MEDREG "The Regulators' Experience in the Mediterranean Region"

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The Five Pillars of MEDREG Strategy

A sound institutional regulatory framework

Optimal conditions for infrastructure investments

Functioning, competitive and transparent electricity and gas markets

Intensified regional cooperation and setting up of pilot projects

Efficient consumers protection, including vulnerable customers

- An independent regulator with clear powers and competences exists in each Mediterranean country.
- National legal and regulatory frameworks are improved.
- Common network codes/standards developed on a common understanding.
- All countries are interconnected. Gas and electricity infrastructures are operated effectively.
- New incentives for efficient investments in RES generation and energy efficiency are in place.
- The share of electricity produced from RES is increasing and Barriers to investment are minimized.
- There is a market for electricity and gas in each country. Cross border trade is in place on all interconnections.
- Transparency and access to information is increasing.
- The regulator efficiently monitors market developments and improvements in transparency.
- Regional coordination and cooperation is intensified.
- Common principles for market integration are defined
- · Pilot projects are set up to test implementing
- Consumers can choose between different suppliers.
- They have access to necessary information regarding billing and their rights.
- Vulnerable consumers are efficiently protected.



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Challenges to Achieve Integration of Markets

Physical challenges

- Need for upgrading in transmission lines.
- Unsynchronized systems to be connected.
- Lack of standards, that impacts the system reliability and security risks associated with expanding interconnection capacity.

Structural/institutional challenges

- Limited coordinated control over many national networks.
- Lack of an agreed dispatch mechanism and software.
- Long negotiation times in transactions in
 Vertically integrated or state-owned monopolies.
- Lack of private sector participation in some countries.

Regulatory challenges

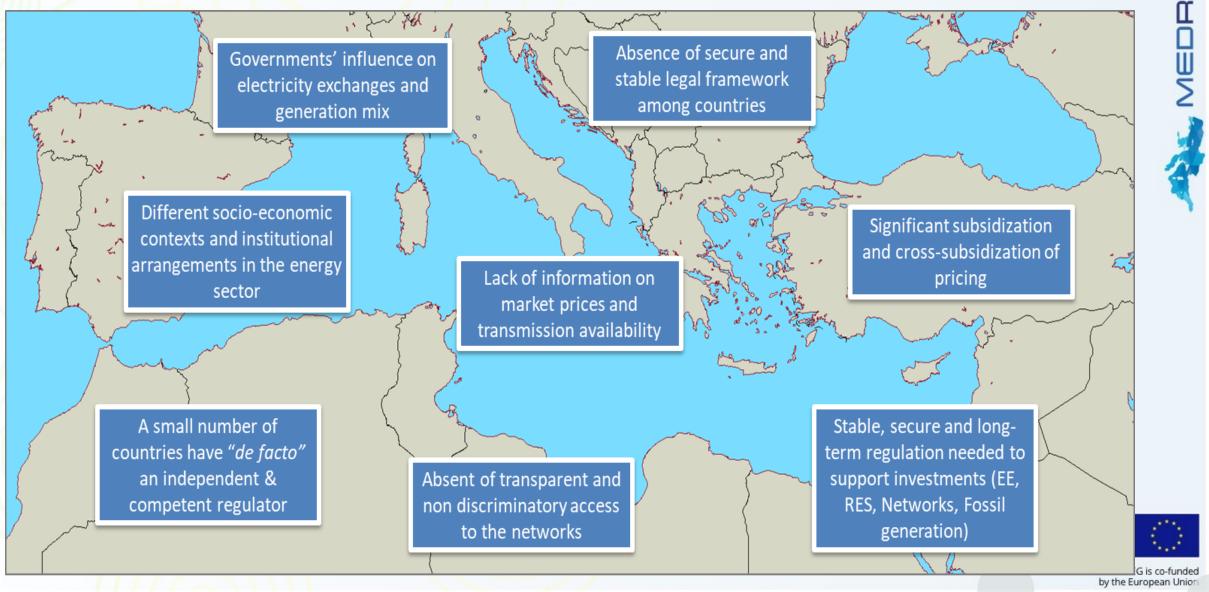
- Lack of harmonized legislation/market rules.
- Lack of an independent regulator in some countries.
- Impaired competition due to subsidization and cross-subsidization of pricing in the power sectors.
- Lack of published information concerning market prices and transmission availability.



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Barriers and challenges for investments



General Trends in the Mediterranean Region

Population in the South Mediterranean is expected to grow more than **85 Million** by 2040 (+45% in 2017)

A stagnating energy demand in the North Mediterranean while an energy-intensive development in the South & East Mediterranean South & East Mediterranean electricity demand to **double** by **2040**; an extra-capacity of **185 GW** needed, most of which from **RES**

More than **\$400 Billion** investments is required



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Euro-Mediterranean Cooperation energy needs

Develop Public Private Dialogue and implement de-risking mechanisms are the key to increase RES investments in emerging markets

Establish a properly and stable regulatory framework of MENA region play a critical role in foster RES developments and reach globally shared goals

Integration of renewable in the energy matrix reinforces energy security at local (domestic energy) and global level (cross border energy trade)

New employment opportunities for a *growing population* are possibile throught the development of renewable energy technologies and new capacity building programs



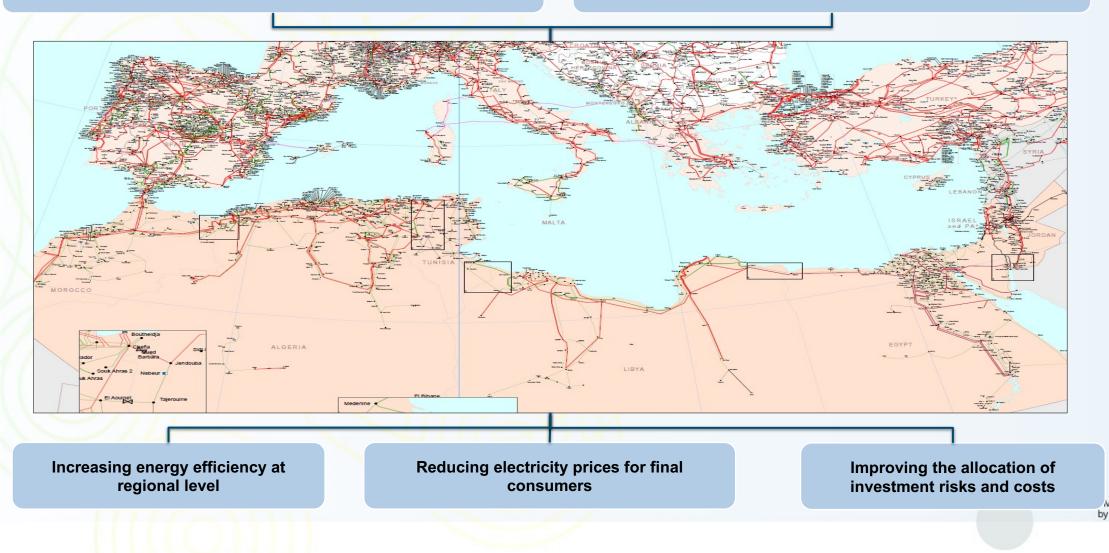
Regulatory Reforms



Electricity cross border interconnections: Benefits

Fostering security of supply and decreasing regional power shortages

Increasing integration of renewable energy sources in the system



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Regulatory options to stimulate investments

Regulators have a crucial role to play

- Implement a good investment climate ensuring that network developments are delivered in due time;
- Provide guidance to TSOs about how to use interconnections and regulatory compatibility.

Ensure a high level of transparency and education

Ensure a clear institutional architecture at national levels

- Articulate a sound regulatory framework and a clear strategy;
- Ensure an effective coordination between regulated (networks) and private/competitive activities.

Improve the investment planning capacity, with long term assessment of needs (energy) and financial viability

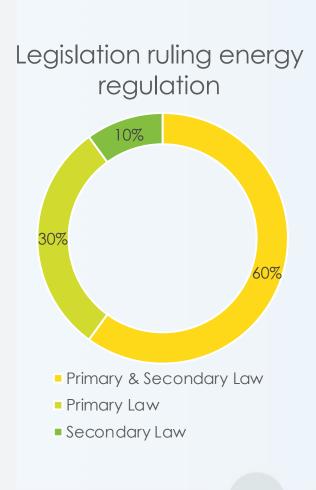


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Energy Regulation; Main Findings and Trends

The level of competence is overall satisfying and growing, but it varies from country to country

- Majority have the power to fix and/or approve tariffs;
- Majority are responsible for dispute settlement;
- Every NRA sets or approves interconnection capacity;
- Most NRAs monitor operators' performances;
- Most have the power to impose sanction;
- The regulator's decisions are binding on every NRA;
- Every NRA is responsible for consumer protection;
- Majority take decisions on internal organization;
- Most publish information and/or share with stakeholders;
- Majority report to the government, ministry, or parliament.





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Conclusions & Recommendations

A coordinated policy and regulatory framework is essential and remains as a first and foremost prerequisite for a fully functioning and interconnected energy market

Regulation can facilitate and promote investments rather than being an obstacle, creating more transparency and predictability along with longer tariff stability

Regulation ensures accelerated permit granting, allow longer regulatory periods, assure appropriate investment incentives

Regulators can ensure appropriate investment incentives for projects incurring a comparably higher risk for development, construction, operation or maintenance

Regulators can issue decisions on the allocation of costs and their inclusion in the regulated network tariffs for cross-border projects



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