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# ANNUAL REPORT







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## WHAT IS MED-TSO?

Med-TSO is the Association of the Mediterranean Transmission System Operators (TSOs) for electricity, operating the high-voltage transmission networks of 20 Mediterranean countries.

It was established on 19 April 2012 in Rome, as a technical platform that, using multilateral cooperation as a strategy of regional development, could facilitate the integration of the Mediterranean Power Systems and foster security and socio-economic development in the region.



**20**  
members

**20**  
Mediterranean  
countries

**8,7 M km<sup>2</sup> ca**  
covered area



almost  
**510M**  
consumers served



almost  
**405.000 km**  
of transmission lines operated



almost  
**555.000 MW**  
of installed capacity



more than  
**1615 TWh**  
of total electricity consumption

## MED-TSO IN NUMBERS

19 April 2012-2022:

### Ten years empowering the Mediterranean

Watch the video



- In 2022, a decade after its foundation, the Association went from strength to strength, having developed a clear strategy, strengthened synergies, and welcomed new members. We are proud of our intense work, which allowed us to become the bridge between the Mediterranean TSOs, and a reliable stakeholder in the region, combining knowledge, work, and visibility.
- We look forward to the coming years with renewed commitment towards creating and maintaining an effective Mediterranean energy market, integrating the grids of both shores of the Mediterranean.





## Med-TSO objective and activities

Med-TSO members share the primary objective of promoting the creation of a Mediterranean energy market, ensuring its optimal function through the definition of common methodologies, rules and practices that optimise the operation of the existing infrastructures and facilitate the development of new ones.

### The three pillars of Med-TSO activities



**BOTTOM-UP APPROACH** based on TSO perspectives

### Med-TSO contributes to the achievement of this objective by promoting:

- Coordination among the Med-TSO countries regarding their National Transmission Network Development Plans and their power system operation by studying the development of an integrated, secure and sustainable Mediterranean Power System, and by promoting cross-border projects aimed at facilitating the integration of new energy sources (especially from RES), thereby increasing the security and quality of the power supply.
- The use of common criteria and harmonised, transparent and non-discriminatory technical rules for guaranteeing the interoperability of the interconnected power systems.
- Training, knowledge sharing and technical assistance in the region, facilitating the exchange of information, analyses and experiences among the Associates, including the R&D sector.
- Enhanced communication and consultation with stakeholders for improving TSO operation, transparency and facilitating public acceptance of transmission infrastructures.
- Cooperation among the Mediterranean TSOs and a coordinated approach towards the institutions (in particular, with the association of the Mediterranean Regulators for Energy – MEDREG, and the European Network of TSOs for electricity – ENTSO-E).
- The role of TSOs at regional level by analysing and taking common positions on issues that can positively impact the development and operation of transmission systems.



## Mediterranean Bridge: A new perspective on enabling the Energy Transition

### MISSION

Our mission is to foster the development of an integrated, secure and sustainable regional electricity transmission grid, by supporting all the institutional initiatives aimed at facilitating the creation of a Mediterranean energy market.

### VISION

We intend to be a professional and strategic reference body for every technical, market and policy issue related to the Mediterranean electricity system: a competent and proactive guide for European and Mediterranean institutions and stakeholders.

Med-TSO is the only Association representing Transmission System Operators in the Mediterranean region. Its role is to get actively involved in the dialogue for planning and operating, adopting common technical rules for the power systems in the Mediterranean area.

Over the past ten years, thanks to the Mediterranean Projects 1 & 2 and TEASIMED, the association has shown exceptional capabilities in fostering dialogue and promoting activities.

The Med-TSO adventure began with the aim of setting up a framework for multilateral cooperation in the Mediterranean electricity sector. This would be dedicated to **identifying and analysing potential new infrastructure projects and increasing the electricity exchanges around the Mediterranean Basin** for the benefit of all citizens and for the effective implementation of **sustainable and efficient energy policies**.

After gaining credibility as a qualified and reliable stakeholder in the Mediterranean region, it was time to consolidate and strengthen the Association's flagship position, calling for a new commitment and new activities to be developed.

Throughout the years, the Association has created an effective working method among the many TSOs that has enabled it to become **a bridge between the Mediterranean TSOs and other associations in the region**, combining knowledge, work and visibility.

The ongoing TEASIMED project aims to consolidate the Association's achievements, and to preserve the cooperative attitude built so far among the Members.

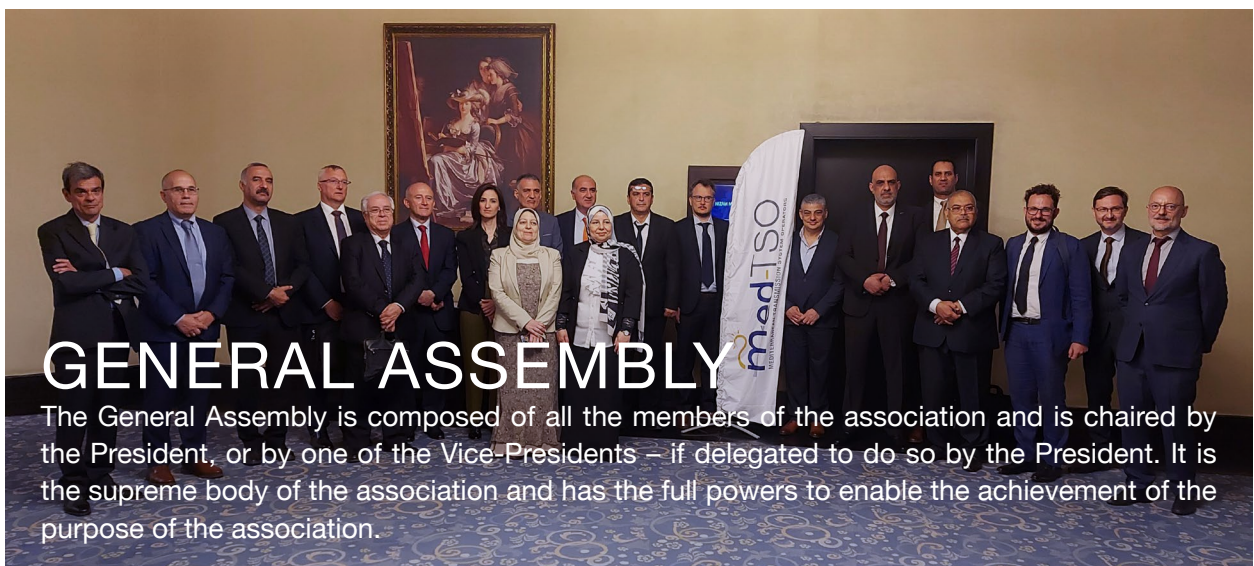
### The "voice" of the Mediterranean TSOs

In the near future, our goal is to consolidate Med-TSO as a **platform for multilateral cooperation** - a true instrument for the **integration and development** of Mediterranean Electricity Transmission Systems, mainly in terms of **interconnections development and renewable energy sources integration**.

The association aims to play a growing **"key role" in the regional context, continuing to provide proactive support to its Members for the design and development of new interconnections, and facilitating the creation of a harmonised regulatory framework** by representing the TSO's needs and requirements, and improving relations with other organisations.



# OUR ORGANISATION



## GENERAL ASSEMBLY

The General Assembly is composed of all the members of the association and is chaired by the President, or by one of the Vice-Presidents – if delegated to do so by the President. It is the supreme body of the association and has the full powers to enable the achievement of the purpose of the association.

# EXECUTIVE BOARD

The Executive Board is the executive managing body of the Association, composed of the President and eight Vice-Presidents as appointed by the General Assembly.



**MOURAD ADJAL**  
PRESIDENT



**RAMON GRANADINO**  
VICE-PRESIDENT



**GUIDO GUIDA**  
VICE-PRESIDENT



**ABDELLAH KABIRI**  
VICE-PRESIDENT



**IOANNIS KAMPOURIS**  
VICE-PRESIDENT



**HERVÉ LAFFAYE**  
VICE-PRESIDENT



**SABAH MASHALY**  
VICE-PRESIDENT  
*Incoming President for the next three years, taking office on 1 July 2023.*



**ALBERTINO MENESES**  
VICE-PRESIDENT



**SERHAT METIN**  
VICE-PRESIDENT

# SECRETARIAT

The Secretariat is the structure of the Association that assists and provides support to its bodies. The Secretariat is chaired and directed by the Secretary General, who is responsible for its management.



**ANGELO FERRANTE**  
SECRETARY GENERAL



**SIMONE BIONDI**  
TEASIMED PROJECT  
MANAGER



**SIMONA LA CIOPPA**  
CORPORATE  
AFFAIRS



**GHERARDO  
ALFONSO VICHI**  
FINANCE &  
TREASURY



**ANAS EL HRAIECH**  
TECHNICAL OFFICER



**AHMED R. ELSHAMI**  
POWER SYSTEM  
ADVISOR



**LUCA RUFFINO**  
PROGRAMME  
OFFICER



**SERGIO NOTARI**  
COMMUNICATION



**EMANUELA ERRICHI**  
EVENTS



**ARIANNA  
ANDREOLETTI**  
ASSISTANT





# MESSAGE FROM THE PRESIDENT

Dear Readers,

During 2022, our association, Med-TSO, experienced resounding success with implementing the “TEASIMED” project for 2020 - 2022. Its action plan was designed to explore possible solutions to ensure the security of supply while enhancing cross-border trade options.

The program implemented within this framework smoothly addresses the profound and continuous global changes in climate and economy, as we acknowledge that these changes have significant implications for the energy sector.

The launch of the plan’s second phase (TEASIMED 2) will provide continuity to the ultimate goal of significantly improving the opportunity to create a single electricity market between the two shores of the Mediterranean. This will be achieved notably through the realisation of the project’s outputs, namely the two pilot projects for the Maghreb and Mashreq regions.

We are convinced that our coordinated efforts will lead us to achieve common objectives and make our strategies more coherent to establish an efficient Mediterranean energy system in line with sustainable development requirements. We believe that the dynamic initiated by our association in developing an energy mix constitutes a substantial contribution to the security and socio-economic development of the Mediterranean, which heavily relies on the existence of an integrated regional energy market.

Moreover, energy infrastructure plays a pivotal role in achieving this objective, particularly the construction of a reliable

and sustainable electricity transmission network interconnecting the countries around the Mediterranean, thereby facilitating the exchange of electricity predominantly generated from renewable sources.

Furthermore, integrating renewable energies poses new challenges for network managers who must demonstrate greater flexibility. In this context, our organisation must make regional cooperation a constant leitmotif, transforming it into an instrument that unites all actors involved in creating a secure and reliable integrated energy system within the Mediterranean region while promoting economies of scale in investments and operations for its member countries.

As the outgoing President, I firmly believe that our organisation will continue progressing and play a key role in Mediterranean energy cooperation. I extend my gratitude to all Med-TSO members for their collaboration and support in realising the program during the past year, and I hope for its continuation to ensure the sustainability and prosperity of our association.

Finally, on behalf of all members, I express my sincerest appreciation to all technical committees, governance bodies, and member representatives for their commitment and the quality of work provided.

We wish Med-TSO a long and successful journey ahead.

*Mourad Adjal*

President

# HIGHLIGHTS

## ON-SITE MEETINGS ORGANISED BY MED-TSO



4

Institutional

17

Technical

## REMOTE MEETINGS ORGANISED BY MED-TSO



1

Institutional

22

Technical

1

Workshops

## TOTAL PARTICIPATION AT THE MEETINGS ORGANISED BY MED-TSO



182

Institutional

882

Technical

117

Workshops

## NUMBER OF INTERNATIONAL ON-SITE AND REMOTE MEETINGS IN WHICH MED-TSO PARTICIPATED

### 13 January 2022

- 1 Emmanuel Bué, Chairperson of our Technical Committee for Economic Studies and Scenarios participated in the International Renewable Energy Agency (IRENA)'s "Stakeholder Engagement Day" virtual meeting.

### 8 February 2022

- 2 Our Secretary General Angelo Ferrante participated in ELIA GRID INTERNATIONAL's workshop, in the session dedicated to the MENA region, focusing on energy transition and how the TSOs can support its achievement.

### 9 June 2022

- 3 Angelo Ferrante took part in the second day of the the 1<sup>st</sup> MENA Europe Future Energy Dialogue (MEFED).





**22 June 2022**

- 4 Angelo Ferrante took part in a panel in the framework of the conference “Energy of the Mediterranean” held by the WEC Italian Committee.

**21 July 2022**

- 5 Angelo Ferrante was guest speaker at a workshop organised by the MEDREG Secretariat in Cairo entitled “Planning the Egyptian Grid of the Future”.

**4 November 2022**

- 6 Angelo Ferrante participated in the “Mediterranean Talks” organised by the World Bank.

**14 October 2022**

- 7 Workshop with the MEDREG – Mediterranean Energy Regulators’ Institutional Working Group in Milan, which represented a great opportunity to reaffirm and renew the collaboration between our two Mediterranean Associations.

**22 November 2022**

- 8 Med-TSO participated in the Conference ““Electrical interconnections in the Mediterranean, factor of regional integration and catalyst of the energy transition”, organised by Sonelgaz in Algiers. Together with COMELEC, OME and MEDENER, the Secretary General signed a Memorandum to define the basis for joint cooperation projects.

**30 November 2022**

- 9 “The Role of Regional Organisations in Promoting a Coherent Regulation to Accelerate the Energy Transition under Security of Supply Concerns” was held in Cairo, hosted by GASREG.

**7 December 2022**

- 10 Angelo Ferrante participated in the “Euro-Mediterranean and Gulf Economic Forum” organised by the PARLIAMENTARY ASSEMBLY OF THE MEDITERRANEAN in Marrakesh, Morocco.

**14 December 2022**

- 11 Angelo Ferrante attended the 7th annual edition of the Euroconvention Global event: Renpower Maghreb – Powering ahead with BIG renewable energy plans, in Tunis.

# 2022 TIMELINE


• 19  
 Technical Committee Economic Studies and Scenarios meeting.

• 25  
 Technical Committee Regulation and Institutions meeting.


JANUARY


• 27  
Technical Committee Operation meeting.  


• 9  
**Webinar.** Med-TSO and MEDREG Workshop “Enabling electricity exchanges and trading in the Mediterranean. Achieving a common technical and regulatory framework to increase electricity exchanges and trading between the two Mediterranean shores”.

• 14  
 Technical Committee Planning meeting.


FEBRUARY

• 15  
Steering & Coordination meeting.  


• 2  
 Executive Board meeting.

• 15  
 Technical Committee Economic Studies and Scenarios meeting.

MARCH

• 23  
Technical Committee Operation meeting.  






● 4  
 online  
Technical Committee Regulation and Institutions meeting.

● 21  
 online  
Technical Committee Economic Studies and Scenarios meeting.

APRIL

● 10  
**Rome.** Technical Committee Operation meeting.

● 17  
**Rome.** 25th General Assembly.

● 19  
 online  
Technical Committee Regulation and Institutions meeting.

MAY

● 24  
**Cairo.** Technical Committee Planning meeting.

● 25  
**Cairo.** Technical Committee Planning and Technical Committee for Economic Studies and Scenarios joint meeting.

● 26  
 online  
Technical Committee Economic Studies and Scenarios meeting.

● 1  
 online  
Steering & Coordination meeting.

● 7  
**Rome.** Technical Committee Economic Studies and Scenarios meeting.

● 8  
 online  
Technical Committee Economic Studies and Scenarios meeting.

JUNE

● 27  
Steering & Coordination meeting.  
 online

● 9  
**Rome.** Technical Committee Planning meeting.

● 22  
**Rome.** Executive Board meeting.

● 28  
Technical Committee Economic Studies and Scenarios meeting.  
 online



- **6**  
**Rome.** Technical Committee Regulation and Institutions meeting.

- **28**  
 Technical Committee Planning meeting.



- **1**  
 Technical Committee Planning meeting.



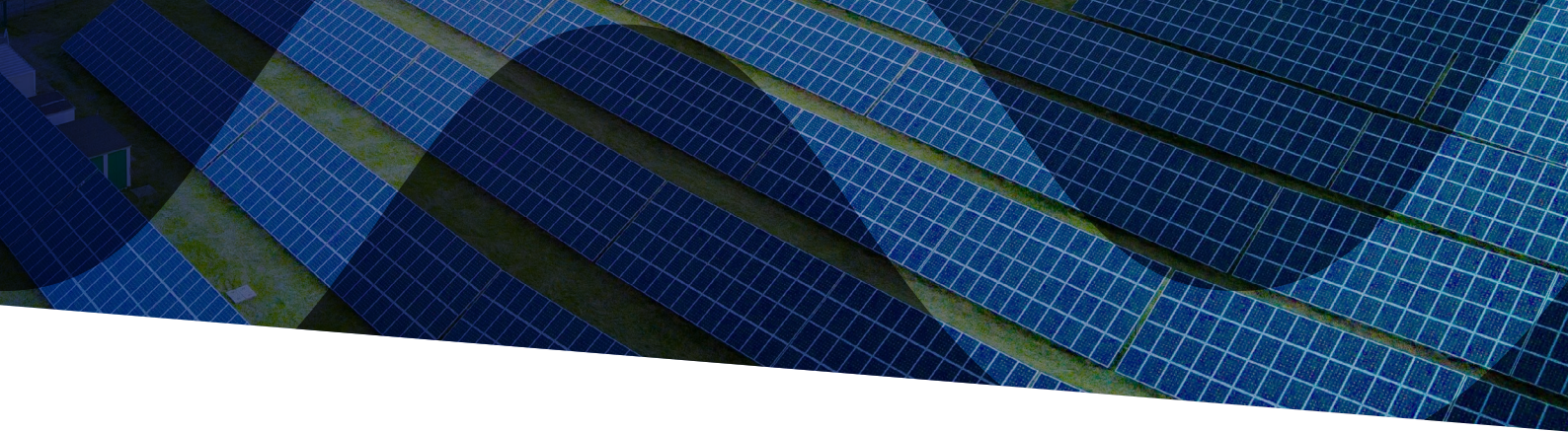
- **12**  
**Tunis.** Technical Committee Economic Studies and Scenarios meeting.

- **13**  
**Tunis.** Technical Committee Planning and Technical Economic Studies and Scenarios joint meeting.



- **14 -15**  
**Tunis.** Technical Committee Planning meeting.

- **28**  
Steering & Coordination meeting.  online



- **12**  
**Tunis.** Technical Committee Regulation and Institutions meeting.

- **13**  
**Tunis.** Technical Committee Operation meeting.

- **17**  
**Tunis.** Technical Committee Planning meeting.



- **19**  
**Paris.** Executive Board meeting.

- **2**  
  
online  
**Technical Committee Operation meeting.**

- **17**  
  
online  
**Technical Committee Planning meeting.**

- **23**  
**Algiers.**  
**26th General Assembly.**



- **28**  
**Amman.** Technical Committee Economic Studies and Scenarios meeting.

- **29**  
**Amman.** Technical Committee Planning and Technical Committee for Economic Studies and Scenarios joint meeting.

- **30**  
**Amman.** Technical Committee Planning meeting.

- **1**  
**Amman.** Technical Committee Planning meeting.

- **13**  
  
online  
**Steering & Coordination meeting.**

- **13**  
  
online  
**Technical Committee Regulation and Institutions meeting.**



- **15**  
  
online  
**Technical Committee Regulation and Institutions meeting.**

- **20**  
  
online  
**Technical Committee Economic Studies and Scenarios meeting.**



# TEASIMED PROJECT

Launched in September 2020, TEASIMED – **T**owards an **E**fficient, **A**dequate, **S**ustainable, and **I**nterconnected **M**editerranean power system – has carried forward the Association’s work with the continued support of the European Commission.

It marks the third project backed by the EC, in recognition of the work carried out by the Association in the previous Mediterranean Projects 1 and 2 (MP1 & MP2).

With its activities, Med-TSO has reinforced its position as a kind of ‘regional extension’ of ENTSO-E, the European Network of the Transmission System Operators for Electricity and has become known among regional stakeholders as the voice of the Mediterranean Transmission System Operators.

MP1 and MP2 paved the way for the development of TEASIMED, as building blocks of a Med-TSO roadmap aimed at achieving the progressive integration of its members’ power systems at Mediterranean level. Following the previous two landmark initiatives, which established a Masterplan of Interconnection with an extensive knowledge exchange programme, this project consolidated a number of the activities from them, while simultaneously launching new ones.

## The project was structured into five working streams:

Watch the video



Consolidate the Common Target Regulatory Framework to make it a real **Mediterranean Grid Code**.

Optimise the calculation of **interconnection capacities** and applying **joint operational procedures**.



1

Update the **Mediterranean Masterplan**, the HV Transmission Network Development plan, in close connection with ENTSO-E’s Ten-Year Network Development Plan.



2

Identify and put into operation **pilot projects** on selected **Interconnected Electricity Exchange Zones** (IEEZ).



3



4

Implement a **knowledge sharing programme** supported by the development of a digital web platform.



5

With TEASIMED, Med-TSO focused its activities more intensely on the practical implementation of the guidelines, rules, and methodologies defined in the first two projects, by developing pilot projects in selected areas of the Mediterranean region and strengthening operational cooperation.

More specifically, this initiative included the launch of pilot projects for implementing and harmonising Technical and Operational Rules on the Southern shore of the Mediterranean. It also envisaged a stronger coordination of the national Network Development Plans with the definition of coordinated procedures in the Operation area for better utilisation of the existing interconnection capacity and to promote the development of new key interconnection projects.



## Results in details

- 1 **Master Plan - 2022 update** following the elaboration of long-term scenarios and fundamental market modelling, developed in close coordination with ENTSO-E.
  - **19 Assessed Interconnections**
  - **16 Countries Involved**
  - **16 Billion** new investments
  - **10000 km** new lines
  - **19 GW** of new transfer capacity
  - Up to **15 TWh/yr** of reduced RES curtailment
  - Up to **24 Mt/yr** of CO<sup>2</sup> reduction
  
- 2 Regulatory framework: integrating and exchanging large quantities of renewable energy sources at a regional level, while ensuring the security of supply at affordable costs, requires **harmonized technical rules (Network Code) and regulatory frameworks**, as this is the sine-qua-non condition for exchanging electricity.
  - Development of **two IEEZ Regional Pilot Projects**, in **South Western** and **South Eastern** Mediterranean.
  
- 3 Definition of the **minimum requirements and cooperation principles** of a potential market model for **cross-border power trading**. The activity is built on the **Regulatory Framework Analysis** and **Benchmark Analysis** and was carried out at the regional level to account for the different specificities.
  - Development of the first probabilistic **Power System Adequacy Assessment** for the southern Mediterranean region, in line with the best practices developed by ENTSO-E:
 

<b>Summer Outlook Adequacy Assessment 2022</b>	<b>Winter Outlook Adequacy Assessment <sup>1</sup> 2022/23</b>	<b>Mid-term Adequacy Assessment (2025 &amp; 2027)</b>
1. The assessment showed that the majority of the Southern Mediterranean countries see a significant improvement of Adequacy Security indicators thanks to interconnections (i.e. reduction of Loss of load expectation and decrease of up to 50% from 1010 GWh to 450 GWh on cumulated average Expected Energy Not Served - EENS).		
  - **Consolidation of a single data lake – DBMED**, which has become the backbone for data sharing on all the technical activities of the Association, containing statistics, adequacy, operation and planning data.
  
- 5 More than **150 hours of extensive training activities** organized on several thematic areas spanning from Benefits and measures for international power exchange, to Adequacy, and involving up to 150 attendees from Med-TSO members.
  - **12 thematic webinars and workshops** with stakeholders, some of which co-organized with MEDREG and ENTSO-E.



## TEASIMED CLOSING CONFERENCE

Watch the video



On 15 March 2023, Med-TSO held the conference “*Integration of the Mediterranean Power Systems: a key driver for Energy Transition*”, which marked the conclusion of its **TEASIMED** project.

The event provided an opportunity to briefly present the project outcomes and discuss how to accelerate the integration of the Mediterranean Power Systems, both in terms of infrastructure and policy developments.

**Angelo Ferrante**, Med-TSO Secretary General, and **Luca Ruffino**, Med-TSO Programme Officer, presented the highlights of the project and its main results, such as the updating of the Masterplan of Mediterranean Interconnections, adequacy assessments, pilot projects in the South-East and West of the Mediterranean and the Mediterranean Grid Code. TEASIMED was carried out for a total of 31 months, starting from 1 September 2020. It successfully brought together experts from all corners of the Mediterranean through multilateral cooperation and a bottom-up approach.

**Francesco La Camera**, IRENA’s Director General, and **Cristina Lobillo Borrero**, EC DG ENER’s Deputy DG – Energy Platform TF, delivered insightful keynote speeches.

**La Camera** affirmed how renewables would largely dominate the new energy system with unprecedented benefits but need further investments in order to flow to less mature technologies as well as technologies such as storage, which enable power system integration. He defined Med-TSO’s inclusive approach as an excellent example of fostering dialogue and facilitating a collaborative transition that considers all stakeholders’ views. He also expressed confidence that tangible and effective solutions can be reached through collective actions.

**Lobillo Borrero** asserted that stronger regional integration of an efficient and stable Mediterranean power system is needed to generate clean energy. Better interconnection on both shores of the Mediterranean will be essential. At the same time, she called on the EU to enhance the energy security of partner countries and support their clean, just and inclusive energy transition. She warmly thanked and congratulated Med-TSO for its important contribution to energy, dialogue and cooperation in the Mediterranean region.

The conference was closed by **Cyril Dewaleyne**, DG NEAR B2 Team Leader on Connectivity, Environment and Climate Action, and Programme Manager of the last three Med-TSO projects. He underlined the importance of Med-TSO’s work for EU strategies. He reiterated that the Masterplan of Mediterranean Interconnections – whose updating is one of the primary outcomes of the TEASIMED project – is mentioned in the Joint Communication published in 2021 by





the Commission and the External Action Service<sup>1</sup>, as it designs a potential future in terms of interconnections. He also focused on the Italy-Tunisia Interconnection Project, which the EC sees as a game-changer for building other new interconnections and strengthening the integration of the Mediterranean Power Systems. Dewaleyne concluded by confirming that the EC is glad to support the financing of the TEASIMED 2 project for the coming three years.



.....  
<sup>1</sup> Joint communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Renewed partnership with the Southern Neighbourhood – A new agenda for the Mediterranean, page 46. [https://www.eeas.europa.eu/sites/default/files/joint\\_communication\\_renewed\\_partnership\\_southern\\_neighbourhood.pdf](https://www.eeas.europa.eu/sites/default/files/joint_communication_renewed_partnership_southern_neighbourhood.pdf)

## First panel: “Leveraging interconnections for a sustainable energy transition in the Mediterranean”

This opening panel e was devoted to discussing the role of interconnections in driving a sustainable energy transition in the Mediterranean, and the challenges and opportunities related to integrating Power Systems. It was opened and moderated by **Sonya Twohig**, ENTSO-E’s Secretary General, who stressed that Mediterranean projects must be sustainable and affordable at all stages. She also emphasised that working together to foster regional cooperation is fundamental to energy transition, both in the Mediterranean and Europe. Furthermore, she reiterated the long-standing cooperation between ENTSO-E and Med-TSO, mainly focused on the exchange of data on long-term scenarios of the grid, strengthened by the involvement of members belonging to both Associations.

- **Roland Roesch**, IRENA’s Acting Director, Innovation & Technology Centre, presented the various advantages of cross-border power interconnection, and highlighted how advanced digital technologies and regulations can help to leverage interconnections; IoTs enable smart grids by collecting, transmitting and using large amounts of data, intelligently integrating grid-connected users, optimising grid operation and increasing system flexibility. Harmonised regional grid codes and digital technologies such as artificial intelligence can also support the decision-making process in operating and maintaining systems and implementing new market designs.



- **Rena Kuwahata**, IEA’s Energy Analyst Power System Transformation, focused on regional interconnection. She defined it as a valuable tool to accelerate a secure and efficient transition to clean electricity. Its benefits include more comprehensive access to cheaper production, variability smoothing and adequacy and balancing reserve-sharing.
- **Guido Guida**, Med-TSO’s Vice-President and TERNAs Head of International Public Affairs, underlined how the ELMED interconnector between Italy and Tunisia, financed by the EC in the framework of the Connecting Europe Facility (CEF) 2022, is a true game-changer for the implementation of an integrated Mediterranean Power System. It represents a successful example of how to boost integration of the Mediterranean region.
- **Roberta Boniotti**, MEDENER’s Secretary General, reiterated that the EU’s energy efficiency first principle has recently gained legal strength, with a clear requirement for EU countries to consider energy efficiency in policy, planning and major investment decisions in the energy sector and beyond. She explained how applying this principle across sectoral policies and investment decisions is at the core of energy system integration.
- **Khaled Nouasri**, COMELEC’s Secretary General, gave an overview of COMELEC’s activities and affirmed that the harmonisation of the regulatory and legislative framework to facilitate trading between different countries and ensuring the access to an affordable energy are priorities to nurture the emergence of the regional market.



## Second panel: “Powering the Mediterranean: a partnership between Institutions, Stakeholders, and Associations”.

The second panel brought together experts from the Mediterranean and neighbouring regions to discuss the necessary policy, and financial and institutional initiatives to be implemented to achieve effective integration of the Mediterranean power systems. **Antonella Battaglini**, the Renewables Grid Initiative’s Chief Executive Officer, opened and moderated the panel. She emphasised how the energy transition is not simply an economic and technological evolution but a societal transformation, as energy, nature, and people belong together. She also underlined Europe and Africa’s need for skilled forces to plan and deploy the future energy system. In these



# THANK YOU!

TEASIMED Closing Conference  
Brussels, 15 March 2023

**Teasimed**  
TOWARDS AN EFFICIENT, ADEQUATE, SUSTAINABLE AND  
INTERCONNECTED MEDITERRANEAN POWER SYSTEM

A project by  
**med-TSO**  
MEDITERRANEAN ENERGY TRANSMISSION OPERATORS

regards, energy collaboration between these regions must have a solid societal component based on education and capacity building to develop skills.

- **Abdellatif Bardach**, MEDREG's President, stressed the need to modernise the energy system and build strong partnerships to address the region's energy challenges. In these regards, continually investing in the transmission, interconnection and distribution of various energy sources is crucial to ensure transparent, non-discriminatory and harmonious regional markets. These aspects will greatly contribute to creating integrated regional markets that leverage the abundance of natural sources in the area and attract investments and financing.
- **Mohammed Elhousseiny**, UfM's Energy Expert/Energy & Climate Action, explained how the speed of transition is critical in powering the Mediterranean. Bridging the existing gap from country to country can only be achieved by continuously bringing people together and offering various cooperation opportunities to generate discussion and win-win solutions to speed up the transition and reach sustainability. He also took the opportunity to promote the forthcoming Annual Meeting of the UfM Energy Platforms scheduled for May, where issues related to interconnection, finance, and increasing public and private sector participation will be discussed.
- **Kristina Kanapinskaite**, Head of the Public Sector South Division for the EIB Global Directorate, brought the perspective of the International Financing Institutions into the discussion. The European Investment Bank is a major financier of sustainable infrastructure energy projects in Europe and beyond its borders, lending an average of €3.5billion a year for networks and interconnections. Stakeholder engagement and harmonisation are among the main challenges observed in their energy investments. Kristina highlighted the importance of creating a more integrated Mediterranean energy market to cope with fast-growing energy demand and the need for energy security on both seashores, whilst favouring low-carbon and renewable energy sources and unlocking energy efficiency wherever possible.
- **Nina Grall**, Head of the Energy Community Regulatory Board (ECRB) Section for the Energy Community, concluded the panel by reiterating how the crucial starting point of interconnections should always be examining what is needed to operate systems safely and securely and then applying common operational standards. She expressed how the need to focus first on the operational dimension arises because when there is market interest, willingness and political commitment, joint projects can be realised, even if they do not have the same legal basis or if market development status differs between countries.



# WORKSTREAMS IN 2022

## SECOND YEAR OF IMPLEMENTATION OF THE TEASIMED PROJECT

### Updating the Masterplan of Mediterranean Interconnections (MMP)

Read the Masterplan

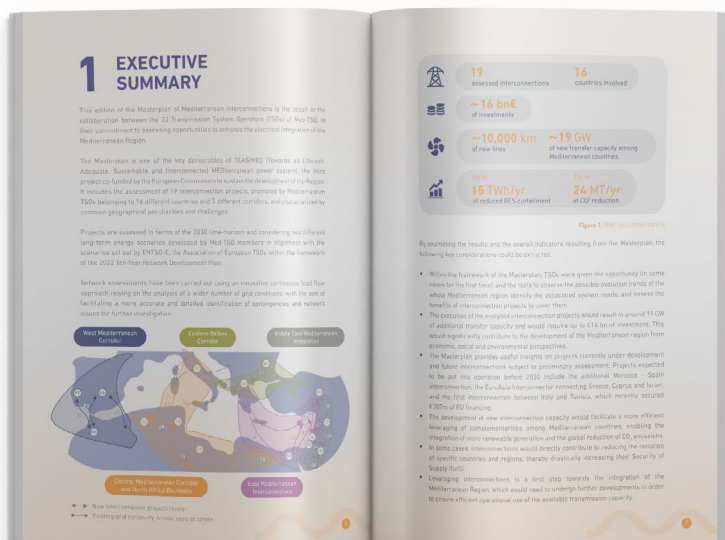


In 2022, the Association worked on the preliminary activities for the third edition of the Masterplan of Mediterranean Interconnections, which is pending publication in 2023.

The Masterplan 2022 includes the Transmission Network Development Plan and improvement of methodologies for its delivery. This plan is built on the basis of regional economic and country-detailed electricity demand and supply scenarios fully developed by a dedicated team within the Association.

In addition to the 2022 Mediterranean Network Development Plan, the Association intends to extend the outlook to a broader perspective, also taking into consideration the long-term climate objectives defined at EU level for some of the Med-TSO members. To this end, cooperation has been initiated with prominent organisations such as IRENA and the Observatoire Méditerranéen de l'Energie in order to compile best practices and methodologies for the elaboration of long-term energy scenarios.

Finally, Med-TSO has initiated the preliminary activities to update the existing Mediterranean Database to support the planning activities, whose second version will be ready by the end of 2023.







## **Consolidating the Common Technical Regulatory Framework**

In 2022, the Association continued the activities aimed at proposing Grid Code Guidelines for key areas of convergence among the stakeholders of the Med-TSO members' power systems. The guidelines should focus on areas that were identified through a dedicated public survey targeting national and regional stakeholders. Additionally, the Association has defined an indicator that relates to the level of interconnection in two dimensions, namely technical and market, to map out which Grid Code Guidelines are relevant for each level of interconnection.

This decision to further engage stakeholders represents a significant step forward compared to previous activities in this domain. Although TSOs are key actors in many of the identified aspects, improvement of the current situation and effective implementation of the rules call for the involvement of a wide variety of actors, such as ministries, regulators, customers, producers, and regional institutions.

Moreover, at the beginning of 2022, it was decided to organise a dedicated webinar with MEDREG to lay the groundwork for a common technical and regulatory framework that would enable electricity exchanges and trading among Mediterranean countries, particularly between the two Mediterranean shores.

## **Identifying and activating some of the selected Interconnected Electricity Exchange Zones (IEEZ), with a view to increasing electricity exchanges in the region**

Based on the positive outcomes of the Mediterranean Projects 1 and 2, Med-TSO is continuing with its activities conducted in 2022, aiming to define a model that can serve as a pilot project to promote integration in the South-Eastern and South-Western regions of the Mediterranean Area. These pilot projects have undergone extensive research and study in order to identify the prerequisites necessary to enhance the current situation of the Electricity Exchanges in these regions.

The pilot projects aim to implement **Interconnected Electricity Exchange Zones (IEEZ)** in collaboration with local institutions and companies. To achieve this goal, in 2022, Med-TSO signed a Memorandum of Understanding (MoU) with COMELEC (Comité Maghrébin de l'Electricité) to exchange views and discuss the necessary actions to achieve concrete results in the South-Western region. At the same time, Med-TSO is exploring potential forms of cooperation with the League of Arab States to identify synergies with the PAEM (Pan-Arab Energy Market). These initiatives are expected to bring about significant advancements in the energy sector in the Mediterranean Area, promoting sustainable development, and contributing to economic growth and social welfare in the region.



## Optimising planning capacities and operation procedures

In 2022, Med-TSO took significant strides towards enhancing cooperation in the operation of power systems in the Mediterranean region. The Association achieved this by increasing the exchange of information among its members regarding the operation of their power systems. Med-TSO defined guidelines for coordinated operation and commenced work on a dedicated platform for data exchange in this domain, which is slated for implementation in 2023.

In parallel, the Association updated its statistical platform, which now contains all essential data regarding the performances of the Mediterranean power systems and interconnections among the 20 member countries of the Association.

Visit the platform



In another ground-breaking move, Med-TSO laid the foundations for launching **the first-ever Adequacy Studies in the Mediterranean Region in 2022**. To achieve this objective, the Association organised the first Summer School dedicated to training representatives from its member organisations. The training programme aimed to equip the representatives with the knowledge required to perform these studies and to train them on the most commonly used tools.

The Adequacy Studies, which were published for the first time in 2022, seek to evaluate the adequacy of power systems on a short- and mid-term basis. System Adequacy plays a critical role in assessing the security of supply in the medium and long terms. It ensures that electricity consumers can obtain the desired amount of electricity at any time, in sufficient quantity and without interruptions, at reasonable prices, while complying with transmission grid operational security limits. Adequacy monitoring has become increasingly important due to the changes in the electricity sector in countries around the Mediterranean Sea. These changes include the development of energy markets, the integration of renewable energy sources, and efforts to decarbonise energy systems.

To this end, the **Summer Outlook 2022 Report** provides valuable information about potential adequacy issues during summer 2022 in five Med-TSO members: Morocco, Algeria, Tunisia, Egypt, and Jordan. The report analyses all hours between the beginning of week 22 and the end of week 39, covering the period between Saturday 28 May and Friday 30 September. The report's findings support the planning and implementation of adequate measures to ensure a reliable supply of electricity during the summer months in these countries. The report shows the clear benefits of integrating the power systems, and in particular, a more reliable electricity supply and a significant reduction of critical situations.

Read the Summer Outlook 2022





# ESTABLISHING THE MED-TSO KNOWLEDGE SHARING SYSTEM

In 2022, Med-TSO continued to place particular emphasis on dissemination and knowledge sharing activities. This activity aimed to establish a forum among relevant professionals from member countries to work on the technical activities carried out by the Association through its technical bodies (Committees and Task Forces) and to make the main results available to the external stakeholders.

## **Webinar “Enabling electricity exchanges and trading in the Mediterranean”**

*Webinar 9 February 2022*

*External Stakeholders: EC, MEDREG, SAPP, World Bank, EBRD, Masen, SAPP*

On 9 February, Med-TSO and MEDREG held a joint webinar entitled “Enabling electricity exchanges and trading in the Mediterranean”, whose purpose was to lay the ground for a common technical and regulatory framework that makes electricity exchanges and trading possible between the two Mediterranean shores.

This joint event embodied the long-lasting fruitful cooperation between Med-TSO and MEDREG. The two Associations are working together to set up a harmonised technical framework in the Mediterranean that will enable the efficient and secure use of the interconnected grids and assess the national priorities in Mediterranean countries and their potential for being a part of the integrated sub-regional and regional electricity markets.

Angelo Ferrante, Secretary General of Med-TSO and Hasan Ozkoc, Director of the MEDREG Secretariat, welcomed and introduced the keynote speakers.

Kicking off the discussions, Florian Ermacora, Head of Unit for Neighbourhood Policies and International Relations, at the European Commission – DG ENER, highlighted the role of grid codes in enabling interconnections with the neighbouring region.

Hervé Laffaye, Med-TSO’s Vice-President and ENTSO-E’s President, stressed the role of Transmission System Operators (TSOs) in establishing the EU internal Energy Market.

In the opening panel discussion moderated by Simone Biondi (Med-TSO’s TEASIMED Project Manager), representatives of regional TSOs and regulatory organisations, public and private power entities, and of the Gulf Cooperation Council Interconnection Authority explored what it takes to achieve a common technical and regulatory framework in the MENA region, in the light of experiences and best practices from neighbouring regions. All agreed that a common





framework is necessary for attracting power generation and grid investments. They also discussed the stage of development of the interconnected grid needed to obtain them.

Moderated by Benoit Esnault (MEDREG's Electricity Working Group Vice Chair), the second panel gathered Mediterranean energy stakeholders from RES4Africa, the Moroccan renewable energy management body – Masen, Med-TSO, the World Bank and EBRD. It discussed and identified the missing links and requirements for electricity trading in and with the MENA region, and proposed necessary actions to activate the appropriate processes.

## **Med-TSO Adequacy Summer School of the Mediterranean**

*Training, Istanbul 17-21 July 2022*

From 17 to 21 July, the Association issued the first training on Adequacy Assessments to 34 participating representatives of member organisations.

This training was organised with the support of EKC in the framework of TEASIMED project and aimed at showing the participants how to make power market models from scratch, by using basic and advanced Antares features. The Antares software package has been made available by RTE in open-source mode and it is based on a model that supports the implementation of probabilistic chronological simulations of system optimisation.

In the framework of TEASIMED, Med-TSO is carrying out adequacy analyses among Mediterranean members' countries for the first time. These simulations offer the possibility of defining different combinations of production, from renewable sources and hydroelectric power plants, variations in consumption due to different climatic conditions, as well as the level of unavailability of thermal units due to planned or unplanned outages.

In this way, the training familiarised participants with these analyses. The recipients of the training welcomed the initiative with strong interest and active participation.

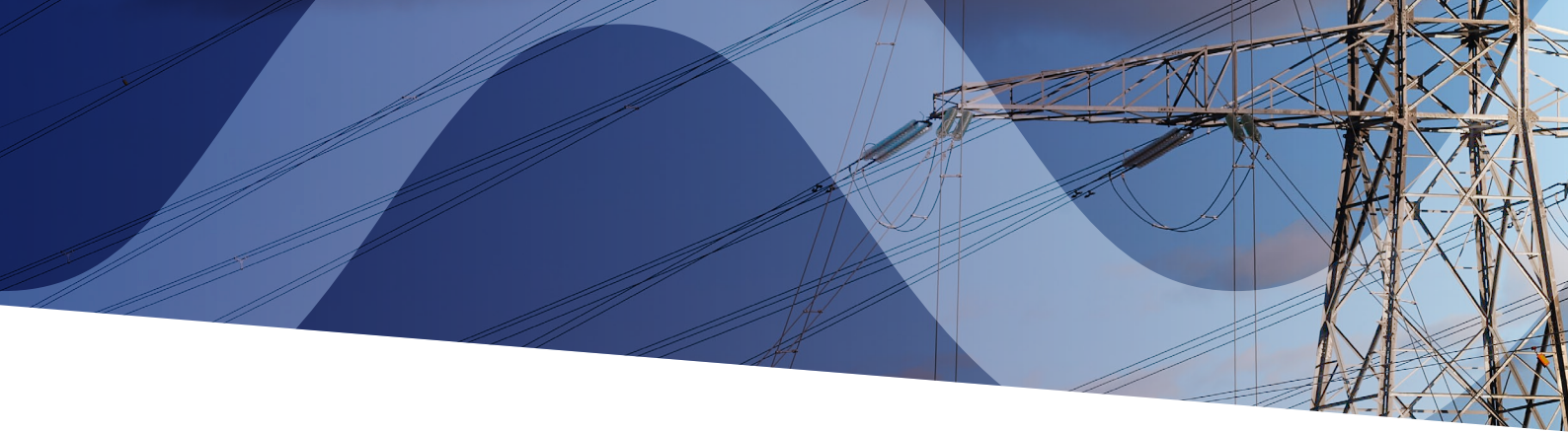
## **Training “Benefits and measures for international power exchanges”**

*Web lessons 28 March 2022 – 7 November 2022*

*Total number of participants: 97*

The Association and the Florence School of Regulation launched the first-ever certified training for its members on “Benefits and measures for international power exchanges”.

This first edition was held online between 28 March and 7 November ([see table](#)).



Module	Topic	Live Class
1	Introduction to cross-border trading	28 Mar 2022
2	Models of cross-border trading and congestion management	11 Apr 2022
3	Governance and institutional prerequisites	28 Apr 2022
4	Organisation of cross-border trading – case studies	16 May 2022
5	The governance of regional market integration: the EU case study	6 Jun 2022
6	System operation guidelines and capacity calculation	27 Jun 2022
7	Transmission charges and inter-TSO compensation	5 Sep 2022
8	Inter-TSO cooperation	26 Sep 2022
9	Pricing electricity generation 1/2	17 Oct 2022
10	Pricing electricity generation 2/2	7 Nov 2022

It consisted of 10 e-lectures provided by the Florence School of Regulation and Compass Lexecon, on the Zoom platform and offered to 97 participants, 47 of whom received a final certificate of attendance.

# RELATIONS WITH MAIN STAKEHOLDERS



**DG NEAR** – *The European Commission is the primary institutional partner of the association. Since 2015, the Commission has supported the actions delivered by the Association through its Directorate General for Neighbourhood and Enlargement Negotiations (DG NEAR), by co-financing Med-TSO through four grants: the Mediterranean Project 1 and 2 from 2015 to 2020 and TEASIMED from 2020 to 2022. Last July, the European Commission’s DG NEAR decided to continue its cooperation with the association by co-funding the fourth action, our ongoing TEASIMED 2 project.*

*Med-TSO and the European Network of Transmission System Operators (ENTSO-E) are natural counterparts and partners, as the two organisations share the membership of 10 TSOs.*

*Med-TSO has cooperated with ENTSO-E since 2016 with two non-disclosure agreements for providing Med-TSO an extract of the Ten-Year Network Development Plan (TYNDP) data and market study results, strengthened in 2017 when the Secretaries General of the two organisations signed the first memorandum of understanding.*

*During 2022, relations between the two associations have been strengthened by the mutual participation of representatives in events.*



*Med-TSO has been cooperating with the Association of Mediterranean Energy Regulators (MEDREG) since 2014, when the two organisations signed a Memorandum of Understanding under the auspices of the European Commission’s Directorate-General for Energy. During 2022, the two associations mainly worked within the framework of the activities developed within the action plan of the Regional Energy Market (REM) Platform promoted by the Union for the Mediterranean*





– an intergovernmental institution bringing together 43 countries to promote dialogue and cooperation in the Euro-Mediterranean region.

In particular, this cooperation encompassed several joint events. On 9 February 2022, Med-TSO and MEDREG organised a joint webinar entitled “Enabling electricity exchanges and trading in the Mediterranean”. Additionally, MEDREG organised training on “Climate Obligations, Environmental Standards and Regulations”, in which Med-TSO’s Programme Manager Luca Ruffino participated as Trainer, and a workshop on “Security of Supply and Adequacy Mechanisms” was organised in Cairo by MEDREG from 17 to 19 May. These events provided opportunities for exchanging ideas and best practices, discussing challenges facing the Mediterranean region, and exploring potential solutions that promote sustainable and reliable energy systems in the region.

On 22 November 2022 in Algiers, COMELEC, MEDENER, Med-TSO, and OME signed a joint protocol on the occasion of the joint conference: *Electrical interconnections in the Mediterranean, a factor of regional integration and catalyst of the energy transition*, organised and kindly hosted by Sonelgaz in Algiers.

The Algiers Protocol aims to define the framework, conditions, and methods of cooperation among the parties, to be implemented by promoting studies, joint projects, initiatives, and events, exchanging information and experiences, and implementing common programmes for capacity building and training.

The four regional organisations came to this agreement based on their mutual interest in contributing to the promotion and economic development of the Mediterranean region and considering their broad experience in energy development and common objective of fostering a just energy transition.



# COMMUNICATION :



12

News items published



88

Tweets posted



85

News items posted  
on Med-TSO Facebook page



91

News items posted  
on Med-TSO LinkedIn page

## 2022 NEWS STORIES

### Workshop “Enabling Electricity Exchanges and Trading in the Mediterranean”

09/02/2022

**WORKSHOP ONLINE**  
**"Enabling electricity exchanges and trading in the Mediterranean"**

Achieving a common technical and regulatory framework to increase electricity exchanges and trading between the two Mediterranean shores.

Organized by  

With the support of the European Union  and  Union for the Mediterranean  
Union pour la Méditerranée  
الاتحاد من أجل المتوسط

A workshop organised by MEGREG & Med-TSO with the support of EU & UfM.



9 February 2022 from 9.30 to 12.45 CET.

#### Objectives of the workshop

*Integrating and exchanging large quantities of renewable energy sources at a regional level, while ensuring security of supply at affordable costs, requires harmonised technical & regulatory frameworks, as this is the sine qua non for exchanging electricity.*

*Issues arise when discussing the following questions: 1) How do we get there? 2) Is a legally binding framework required for attracting investments in power generation and grids? And if so, at which stage of development of the interconnected grid?*

*This workshop sought to lay the ground to achieving a framework that enables electricity exchanges and trading between the two Mediterranean shores. It explored the required framework for attracting power generation and grid investments and discussed the stage of development of the interconnected grid needed to obtain them.*

*The workshop was structured in two parts. The first, aimed at exchanging experiences and best practices on power system integration from the neighbouring regions.*

*The second section of the workshop sought to bring together all the relevant stakeholders to discuss the necessary actions currently missing and the steps to activate the right process.*

*Finally, Med-TSO presented a survey that aimed to compile stakeholders' views on existing barriers and concrete actions to be implemented.*

#### Meet the organisers

*Med-TSO has been working for over ten years on the set-up of a harmonised technical framework in the Mediterranean, to be considered as a necessary software for enabling the efficient and secure use of the interconnected grids. At national level, grid codes are the technical and commercial requirements issued by the local authorities for grid users (production and consumption units as well as distribution companies with all their users) to connect them to the HV transmission network and operate the system according to the relevant standards.*

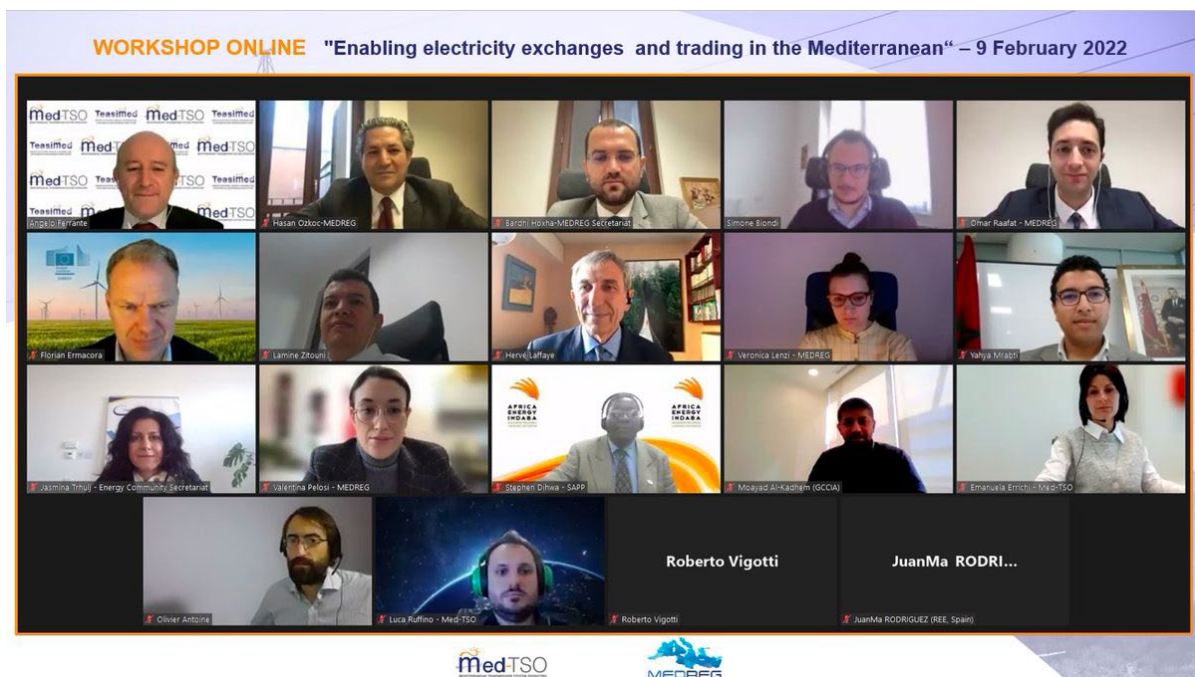
*On the other hand, MEDREG has been working to assess the national priorities in Mediterranean countries and their potential for being a part of the integrated sub-regional and regional electricity markets. In this context, regional cooperation appears to be a vital component for the mutual strengthening of national systems. Cross-border integration offers opportunities for building upon complementarities of systems and providing broader outlets to RES generation. However, challenges are significant, and transmission system operators and regulators have a crucial role to play in overcoming them.*





## Med-TSO and MEDREG work together to enable electricity exchanges and trading in the Mediterranean

14/02/2022




On 9 February, Med-TSO and MEDREG held a joint webinar entitled “Enabling electricity exchanges and trading in the Mediterranean” whose purpose was to lay the ground for a common technical and regulatory framework that makes electricity exchanges and trading possible between the two Mediterranean shores.

This joint event embodies the long-lasting fruitful cooperation between Med-TSO and MEDREG. The two Associations are working together to set up a harmonised technical framework in the Mediterranean that enables the efficient and secure use of the interconnected grids, and to assess the national priorities in Mediterranean countries and their potential for participating in the integrated sub-regional and regional electricity markets.

Angelo Ferrante, Secretary General of Med-TSO and Hasan Ozkoc, Director of the MEDREG Secretariat, welcomed and introduced the keynote speakers.

Kicking off the discussions, Florian Ermacora, Head of Unit for Neighbourhood Policies and International Relations at the European Commission – DG ENER, highlighted the role of grid codes in enabling interconnections with the neighbouring region.



*Hervé Laffaye, Med-TSO's Vice-President and ENTSO-E's President, stressed the role of Transmission System Operators (TSOs) in establishing the EU internal Energy Market.*

*In the opening panel discussion moderated by Simone Biondi (Med-TSO's TEASIMED Project Manager), representatives of regional TSOs and regulatory organisations, public and private power entities, and of the Gulf Cooperation Council Interconnection Authority examined what it would take to achieve a common technical and regulatory framework in the MENA region, in the light of experiences and best practices from neighbouring regions. All agreed that a common framework is necessary for attracting power generation and grid investments. They also discussed the stage of development of the interconnected grid needed to obtain them.*

*Moderated by Benoit Esnault (MEDREG's Electricity Working Group Vice Chair), the second panel gathered Mediterranean energy stakeholders from RES4Africa, the Moroccan renewable energy management body – Masen, Med-TSO, the World Bank and EBRD. It discussed and identified the missing links and requirements for electricity trading in and with the MENA region and proposed necessary actions to activate the appropriate process.*

*In follow-up to this workshop, Med-TSO launched a survey entitled "Identify key areas for harmonisation of a future Mediterranean Grid Code" addressed to national and international stakeholders, in order to gather their opinions on the priorities concerning the necessary measures for the integration of electrical systems.*

## **EU investment in Greece-Cyprus interconnection, also studied by Med-TSO**

*22/02/2022*

*In January 2022, EU countries agreed on a Commission proposal to invest €1.037 billion in five cross-border infrastructure projects under the Connecting Europe Facility (CEF) for Trans-European Networks for Energy policy.*

*The largest amount of funding will go to the Euro-Asia Interconnector project (€657 million) to support the first electricity interconnection between Cyprus and the European grid: Kadri Simson, Commissioner for Energy, underlined how this new Euro-Asia interconnector will end the energy isolation of Cyprus by linking the island to the rest of Europe. In fact, this electricity project interconnects the transmission networks of Cyprus and Greece through 898 km of undersea cables at a maximum sea depth of 3000 metres, setting the new world record for a project of this kind.*

*Med-TSO studied this interconnection project within its Masterplan of Mediterranean Interconnections 2020, issued in the framework of the Mediterranean Project 2, where the views of the Mediterranean Transmission System Operators and members of the Association are compiled regarding the development of the grid up to 2030.*





*The first part of the project “n. 12 GR-CY-IL” studied by Med-TSO foresees a new interconnection between the substations of Damasta in Crete (Greece), operated by IPTO, and the substations of Kofinou in Cyprus, operated by TSOC, to be realised with HVDC submarine cables with a capacity of 1000 MW, using VSC technology and allowing transmission of electricity in both directions.*

*The allocation of these CEF funds is in line with the European Green Deal’s objectives, aiming to facilitate the integration of the energy infrastructure in the EU for supporting the energy transition, facilitating the integration of renewable energy, and enhancing the security of supply.*



## **Mr Mourad Adjal (Sonelgaz, Algeria) elected as new Med-TSO President**

03/03/2022

*On 28 February 2022, Med-TSO elected a new President, Mr. Mourad Adjal, to take over from Mr Chaher Boulakras and chair the Association until the first term of 2023.*

*Mr. Adjal had been recently appointed as President and Director General (PDG) of Sonelgaz (Algeria), one of Med-TSO’s founding members. He brings broad experience in the sector and will contribute with this know-how and expertise to consolidate the work of Med-TSO, aiming at facilitating the creation of a Mediterranean energy market and developing an integrated, secure*





and sustainable regional electricity transmission network by strengthening cooperation between the member countries. Mr. Adjal confirmed his commitment to ensure continuity in achieving the objectives of Med-TSO through the realisation of ongoing and planned projects. In his words, “[I am] ready to take up the new challenges, with the contribution of the different members of our Association, related to the new energy mix of tomorrow, which the world must face, oriented towards new energy models, clearly different from the classical ones”.



## Med-TSO’s First Hybrid General Assembly and Welcoming of Electricité du Liban as a new member

04/07/2022

On 17 May 2022, Med-TSO held its first hybrid General Assembly on-site in Rome and via online conference. The meeting was chaired by President Mourad Adjal (PDG of Sonelgaz, Algeria), who met with the participants to discuss the agenda items and review the progress of the Association’s work to date.

Mr Adjal welcomed the participants and highlighted the mutual benefits of cooperating and working together: “I remain deeply convinced that the combination of our efforts can only be beneficial to make our strategies more coherent in order to build an efficient and compliant Mediterranean energy system that meets the imperatives of sustainable development”.



*The highlight of the General Assembly meeting was the approval of the request for new membership from Electricité du Liban (EDL), as the 22nd member of Med-TSO, undersigned by the Chairman of its Board of Directors, Dr. Kamal Hayek.*

*Mr. Ramzi Dobeissy (EDL, Lebanon) spoke for the Lebanese TSO and shared the collaborative spirit of Med-TSO: “With our membership to Med-TSO, Lebanon will provide best practices and good results for the community and all the countries surrounding the Mediterranean. I thank you again for having us among you. We are ready for further cooperation between our members”.*

*The hybrid conference concluded with a briefing on the past and ongoing activities and its members. The meeting also provided the occasion to review the ongoing TEASIMED project and report on its progress.*

*Finally, all participants restated their commitment and support to the project and worked together to foster the development of an integrated, secure and sustainable regional electricity transmission grid by promoting all the institutional initiatives aiming to facilitate the creation of a Mediterranean energy market.*



## **Med-TSO releases its Summer Outlook 2022**

12/07/2022

*In July 2022, Med-TSO issued the Summer Outlook 2022, gathering for the first time ever, the adequacy results among non-EU Med-TSO members, related to summer 2022.*



*System Adequacy represents a fundamental tool for assessing the security of supply in the medium and long term, ensuring that electricity consumers could obtain the desired amount of electricity at any time, without interruptions, in the required quality and at reasonable prices, while complying with transmission grid operational security limits.*

*Adequacy monitoring is becoming increasingly important given the changes in the electricity sector in countries around the Mediterranean Sea, such as the energy markets' development, the integration of renewable energy sources and the efforts to decarbonise energy systems.*

*This Summer Outlook 2022 Report provides information about potential adequacy issues during summer 2022 in five MED-TSO members: Morocco, Algeria, Tunisia, Egypt and Jordan. The analysed period includes all hours between the beginning of week 22 and the end of week 39, which is the period between Saturday, 28 May and Friday, 30 September.*

*With this assessment, Med-TSO aligns with the world-wide best practices and the latest development of the EU Regulation on the internal market for electricity, taking a further step towards the development of an integrated, secure and sustainable Mediterranean energy market.*

*Download this brochure for more information.*



## **First Med-TSO Adequacy Summer School**

*22/07/2022*

*Med-TSO's four-day Adequacy Summer School concluded with the awarding of diplomas to the 34 participants from various Mediterranean TSOs.*





*This training was organised with the support of EKC in the framework of TEASIMED project. It was aimed at showing the participants how to make power market models from scratch, by using basic and advanced Antares features. The Antares software package has been made available by RTE in open-source mode and it is based on a model that supports the implementation of probabilistic chronological simulations of system optimisation.*

*In the framework of TEASIMED, Med-TSO is carrying out adequacy analyses among Mediterranean members' countries for the first time. These simulations offer the possibility of defining different combinations of production, from renewable sources and hydroelectric power plants, variations in consumption due to different climatic conditions, as well as the level of unavailability of thermal units due to planned or unplanned outages.*

*In this way, the training familiarised most of the participants with these analyses. Those who took part welcomed the initiative with strong interest and active participation.*



## **26th General Assembly in Algiers**

01/12/2022

*Our final General Assembly of the year was hosted in the premises of Sonelgaz in Algiers. Members had the opportunity to review and take stock of the past months. Technical activities were reviewed, as well as plans for the next steps for our new project, following the conclusion of TEASIMED.*

*The Assembly also marked the occasion to announce the date of the TEASIMED Closing Conference, which would be held in Brussels on 15 March 2023.*



## **The EU will finance Italy-Tunisia power interconnection project**

*09/12/2022*

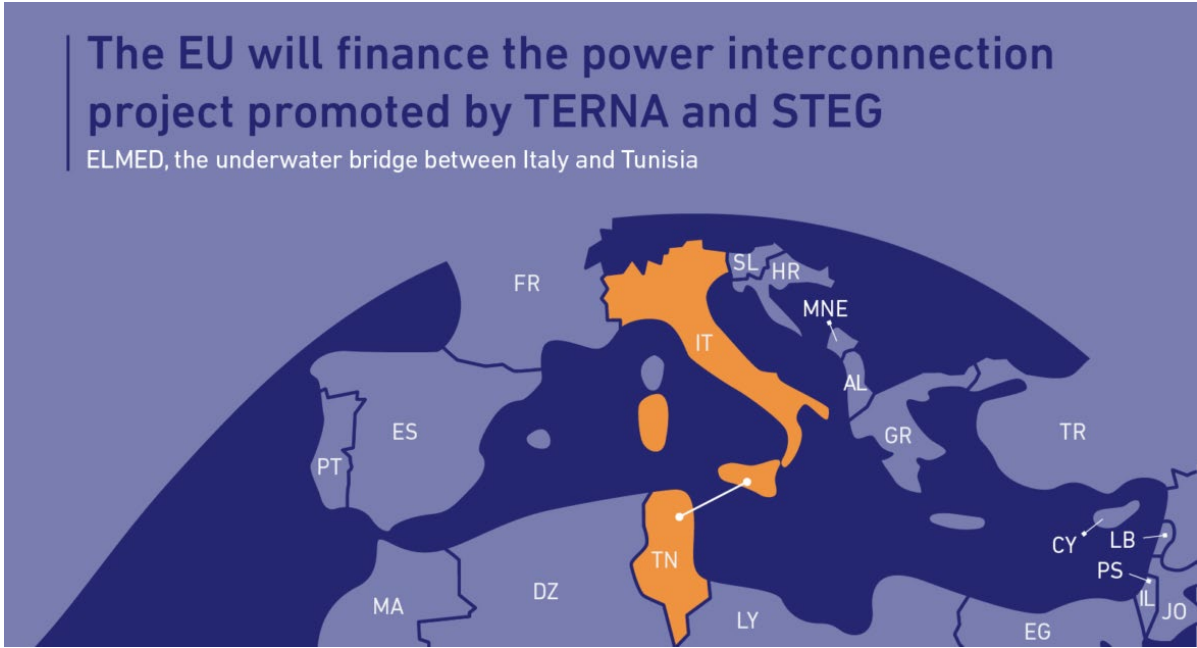
*On 8 December 2022, the European Commission announced the approval of a grant of around €307 million for the implementation of ELMED, the underwater interconnection project between Italy and Tunisia, strongly promoted by our members TERNA and STEG.*

*The 230 km submarine cable will connect the substations of Partanna in Sicily, and Hawaria in Tunisia, with a capacity of 600 MW and it is expected to be completed by 2027. Its total cost should amount to €850 million*

*The approval of this project, included in Med-TSO's Masterplan of Mediterranean Interconnections since its first edition in 2018, marks an historical step towards the creation of the Mediterranean electricity markets through the integration of the grids of the North and South shores of the Mediterranean. It will be fundamental to strengthen the energy security of the region and increase electricity production from renewable sources.*

*A detailed description of the project can be also found in Med-TSO's "Mediterranean Project 2" Masterplan.*





**Memorandum of Cooperation among COMELEC, MEDENER, Med-TSO, and OME**

14/12/2022

On 22 November 2022 in Algiers, COMELEC, MEDENER, Med-TSO, and OME signed a joint protocol at the joint conference *Electrical interconnections in the Mediterranean, factor of regional integration and catalyst of the energy transition*, organised and kindly hosted by Sonelgaz in Algiers.

The Algiers Protocol aims to define the framework, conditions, and methods of cooperation among the parties, to be implemented by promoting studies, joint projects, initiatives, and events, exchanging information and experiences, and by implementing common programmes for capacity building and training.

Mr. Mourad Adjal, President of COMELEC and Med-TSO and Co-Chairman of OME, declared the signing of the “Algiers Protocol” as setting a precedent in the history of joint relations between regional organisations active in the energy field. Cooperation is the cornerstone of the protocol to promote a regional approach open to all associations and bodies working in the field.



The four regional organisations reached this agreement based on their mutual interest in contributing to the promotion and economic development of the Mediterranean region, considering their broad experience in energy development and common objective of fostering a just energy transition.

The protocol was signed by the Secretaries-General and Directors of the four organisations. Khaled Nouasri, Secretary General of COMELEC, stated that this signing will strengthen the link between the countries of the North and the South of the Mediterranean to create a regional market for electricity that will allow the establishment of a win-win relationship. Roberta Boniotti, Secretary General of MEDENER, added that all the four stakeholders can be key players in supporting the transition to a low-carbon economy, starting from this first relevant new initiative of cooperation. Angelo Ferrante, Secretary General of Med-TSO, affirmed that this agreement will contribute to the process of integrating the power systems in the region and foster the creation of a regional energy market. Houda Ben Jannet Allal, General Director of OME, asserted that this agreement is an important step to improve the dialogue on the energy future in the Mediterranean and to accelerate the just and effective energy transition for which all countries and the region strive.







Med-TSO - Mediterranean  
Transmission System Operators



@med\_tso



Med-TSO



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