Regional Governance for Electricity Integration in the Mediterranean

MEDELEC Annual Meeting

Tunis, 15th April 2014
Outline

1. Energy overview, focus on cross-border networks: trends, challenges and expected benefits

2. Regional governance and Institutional framework: a bottom-up approach
Current energy trends in the Mediterranean are not sustainable. Conservative scenario is not an option:

- Overall energy demand could grow by 40% to 2030.
- CO₂ emissions would exceed 3000Mt in 2030, up from 2200Mt currently.
- Electricity boom ahead: average annual growth rate of about 2.8% and 5% in the South by 2030.
- Fossil fuels will continue to dominate the energy mix and natural gas will overtake oil.
Socio-economic trends in the MED Region

Population growth
million inhabitants

Economic growth
GDP - USD billion

Average annual growth rate 1970-2010:
North: 2.6%, South: 4.0%

Average annual growth rate 2010-2030:
North: 2.1%, South: 2.8 / 5%
The real energy challenge is in the South

- Population will grow by over **80 million people**;
- GDP per capita will increase by 75% to 2030.
- Overall energy demand and CO$_2$ emissions would double in SEMCs;
- Electricity demand would nearly triple; **200 GW of new generation capacity to be installed**.
- Energy demand may not decouple from GDP growth and electricity intensity is set to continue increasing in the South.
- **715 bn Euro of investments by 2030**
Drivers & Challenges to reinforce or build new interconnections

Need for higher exchanges in order to improve the efficiency of the overall interconnected system and reduce total costs, but differences exist between North and South...

Priorities in EU Member States:

- market integration and reduction of congestions
- fostering a higher penetration of RES
- environmental impact
- opposition of the affected population: (ex. Spain/France interconnection)
- … authorization delays, higher investments costs

Priorities in SEMCs:

- need for an enhanced security of supply
- improved technical performances
- investment costs and costs sharing between the concerned parties
- Common rules on capacity allocation, congestion management and inter-TSO compensation mechanisms should be implemented
Main technical issues

Crossing the Mediterranean basin: complex morphology of the Mediterranean Sea and some additional environmental constraints could increase investments costs (cf. lines decommissioning).

Impact on the EU transmission grid: the current structure of the EU transmission grid does not allow the injection of several GW from the South because of congested zones. Besides, oversupply in EU.

Transmission grids in SEMC: existing grids in the region are weak or already saturated. If a large new RES power production is developed, the need to reinforce local grids or, better, to “redesign” those has to be taken into account.
The process for integrating Mediterranean electricity networks and promoting exchanges between Mediterranean countries is articulated around three main axis combined with each other, being mutually relevant for the achievement of the electricity integration target:

- **Technical coordination** making possible the integration of cross-border networks
  - A *Mediterranean-wide network development plan* should be elaborated, a *shared system of technical rules and procedures* set-up, and a more coordinated *cooperation with ENTSO-E* promoted: the regional initiatives approach could be adopted.

- **Regulatory harmonization** of national regulations
  - *Independent National Regulatory Authorities* (cf. Algiers Declaration) should be established, allowing MEDREG to exercise the role of supervisor facilitating a *Euro-Med coordination and cooperation* by interacting with the *ACER*

- **Political cooperation** between Mediterranean countries
  - The *UfM* and the *Mediterranean Parliaments* (within the *EMPA* and *PAM*) should work together to strengthen political cooperation
A bottom-up approach and the role of stakeholders

Harmonization, Coordination, Non Binding Advices

- MED TSO
- MEDREG
- UFM/Parliaments
- Technical
- Political
- Regulatory
- Country
- DII
- MEDELEC
- Medgrid
- OME
- RES
- MEDI

Med Institutions

Industrial stakeholders
A bottom-up approach is a better way to proceed than the more traditional top-down methods, which have proved inefficient and scarcely attractive for SEMCs.

Convergence between different institutional and regulatory frameworks across the Mediterranean is essential to move forward, but it does not mean reproducing the European model:

- the maturity of grids is not achieved yet in the SEMCs,
- the electricity industrial background is not the same in the South,
- energy policy targets as well as economic needs and energy priorities are different.

Thus, sectorial organizations, industrial associations like OME, financing institutions, and scientific cooperation projects, at national and supranational level, will play a central role, also contributing to enhancing capacity building and transfer of know-how in the SEMCs, which are fundamental aspects for a coherent and harmonized development process towards a more integrated electricity grid in the region.
Some recommendations…

- Cooperation between Mediterranean power systems should be oriented towards open electricity markets with transparency and reciprocity in all countries.

- A first Mediterranean-wide Ten-Year Network Development Plan should be elaborated by Mediterranean TSOs
  - **North-South interconnector projects should be systematically envisaged as “Projects of Common Interest” by the European Commission**

- Independent regulators should be established, allowing MEDREG to exercise the role of supervisor facilitating a Euro-Med cooperation by interacting with the ACER
  - **National legislations and regulations should specifically address North-South interconnectors’ issues in all Mediterranean countries**

- The UfM and the Mediterranean Parliaments (within the EMPA and PAM) should work together to strengthen political cooperation

- Public policies should be stable, predictable and transparent to attract long term investments: “stop and go” policies lead to counterproductive “booms and busts” in industries

- The financial support of multilateral institutions and national agencies should be technology neutral to avoid market distortions and negative externalities
Thank you for your attention