework set by the Regulator for the Network Code, NERA’s international team of experts helped SRG in the following areas:

- Quality of service provided to shippers;
- Expected demand on SRG’s transportation network over the medium and long term;
- The updating procedure of the Network Code; and
- Revenue neutrality of the company’s business operations.

Six-Stage Process

Under the current regulatory framework, the quality of service affects regulated companies through a revenue formula that includes a “Q factor” that is presumed to reward investments that increase quality over a predetermined level. The Q factor has temporarily been set at zero by the Regulator and does not affect *per se* the provisions established in the Network Code but, when implemented, affects a company’s ability to recover its investment. At this time, commercial and technical standards are included in the Network Code that describe services offered and the guaranteed standards.

To determine what indicators should be considered, NERA analysed fifteen case studies of utilities operating in the gas, electricity, water, telecommunication and railway sectors around the world.

Demand Forecast

Forecasting demand is fundamental in designing optimal gas transportation networks. This impacts four key areas:

- Long-term planning of transportation networks, based on information provided by system users;
- Short-term network use, needed for network balancing purposes and for security of supply;
- Procedures to collect information from system users; and
- Procedures to coordinate with other network plant owners, including production, storage, regasification, distribution and other transport companies.

NERA analysed different options established by international best practices to identify the best methodology to forecast demand according to SRG's operational needs and collect the information required. Our team found which forecast models are to be preferred, and recommended how to collect the data required from system users, according to the Regulator's provisions.

The Updating Procedure of the Network Code

The Network Code must include procedures for updating the Code in order to modify it to meet the evolving needs of the transporter and system users. The updating procedure consists of several phases—submission of the update proposal, publication of the proposal, examination and discussion of the proposal with all interested parties, approval/rejection of the proposal and, in case of approval, modification of the Code—all requiring careful design and a flexible timetable to accommodate urgent situations.

NERA proposed an updating procedure that guarantees the right to suggest updates to the Code and to intervene with comments in the updating process in a clear and transparent manner for all interested parties. Our recommended procedure ensures that all proposed modifications conform with the fundamental principles of the Network Code and will result in an improved system. Proposed modifications are scheduled based on their urgency, complexity and potential impact on the system. Therefore, the proposed procedure distinguishes "urgent" requests needed to prevent jeopardising the security and efficiency of the transportation system.

Revenue Neutrality

Under current regulation, each transport company has to provide for the balancing of the system as well as hourly modulation. The costs and benefits of the services bought and sold for this purpose have to be passed through to customers on the basis of a "revenue neutrality" mechanism set by AEEG. The implementation of such "revenue neutral" cost-recovery mechanisms involves identifying which costs and revenues need to be routed into a "neutrality pot" and passed through to customers. Our team helped SRG identify the costs and revenues to be routed into the "neutrality pot", and set the relevant procedures to pass them to customers.

Project Results

In July 2003 the Regulator approved SRG's proposed Network Code with NERA's contributions to Chapter 13 (Quality Of Service), Chapter 16 (Data Required For Demand Forecast) and Chapter 23 (Updating of the Network Code). The full text

of the Network Code is available on SRG website at http://www.snamretegas.it/english/business/codice_di_rete/codice_rete.html

Expert Involved

Graham Shuttleworth, Director

London, England

Mr. Shuttleworth specializes in the electricity and gas industries. His work has two major components: promotion of competition in electricity and gas markets, and the regulation of networks. In 1990, he helped write the rules for the UK's Electricity Pool and, ever since then, has advised on the design of electricity markets and power contracts around the world. In 1996, he co-authored the leading book in the field, "Competition and Choice in Electricity" and has contributed widely to books and journals.

Fabrizio Hernandez, Director

Madrid, Spain

Dr. Hernandez has provided advice to several energy companies on gas and electricity projects, with a focus on regulatory and contractual issues. Most of the work has been focused on the corporate strategy to follow the transition from a regulated to a competitive electricity market, with particular emphasis on issues in the gas sector. He has studied international gas markets with the objective of identifying gas supply alternatives, and has also provided advice on gas transportation pricing schemes through the development of cost of service tariff models, including the design of a regulated remuneration mechanism for new regasification plant projects in Spain.

About NERA

NERA Economic Consulting (www.nera.com) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. With its main office in New York City, NERA serves clients from more than 20 offices across North America, Europe, and Asia Pacific.

Contact

Graham Shuttleworth

Director

tel: +44 20 7659 8654

graham.shuttleworth@nera.com