Cooperation Project between Italy and Tunisia in the Electricity Sector

Tunis, June 29, 2007
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• The Project

• The Political Agreement and the Agenda
Tunisia represents the closest point of the African continent to Italy (nearly 150 km on a straight line).

Terna (first as GRTN) and STEG have been working together since 2003 to research the best connection alternatives between the two electricity systems.

Research (CESI) ended at the beginning of 2007 and underlined the interconnection’s technical feasibility.
As of today, Tunisia does not offer excess generation capacity

The interconnection should therefore be integrated with the installation of new generation capacity dedicated to the Tunisian and Italian markets, in various different parts

Different electricity production options in Tunisia considering the need for source and supply area diversification

Need to strengthen and improve the electricity grid both on the part of Tunisia as well as of Italy (closing of the internal Sicilian ring included in Terna’s 2007 development plan)
Depth

Maximum depth lower than 1000 meters below sea level

Different cable power options:

1) “High power” alternative: 1,000 MW in bipolar configuration with connections consistent with the nominal grid power in Tunisia and in Sicily.
2) “Low power” alternative: 500/600 MW in monopolar configuration with 220 kV connections both in Tunisia and in Sicily.
Advantages

For Italy

Improved efficiency and safety of supplies (diversification of sources and of supply areas) for southern Italy and within the entire electricity system

Strengthened role of European electricity hub towards North Africa and South Eastern Europe (prospect of a “Mediterranean ring”)

For Tunisia

Optimize the Tunisian electricity system

Possibility of becoming an electricity platform for the Maghreb region

Conditions for further foreign investments in the electricity sector
In 2006, the electricity demand in Sicily was of 21.7 TWh and in 2012 it will rise to nearly 25.7 TWh (an annual growth of 2.3%).

The structures of the transmission grid and of the generation plants require improvements to be able to guarantee adequate levels of efficiency and safety of supplies.
Improved Efficiency and Safety of Supplies in Southern Italy

In its 2007-2012 National Grid Development Plan, Terna has included initiatives to be taken in Sicily for nearly 600 million Euros for building the new 380 kV lines and increasing to the same voltage the existing 220 kV lines.

Interconnection with Tunisia will guarantee greater safety of supplies and improved efficiency in the system’s management.
Italy as the Electricity Hub in the Mediterranean Ring: Efficiency and Safety for the Italian Electricity System
**The Calendar**

- **March 8th, 2007**: Joint Italian-Tunisian declaration; creation of the mixed Working Group
- **June 29th, 2007**: Joint Italian-Tunisian declaration for an Italian-Tunisian cooperation project in the electricity sector
- **In the future**: Terna – Steg Memorandum of Understanding for the creation of a mixed Italian-Tunisian transmission company for developing the electricity cooperation project
- **In the future**: The Working Group will submit documents regarding the Mixed Company (modalities, projects, calendar of activity) for the approval of the two Ministries
The Italian-Tunisian Mixed Working Group

Based on the Joint Declaration between Minister Bersani and Minister Chelbi, signed in Rome on March 8th, 2007, the Terna/STEG/AEEG/Ministries Working Group was established and its mandate was defined.

The mandate
- Project feasibility for installing new production capacity in Tunisia
- Alternatives for creating the Italy-Tunisia interconnection
- Development needs of Tunisia’s transmission grid
- Analysis of the regulatory framework
- Commercial aspects in the Maghreb area and in Italy
- Fuel supplies
- Industrial organization aspects
- Project phases
- Overall government and industrial cooperation
- Possible organization of a tender for implementing the overall project

Main Needs
- Creating an interconnection between the two electricity systems
- Diversifying sources and supply areas
- Opening the Tunisian market and promoting an area of free exchange for international commercial transfers with North Africa
The Working Group’s Proposal

Transmission

Establishing a mixed Terna-STEG transmission company for developing and managing international transfers of electricity in Tunisia and for implementing and managing the interconnection between the Tunisian electricity grid and the Italian one.

Production

Selecting an investor through an international tender on the basis of technical and economic requirements defined beforehand on market criteria, who will be appointed to build and manage a power station.

Expected investments

The total production investment will depend on the operational solution and on the type of fuel indicated by the market. The total transmission investment will depend on the extent and characteristics of the infrastructures to be built in Tunisia and will take the following factors into account:

- Minimizing costs for Italian consumers
- Guaranteeing Terna’s impartial role as a national transmission and dispatching operator
The Agreements Signed on June 29th

1. Joint declaration of the Ministries
   - Mandate assigned to Terna and STEG for developing and implementing the interconnection project for the Italian and Tunisian electricity systems and for cooperation in the electricity sectors of both countries
   - Evaluation for the purpose of creating a Tunisia-based mixed transmission company in charge of:
     - managing international transfers of electricity on the Tunisian grid
     - implementing and managing the electricity interconnection between the Italian and Tunisian grids
     - launching a tender to build and manage a power station in Tunisia dedicated mainly to exports.

2. TERNA – STEG Memorandum of Understanding
   - Declaration of intent (non binding) for creating a mixed Italian-Tunisian transmission company aimed at developing Italian-Tunisian cooperation in the electricity sector
   - Establishing a mixed transmission company and defining its shareholding, by-laws, company bodies, organizational structure
   - Implementation of its corporate mission, at least by:
     - managing international transfers of electricity on the Tunisian grid
     - implementing and managing the electricity interconnection between the Italian and Tunisian grids
     - launching a tender to build and manage a power station in Tunisia dedicated mainly to exports.