



# INDEX

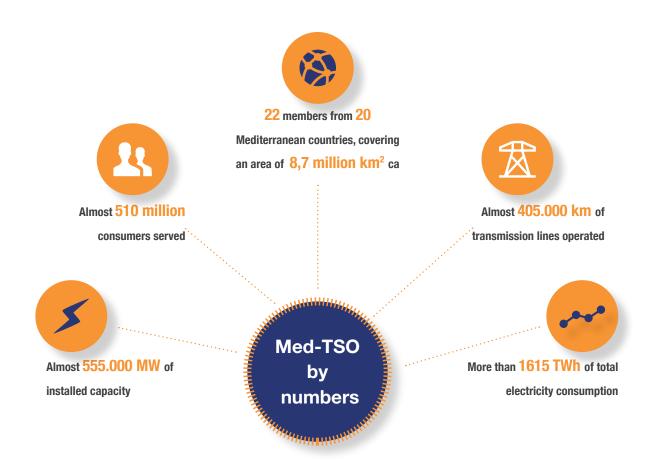
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#### ABOUT US

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

What is Med-TSO?

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.



#### 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

COORDINATED PLANNING

for the Mediterranean high-voltage transmission system development. 2

#### COMMON TECHNICAL RULES

(Mediterranean grid code)

for power system interoperability: optimising existing interconnections and supporting investments to favour common technical rules for new ones.

3

CAPACITY BUILDING AND KNOWLEDGE SHARING PROGRAMMES

#### **EU SUPPORT**

Mediterranean Projects
1 and 2, and the ongoing
project Teasimed are
co-funded by the
Euripean Union.

**BOTTOM-UP APPROACH** based on TSOs' 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 crossborder projects aiming at facilitating the integration of new energy sources (especially from
  RES), 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 the regional level by analysing and taking common positions on issues that can positively impact the development and operation of transmission systems.

#### **MISSION**

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

#### **VISION**

We strive to become 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.

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

Med-TSO is the only association representing the TSOs 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.

In recent years, the association has shown exceptional capacities to foster dialogue and promote activities.

The challenging initiative of Med-TSO was started to set up a framework of multilateral cooperation in the Mediterranean electricity sector for 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. Following the establishment of the association and after having gained consensus as a qualified and reliable stakeholder in the Mediterranean region, it is time to consolidate and strengthen the Med-TSO flagship position, calling for a new commitment and for new activities to be developed.

Thanks to activities carried out over the years, the association has developed a reliable working methodology among the many different TSOs. This is the strength of Med-TSO, as it allows it to act as a bridge between the different parts of the Mediterranean region, combining knowledge, work and visibility.

#### The voice of the Mediterranean TSOs

Med-TSO wants to consolidate itself as a "platform for multilateral cooperation", i.e. an actual instrument for integrating and developing the Mediterranean Power Systems through the enhancement of the electricity interconnection level among its members and by facilitating the integration of RES.

The ambitious objective is to cultivate a growing regional "key role", giving proactive support to our members for their activities in planning and developing new interconnections, promoting the creation of a harmonised regulatory framework, in representing the TSOs' needs and requirements in the energy debates, and in improving relationships with the other regional stakeholders. In a nutshell: acting as "the voice of the Mediterranean TSOs" towards all the relevant stakeholders.

## OUR ORGANIZATION









TECHNICAL COMMITTEE

PLANNING



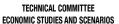


REGULATION AND INSTITUTIONS



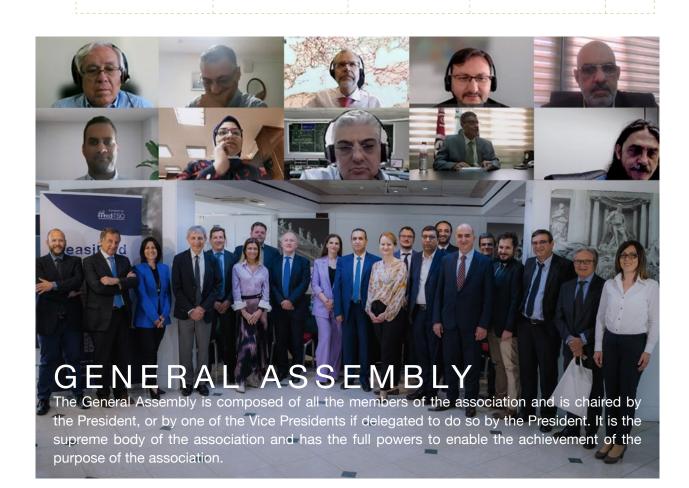








TECHNICAL COMMITTEE KNOWLEDGE SHARING



# EXECUTIVE

The Executive Board is the executive managing body of the association, composed of the President and 8 Vice Presidents as appointed by the General Assembly.





**MOURAD ADJAL PRESIDENT** 

**ANGELO FERRANTE** 

SECRETARY GENERAL



**GUIDO GUIDA** VICE-PRESIDENT



**IOANNIS KAMPOURIS** VICE-PRESIDENT



ABDELLAH KABIRI VICE-PRESIDENT





**SERHAT METIN** VICE-PRESIDENT



SABAH MASHALY

VICE-PRESIDENT

ALBERTINO MENESES VICE-PRESIDENT



**HRAIECH** 

**OFFICER** 

**TECHNICAL** 

#### 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.

SIMONE BIONDI TEASIMED PROJECT



SIMONA LA CIOPPA **CORPORATE AFFAIRS** 



**GHERARDO ALFONSO** 







AHMED R. ELSHAMI POWER SYSTEM ANAS EL ADVISOR







**LUCA RUFFINO PROJECT** COORDINATOR





**EMANUELA ERRICHI EVENTS** 





# MESSAGE FROM THE PRESIDENT

#### Dear members, dear readers,

The deep changes that are taking place today in the world on both a climatic and economic level are not without consequences for the energy sector. They challenge us at the highest level and these challenges must be faced. Through its various projects and achievements in 2021, our association has already initiated the dynamics of the energy mix in its regional context.

Security and socio-economic development in the Mediterranean strongly depend on energy and on the development of an integrated regional energy market. Energy infrastructure is key to achieving this goal, particularly with regard to the development of a safe, reliable and sustainable transmission network capable of interconnecting countries, thereby enabling the exchange of electricity and integrating production from new, essentially renewable sources.

It is, therefore, appropriate to welcome the existence of organisations such as ours, which work for close cooperation in the fields of electricity and energy in general and whose vocation is to unite all its actors in creating the Mediterranean loop, increasing the security and reliability of energy, while generating economies of scale in the investments of its member countries.

Personally, I am convinced that our coordinated efforts will make it possible to achieve common objectives and to make our strategies more coherent in order to achieve an efficient Mediterranean energy system that complies with the requirements of sustainable development.

Med-TSO today, as stated in this report, embodies almost 510 million people served, almost 405.000 km of transmission lines operated and nearly 555,000 MW of installed capacity. In other words, twenty Mediterranean countries share an essential objective: to promote the creation of a Mediterranean energy market.

We also hope that eventually, our association and its partners will guarantee positive equalisation for the populations and economies of the Mediterranean region thanks to a safe, clean and affordable energy supply for the different social strata.

Indeed, whatever the constraints and difficulties encountered, we must not relegate to the background, and concerns related to interconnection and sustainable development issues.

This is even truer since the energy strategies and policies that ensure countries a structural development of their economies are the very ones that will subsequently make it possible to implement cooperation and sustainable development actions.

The COVID-19 pandemic has also had a major impact on our economies. Nevertheless, it has allowed us to test our resilience capabilities, bringing a more humane approach to our industries and our economies. In this case, Med-TSO was able to find mechanisms for the continuation of its activities, by organising its workshops in hybrid mode and its meetings in distance mode, thus offering its members



on both shores of the Mediterranean an opportunity to exchange experiences and visions.

It is under these exceptional conditions that the TEASIMED project, whose work began in September 2020, was able to evolve. A project that I will endeavour to pursue with the greatest dedication with the aim of significantly improving the opportunity for the creation of a single electricity market between the two shores, in particular throughout the implementation of the operational cooperation projects in the Euro-Mediterranean region.

We strongly believe in partnership and in win-win cooperation. Tomorrow, our energy needs will be enormous. We are going to have to deal with a major investment programme, which will call on our skills, and will make our association, in the long term, a major and essential player in the region in the field of the

development of energy services and a model to follow in other regions of the world.

The challenge is therefore to respond to this demand, to ensure responsible energy security in the Mediterranean electricity market, oriented towards new models where the energy mix is today an indisputable issue.

I cannot conclude without thanking all the members and all the stakeholders for the efforts made in carrying out the programme over the past year while wishing to continue with you on the path to ensure the sustainability and prosperity of our association.

President of Med-TSO

Mowrad Adjal



## NUMBER OF MEETINGS ORGANISED BY Med-TSO

10
INSTITUTIONAL

28 TECHNICAL

**9** WORKSHOPS



# TOTAL PARTICIPANTS TO THE MEETINGS ORGANIZED BY Med-TSO

206
INSTITUTIONAL

574
TECHNICAL

230 WORKSHOPS

NUMBER OF INTERNATIONAL PHYSICAL AND REMOTE MEETINGS Med-TSO TOOK PART: 9

# 2021 TIMELINE Most of the meetings have been held remotely

due to the COVID-19 pandemic

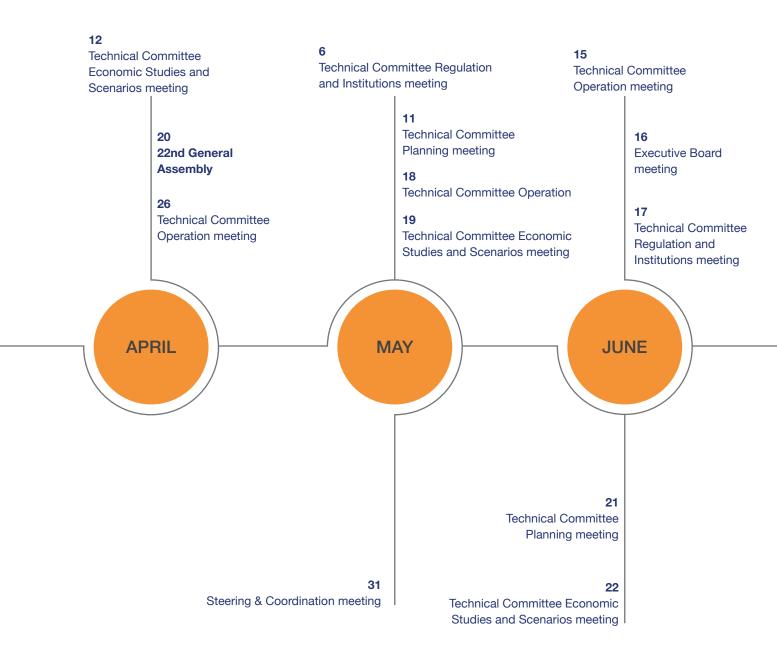
12-13 Webinar. Technical Committee Webinar. Technical Committee **Economic Studies and Scenarios Economic Studies and Scenarios** "Med-TSO Scenarios Building "Med-TSO Scenarios Building for TEASIMED project" for TEASIMED project" **Technical Committee** Internal workshop, DAY 3 Operation meeting External Workshop, DAYS 1-2 18 10 **Technical Committee Technical Committee** Operational meeting **Economic Studies** and Scenarios meeting 19-20 16 25 Webinar. "Mediterranean **Technical Committee Executive Board meeting** Masterplan 2020 - DAY 1 Focus Planning meeting on Eastern Region - DAY 2 Focus on Western Region" **JANUARY FEBRUARY MARCH** 21 18 **Technical Committee Technical Committee Regulation** Regulation and and Institutions meeting Institutions meeting 23 21 Steering & Steering & Coordination meeting Coordination meeting **Technical Committee Operation Technical Committee** 

"Recipe and ingredients for

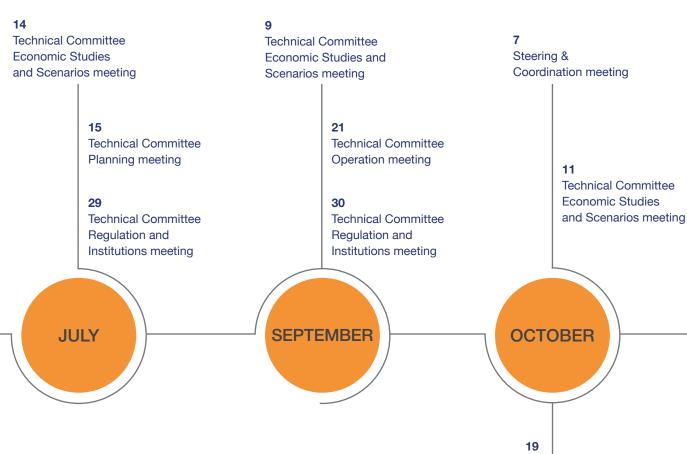
adequacy studies" Internal workshop

Planning meeting







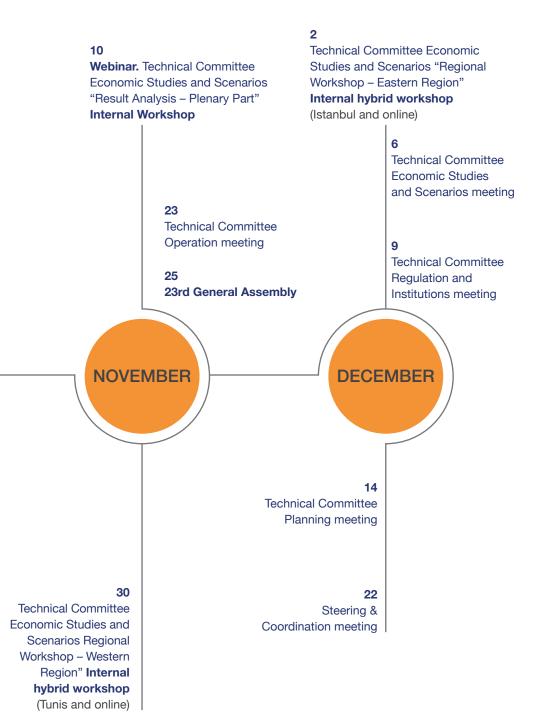


Webinar. Technical Committee Operation "Enhanced TSO coordination for interconnected power systems: Regional Coordination experiences"

Internal workshop

26 Executive Board meeting











## TOWARDS AN EFFICIENT, ADEQUATE, SUSTAINABLE AND INTERCONNECTED MEDITERRANEAN POWER SYSTEM

The project is structured into six working streams:

1

Updating the
Mediterranean Masterplan
(MMP)

2

Consolidating the common technical regulatory framework

3

Identifying and putting into operation some of the selected Interconnected Electricity Exchange Zones

(IEEZ), with a view to increasing electricity exchanges in the region

4

Optimising planning capacities and operation procedures

5

Establishing the Med-TSO Knowledge Sharing System

6

Providing efficient support to the UfM Regional Electricity Market Platform,

in close collaboration with the Association of the Mediterranean Regulators for Energy – MEDREG.

With TEASIMED, Med-TSO intends to focus more its activities 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 cooperation in operation.

More specifically, this new initiative includes the launch of a pilot project for implementing and harmonising Technical and Operational Rules in the Maghreb countries. It also envisages 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.

## WORK STREAMS IN 2021

#### FIRST YEAR OF IMPLEMENTATION OF TEASIMED PROJECT

#### **Updating the Mediterranean Masterplan (MMP)**

In 2021, the association worked on the preliminary activities for the third edition of the Mediterranean Masterplan, which is pending publication in 2022.

The Mediterranean Masterplan 2022 includes the Transmission Network Development Plan and improvement of methodologies for its delivery. This plan will be 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 the EU level for some of the Med-TSO Members. To this end, cooperation has been launched 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 2022.

#### Consolidating the common technical regulatory framework

In 2021, the association launched the preliminary activities to propose Grid Code Guidelines for the key areas of convergence among the stakeholders of the Med-TSO members' power systems. Such guidelines should be focused on key areas, which will be identified through a dedicated public survey addressed to the national and regional stakeholders.

The decision to further engage the stakeholders represents a major step forward with respect to previous activities in this domain. While it is clear that the TSOs are key actors for many of the identified aspects, the actual improvement of the current situation and the effective implementation of the rules, call for the involvement of a wide variety of actors, such as ministries, regulators, customers, producers, and regional institutions, etc.

Moreover, at the beginning of 2022, it was decided to organise together with MEDREG, a dedicated webinar whose purpose is to lay the ground for a common technical and regulatory framework that makes electricity exchanges and trading possible among the Mediterranean countries and, in particular, between the two Mediterranean shores.



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

Based on the results of Mediterranean Projects 1 and 2, in 2021, Med-TSO began promoting the launch of pilot projects of integration respectively in the South East and South West regions of the Mediterranean Area, aimed at implementing Interconnected Electricity Exchange Zones (IEEZ), in cooperation with local institutions and companies.

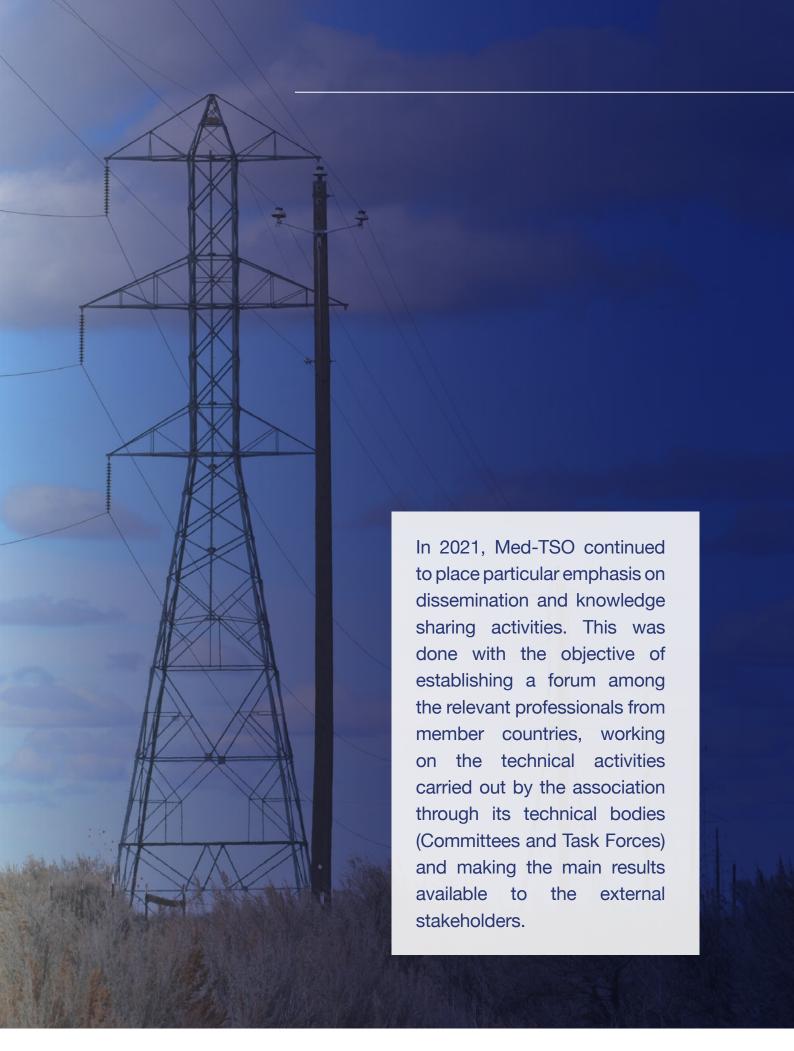
These pilot projects are to be studied extensively during 2022, with the aim of identifying the prerequisites for the enhancements of the current situation of the Electricity Exchanges in the two zones of the Mediterranean area.

#### **Optimising planning capacities and operation procedures**

In 2021, Med-TSO built the prerequisites for enhancing cooperation in the operation of the Power Systems by increasing the exchange of information related to the operation of the Med-TSO Members' Power Systems. In particular, Med-TSO defined the guidelines for a coordinated operation that will be implemented by creating a dedicated platform for data exchange in this domain in 2022.

In parallel to this activity, the association has updated the statistical platform with all essential data regarding the performances of the Mediterranean Power Systems and the interconnections among the 19 member countries of the association. The platform can be accessed via this <u>link</u>.

As a major step forward in supporting a coordinated operation, in 2021 the association laid the foundations for launching the first-ever Adequacy Studies in the Mediterranean Region. The objective of these studies, which are pending publication in 2022, is to evaluate the adequacy of the power systems on a short- and mid-term basis.



#### Webinar "Med-TSO Scenarios Building for TEASIMED project"

Webinar 12-13 January and 9 February 2021

External Stakeholders: GCCIA, ENTSO-E, IRENA, OME

Total number of participants: 77

Med-TSO organised – within the TEASIMED project – a three-day workshop for the Technical Committee Economic Studies and Scenarios (TC ESS) to launch the process of scenarios building to update Med-TSO scenarios, combining the experience of members with that of external experts.

The first day was dedicated to drawing an overview of mid-and long-term energy scenarios and context in the Euro-Mediterranean region. Presentations by external experts, ENTSO-E, IRENA and OME, focused on the development of the Mediterranean Power System in a wider geographical context, including its connections to the North, South and East. Special attention was paid to outlining long-term scenarios from stakeholders' perspectives, energy efficiency, the development of RES, emerging technologies and energy transitions and the role of the Mediterranean in global energy integration.

During the second day, members of TC ESS worked on the definition of the new Med-TSO scenarios, adopting a step-by-step methodology. Selection of a set of drivers (economic, demographic, technology, etc.), a description of the scenarios and a provisional storyline draft were the outputs at the end of the workshop.

During the third day, members of TC ESS pursued activities that started on Day 2 with the definition of the new Med-TSO scenarios for TEASIMED, adopting a step-by-step methodology. Selection of a set of drivers (national/regional energy policy, economic, demographic, technology and emerging use, etc.), description of the scenarios and provisional storyline draft were the outputs of the workshop.

#### Regional Conferences of the Mediterranean Masterplan 2020

Webinar 19-20 January 2021

External Stakeholders: no external stakeholders

Total number of participants: 54

On Wednesday 11 November 2020, Med-TSO held the webinar "Mediterranean Grid Code and its application to the Maghreb Pilot Project".



The webinar showed the work carried out by Med-TSO in the last Mediterranean Project 1 & 2 for developing a shared set of technical rules and procedures that constitute the building blocks for the elaboration of the Mediterranean Grid Codes Guidelines. Grid codes are the technical and commercial requirements issued by the national authorities for all the grid users (production and consumption units as well as distribution companies with all their users) to connect them to the HV transmission networks and operate as per the standards.

The webinar saw the participation of COMELEC (Comité Maghrébin de l'Electricité) whose representative stressed on the need of integration of the Maghreb electricity networks, including the harmonization of the rules for operating and developing the network, aiming to the establishment of an electricity market in the area.

On 19 and 20 January 2021, Med-TSO held two webinars to present one of the main results of Med-TSO's Mediterranean Project 2: The Mediterranean Masterplan 2020.

The webinars had a common introductory session covering the freshly concluded Mediterranean Project 2, then each followed a different path.

On 19 January, for the Western Mediterranean region, experts from among the TSOs' members and from the Secretariat presented the Electricity Scenarios at 2030 and the relevant Interconnection Projects explored for the same time horizon, such as Morocco–Portugal and Morocco–Spain; Algeria–Tunisia–Libya, Algeria-Spain and Algeria–Italy; Tunisia–Italy.

The following day, the same aspects were examined in greater depth for the Eastern Mediterranean region projects: Turkey–Egypt, Turkey–Israel and Syria–Turkey; Egypt–Jordan; Jordan–Syria and Jordan–Palestine; Greece-Turkey–Bulgaria; Israel–Cyprus–Greece and Egypt–Cyprus–Greece.

All these projects are included in the Masterplan, although they are at different degrees of maturity. All aim at reinforcing the interconnection level in the Mediterranean area. Increased interconnections and reinforced cooperation among the Transmission System Operators, as promoted by Med-TSO, are key to achieving the energy transition in the region.

The webinars also provided an opportunity to present the digital version of the Mediterranean Masterplan of the interconnections. This useful tool delivers a picture of the potential development of interconnections in the Mediterranean region, as proposed by Med-TSO, by providing a comprehensive view of the fifteen interconnection clusters. Thanks to this digital report, all the data elaborated directly by Med-TSO using supply and demand data collected by the TSOs, and the relevant scenarios, are fully navigable in an interactive way.

The creation of this Masterplan and its digital version is a significant step toward Med-TSO's objective to be a reference body for every technical, market and policy issue related to the Mediterranean electricity system, while also proving the feasibility of regional multilateral cooperation.

The digital report is available *here*.



#### Webinar "Recipe and ingredients for adequacy studies"

Web conference 29 March 2021

External Stakeholders: ENTSO-E

Total number of participants: 42

On 29 March 2021, the Med-TSO Technical Committee Operation organised a webinar "Recipe and ingredients for adequacy studies". The development of Adequacy Studies is one of the core tasks foreseen in the TEASIMED Med-TSO project.

System Adequacy is the ability of the power system to consistently meet demand and thus guarantee the security of supply. TSOs perform Adequacy Studies for their systems in different time horizons (weekly – a week ahead, seasonal, mid-term, long-term), with the aim of adequately assessing possible risks and providing stakeholders with the data necessary to make informed qualified decisions.

The webinar saw the participation of ENTSO-E, whose representatives stressed the necessary methodology and data needed for performing an Adequacy analysis.

## Webinar "Enhanced TSO coordination for interconnected power systems: Regional Coordination experiences"

Web conference 19 October 2021

External Stakeholders: CORESO, ENTSO-E, SCC, TSCNET Services

Total number of participants: 42

On 19 October, Med-TSO's Technical Committee Operation hosted an online internal workshop on Enhanced TSO coordination for interconnected power systems. The session was aligned with Med-TSO's objective of fostering dialogue between the different transmission system operators in the Mediterranean area. Likewise, the sessions were successful given that the enhancement of coordination in this sector along the southern shore of the Mediterranean and between the two shores, is also one of the objectives of the TEASIMED project.

Following the introductory remarks by Secretary General of Med-TSO, Angelo Ferrante, Bakli Bordji (OS, Algeria – Med-TSO) opened by presenting the outcomes of the survey "Enhance coordination in the operation of electric systems".



This section was followed by the discussion on the Regional Coordination experiences with interventions from Jean-Francois Gahungu, CEO of CORESO, and Duško Tubic, Director of SCC, two of the Regional Security Centres currently operating in Europe.

The keynote speakers covered the establishment of CORESO on a voluntary basis and presented the agreement between the Security Coordination Centre and TEIAS as an example of effective cooperation to ensure greater coordination and operational security to the Power Systems.

Along the Mediterranean region, there are several regional initiatives. However, they all have common objectives and provide the same services with one standard/SW/system. In this sense, Vedran Angerbrandt (CORESO) and Jayaram Anandha (TSCNET Services), shared their expertise on how Short-Term Adequacy (STA) and Outage Planning Coordination (OPC) apply these factors.

During both sessions, the speakers and the attendees crowdsourced their knowledge through a dedicated slot for questions and answers, where relevant conclusions were delivered by the different contributors. The event was concluded with closing remarks from Simone Biondi, TEASIMED Project Manager.

Taking advantage of other experiences developed in the EU area, i.e. the establishment of Regional Coordination Centres developing key services, the internal workshop aimed at building common ground between Med-TSO members for developing effective procedures and guidelines for improving the coordination in the operation of power systems.

#### Workshops "Analysis of the first round of scenario simulations"

Web conference 10 November - Tunis 30 November - Istanbul 2 December 2021

External Stakeholders: no external stakeholders

Total number of participants: 69

The Technical Committee Economic Studies and Scenarios held a workshop divided into three sessions – one plenary and two regional sessions – to discuss and adapt the results of the first round of scenario simulations.

On 30 November, the first regional workshop took place in Tunis, in the representation of the Western Region (Morocco, Algeria, Tunisia, Libya, Portugal, Spain, France, and Italy). On 2 December, a workshop was hosted in Istanbul for the Eastern Region (Egypt, Jordan, Palestine, Turkey, Cyprus, Greece, Croatia, and Montenegro).

At the end of the workshops, the experts controlled the simulation run, which was executed



through specific software. By the end of this first round of activities, the following objectives had been achieved:

Supervision of the assumptions for the remaining countries.

- Examination of all the annual and synthetic indicators. These indicators include variables such as generation, demand, exchanges, marginal prices, flexibility, equivalent full-time duration, and CO2.
- Analysis of the Power Systems' performance undertaken in seasonal, daily and hourly time steps through specific software.

Following these two regional workshops, the data obtained and the necessary modelling modifications will be updated for the final round of studies, to be performed in 2022.

### RELATIONS WITH MAIN STAKEHOLDERS



#### **European Commission - DG NEAR**

The European Commission is the main institutional partner of the association. Since 2015, the Commission, through its Directorate General for Neighbourhood and Enlargement Negotiations (DG NEAR), has supported the actions delivered by the association, by co-financing Med-TSO through two Grants: the Mediterranean Project I, and its follow-up, the ongoing Mediterranean Project II. From September 2020, the EC cofunded the Med-TSO TEASIMED project.



#### **ENTSO-E**

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 13 TSOs.

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

In 2021, relations between the two associations have tightened with the signing of a mutual cooperation agreement.



#### **MEDREG**

Med-TSO has cooperated with the Association of Mediterranean Energy Regulators (MEDREG) since 2014 when the two organisations signed a Memorandum of Understanding under the auspices of the Directorate-General for Energy of the European Commission.

In 2021, 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.

# COMMUNICATION





**78**Tweets posted



News posted on Med-TSO

Facebook page



News posted on Med-TSO LinkedIn page



New Youtube videos



3
Brochures
completing a
total set of 5

#### **2021 NEWS BY NEWS**

# System split registered in the synchronous area of Continental Europe on 8 January 2021

11/01/2021

An area in the southeast region of the interconnected grid was separated from the rest of Continental Europe between 14:05 CET and 15:08 CET when it was reconnected.



#### Med-TSO held a Workshop on Scenarios Building for TEASIMED project

13/01/2021

From 12-13 January 2021 Med-TSO held an online workshop on the "Scenarios Building for TEASIMED project", organized by the Technical Committee "Economic Studies and Scenarios", chaired by Emmanuel Bué (RTE, France).



The scope of this two-day workshop was to launch the process for updating Med-TSO scenarios and to build a robust framework for undertaking studies to develop the grid of the future. The previous set of long-term Med-TSO 2030 Scenarios had been built by this Technical Committee during the previous project – the Mediterranean Project 2 (2018-2020), following a process ensuring a Mediterranean framework and strong coherency within the area and with neighbouring regions.

The first day of this workshop was dedicated to drawing a general overview on mid-and long-term energy scenarios. Presentations by external experts from ENTSO-E, CGGIA, IRENA and OME focused on the development of the Mediterranean Power System in a wider geographical context, including its connections to the North, South and East. Special attention was paid to the role played by energy efficiency, development of Renewable Energy Sources, and emerging technologies in defining long-term scenarios from an energy transition perspective, taking into account the Mediterranean region's energy integration in a global context.

During the second day, the workshop followed a two-step process, involving Technical Committee members individually (in particular through the collection of members' opinions by survey), in subgroups (to focus on any specific item), and in a full group. The two steps reviewed challenges and improvements to be tackled by Med-TSO scenarios and the selection of drivers to be considered for defining scenarios.



#### Med-TSO presents the Mediterranean Masterplan 2020

20/01/2021

On 19 and 20 January 2021, Med-TSO held **two webinars** to present one of the main results of Med-TSO's <u>Mediterranean Project 2</u>, the **Mediterranean Masterplan 2020**.

This Masterplan shows the efforts of the 21 Mediterranean Transmission System Operators for electricity members of the association to provide a quantitative and qualitative analysis of 15 interconnection projects, gathering their views on the development of the grid up to 2030, in



terms of infrastructure planning and optimisation, market scenarios, grid development and market integration. Indeed, all these activities are **key for building integrated and efficient electricity infrastructures**, through the shared and optimal use of interconnections.

The webinars had a common introductory session covering the freshly concluded Mediterranean Project 2, then each followed a different path.

On 19 January, for the Western Mediterranean region, experts from among the TSOs members and from the Secretariat presented the <u>Electricity Scenarios at 2030</u> and the relevant <u>Relevant Interconnection Projects</u> explored at the same time horizon, such as Morocco–Portugal and Morocco–Spain; Algeria–Tunisia–Libya, Algeria-Spain and Algeria–Italy; Tunisia–Italy.

The following day, the same aspects were explored in greater depth for the Eastern Mediterranean region projects: Turkey–Egypt, Turkey–Israel and Syria–Turkey; Egypt–Jordan; Jordan–Syria and Jordan–Palestine; Greece-Turkey–Bulgaria; Israel–Cyprus–Greece and Egypt–Cyprus–Greece.

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The webinars also provided an opportunity to present the <u>digital version of the Mediterranean Masterplan of the interconnections</u>. This useful tool delivers a picture of the potential development of interconnections in the Mediterranean region, as proposed by Med-TSO, by providing a comprehensive view of the fifteen interconnection clusters. Thanks to this digital report, **all the data elaborated** directly by Med-TSO using supply and demand data collected by the TSOs, and the **relevant scenarios**, **are fully navigable in an interactive way.** 

The creation of this Masterplan and its digital version is a significant step toward Med-TSO's objective to be a reference body for every technical, market and policy issue related to the Mediterranean electricity system, while also proving the feasibility of regional multilateral cooperation.





## Med-TSO welcomes the election of Chaher Boulakhras as President of COMELEC

24/02/2021

Med-TSO welcomes the election of **Chaher Boulakhras as President of COMELEC** (Maghreb Electricity Commission) for the next three years. Mr. Boulakhras, already President of Med-TSO and PDG of Sonelgaz, Algeria, was elected during yesterday's Commission Board meeting, with the participation of members from electricity companies of Libya, Morocco, Tunisia, Mauritania and Algeria.

During the meeting, Mr. Boulakhras made constructive suggestions and observations aiming at translating Algeria's objective of strengthening cooperation and strengthening electricity exchanges in the Maghreb market. He stressed the need to form regional economic blocs, explaining that the energy sector presents a great opportunity to achieve sectoral integration, which would be an essential axis of integration of the entire Maghreb economy.

The importance of strengthening cooperation and electricity exchanges in the region is also an objective of Med-TSO, which selected the region for a <u>Pilot Project</u> aiming at the application in the region of the <u>Mediterranean Grid Code</u> developed during <u>Mediterranean Project 2</u>.



#### Med-TSO Executive Board meeting, 25 February 2021

26/02/2021

On 25 February Med-TSO held, by videoconference, the Executive Board meeting, chaired by the **President Chaher Boulakhras** (Sonelgaz, Algeria).

Among different administrative and institutional issues, such as the report on the inception activities of the <u>TEASIMED Project</u> and the presentation of the Balance Sheet 2020, an important point of the discussion dealt with the strengthening of cooperation with stakeholders.



The Board considered reinforcing the cooperation with <u>ENTSO-E</u>, highlighting how it performs very similar activities to Med-TSO in some of the TSO domains in which they have comparable objectives – despite the different regulatory frameworks and obligations.

Furthermore, the Board called for deep cooperation with <u>COMELEC</u> (Comité Maghrébin de l'ELECtricité), indicated as a natural partner of Med-TSO for reinforcing the integration of the Maghreb Zone. One of the activities that Med-TSO carried out during <u>Mediterranean Project</u> 2 was to develop the preliminary actions aiming at implementing an Interconnected Electricity Exchange Zone (IEEZ) in the Maghreb Region. A Maghreb Task Force was set up to prepare a roadmap for facilitating the integration of the Maghreb zone.

The implementation of the <u>Maghreb Pilot Project</u> cannot be achieved without concrete collaboration with all the regional stakeholders: firstly with COMELEC, while also harnessing the synergies provided by the recent appointment of Mr. Boulakhras as its President.



#### **Introducing TEASIMED Project Manager Simone Biondi**

29/03/2021



Since last December, Simone Biondi has assumed the role of Project Manager of <u>TEASIMED</u>, our ongoing project with the support of the European Commission, in the period 2020-2022. Selected from among many candidates, Simone is a young Italian energy engineer who previously worked for several years as a Power System Planning Engineer at TERNA, and as Project Manager of Adequacy Assessment at ENTSO-E. Following these initial four months of work, we had a chat with him about his ideas and feelings regarding Med-TSO and its project.



#### You worked for several years in ENTSO-E: what do you bring with you from this experience?

The experience at ENTSO-E was useful to grasp and embrace the complexity of electric power systems and markets. It is probably not wrong to say, as I heard once, that it is one of the most complex machines that has ever been built. This complex machine is now being asked to evolve rapidly in order to not jeopardise the important decarbonisation plan.

The role of ENTSO-E is absolutely strategic and fundamental in this sense. The benefit generated by the harmonised rules (e.g. Network Code), joint activities (e.g. RSCs) and common studies (e.g. development of long-term scenarios, TYNDP, adequacy studies, etc.), are huge.

#### How much did you know about the work carried out by our association so far?

The main work stream/chapter was quite familiar to me due to my professional background. I started my career working at TERNA, the Italian Transmission System Operator, as a Power System Planning Engineer (doing network studies and CBA assessments). Then, in 2014, I moved to ENTSO-E, where I contributed to the development of the adequacy methodology and studies.

When I was at ENTSO-E, I was always willing to widen the perimeter (which was already quite large). As an example, I contributed to the construction and the signature of the first cooperation agreement between ENTSO-E and Med-TSO.

What do you think about TEASIMED'S objectives? In your opinion, which is the most challenging one?

Hard to say. There are so many which are equally important.

To mention one, critical although known only to the experts, I will pick the development of Med-TSO Database (DBMED). This should become Med-TSO's backbone for data sharing in all the technical activities of the association.

But we can't forget the Mediterranean Masterplan, the first Med-TSO Adequacy studies, the development of harmonised Technical Rules (i.e. Mediterranean Network Code) and the implementation of Interconnected Electricity Exchange Zones (IEEZ).

#### How do you think Med-TSO activities could meet EU energy policies in the Mediterranean Region?

As highlighted in the recently published through an EC Joint Communication on a "Renewed partnership with the Southern Neighbourhood - A New Agenda for the Mediterranean", Europe and the Mediterranean region have interdependent, complementary, and converging energy interests based on the priorities of the green and fair transition, and energy security.

All the Mediterranean countries signed the Paris Agreement and are deeply involved in the energy transition. The electricity sector has a central role to play in reaching those targets, but the only way to reach them is by integrating renewables into the value chain more rapidly.



After these first months of work, do you want to say few words to the members and the people involved in Med-TSO activities?

Two things. First, I think that everyone involved in the electricity sector should feel excited about the challenges we have ahead of us; a cooperative approach is, no doubt, the most energy-intensive and time-consuming, but it is the only way to build something durable.

Second, I am so tired of web meetings: let's hope we can get a vaccine soon in order to meet again physically.

# "Cross-Border PPAs between Morocco and the EU: barriers and what it takes to overcome them": Secretary General of Med-TSO at Res4Africa event

#### 16/04/2021

On 15 April 2021, Secretary General of Med-TSO, Angelo Ferrante, participated in the event "Cross-Border PPAs between Morocco and the EU: barriers and what it takes to overcome them", promoted by RES4Africa Foundation, with the a speech on the role of TSOs in enabling the energy transition in the Western Mediterranean.

He presented the <u>interconnection projects involving Morocco</u>, <u>Spain and Portugal</u>, developed by Med-TSO in the <u>Mediterranean Masterplan 2020</u>, main outcome of <u>Mediterranean Project 2</u>.

Furthermore, the importance of the integration of the Euro-Mediterranean Power Systems as a whole was highlighted, while emphasising the need to apply a gradual approach, extending the view to a regional perspective and making some considerations regarding the need for Mediterranean regional integration to foster an effective and reliable exchange of electricity between Europe and North Africa, considering the role of Morocco, which is currently the only country in the region connected directly to the EU PS.

Furthermore, other important projects in the pipeline for connecting the two continents include the possibility of developing an effective Euro-Mediterranean Power System in the coming years.





#### 22<sup>nd</sup> General Assembly of Med-TSO

#### 20/04/2021

The 22nd General Assembly of Med-TSO was held via videoconference on 20 April 2021, with main topics including the election of two out of the eight Vice-Presidents and the nomination of the Secretary General for the next three years.

Mr. Abdellah Kabiri (ONEE, Morocco) and Mr. Hervé Laffaye (RTE, France), whose mandate had just expired, have renewed their candidature for the next three years and have been unanimously elected as Vice-Presidents.

The General Assembly have also unanimously confirmed **Angelo Ferrante** (TERNA, Italy) as Secretary General of the Association until 2024, congratulating him for the successful work carried out since 2015.

The meeting was also an occasion to reaffirm the importance for the association of strengthening the cooperation with COMELEC, especially for the implementation of the pilot project foreseen by the ongoing project "<u>TEASIMED</u>", and with ENTSO-E, with whom Med-TSO shares the ambitious objectives of the European Green Deal, that prioritise the sustainable development of the Mediterranean region as a neighbouring area.

Among other administrative and financial issues, the members of the General Assembly also appointed **Mr. Mohamed Lakhdar Habib** (SONELGAZ, Algeria) as Vice-Chairperson of the <u>Technical Committee Economic Studies and Scenarios</u> and thanked **Mr. Kresimir Bakic** (ELES, Slovenia) for the cooperation in the activities of the Association, as he announced his forthcoming retirement.

Lastly, during the meeting, the President took a moment to commemorate on behalf of all the members of Med-TSO, the memory of **Mr. Brahim Oumounah**, recently passed away, who served both ONEE and our association with great commitment.





#### Third Ministerial Conference on Energy in Lisbon on 14 June 2021

14/06/2021



Our Secretary General, Angelo Ferrante, attended the Conference of The Ministers of the Union for the Mediterranean (UfM) in charge of Energy as they gathered for their Third Ministerial Conference on Energy in Lisbon on 14 June 2021. The conference was hosted by Portugal and co-chaired by the UfM Co-Presidency with the common goal of raising the ambition of the region to contribute to a just and fair energy transition, supporting the post-pandemic recovery.

The Conference was co-chaired by H.E. Mrs Hala Zawati, Minister of Energy and Mineral Resources of the Hashemite Kingdom of Jordan, and H.E. Ms Kadri Simson, Commissioner for Energy, for the European Union, in the presence of H.E. Mr Nasser Kamel, Secretary General of the UfM Secretariat, and hosted by H.E Mr João Pedro Matos Fernandes, Minister of Environment and Climate Action of the Portuguese Republic.

The Ministers signed a Ministerial Declaration to set the future of the energy sector for the Euro-Mediterranean region. As energy is a major factor for achieving stability and shared prosperity, the objective of the Declaration is to push forward existing regional cooperation in order to deliver secure, affordable and sustainable energy supply in the Mediterranean region, while addressing the growing climate-related, population growth and energy demand challenges that the region is facing, as well as the recovery from the pandemic.

The conference recalled all the work that has contributed to developing the "Near Zero Carbon 2050" scenario as an important achievement of the action conducted by the UfM Energy Platforms, demonstrating the important role of regional energy associations and organisations like Med-TSO, that enable a bottom-up approach for exchanging experience and reaching common understanding towards the harmonisation of energy systems around the region.

The UfM Co-Presidency, in collaboration with the Platforms' Secretariats, will continue coordinating the work of the three UfM Energy Platforms, including, where relevant, other platforms of the UfM



such as Research and Innovation, involving the relevant actors in the manner set out in the working guidelines. Med-TSO, as one of the two members of the <u>Regional Electricity Market Platform</u>, welcomes the strong support for the UfM Energy Platforms, and the invitation to elaborate a draft Roadmap for Action, in line with the objectives of this Declaration and, following its adoption, to support its implementation.

#### Med-TSO Executive Board Meeting, 16 June 2021

#### 16/06/2021

Med-TSO held its Executive Board meeting via online conference on 16 June 2021, chaired by President Chaher Boulakhras (PDG of Sonelgaz, Algeria).

The President welcomed the participants and highlighted the importance of tight cooperation with the stakeholders, in particular with **COMELEC** (Comité Maghrébin de l'Electricité) and ENTSO-E (European Network of Transmission System Operators for Electricity). According to the President of Med-TSO, this is essential to reinforce the dialogue and the formal coordination among the two associations, which is key for the effective and common development of TEASIMED activities.

The Executive Board meeting was also the occasion to update participants on the status of <u>TEASIMED project</u>. In this sense, the Board was informed about the project's implementation by the project manager, Simone Biondi who highlighted how the project is well in motion and complying with the allocated timeline.

The online conference concluded with the restated commitment and support of all participants to the project and to all the activities needed to strengthen the cooperation with other keen Energy Associations to achieve an integrated, secure and sustainable regional electricity transmission grid.





#### Power outage reported between France and Spain on 24 July 2021

#### 26/07/2021

As reported on the <u>ENTSO-E website</u>, on Saturday, 24 July 2021, due to a major incident originating in France, both France and Spain were disconnected at 16:36 CEST and were brought back into normal operation by the responsible TSOs of Spain and France at 17:09 CEST.

Investigation and verification are currently ongoing as to whether the forest fire along the line route was the root cause of the event.

During the disturbance, the frequency deviation of the majority of Continental Europe was kept within a narrow margin between 49.96 and 50.07 Hz, whereas in the Iberian Peninsula, the deviation was more substantial and involved further emergency measures according to predefined plans. The load and customers which were disconnected in the Iberian Peninsula after 16:36 CEST, were again connected and re-supplied after 17:09 CEST.

**REE** later communicated via an <u>initial Twitter post</u> that an incident with a seaplane had generated a problem in the French high voltage network, causing the temporary disconnection of the peninsula from the rest of Europe. The problem was solved, as affirmed by the Spanish TSO, by restoring the interconnection and the affected electricity supply.

Then, in a <u>second Tweet</u>, REE stated that 36 minutes after the incident occurred, the first interconnection line with France was restored. At 17:33 CEST, the interconnection was fully coupled and at 5:38 p.m. the supply was restored throughout the system.

Read the full article.

#### The Interconnection Project between Egypt and Saudi Arabia

#### 12/10/2021

On Tuesday, 5 October, Egypt and Saudi Arabia signed a cooperation agreement to establish the electrical interconnection project that was started in 2012 between the two countries. The agreement was carried out by the <u>Egyptian Electricity Transmission Company</u>, a long-time member of Med-TSO, and the <u>Saudi Electricity Company</u>.

From the Egyptian side, Eng. Sabah Mashaly, Chairperson of the Board of Directors of the Egyptian Electricity Transmission Company (EETC) and Vice-President of Med-TSO, signed the contracts under the patronage of Dr. Shaker, Minister of Electricity and Renewable Energy and Minister Rania Al-Mashat Minister of International Cooperation, along with the contribution of members from EETC also involved in Med-TSO technical activities: Eng. Neveen Saleh, Technical Committee Planning Chairperson, Dr. Bahaa El-Deen Sauodi, Vice-Chairperson of



Technical Committee Regulation and Institutions, Eng. Naglaa el-Khatteb, Member of Technical Committee Economic Studies and Scenarios, Dr. Taghred Amer, Member of Technical Committee Regulation and Institutions and Eng. Adel El Hariry, Member of Technical Committee Operation.

Eng. Sabah Masally, worked hard to achieve the interconnection project, as well as on the plans to develop the national network by adding new substations and transmission lines on the different voltage levels and developing the existing infrastructure for the unified national network.

The Egyptian–Saudi electrical project aims to be a main axis in the Arab interconnection, which seeks to establish an infrastructure for electricity trade between Arab countries, in preparation for the establishment of a common electricity market.

The project consists of exchanging 3000 MW with a total cost of \$1.8 billion and a 500 kV HVDC technology. The first phase of the project will be carried out in 2023 with a capacity of 1500 MW, noting that the rest of the capacities are scheduled to enter successively until they reach 3000 MW.

It also involves the activity of three consortiums of international and local companies to carry out the construction of three high-voltage substations on 500 kV, the East Madinah Station, the Tabuk Station and Gulf of Aqaba in the Kingdom, and the Badr Station in East Cairo in addition to a switching station in Taba, linked by overhead transmission lines 500 kV with a length of about 1,350 metres and marine cables in the Gulf of Aqaba with a distance of 22 km.

The signing of this agreement comes as the culmination of the depth of the Egyptian and Saudi Arabian relations throughout history. It affirms the leadership of the two countries in achieving the economic and social goals of the Arab world, considering that the project will be the nucleus of a common Arab interconnection.

The plan represents a strong link between the two most prominent electric networks in the region, and it will bring common benefits for the Arab region. These will significantly enhance the reliability related to sustaining the stability of the national electrical networks, improving their reliability and making the most favourable use of the generation capacities available in them and the timing differences in their peak electrical loads. The contracts open the path for both countries to achieve the ambitious goals by 2030 of attaining renewable energy sources within the optimal mix of electricity production and activating trade exchange.





# TC Operation's Internal Workshop "Enhanced TSO coordination for interconnected power systems: Regional Coordination experience"

19/10/2021



On 19 October, Med-TSO's Technical Committee Operation hosted an online internal workshop on Enhanced TSO coordination for interconnected power systems. The session was aligned with Med-TSO's objective of fostering dialogue between the different transmission system operators in the Mediterranean area. Likewise, the sessions came through as successful given that the enhancement of coordination in this sector along the southern shore of the Mediterranean and between the two shores, is also one of the objectives of the TEASIMED project.

Following the introductory words by Secretary General of Med-TSO, **Angelo Ferrante, Bakli Bordji** (OS, Algeria – Med-TSO) started by presenting the outcomes of the survey "Enhance coordination in the operation of electric systems".

This section was followed by the discussion on the Regional Coordination experiences with interventions from **Jean-Francois Gahungu**, CEO of <u>CORESO</u>, and **Duško Tubic**, Director of SCC, two of the Regional Security Centres currently operating in Europe.

The keynote speakers went over the establishment of CORESO on a voluntary basis, and presented the agreement between the Security Coordination Centre and TEIAS as an example of an effective cooperation to ensure more coordination and operational security to the Power Systems.

Along the Mediterranean region there are several regional initiatives. However, they all have common objectives and provide the same services with one standard/SW/system. In this sense, **Vedran Angerbrandt** (CORESO) and **Jayaram Anandha** (TSCNET Services), shared their expertise on how Short-Term Adequacy (STA) and Outage Planning Coordination (OPC) apply these factors.

During both sessions, the speakers and the attendees crowdsourced their knowledge through a dedicated slot for questions and answers, where relevant conclusions were delivered by the



different contributors. The event was concluded with closing remarks from Simone Biondi, TEASIMED Project Manager.

Taking advantage of other experiences developed in the EU area, i.e. establishment of Regional Coordination Centres developing key services, the internal workshop aimed at building a common ground between Med-TSO members for developing effective procedures and guidelines for improving the coordination in the operation of power systems.

## Towards COP26: Electricity transmission grid operators committed to address climate change challenges for the energy system

#### 21/10/2021

On 20 October, global electricity transmission system and grid operators gathered to discuss the role of electricity in delivering climate neutrality to our energy system in the high-level online conference "Towards COP26: Electricity transmission grid operators committed to address climate change challenges for the energy system".

The event was organised by <u>GO15</u>, <u>ENTSO-E</u>, and Med-TSO, which represent global, European, and Mediterranean grid operators and <u>National Grid ESO</u> who debated the solutions required for decarbonisation and underlined their commitment to cross-border cooperation in achieving climate neutrality.

The **Associations released a joint declaration,** which reaffirms the commitment of these partners to close cooperation, knowledge sharing and exchange of best practices as they address this shared challenge.

This event featured keynote speeches by the leaders of these associations, and a further panel debate with international and EU energy policymakers and TSO leaders from Europe, the United States, Northern Africa and the Middle East on how electricity networks are set to become the backbone of greener, more competitive and resilient societies.





#### President of Med-TSO opened and participated in COP26 side event «Comment la coopération régionale peut accélérer la transition énergétique en Méditerranée? »

08/11/2021

On Saturday 6 November, the **Observatoire Méditerranéen de l'Energie (OME)** and **Institut de la Francophonie pour le développement durable (IFDD)** hosted a COP26 side event entitled: « Comment la coopération régionale peut accélérer la transition énergétique en Méditerranée? »

The event gathered representatives from both private and public associations. Mr. Chaher Boulakhras, President of Med-TSO and OME Co-Chairperson, opened the event and participated in the roundtable discussion, together with Roberta Boniotti, Medener Secretary General, Petrit Ahmeti, President of MEDREG and Toni Volpe, CEO of Falck Renewables. The debate was moderated by Grammenos Mastrojeni, Senior Deputy Secretary General of UfM.

In his opening speech, Mr. Boulakhras highlighted that energy transition is becoming more and more urgent to improve the energy security of supply and to reach the goals of mitigation of climate change and its effects on our environment. This can be realised, he stated, only through a strengthened, challenging and brave, regional at first and then planetary, multilateral cooperation.

During the event, **Houda Ben Jannet Allal**, General Director of OME, presented the main results of OME's "Mediterranean Energy Perspectives – MEP to 2050 (2021 edition)", stressing the importance of a neighbourhood partnership that will allow Europe to complete its energetic transition by 2050.

The COP26 side-event was a tremendous and enriching opportunity to promote cooperation in the energy sector and enhance the importance of a sustainable transition, which is an integral part of Med-TSO's mission and purpose. In this sense, participating and sharing inputs in events as such gives Med-TSO the opportunity to create ways for contributing to reaching the climateneutral goal and take further steps to fulfil the association's objectives.





#### Secretary General at 41st CIGRE Symposium Opening Ceremony

#### 23/11/2021

Secretary General of Med-TSO, Angelo Ferrante, intervened in the opening ceremony of the 41st CIGRE Symposium <u>"Reshaping the Electric Power System Infrastructure"</u>, held today in Ljubljana, Slovenia.

In his speech, he highlighted how, in order to achieve an effective energy transition and sustainable growth in the region, the Mediterranean energy system must undergo a fundamental restructuring and reshaping to provide the necessary level of decarbonisation, implying a substantial increase of investments in grids and renewable electricity generation.

He also illustrated how Med-TSO is already working in this direction, both by promoting the development of the grids and the setting of common ground rules, and also by striving to obtain the support of regional institutions and stakeholders to overcome institutional and financial barriers.

The symposium focuses on the future transformation of the electricity sector, the new framework of generation, transmission, distribution, and demand, and is oriented to new methods, technologies, materials and examples related to research of electric power industry equipment and infrastructure, involving generators, power transformers, transmission and distribution equipment, various technologies for cables, overhead lines, substations, protection, automation and testing techniques.

This symposium is held 100 years after the establishment of the international organisation of CIGRE and 40 years after the first CIGRE symposium and its proceedings will last until 24 November.



#### **Med-TSO 23rd General Assembly**

#### 26/11/2021

On 25 November 2021, Med-TSO, the Association of Mediterranean Transmission System Operators, held its 23rd General Assembly in an online format. The event was dedicated to reviewing the progress in achieving Med-TSO's ambitious goals, including the different cooperation agreements and the <u>TEASIMED project</u>, which is now set to enter its second year of development.



The **President of Med-TSO, Chaher Boulakhras,** opened his intervention by updating participants on the status of the collaboration with <u>COMELEC</u>, the Comité Maghrébin de l'Electricité, of which he is also President, and on role, the two associations can play in setting up an **Interconnected Electricity Exchange Zone** (IEEZ) in the Maghreb Region, one of the most important objectives of TEASIMED.

Mr Boulakhras asserted that "the collaboration across all the regional actors is essential to secure the success of this operation". In this sense, he explained that the procedures to consolidate the Maghreb Pilot Project will be conducted by the members of the Commission des Interconnexions Maghrébines of COMELEC in coordination with experts from Med-TSO "for creating the best conditions possible to exploit the synergies between the two organisations".

Following the commencement of the meeting, given the end of the mandate of Mr Albertino Meneses (REN, Portugal) and Mr Serhat Metin (TEIAS, Turkey) on 27 November, the members of the General Assembly re-appointed Mr Meneses and Mr Metin as Vice-Presidents of Med-TSO for a further 3-year mandate, until 24 November 2024.

The General Assembly gave also members the opportunity to review the status of some of the most mature interconnection projects in the Mediterranean region. Interconnections play a vital role in Med-TSO's ultimate goal of promoting the creation of a Mediterranean energy market.

Notwithstanding the impact of the global pandemic, still affecting Med-TSO's agenda, the participants to the General Assembly welcomed the successful development of TEASIMED activities and the capability of the association to overcome the challenges of these troublesome times.



#### Two Regional Workshops for Med-TSO's Technical Committee Economic Studies and Scenarios

02/12/2021

Med-TSO's Technical Committee **Economic Studies and Scenarios** held two regional workshops this week. These events shared a hybrid format with people meeting both remotely and physically, for the first time after almost two years, and were held in two different locations.



On Tuesday 30 November, the first workshop took place in Tunis in the representation of the **Western Region** (Morocco, Algeria, Tunisia, Libya, Portugal, Spain, France, and Italy). On 2 December 2nd, a workshop was hosted in Istanbul for the **Eastern Region** (Egypt, Jordan, Palestine, Turkey, Cyprus, Greece, Croatia, and Montenegro).

At the end of the workshops, the experts controlled the simulation run, which was executed through specific software. By the end of this first round of activities, the following objectives were achieved:

- Supervision of the assumptions for the remaining countries.
- Examination of all the annual and synthetic indicators. These indicators include variables such
  as generation, demand, exchanges, marginal prices, flexibility, equivalent full-time duration
  and CO2.
- Analysis of the Power Systems' performance undertaken in seasonal, daily and hourly time steps through specific software.

Following these two regional workshops, the data obtained and the necessary modelling modifications will be updated for the final round of studies. Ultimately, the goal of both sessions further the primary objective of the Technical Committee Economic Studies and Scenarios in the framework of the <u>TEASIMED project</u>, such as sharing a common vision of the future of the Power Systems in the Mediterranean area by building mid-and long-term scenarios for electricity.







