



ANNUAL REPORT 2020







MESSAGE OF THE PRESIDENT

Dear Members, dear readers,

This year 2020 has been rich with events for our Association, despite being marked by the economic crisis triggered by the Covid-19 pandemic. This sanitary crisis, which affected all countries in the Euro-Mediterranean region, and almost all the countries around the globe, strongly weakened the economies, especially those relying on energy industries.

Indeed, the impact of the Covid-19 crisis has had major consequences on the global economy, witnessing a shock over both supply and demand. Furthermore, it has affected both residential and productive economies.

However, 2020 has enabled us to test our resilience, it has reminded us the importance of providing a more human approach to our industries. The pandemic has also stressed how convenient it is to find new collaborative and effective solutions and resilience that goes beyond the technical aspects of the energy supply.

Our Association, like other national, regional and global organizations, has not been spared, but it has been capable to progressively carry out operating mechanisms that have permitted it to continue its activities.

The New Information and Communication Technologies (NICT) intake has allowed our Association to continue the different activities online, offering our future vision to the members

and stakeholders of both shores of the Mediterranean by reinforcing the collaboration and sharing knowledge experiences between the different Mediterranean network managers.

Therefore, the achievements of our Association have been numerous. For instance, the Mediterranean Project 2, which was officially closed during the online conference of October 28th, 2020, in the presence of different stakeholders and high-level institutional figures.

The launch of the new project called TEASIMED (Towards an Efficient, Adequate, Sustainable and Interconnected Mediterranean Energy system), which started on September 2020, and planned for a duration of 28 months, has the goal of significantly improve the creation of a single electricity market between the two shores of the Mediterranean, especially throughout the implementation of pilot and operational cooperation projects within the Euro-Mediterranean region.

Our Association must find the best mechanisms to allow our electricity systems to become more interdependent and avoid in the future the consequences of other potential crisis (climate change, water stress...). The Covid-19 is precisely an example that incites us to better reflect on the need to improve the efficiency of our network for an optimal performance to better respond to the challenges of energy



transition, digitalization and renewables integration that are currently booming at all scales.

I am delighted to see how much our association is encouraging operators to work towards the development of our electricity system and for turn the challenges of today into the opportunities of tomorrow. Tomorrow, the electricity needs will be enormous. We will need to face the largest investment program since the first industrial revolution worldwide.

Therefore, our experience requires higher proactivity in the face of the acceleration of investments within both the networks and infrastructures to, fundamentally, produce and transport green energy.

In perspective, Med-TSO, recognized in the regional frame, even worldwide as a strategic but also professional organization, will have to anticipate other regional studies and workshops to become, in the long run, a key association in the field of energy development and service, as well for a sustainable and shared prosperity.

Furthermore, I am confident in our sharing and working competencies, and in our common wish to reinforce the development of an integrated, safe and sustainable Mediterranean electricity system, for which I attach great importance to realize our flagship project, in this case TEASIMED, and thus contribute to the economic development of our region.

It only remains for me to thank all members for their commitment and their strong involvement in the drive of our Associations' projects and to tell you all how great our ambition to see Med-TSO become a definite reference in the Mediterranean basin and, in general, in the world of electrical industries.

Chaher Boulakhras
The President of Med-TSO.

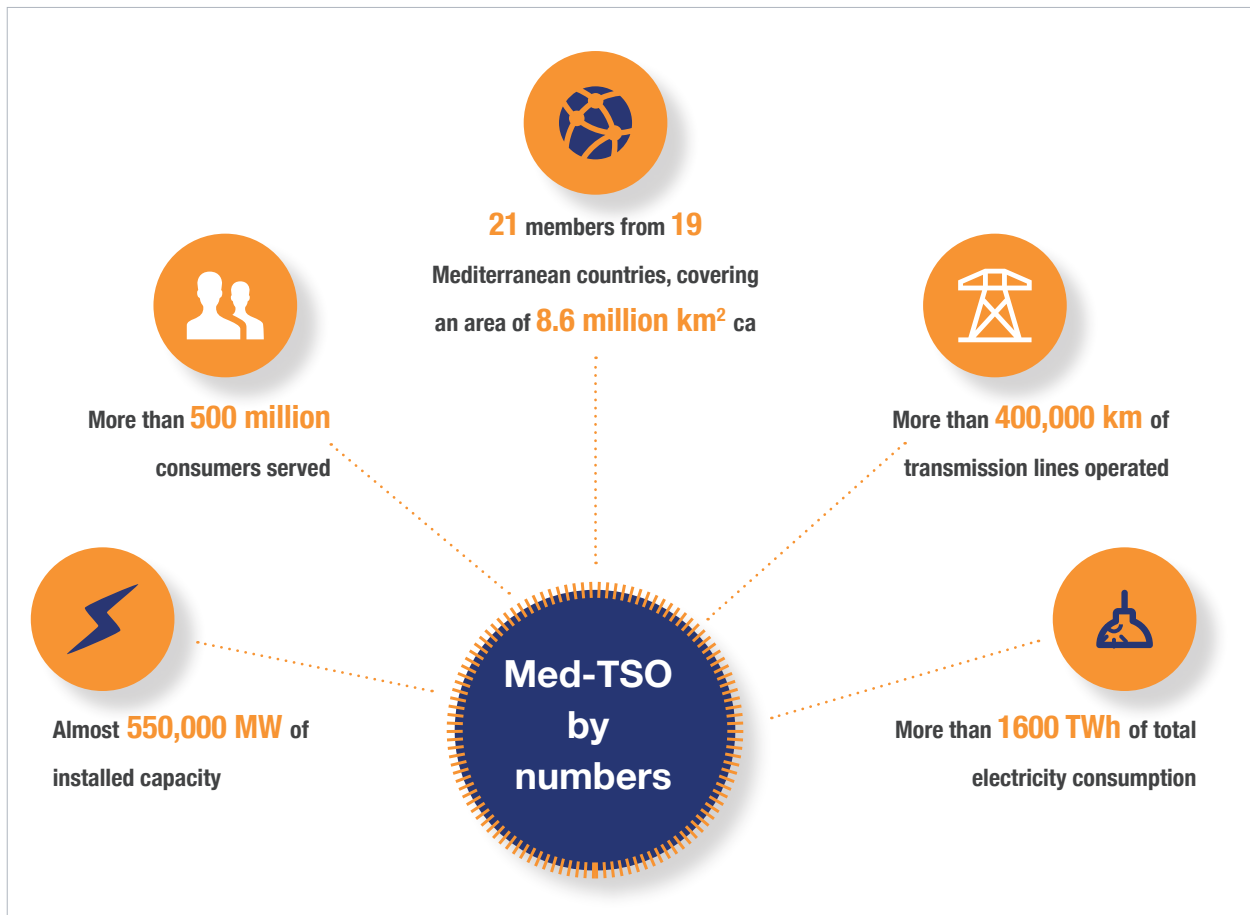
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Who is Med-TSO?

Med-TSO is the Association of the Mediterranean Transmission System Operators (TSOs) for electricity, operating the High Voltage Transmission Networks of 19 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.

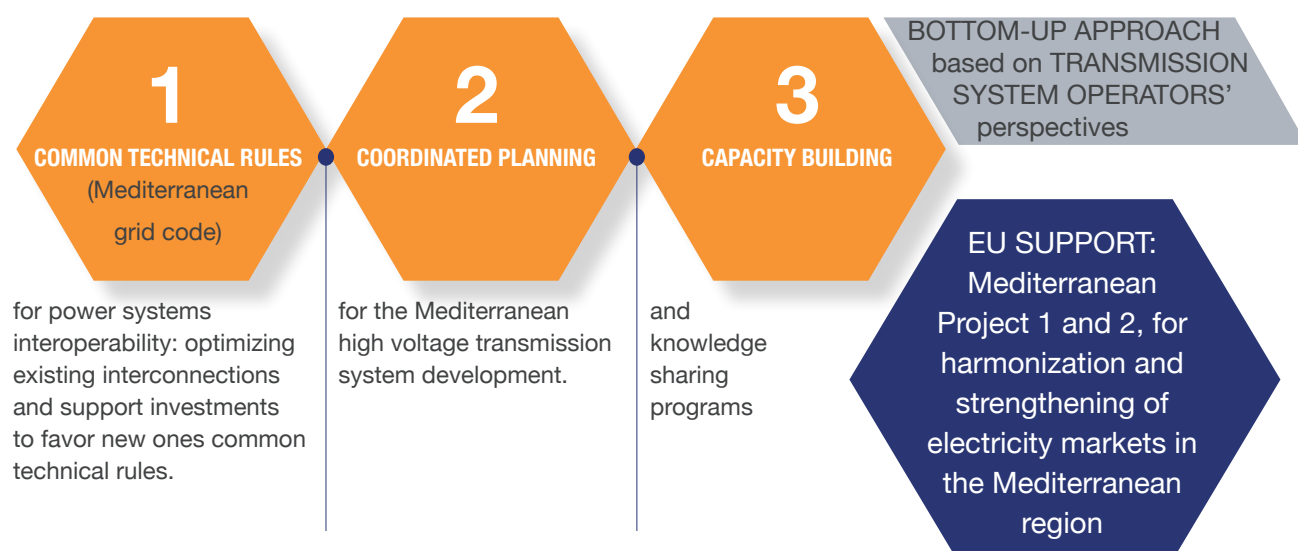


Med-TSO objective and activities

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



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

- Coordination among the Med-TSO Countries of their National Transmission Network Development Plans and of their Power System operation by studying the development of an integrated, secure and sustainable Mediterranean Power System and by promoting cross-border projects aiming at facilitating the integration of new energy sources (especially from Res), increasing security and quality of power supply;
- the use of common criteria and harmonized, 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 TSOs operation transparency and facilitating the 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 analyzing and taking common positions on issues that can have an impact on the development and operation of transmission systems.

MISSION

Our mission is to support all the 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 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.

“Mediterranean Bridge”, a new perspective in enabling the Energy Transition

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

In these years, the Association has shown uncommon capacities to foster dialogue and promote activities.

The challenging initiative of Med-TSO 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 the citizens and for the effective implementation of sustainable and efficient energy policies. After seven years since 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 new activities to be developed.

Thanks to activities carried out over the years, the Association has found a reliable working method among many different Transmission System Operators. This is the strength of Med-TSO, which allows it to act as a bridge between the different parts of the Mediterranean region, combining knowledge, work and visibility.

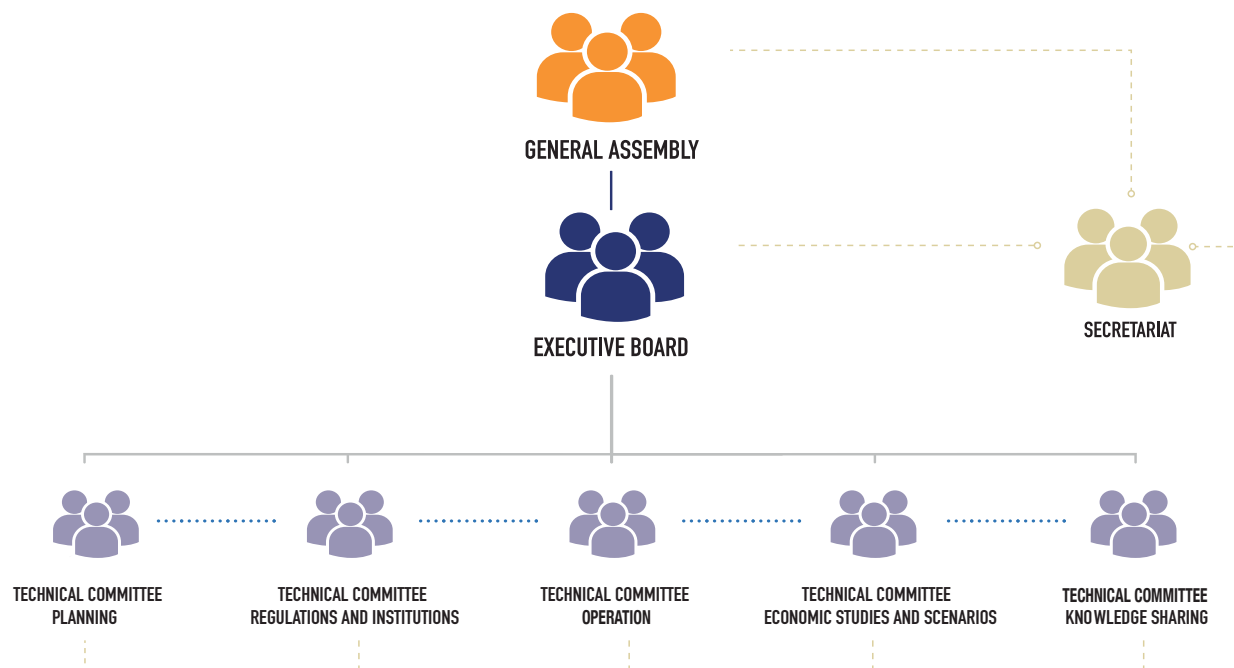
In particular, the two “Mediterranean Projects” have demonstrated the effectiveness of this method; therefore, we need to consolidate these achievements and preserve the cooperative attitude built so far among the Members, for the future as well.

The voice of the Mediterranean TSOs

Med-TSO wants to consolidate 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 have a growing regional “key role”, giving proactive support to the Members for their activities in planning and developing new interconnections, in promoting the creation of a harmonized regulatory framework, in representing the Transmission System Operators needs and requirements in the energy debates and in improving relationships with the other regional stakeholders. In a few words, acting as “the voice of the Mediterranean Transmission System Operators” towards all the relevant stakeholders.

OUR ORGANIZATION



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 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 by the President and 8 Vice-Presidents appointed by the General Assembly.



SECRETARIAT

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



HIGHLIGHTS

NUMBER OF PHYSICAL MEETINGS ORGANIZED BY

INSTITUTIONAL: 0

TECHNICAL: 6

WORKSHOPS: 0

NUMBER OF REMOTE MEETINGS ORGANIZED BY

INSTITUTIONAL: 8

TECHNICAL: 35


WORKSHOPS: 3



TOTAL PARTICIPANTS TO THE MEETINGS ORGANIZED BY



INSTITUTIONAL: 164 • TECHNICAL: 667 • WORKSHOPS: 97 • CLOSING CONFERENCE: 82

NUMBER OF INTERNATIONAL PHYSICAL AND REMOTE MEETINGS  TOOK PART: 6

2020 TIME LINE

13

Secretary General speech at
OME Annual Conference 2020;
Cairo

21-22

Economic Studies and
Scenarios Working Group
meeting; Rome, Italy

23

Operational Activities
Coordination Committee meeting;
Rome, Italy

5-6

Economic Studies and
Scenarios Working Group West
Session meeting; Tunis, Tunisia

10

Technical Committee Regulation and
Institutions meeting; Rome, Italy

12

Technical Committee International
Electricity Exchange meeting;
Rome, Italy

5

Operational Activities
Coordination Committee
(online meeting)

23

Technical Committee Regulation and
Institutions Maghreb Taskforce
(online meeting)

31

Technical Committee Regulation
and Institutions (online meeting)

JANUARY

FEBRUARY

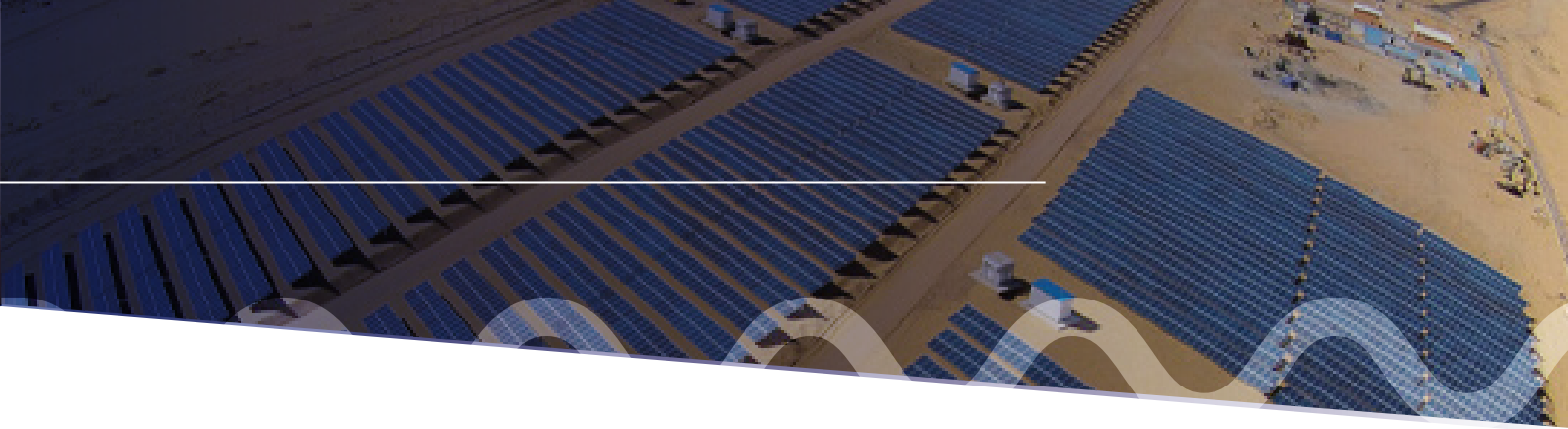
MARCH

29

Med-TSO at UfM Energy Platforms
Annual Meeting; Barcelona, Spain

14

Technical Committee Planning
meeting; Rome, Italy





◦ **1**
General Assembly
(online meeting)

◦ **15**
Secretary General participating
Conference Renpower Morocco
Investors 2020 by Euroconvention
Global (online conference)

◦ **16**
Economic Studies and Scenarios
Working Group (online meeting)

◦ **26**
Technical Committee
Regulation and Institutions
(online meeting)

◦ **27**
Economic Studies and
Scenarios Working Group
(online conference)

◦ **10**
Technical Committee Planning
Task Force
(online meeting)

◦ **10**
Economic Studies and Scenarios
Working Group Task Force
(online meeting)

◦ **15-16**
Utility-scale storage technologies
and their power system integration
toward a massive RES development
Webinar
(online conference)

JULY

AUGUST

SEPTEMBER

23.
Economic Studies and
Scenarios Working Group
(online meeting) ◦

23.
Technical Committee
Regulation and Institutions
(online meeting) ◦

28
Technical Committee
International Electricity
Exchange
(online meeting) ◦

17
Technical Committee Regulation
and Institutions (online meeting) ◦

21
Technical Committee Operation¹
(online meeting) ◦

24
Secretary General participating
Conference Mediterranean Energy
Scenarios Meeting - Building
a shared energy vision, by the
Observatoire Méditerranéen de
l'Energie (online conference) ◦

1. Technical Committee "International Electricity Exchange" turned into Technical Committee Operation with the beginning of Teasimed, September 2020



2. Working Group Economic Studies and Scenarios turned into Technical Committee with the beginning of Teasimed, September 2020
3. Operational Activities Coordination Committee turned into Steering Committee with the beginning of Teasimed, September 2020



MEDITERRANEAN PROJECT 2 CLOSING CONFERENCE



On October 28, Med-TSO held a closing conference in honour of its Mediterranean Project 2 (MP2), which has officially come to an end after being successfully operative for two years. The event, titled '*An Integrated Grid for Enabling the Energy Transition in the Mediterranean*,' was held via web conference and presented a comprehensive view of the project to institutions and stakeholders, including results of its activities, projections for the future, and a panel discussion with some of the Mediterranean energy scene key players.

During the conference, the main outcomes of the project were presented, whose objectives were to investigate how to increase energy security and reliability and favour greater RES penetration by facilitating their integration, increase the overall system efficiency, generate economies of scale in investments and operations, and improve cooperation and exchange of experience among the Mediterranean Transmission System Operators.

Through this Closing Conference, Med-TSO also offered an overview on the Mediterranean evolution in the energy sector, thanks to the participation of high-level speakers from the EU institutions and from the Southern neighbourhood countries.

The full description of the closing conference can be found in the Communication section at page 36.



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

In September 2020 Med-TSO committed itself to a new project, TEASIMED, Towards an Efficient, Adequate, Sustainable, and Interconnected MEDiterranean power system, which carries forward the work of the Association with the continued support from the European Commission.

As its third project with the backing of the EC as well as recognition of its efforts from regional stakeholders, Med-TSO has become known as the voice of the Mediterranean Transmission System Operators. This is due in part to the Association's work carried out in their recent Mediterranean Projects 1 and 2 (MP1 & MP2), which reinforced its position as a sort of 'regional extension' of the European Transmission System Operators.

MP1 and MP2 have made way for the development of TEASIMED as the building blocks for Med-TSO's roadmap for achieving the progressive integration of its members' power systems at a Mediterranean level. Following the previous two landmark initiatives, which established a master plan of interconnection with an extensive knowledge exchange program, the new project will consolidate a number of the activities from them, while launching new ones.

The project is structured in 6 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 of increasing electricity exchanges in the region;
4. optimizing 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 of 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 the cooperation in Operation.

More specifically, this new initiative includes the launch of a pilot project for implementing and harmonizing Technical and Operational Rules in the Maghreb countries. It also envisages a stronger coordination of the national Network Development Plans with the definition of coordinated procedures in the Operation area for a better utilization of the existing interconnection capacity and promoting the development of new key interconnection projects.



WORK STREAMS IN 2020

COMPLETION OF THE MEDITERRANEAN PROJECT 2

Coordinated Planning Activities

In 2020, the Association published the second edition of the Mediterranean Master Plan.

The Mediterranean Master Plan 2020 (MMP2020) designs a possible configuration of the Mediterranean Interconnected Grid at 2030. In this new edition, Med-TSO assessed according to a shared methodology 15 new interconnection projects among the Mediterranean countries.

The grid development studies are built within the three long term scenarios elaborated during the process of the drafting of the Masterplan. These scenarios depict several possible futures of load and generation based on a set of main macro-economic, policy-driven and energy related indicators. As a result of this work, the Association published in a dedicated report the Scenario results that, together with the related Market Studies, complete the planning exercise represented by the MMP2020.

This new edition of the Masterplan is accompanied by the publication of a digital version of the report, that provides to the Members and Stakeholders of the Association of an interactive tool for navigating the data thanks to which the studies were made possible. The tool is reachable at this link: <https://masterplan.med-tso.com/>.

Guidelines for the Mediterranean Grid Code

In 2020, the Association completed the work for develop a shared set of technical rules and procedures as the basis for a future Mediterranean power system and transmission grid code.

These guidelines issued in 2020, complete the body of rules published during the first Mediterranean Project 1 with:

- *a Proposal of Common Rules about the provision of system services*
- *a Proposal of Mediterranean Grid Code on Connection and Operation and*
- *a Proposal of Common process for the connection procedure with main harmonization functions and responsibilities of TSOs.*

The main objective of these guidelines is to build a shared understanding among all Med-TSO Members about what has to be considered worthy of being harmonized in a common regulatory framework, by developing a set of basic rules supporting a better interoperability of the Mediterranean power systems, facilitating electricity exchanges, infrastructure development and institutional cooperation.

The regulatory framework proposed by Med-TSO has been developed on a voluntary approach and, therefore, it is not binding, as it does not have a legal basis. Nevertheless, it shows the interest of the Members to operate proactively in that direction. The potential binding application of the referred proposal should be subject, where relevant, to the transposition into national laws by the relevant national competent regulatory authorities. Alternatively, the proposal could be



considered as “*Guidelines of Good Practice*” (GGP) that could be applied on a voluntary basis by Med-TSO Members.

Elaboration of zonal target regulatory framework and tentative roadmap

In 2020 the Association studied the possible implementation of a sub-regional project (zonal) concerning a practical application of harmonization for the subset of rules necessary to implement a project considered of priority in a selected zone for advancing in regional integration. These analyses identified the Maghreb Region as the appropriate candidate zone and defined the pilot Project scope.

After analyzing different priorities, the Maghreb TSOs have chosen to develop, a common priority project: establishing a zonal platform for power trading, building on the activities already performed in the zone and using the Med-TSO support for accessing the international experience on this subject.

To this aim, Med-TSO published a roadmap for the execution of this Pilot project whose implementation needs the active involvement of the regional stakeholders, such as COMELEC.

This ambitious project should be completed within the framework of the new TEASIMED project

Increasing Transparency and Data Exchange

In 2020, Med-TSO built the prerequisites for enhancing the 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.

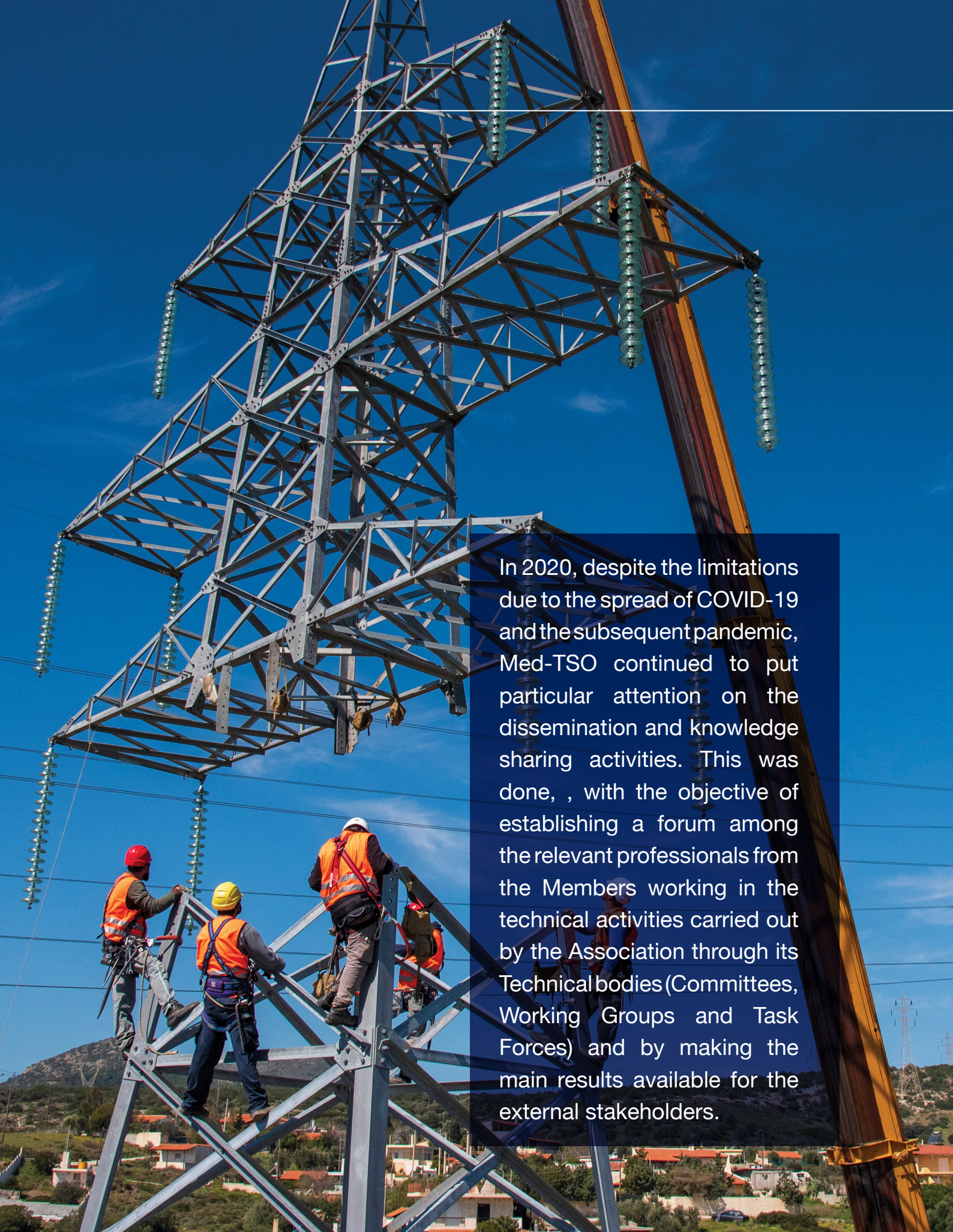
In particular, the Association defined the guidelines and requirements for the harmonization of public transparency information in the Mediterranean Region. Members agreed on a set of data and topics that should be published either on the Med-TSO website or national websites and reports.

As a first result towards this objective Med-TSO during this year published a report intended to identify the key performance indicators and their definitions that are currently used worldwide to assess the technical and economic (cost-effectiveness) performance of electrical systems. The objective is to define the main pieces of information regarding key performance indicators of the regional electricity system in order to select a set of information that could be harmonized within the Mediterranean area and to be shared between Med-TSO Members.

In November, as a concrete step forward towards the objective of increasing transparency, Med-TSO completed the Setup of a Common Web-Platform.

The scope of this platform is to enable the various operators in the electricity sector, as well as all the stakeholders, to have quickly access to information never made available before in the Mediterranean energy scene in a single repository.

For the first time, all essential data about the performances of the Mediterranean power systems and the interconnections among the 19 countries members of the Association are gathered and available on a public website, reachable at this link <https://data.med-tso.com/>.



In 2020, despite the limitations due to the spread of COVID-19 and the subsequent pandemic, Med-TSO continued to put particular attention on the dissemination and knowledge sharing activities. This was done, , with the objective of establishing a forum among the relevant professionals from the Members working in the technical activities carried out by the Association through its Technical bodies (Committees, Working Groups and Task Forces) and by making the main results available for the external stakeholders.



DISSEMINATION AND KNOWLEDGE SHARING

Webinar “Cross-Border Cost Allocation for Electricity Projects in the Mediterranean: the view of Regulators and Operators”

Web conference 7 October 2020

Wednesday, 7 October 2020 MEDREG, the Association of Mediterranean Energy Regulators, and Med-TSO, the Association of Mediterranean Transmission System Operators held the webinar “Cross-Border Cost Allocation for Electricity Projects in the Mediterranean: the View of Regulators and Operators”.

The objective of the webinar was to establish a set of criteria and propose the main guidelines for the application of a Cross-border Cost Allocation (CBCA) mechanism to certain interconnection projects assessed under the framework of Med-TSO’s activities.

CBCA is a financial tool used to facilitate the implementation of Projects of Common Interest. While the Cost Benefit Analysis (CBA) aims to assess, identify and quantify the positive trade-off of interconnection development for the involved systems, Cross-border Cost Allocation (CBCA) responds to the challenge on how to distribute and assign the costs –and risks of this development.

Webinar “Mediterranean Grid Code and its application to the Maghreb Pilot Project”

Web conference 11 November 2020

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.

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 Neighborhood 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.



ENTSO-E

Med-TSO and the European Network of Transmission System Operators (ENTSO-E) are natural counterparts and partners as the two organizations share the membership of 13 TSOs.

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



MEDREG

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

During 2019, the two Associations mainly worked in 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.

Med-TSO and MEDREG cooperation in 2019 has been further strengthened by collaborating to offer a three-day training on Regulating Electricity Infrastructure Investment for more productive long-term planning. Held December 10th-12th in Rome, the training, open to members of both organizations, focused on conversations of planning, feasibility, and incentives when designing a market-based power system, as described in the previous chapter.

COMMUNICATION



27

News published



96

Tweets posted



82

news posted on Med-TSO Facebook page



85

news posted on Med-TSO LinkedIn page



23

new Youtube videos

2020 NEWS BY NEWS

Med-TSO's Technical Committee of Regulations and Institutions appoints incoming Chairman and Vice-Chairman

30/01/2020

Last month, the General Assembly of Med-TSO's Technical Committee of Regulation and Institutions elected **Mr. Juan Manuel Rodríguez** (REE) as Chairman and **Mr. Bahaa El Din Hassan** (EETC) as Vice-Chairman, a motion which was proposed by President Harrabi and approved by the assembly through an electronic vote.

Following the resignation of **Mr. Juan Francisco Alonso** as Chairman, both the REE and EETC cooperated in providing these new candidates, ensuring that they have the proper backgrounds to take over these prestigious roles. With the final phase of the Mediterranean Project 2 swiftly approaching, the decision to bring members of both REE and EETC to leadership is expected to facilitate the implementation of the project. Furthermore, a unanimous vote of the General Assembly illuminated the support for this strategy and sealed their nominations.

As the leaders of the Regulation and Institutions committee, Mr. Rodríguez and Mr. Bahaa El Din will be presented with the unique challenge of unifying the 19 countries under the umbrella of Med-TSO in regulating their power systems. Both have already come to the table with clear strategies for



establishing themselves in their roles, all with the overarching goal of creating a harmonized power system across the Mediterranean region.

Chairman Mr. Rodríguez sees one of his primary challenges as coming into the position following Mr. Alonso and picking up without delay or sacrifice of any progress. For that reason, he has a plan of action to help maintain order during the transition.

He stated, *"I try to apply a very simple rules in my life: Easy, Clear and Chort. Of course, those "ECS" principles need a precondition: the topic or topics have to be of common interest. If there is no interest for the participants, we'll lose time. Therefore, for me it is very important to identify the topics of common interest of our Members and then to motivate our teams in order to propose ECS solutions."*

Both Mr. Rodríguez and Mr. Bahaa El Din are wasting no time in assuming their roles, with meetings already scheduled for organizing the most urgent obligations inside the Mediterranean Project 2 with the European Commission.

In regard to his role Vice-Chairman, Mr. Bahaa El Din clearly stated his intentions: *"My strategy is to develop regulations that satisfy all TSOs, while considering the use of available renewable energy and power exchange between the largest number of interconnected systems and through the power market in Med-TSO. All for the aim of sustained development in all Med-TSO countries."*

As they stepped into their new roles, the recently appointed attended the Operational Activities Coordination Committee (OACC) Meeting, held in Rome on January 23.

Message of the President after the Earthquake in Turkey

30/01/2020

On January 24, a devastating earthquake of magnitude 6,7 M hit Turkey and the nearest countries of Syria, Georgia, and Armenia. There was severe damage within 40 km of the epicentre, which was close to the town of Sivrice in Elazig province. Many were the impacted towns and villages with a total of 41 people killed, and more than 1,600 injured.

On behalf of all the members of the Med-TSO association, President Moncef Harrabi presents his most sincere condolences to the country and its people.

«The strong earthquake that struck Elazig last week has brought great pain to all of us. Our thoughts are with the Turkish people, the families of the victims and all those injured or affected. We are sure our colleagues of TEIAS have not spared any effort in bringing electricity and assistance to all the areas hit by the seism. Our greatest wish is for Turkey to overcome this calamity soon».

The President
Moncef HARRABI



Building common rules for power systems in the Mediterranean Region

12/02/2020

One of Med-TSO's ambitious goal in the frame of the Mediterranean Project 2 is to build a set of common rules for all TSOs in the Mediterranean region. In collaboration with its 21 member TSOs in 19 countries throughout the region, the Association has identified 14 themes that will form the basis of the guidelines to harmonise power systems across all member countries that will be published within 2020. A first deliverable has been already finalized and published by the association, with the subject "A Proposal of Common Rules about the provision of system services: Mediterranean Grid Code chapter"

We spoke with **Mr. Juan Francisco Alonso**, former Chairman of Med-TSO Technical Committee Regulation and Institutions and **Mr. Andrés L. Sainz**, REE – Spain, Technical Secretary of the same committee, about the importance and impact of their work on Mediterranean Project 2.

Exponential benefits to systems and citizens

The work of this Committee began with the identification of the potential issues that could be included in the Mediterranean Grid Code, the first step toward developing a harmonised set of common rules to govern the power systems throughout the whole Mediterranean region.

"The benefits of harmonised rules are exponential, in terms of optimising interaction, improving system services, and ending monopolies, all of which provides a distinct advantage for systems and citizens throughout the whole region." – said Mr. Alonso.

Working together, learning from each other

The methodology used to develop the set of common rules has been highly collaborative. The Med-TSO technical committee is collaborating with TSOs in all member countries, as well as with MEDREG, the association of regulators in the region and with ENTSO-E, the network of European energy transmission system operators.

"Multilateral agreements are already in place – like that of ENTSO-E which has established a set of common rules on governance for EU Member States. Spain and Morocco are already interconnected and operate the link according to common agreement." – Mr Sainz told us.

Regulation differs vastly among power systems in the different countries of the region. The technical committee has also developed a minimum set of data from each national power system in order to increase transparency in the region: to this aim, the second deliverable finalized in the frame of the Mediterranean Project 2, actually called "Transparency: Public information harmonization", has been published on the MED-TSO website.

"We started with knowing the situation in each country and making proposals, prioritising issues that emerged in different countries, and created a task force to develop the work and transfer the experience among member TSOs - which is the main added value." Said Mr. Alonso.



To streamline the development of the common rules, Med-TSO is also collaborating with the Union for the Mediterranean (UfM) as one of the “animators” of the REM (Regional Electricity Market) Platform, following its roadmap to provide results of its work and planning studies.

Leading Mediterranean transformation

The benefits of collaboration to create more connected power systems are far reaching. Security, economy and efficiency are key priorities for TSOs within the Mediterranean region. What’s more, the integration of renewables is top of the agenda for national governments. By creating unity and implementing a common regulation, Mediterranean TSOs could be prepared in order to integrate the maximum share of renewables in the grid.

Med-TSO releases the ‘Guidelines and Methodology for Periodic Adequacy Report’ following the goals set forth by Mediterranean Project 2

23/03/2020

Aligning with the goals defined in the Mediterranean Project 2 (MP2), Med-TSO released its first deliverables that will work to outline the possible guidelines and frameworks for the Mediterranean Power System adequacy studies (winter and summer periods).

The document defined as ‘Guidelines and Methodology for Periodic Adequacy report’ includes the information required to determine the ability for electricity generation facilities to meet the load demand under requested security margin, in a predefined time period. In this deliverable, basic guidelines are presented, followed by the main methodology principles used to produce the seasonal outlook of the Mediterranean countries that are Members of Med-TSO.

Within this task, the activity called “Risk preparedness: Winter Outlook or/and Summer Outlook” consisted of proposing a methodology for analyzing potential risks to system adequacy for each country of the whole Med-TSO area. System adequacy is the possibility for a power system to meet demand and appropriate reserve margin at all times thus guaranteeing the full security of supply.

To this aim, the working group confirmed the relevance to consider the impact on system adequacy based on climate conditions, planned outages, evolution of demand, demand management and variability of the renewable generation. All of these analyses shall be firstly performed at country level, then at a regional level, examining how neighboring countries can contribute to the power balance of a power system under stress. Finally, additional probabilistic analyses could be performed for countries where a system adequacy risk is identified.

The Economic Studies and Scenarios Working Group in charge of this guidelines report has the objective of sharing a common vision of the future of the electric market in the Mediterranean area, of building market evolution scenarios and of assessing the benefit of Med-TSO interconnection projects, as explained by its convener, Emmanuel Bue (RTE, France) in this video interview.



Bridging the energy gaps across the Mediterranean region: Med-TSO Action Plan 2020-25 presented by Vice-president Carlo Crea

17/04/2020

With 2020 begins a new phase for the Association of Mediterranean Transmission System Operators, described in the Action Plan 2020-25. The plan was brought to life after the European Commission shared its renewed interest in the Association's technical activities, aimed at reinforcing a multilateral cooperation across Members with the hopes of inspiring further integration of power systems.

We asked the **Vice-president, Mr. Carlo Crea** (Terna, Italy), to present the main features of the document.

As you are one of the Vice-presidents, but also the chairman of the Strategic Orientation Committee in charge of driving this Action Plan 2020-25, could you briefly illustrate its main features and objectives? Could you provide some concrete examples of activities designed to achieve the above-mentioned objectives?

Starting from Med-TSO's need to widen the activities to be compliant with its Statute, the Strategic Orientation Committee and the Operational Activities Coordination Committee have identified a list of prospective flagship and qualified activities, organized as 'core' and 'opportunity', and have assessed the resources required for their implementation, taking into account that some of the activities are funded through the new European Commission grant. The activities labelled as 'core' include the ones funded by the European Commission, which are as follows:

1. Improvement of the Mediterranean Transmission Network development Plan;
2. consolidation of common technical regulatory frameworks;
3. identification and operationalization of Interconnected Electricity Exchange Zone, with a view of increasing electricity exchanges;
4. optimized planning capacities and Operations processes;
5. efficient support to secretarial tasks of the UfM Regional Electricity Market Platform in close collaboration with MEDREG Association.

Other activities are labelled as 'opportunity,' as their implementation is subject to the availability of internal and/or third party financial resource. They include:

1. Knowledge Sharing and Capacity building;
2. common trainings and workshops with regional stakeholders;
3. support to Members, either for specific requests or for initiatives proposed by Med-TSO;
4. studies and position papers on the status and needs of regulation (TSO perspective);
5. assessment of third-party projects.



What are the next challenges the association will have to face and how does the Action Plan 2020-25 aim to respond to these challenges?

I wish to answer by quoting the EC: “[...] energy poverty is considered as one of the root causes of migration, as it drives people to try to pursue better livelihoods elsewhere. [...] The clean energy transition can be a vector of economic opportunities, job creation and a strong incentive for dynamic research and innovation. [...] The region suffers from a very low degree of integration that prevents taking advantages of opportunities on domains where a global approach would bring significant benefits. Better-interconnected electricity networks embedding modern digitalization technologies, coupled with energy efficiency and increased use of untapped renewable energy sources would enhance the region’s energy diversification and resilience.”

Med-TSO Action Plan intends to give a concrete contribution to a bigger level of integration, by working on the technical and regulatory elements able to promote investments in electricity interconnections in line with the clean energy transition.

What do you think the role of Med-TSO will be in the next years?

Our ambition is to strengthen the role of Med-TSO in the region, to become a reference Association for all of the relevant issues. As a matter of fact, the EC considers Med-TSO as a kind of a “regional extension” in the Mediterranean region of the European Transmission System Operators (ENTSO-E). Actually, relations between the two associations are tighter and tighter, although their organization and their mandates are not on the same level.

The challenge that Med-TSO faces in the next years is to gain, at the Mediterranean level, the same role played by ENTSO-E in all of the EU energy-related matters. This would mean that the interconnection of the grids and the electricity exchanges in the Mediterranean would become real, thus having contributed to improving the livelihoods of the inhabitants of Members’ countries.

Med-TSO defines preliminary criteria for the implementation of a Cross Border Cost Allocation process

29/04/2020

Developed starting from the results of the Cost-Benefit Analysis within the Mediterranean Project 1, the general criteria and main guidelines for a Cross Border Cost Allocation (CBCA) process have been defined by Med-TSO with Deliverable 4.2 in the framework of the ongoing Mediterranean Project 2. This deliverable has been finalized by the Technical Committee International Electricity Exchanges, chaired by **Mr. Aziz Ameyoud** (OS, Algeria), in cooperation with the Technical Committee “Regulation and Institutions”, chaired by **Mr. Juan Manuel Rodriguez** (REE, Spain), and has been shared with MedReg, the association of Mediterranean Energy Regulators, for achieving a common position for future applications in the Mediterranean context.



The procedure outlined in this report represents a significant step towards completing the entire Cost-Benefit Analysis (CBA) process, aiming at evaluating benefits and costs of the projects studied by Med-TSO, defining also for each of them the relevant potential risks.

The proposed CBCA criteria will be applied for completing the Cost-Benefit Analysis carried out in the “Master Plan of Mediterranean Interconnections 2020” that will be delivered in the third quarter of 2020.

Through the outlined CBCA process, it will be possible to tackle some of the main issues and challenges that may occur while developing new interconnection projects related to:

- different regulatory frameworks existing in the host countries;
- need to identify all of the participating countries, i.e. other possible beneficiaries that could join alongside the host countries;
- level of participation and associated regulations for sharing costs, benefits and risks;
- uncertainties on the perimeter of interconnection project costs to be shared;
- criteria for allocating the interconnection capacity and whether or not it has to be based on market rules;
- finally, additional transmissions costs, including transmission losses and hosting flows.

After careful consideration and planning, it was decided to test these guidelines through a number of pre-selected case study clusters, using two methods of measurement that are strictly in accordance with the recommendations of the European Agency for the Cooperation of Energy Regulator (ACER).

The case study clusters were defined as:

- Morocco and Portugal
- Algeria and Spain
- Tunisia and Italy
- Egypt and Jordan
- Greece, Turkey, and Bulgaria
- **Method 1** uses the net impact of a project, calculated as the project Social Economic Welfare (SEW) minus its associated losses. It defines a threshold of 10% as the sum of all the national net impacts and identifies the countries having a net impact above such a threshold. The possible level of participation is then calculated proportionally to each country excess of net impact over the defined threshold.
- **Method 2** uses the net impact of a project as the Net Present Value (NPV) at the national perimeter, i.e. NPV of the cash flows associated with Social Economic Welfare, losses, CAPital Expenditures (CAPEX), and OPerational Expenditures (OPEX). The need for contribution or participation by a country is quantified based on the sum of the negative net impacts of the hosting countries.



Findings of the two methods resulted in compatible outcomes in terms of identified participants and quantified level of their participation to costs. However, Method 2 proves to bring in additional information for quantifying compensation, where required. Finally, it should also be noted that in most of the analyzed cases, non-hosting TSOs also qualified as participants as neighboring non-hosting TSOs.

With this CBCA mechanism established and successfully tested, Med-TSO has taken a major step in its efforts to promote the establishment of a harmonized power system across the Mediterranean.

The work carried out so far should be considered as the basis for setting up a transparent and clear framework for evaluating projects and enable cross-border dialogue. Med-TSO will continue working jointly with MedReg on a transparent and competitive regulatory framework with a view to ensuring an interoperated and interconnected electricity market in the Mediterranean region.

Energy Infrastructures for Italy and the Mediterranean: Med-TSO contribution to a study realized by Confindustria Energia

05/05/2020

During the past months, Med-TSO contributed to draft the study Energy Infrastructures for Italy and the Mediterranean, developed by Confindustria Energia (Italian Energy Industry Association) in cooperation with various stakeholders in the energy sector and published at the end of April.

The research analyses the trend and investment programs in Italy between 2018 and 2030 in primary energy infrastructures and the potential of the Italian system for the development of energy projects in the context of enhanced cooperation in the Mediterranean region. The assessments shown in the study were carried out between October 2019 and March 2020, when Italy began its battle against the COVID-19 pandemic, whose consequences on the energy sector are premature to evaluate and which will be integrated as soon as the health and economic situation will have stabilized.

The indications provided represent an objective reference for the next decade, while keeping in mind the possible slowdowns in the implementation of some projects in the short term.

Med-TSO's knowledge and experience have contributed, together with the Observatoire Méditerranéen de l'Energie (OME) and MEDREG, the Association of Mediterranean Energy Regulators, to the drafting of chapter 5 "Energy cooperation in the Mediterranean", which provides key elements to stimulate a wider reflection on the importance of Euro-Mediterranean cooperation and on the role that Italy can play on the 2030-2040 horizon. The chapter is enriched with insights on the main energy infrastructures of the region, as well as some regulatory aspects of the energy market.

A photograph showing two men in a professional setting, likely a meeting or conference. The man on the left is wearing glasses and a dark suit, looking towards the right. The man on the right is also wearing glasses and a dark suit, looking towards the left. They appear to be engaged in a discussion. The background is slightly blurred, showing what might be a screen or a wall with some equipment.

Med-TSO releases a report on the key performance indicators of the regional electricity system

20/05/2020

Following the program of the Mediterranean Project 2, Med-TSO has released a report on the key performance indicators (KPIs) of the regional electricity system. This work has been carried out by Technical Committee “International Electricity Exchanges”, chaired by **Mr. Aziz Ameyoud** (OS, Algeria), who explained the activities of the committee in this video interview.

KPIs are usually defined to measure how efficient and secure the operation of a power system is, while giving useful information on the provided quality of electrical supply. Based on KPIs, System Operators and interested stakeholders are able to assess power system performances, and improve, if necessary, the reliability of their grids.

The report shows the Key Performance Indicators currently adopted at a national level in Med-TSO countries and how they are applied to assess the technical and economic performance of the power system. The aim of this activity is to progress by sharing data and information between Med-TSO Members on the harmonization process across the Mediterranean region.

The identified KPIs are organized into two sections: Transmission System Performance Indicators and Transmission System Availability Indicators.

The first subset, Transmission System Performance Indicators, includes a selection of parameters that TSOs normally use for measuring their performances, related to transmission lines or transformers availability, service continuity and voltage profile.

The second class of KPIs, Transmission System Availability Indicators, is used to measure the availability of a transmission system by the number of outages and their durations on the High Voltage transmission grid. Availability Indicators are measured in terms of planned or forced outages and according to their duration (transient, short or long outages).

Through the definition of these KPIs, Med-TSO Members are sharing common criteria for measuring performances and availability of their power systems across the Mediterranean region.

Another important piece in the process of building common practices and views for the effective interoperability of the Mediterranean Power System will be achieved with the next release, again in the framework of the Mediterranean Project 2, of a common Web-Platform where Med-TSO members can gather data on cross-border interconnections and share information on the behavior of their power systems. This platform is designed to:

- Collect data related to system performances, also in terms of frequency control;
- report on operational procedures adopted in emergency conditions for preventing or limiting the effects of critical security issues.



Furthermore, the implementation of the Web Platform will allow to define and oversee the implementation of regional Key Performance Indicators.

Power System Operation is a complex activity, where TSOs are fully engaged and perform their responsibility. Therefore, coordination in this area is critical and implies the need to exchange data significant for the security of cross-border operation on a regular basis. To this aim, Med-TSO is working to build the necessary mutual trust and common views and achieve, hopefully in the near future, the full interoperability of the Mediterranean Power System.

The new Med-TSO President elected at the General Assembly meeting on July 1st

02/07/2020

On July 1, 2020, the General Assembly of Med-TSO convened with the main focus of electing the new President of the organization. The meeting was held in videoconference, after some postponement due to the COVID-19, which caused President Harrabi to continue to act as President beyond the expiration of his three-year term.

Unanimously, the General Assembly elected **Mr. Chaher Boulakhras**, current Chairman and CEO of Sonelgaz (Algeria), to the position of President of Med-TSO for a term of three years.

With more than 20 years of experience in Sonelgaz, Mr. Boulakhras is well versed in the work of Med-TSO and has a multidisciplinary and transversal vision for the sector. His competence will guide his work of presiding over Med-TSO activities, while facing new challenges and improving service quality.

On his candidacy for the position, Mr. Boulakhras stated, “Med-TSO must work to become a professional and strategic organization for all issues dealing with the Mediterranean electrical system, a competent proactive guide to which all the European institutions and Mediterranean actors for networks could refer. The long-term vision of this association, as I see it, is to promote the integration of the Mediterranean electric and energy system in an effective or efficient way.”

The results of the vote took immediate effect, with Mr. Boulakhras promptly assuming his new role as President to drive the association towards its future goals. The remainder of the meeting included the report from the Executive Board and the approval of the Financial Statements 2019.

With its new President in office, Med-TSO will continue forward with the actions of this year, working towards its main goal of fostering the development of an integrated, secure and sustainable regional electricity transmission grid.



Closing remarks from President Harrabi after a successful term leading Med-TSO

09/07/2020

At the General Assembly meeting on July 1, **Mr Moncef Harrabi** welcomed members with a speech concluding his three-year term as President of Med-TSO.

After expressing his gratitude to the Association and the 21 TSOs members, he remarked on the balance achieved over the course of his term, highlighting how the Association has reinforced its position in the Mediterranean thanks to the efforts of the Members and the increase in activities. In particular, he mentioned the undertaking of the two Mediterranean Projects, both of which implement procedures for coordinated planning within a frame of harmonised Technical Rules, and the laying of the foundations for the future integration of the Mediterranean region.

He also underlined that, despite the unprecedented circumstances due to the COVID-19 pandemic, the Association has advanced in line with the scheduled work programme. Throughout this turbulent time, Members have demonstrated their abilities to support each other, while promoting their common objectives. He also confirmed, on behalf of Mr. Ammar, new President and Director General, the strong support of STEG, Tunisia, for Med-TSO and its activities.

Finally, Mr. Harrabi thanked the Secretary General and all the staff of the Secretariat for the continuous help in coordination and support, wishing to the new President of Med-TSO, Mr. Chafer Boulakhras from Sonelgaz (Algeria), all the best in assuming his challenging task, and in efficiently fulfilling Med-TSO's main goal to harmonise and integrate the power system across the region.

Med-TSO defines potential candidate pilot zones under the Mediterranean Project 2

17/07/2020

Med-TSO moves forward to the next step in the Mediterranean Project 2 (MP2), releasing a new deliverable called Candidates for Pilot Projects, finalized by the Technical Committee "Regulation and Institutions", chaired by **Mr. Juan Manuel Rodriguez** (REE, Spain).

Having already achieved a complete set of rules for progressing in harmonising the regulation of power systems in the Mediterranean region, this committee intends, with this activity, to contribute to the proposal of a fast track implementation of the project through a "zonal approach."

With a focus on the execution of this sub-regional method, the activity proposes a practical application of harmonisation for a subset of technical rules in priority sub-regions that have the potential for faster integration.



The main objective of the deliverable just released is to define the Pilot Project scope, which will subsequently be followed by a second step, aiming to define the structure and the development of activities within the related project.

Med-TSO members defined an initial list of significant and potential locations for Pilot Projects. For this initial scouting, the committee followed a two-dimensional geographical and regulatory-based analysis with a participative approach among TSO members, in which the real existence of interconnections between countries is necessary within the proposed zones.

Primarily, four zones, or sets of power systems within the Med-TSO perimeter, were considered as potential candidates to be analysed for the practical implementation of a harmonised initiative. However, taking into account the technical and practical aspects, as well as the short-term vision for project implementation, the Maghreb area of Morocco, Algeria, and Tunisia turned out to be the ideal first pilot zone.

Nevertheless, depending on the results of the power system integration, future work may incorporate Libya and even interconnections with European countries.

The deliverable issued by this Technical Committee goes on to fully describe the selected area in detail, including information such as the documented partnership among the three countries, features of their electricity systems, etc. It also takes into account common regulatory issues based on a mini-survey distributed among members of TSO.

Once the Maghreb TSOs have harmonised the prime concerns defined in MP2, the association as a whole can move forward in selecting the priority project of the final phase to be realised in this Pilot Zone. The identification of the Pilot Zone under this activity marks a significant step towards achieving the goals of the harmonisation of electrical systems across the region.

Med-TSO takes major steps in Mediterranean Project 2 by establishing the technical rules for a shared Electricity Market

20/07/2020

Following the trajectory set forth in Mediterranean Project 2 (MP2), Med-TSO delivered the latest chapter of the shared technical rules defined for developing and operating power systems. The deliverable Connection Procedure Proposal not only establishes the perimeter of network codes to be followed across the region but also upholds the regulations for efficient system service management and institutes a common process for the connection procedure.

Designed by the Med-TSO Technical Committee Regulation and Institutions, the overall objective of the deliverable is to develop a common proposal for connecting generation facilities to the transmission grid. Although non-binding, these procedures aim at serving as guidelines to align the Transmission System Operators across the Mediterranean Region.



With this deliverable, the organization has taken a key step towards opening “Electricity Markets” by providing all generators with congruent rules and procedures for connecting to the grid operated by the Transmission System Operators.

The proposal includes detailed provisions covering all the main issues to be considered in the connection procedure, including basic approaches for generation expansion (top-down, bottom-up, and a ‘mixed’ approach), studies performed by TSO with the criteria used to evaluate spare capacity within in the transmission grid, and economic aspects dealing with the connection cost. The report includes also the technical procedure to be followed for connection, as well as the relevant information on the administrative procedure.

The report is directly connected with the other deliverable “Study of potential candidates and proposal of pilot project” Both should enable Med-TSO to achieve two of the main MP2 expected results: the establishment of a complete set of rules for progressing in the harmonization of the technical regulatory framework and the launch of pilot projects for a fast track implementation in subregions of the Mediterranean basin (“zonal approach”).

The completion of both deliverables marks a major headway in Med-TSO’s overall goal of harmonizing electrical systems across the region.

Med-TSO participated in OME’s conference Mediterranean Energy Scenarios - Building a shared energy vision

24/09/2020

Today, our Secretary General Angelo Ferrante intervened to the conference “Mediterranean Energy Scenarios Meeting - Building a shared energy vision”, organized online by the OME, the Observatoire Méditerranéen de l’Energie (Mediterranean Energy Observatory).

During today’s meeting experts aimed at finalizing the definition of the “ProMED scenario to 2050,” within the Near Zero Carbon framework defined in previous meeting, confronting their expertise and expectations to shape a comprehensive scenario to 2050, including renewables development potential, hydrogen realistic expectations, technology deployments, electrification notably electric vehicles prospects and energy efficiency in all sectors of the economies.

Secretary General presented the Energy Scenarios elaborated in the framework of Med-TSO’s Mediterranean Project 2, namely:

1. National development, based on a low growth of population, energy efficiency and new demand, with a medium growth of Renewable Energy Sources (RES) and of the achievements of greenhouse gases reduction target;



2. green development, which describes a medium growth of population, energy efficiency and new demand, with a high growth of Renewable Energy Sources (RES) and of the achievements of greenhouse gases reduction target;
3. mediterranean integration, which depicts a high growth of population, a medium growth of energy efficiency, with a high growth of new demand, of Renewable Energy Sources (RES) and of the achievements of greenhouse gases reduction target;

Thereafter, the Secretary General introduced the activity “Med-TSO E-Highway” that will be developed in the next years in the frame of a new upcoming project, whose objective is to provide a long-term framework (at least until 2040) for the scenarios used for the Med-TSO Master Plan studies in the Mediterranean basin.

This new framework should go beyond the scenarios built previously, and will be widened to include drivers that could affect the electricity sector, especially those likely to experience a rupture by 2040, such as the prolongation of the historical trends (historical high growth rates in electricity demand, economic and demographic development, saturation of usages), new usages and technologies (energy efficiency, electric vehicle/mobility, solar and wind, energy storage), possible connections (power to gas, role of Hydrogen) and the role of the Regulation (national and international energy policies, Paris agreement on climate change).

This meeting was the second of that kind organized by OME, after a first one in December in which were provided insights on the current energy situation in the Mediterranean region, the climate emergencies and foreseen scenarios, also through an interactive round table, where experts from each Mediterranean country confronted expertise from various fields to help define and build a common scenario and a shared vision.

“Cross-border Cost Allocation: How to assign costs and risks of interconnection projects?” MEDREG & Med-TSO held the Webinar

“Cross-Border Cost Allocation for Electricity Projects in the Mediterranean: the view of Regulators and Operators”

09/10/2020

Wednesday, 7 October, 2020 MEDREG, the Association of Mediterranean Energy Regulators, and Med-TSO, the Association of Mediterranean Transmission System Operators held the webinar “Cross-Border Cost Allocation for Electricity Projects in the Mediterranean: the View of Regulators and Operators”.

The objective of the webinar was to establish a set of criteria and propose the main guidelines for the application of a Cross-border Cost Allocation (CBCA) mechanism to certain interconnection projects assessed under the framework of Med-TSO’s activities.



CBCA is a financial tool used to facilitate the implementation of Projects of Common Interest. While the Cost Benefit Analysis (CBA) aims to assess, identify and quantify the positive trade-off of interconnection development for the involved systems, Cross-border Cost Allocation (CBCA) responds to the challenge on how to distribute and assign the costs –and risks of this development.

The event was opened by the Secretary General of Med-TSO, **Mr. Angelo Ferrante** (TERNA, Italy) and by the Deputy Secretary General of MEDREG, **Mr. Hasan Ozkoc**, and it saw the contributions of technical experts from both the operator and regulator side. After that, key experts from the European Union, Transmission System Operators and Energy Regulatory Authorities presented the application of the CBCA in some different case studies during a panel session moderated by **Mr. Benoit Esnault** (CRE, France – MEDREG). This was followed by a fruitful Q&A session.

The event was concluded with a final speech by **Mr. Marco Berti Palazzi** from Directorate-General for Energy of the European Commission who encouraged the two associations to pursue their successful collaboration towards a regional integrated electricity market.

MEDREG and Med-TSO joined forces in 2013, by signing a bilateral cooperation protocol and a further protocol including the European Commission in 2014. The aim of their cooperation is to reinforce Mediterranean electricity interconnections and to support a more efficient and balanced dialogue between TSOs and regulators at the national level. MEDREG and MED-TSO also closely cooperate on the implementation of the work programme for the Union for the Mediterranean (UfM) Regional Electricity Market Platform (UfM REM Platform).

Med-TSO starts its newest project: TEASIMED – Towards an Efficient, Adequate, Sustainable and Interconnected MEDiterranean power system

13/10/2020

Over the next two years, Med-TSO has committed itself to its new project, TEASIMED, which carries forward the work of the Association with the continued support from the European Commission.

As its third project with the backing of the EC as well as recognition of its efforts from regional stakeholders, Med-TSO has become known as the voice of the Mediterranean Transmission System Operators. This is due in part to the Association's work carried out in their recent Mediterranean Projects 1 and 2 (MP1 & MP2), which reinforced its position as a sort of 'regional extension' of the European Transmission System Operators.

MP1 and MP2 have made way for the development of TEASIMED as the building blocks for Med-TSO's roadmap for achieving the progressive integration of its members' power systems at a Mediterranean level. Following the previous two landmark initiatives, which established a master plan of interconnection with an extensive knowledge exchange program, the new project will consolidate a number of the activities from them, while launching new ones.



The project is structured in 6 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 of increasing electricity exchanges in the region;
4. optimizing 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 of 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 the 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 a stronger coordination of the national Network Development Plans with the definition of coordinated procedures in the Operation area for a better utilisation of the existing interconnection capacity and promoting the development of new key interconnection projects.

Counting on the continuous motivation and commitment demonstrated by its members up until now with MP1 and MP2, Med-TSO also believes that TEASIMED, along with the next two and a half years, will be a further move towards the integration of the Mediterranean power system.

Med-TSO presents the results of Mediterranean Project 2: An Integrated Grid for Enabling the Energy Transition in the Mediterranean

30/10/2020

On October 28, Med-TSO held a closing conference in honour of its Mediterranean Project 2 (MP2), which has officially come to an end after being successfully operative for two years. The event, titled 'An Integrated Grid for Enabling the Energy Transition in the Mediterranean,' was held via web conference and presented a comprehensive view of the project to institutions and stakeholders, including results of its activities, projections for the future, and a panel discussion with some of the Mediterranean energy scene key players.



HIGH LEVEL INSTITUTIONAL KEYNOTE SPEECHES

The President of Med-TSO, **Mr. Chahe Boulakhras**, welcomed attendees with a commencement address, before passing the floor to **Mr. Jean Michel Glachant**, Director of the Florence School of Regulation, moderator of the virtual event, who introduced a select group of keynote speakers. These representatives, from high-level EU institutions, Energy Ministries of Egypt, Tunisia and Algeria, and main Stakeholders, lead the opening presentations. **Mr. Fabio Massimo Castaldo**, Vice-President of the European Parliament, started this round of statements talking about the necessity of a clean energy transition in the Mediterranean and remarking that energy cooperation is one of the most prominent aspects on the international diplomatic agenda.

The Egyptian Minister of Electricity and Renewable Energy of Egypt, **H. E. Mohamed Shaker**, centred his speech on the energy transition in Egypt, highlighting the importance of developing regional grid of interconnections in support of sustainable development and asserting that the Egyptian electricity sector is based on the gradual transformation of the current traditional network to a smarter one.

“Algeria and the Energy Transition” was the title of the speech given by **H.E. Chems Eddine Chitour**, Minister of the Energy Transition and Renewable Energies of Algeria, explaining that the Algerian government’s aim is to move to a new energetic model, focusing particularly on renewable energies and energy efficiency.

After that, **Mr. Belhassen Chiboub**, Director General of Electricity and Energy Transition at the Ministry of Industry, Energy and Mines of Tunisia, took the virtual stage to also speak about the energy transition in his country, warning about the growing scarcity of primary resources like fossil fuels, the increasingly difficult access to them and how renewable energies are the main pillar of this energy transition because of their abundant, clean and inexhaustible resources.

The EU Green Deal was the main topic in the speech from **Ms. Cristina Lobillo-Borrero**, Director to the Energy Policy of European Commission DG ENER, in which she highlighted that it is not only a strategy to face climate change but is also a strategy for long-term growth - that is already being implemented - and how Med-TSO can greatly contribute to that.

Mr. Keisuke Sadamori, IEA Director for Energy Markets and Security, closed this round of speeches, talking about the role of IEA in the Mediterranean Region, arguing that in the future, whichever path the energy system follows, growth will come dominantly from variable renewables when flexibility from conventional power plants declines. He also warned that investments in the power sector were declining even before the Covid-19 outbreak.

OUTCOMES OF MED-TSO MEDITERRANEAN PROJECT 2

With these insights, the conference was primed for the presentation of the final outcomes of MP2. The Secretary General, **Mr. Angelo Ferrante**, gave an overview of the project that aimed to increase energy security and reliability, improve system efficiency across the region, generate economies of scale through investments and operations and improve the collaboration and knowledge sharing across the Mediterranean TSOs.



Mr. Emmanuel Bué, Convener of Med-TSO Working Group Economic Studies and Scenarios, presented Med-TSO 2030 scenarios, where possible future situations of energy in the region have been explored, while **Mr. Modesto Gabrieli Francescato**, Chairman of Med-TSO Technical Committee Planning, gave all the details of the second Mediterranean Masterplan of Interconnections, in which 15 future interconnection projects have been assessed.

The Secretary General of the Association also took this opportunity to present the launch of a new project, TEASIMED, acronym of Towards an Efficient, Adequate, Sustainable, and Interconnected MEDiterranean power system. While MP2 and its predecessor MP1 established guidelines, rules, and methodologies for the integration of power systems in the Mediterranean, TEASIMED represents the next step in the process and is expected to initiate the implementation of pilot projects and operational cooperation across the region.

INTEGRATION OF THE MEDITERRANEAN GRIDS

Following the outcomes portion of the event, the web conference moved onto a panel discussion with leading voices across the region on the topic of “A stronger integration of electricity grids of both shores of the Mediterranean: opportunities, challenges, and concrete ways to progress.”

High-level Stakeholders shared their insights and expertise, like the Secretary General of UfM **Mr. Nasser Kamel**, who talked about the challenges and opportunities to enhance energy cooperation in the Mediterranean, stating that the Mediterranean region counts on unique conditions to develop renewable energies beyond the wind, sun and hydropower.

The President of MEDREG, **Ms. Gülefsan Demirbas**, analysed the reasons why market integration is so important and talked about how cooperation can be a key factor to implement projects like this one. In his intervention, the President of ENTSO-E, **Mr. Hervé Laffaye**, presented the major trends in power systems towards 2030-2050, pointing out at the need for cross-continent coordination, cooperation and interconnection and highlighting the already existing excellent cooperation between Med-TSO and ENTSO-E.

PRIORITIES OF THE EUROPEAN COMMISSION

Finally, the event came to a close with remarks from **Mr. Henrike Trautmann** of the European Commission, who talked about the importance of continuing work on green energy projects and remarked the importance of the EU Green Deal. She also commented that she was looking forward to seeing the TEASIMED project advance. To conclude, the President of Med-TSO, **Mr. Chaheer Boulakhras**, praised the collaboration between both sides of the Mediterranean and how, working side by side, they can create less costly solutions that can benefit all the parties involved.

The successful web conference was an opportunity for Med-TSO to celebrate an important landmark for the Association, while continuing to offer its future vision to members and stakeholders. With the closing of each of its projects, Med-TSO is able to introduce the concrete steps to ensure progress towards an integrated and harmonised energy system across the Mediterranean region.





A comprehensive glimpse into Med-TSO's latest project, TEASIMED, with Secretary-General Angelo Ferrante

11/11/2020

With the announcement of the start of the new project “TEASIMED” - Towards the Efficient, Adequate, Sustainable, and Interconnected MEDiterranean power system, Med-TSO asked Secretary-General **Angelo Ferrante** to give a closer look into the expectations of this latest initiative. Speaking about climate change, knowledge-sharing, and the admirable efforts of the members of the Association despite challenging circumstances, the conversation provided a number of powerful insights into the future of the Association.

Following the success of the first two Mediterranean Projects, which, according to Ferrante, established guidelines, rules, and methodologies for the integration of power systems in the Mediterranean, the TEASIMED project is expected to initiate the implementation of pilot projects and cooperation in the Operation area across the region.

But further than the anticipated activities of the project, the Secretary-General had much to share on the impact of Med-TSO initiatives that will have a lasting influence on the interconnection of the Mediterranean region, particularly in terms of sustainability.

According to him, *“The development of interconnections and the progressive integration of national electricity transmission grids is a sine qua non condition for energy transition in the Mediterranean. This objective is pursued in TEASIMED, considering climate and decarbonisation targets defined by our Members, with a view to the EU Green Deal and its implications with third-party countries- as defined in the EU neighbourhood policies.”*

In line with this climate consciousness, he also named both RES integration and climate change mitigation as key elements to measure the effectiveness of their actions through this project, inherently making them priorities in the development of Renewable Energy Sources into Mediterranean grids.

Another important measure of the success of the project that Ferrante presented during the conversation is Med-TSO's focus on knowledge-sharing initiatives.

He stated, *“Knowledge-Sharing activities have the two-fold objective of consolidating the existing link between the Mediterranean TSOs, the Association, and the other stakeholders around the region, combining knowledge, work and visibility.”*

In order to achieve their expected results, he disclosed that, *“The TEASIMED action plan includes the development of a digital web-platform to help build Knowledge-Sharing and Capacity programmes with the launch of common training sessions and workshops with the regional stakeholders.”*

But it's not just the Transmission System Operators ability to exchange information that ignites passion for the project. Ferrante also shared that the future of the project rests in the capable hands of the members of Med-TSO who, despite working through a pandemic, have continued to dedicate their time and hard work to the future of the interconnection of the Mediterranean region.



“A voluntary Association such as Med-TSO is based 100% on the willingness of the Members to put it in place. Therefore, no result is possible without the strong commitment of the Members. In these years, our companies have shown a tremendous interest in cooperating together, and the excellent results are evident,” he stated. “Even during the unpredictable and dramatic events of these last months, Med-TSO has shown the capability to entirely fulfil its duties, and this is thanks to the continuous spirit of dedication from the experts and the Secretariat staff.”

The heart of the Med-TSO projects has proven to be the hardworking members of the Association to build a more efficient, adequate, sustainable, and interconnected Mediterranean power system - just as the name of the project implies.

Ferrante concluded, *“The value and motivation shown by Med-TSO members so far are, no doubt about it, the viaticum for the achievement of our success in the years to come.”*

Med-TSO held the webinar “Mediterranean Grid Code and its application to the Maghreb Pilot Project”

12/11/2020

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 event was opened by Mohamed Ammar, PDG of STEG-Tunisia and President of COMELEC. In his speech, Ammar highlighted as “no one can succeed alone and the energy sector”, especially regarding the challenges coming from the exhaustion of fossil energy resources and the climate change, and that this was the founding idea of the Comelec, the Maghreb Electricity Committee (Comité Maghrébin de l'Electricité). He also 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. He concluded thanking Med-TSO for the interest shown by identifying the Maghreb region as the zone where to apply a pilot project.

After this High-level opening, the moderator **Mr. Juan Manuel Rodriguez** (REE, Spain), Chairman of Med-TSO Technical Committee Regulation and Institutions started the first session of the webinar. This was dedicated to two core aspects of the Mediterranean Grid Code: the common rules for sharing of system services, illustrated by **Mr. Amer Taghreed Mostafa Kamel** (EETC, Egypt), and



the common process for the connection procedure, explained by **Mr. Dimitrios Bechrakis** (Ipto, Greece), both from the Technical Committee Regulation and Institutions.

Following a Q&A session, the second part of the webinar was dedicated to the introduction of a proposal of a zonal target regulatory framework in the Maghreb, with the presentation of the pilot Project. In this session, **Mr. Mohamed Lakhdar Habib** (Sonelgaz, Algeria) and **Ms. Sofiene Ben Hadj Amor** (STEG, Tunisia) from the same Med-TSO technical committee, showed the path followed to elaborate a zonal target regulatory framework and to draft the proposal for a Pilot project in the Maghreb region.

At the end of another interesting Q&A session, mostly focused on the current situation of the electricity exchanges from the Maghreb area towards near countries and about the cooperation with the Comelec, Juan Manuel Rodriguez concluded the webinar stressing, one more time, on the need of an effective multilateral cooperation to achieve the important goals of Med-TSO, especially for its new project TEASIMED.

Med-TSO launches the first Mediterranean Power Statistics web platform

18/11/2020

Med-TSO is glad to announce the launch of the first Mediterranean Power Statistics web platform.

For the first time, all essential data about the performances of the Mediterranean power systems and the interconnections among the 19 countries members of the Association are gathered and available on a public website.

The realization of such a platform faced many challenges, starting, as an example, with the realization of a unique format to collect data from all the TSOs. The first data collection, held in 2020, consisted of 2019 year-end data that will be updated on an annual basis.

The scope of this platform is to enable the various operators in the electricity sector, as well as all the stakeholders, to have quickly access to information never made available before in the Mediterranean energy scene in a single repository.

Entering the platform takes to an interactive map of the Mediterranean countries members of Med-TSO, with graphic representation of the interconnections, through which is possible to visualize the physical energy flows in GWh exchanged by each country and for each interconnection. Moreover, by clicking on the map, it is possible to access tables gathering all data from TSOs, such as net generating capacity, net annual generation, demand, length of the lines, transformers' capacity and some key performance indicators.

Furthermore, the platform gives the opportunity to consult historical data since 2015 through interactive graphics showing the situation each year, for each countries, also offering the possibility to select and switch from an energy source to another.



This very complex deliverable has been developed in the frame of the work of the Technical Committee International Electricity Exchange, chaired by **Mr. Aziz Ameyoud** (PDG OS, Algeria) for Med-TSO's Mediterranean Project 2, in collaboration with the Secretariat staff and web developer consultants, involving up to 38 people for about 1000 hours of work.

This important feature represents a concrete and important step towards Med-TSO vision to become a professional and strategic reference body for every technical, market and policy issue related to the Mediterranean electricity system.

Webinar “Mediterranean Master plan 2020: focus on Western Mediterranean Region”, on 19 January 2021, from 10 to 12 a.m. CET

22/12/2020

Med-TSO Technical Committees Planning and Economic Studies and Scenarios will hold a webinar on 19 January 2021, from 10 to 12 a.m. CET, “Mediterranean Master plan 2020: focus on Western Mediterranean Region”, to present the Mediterranean Master Plan 2020, one of the main results of Med-TSO's Mediterranean Project 2.

This webinar will have an introductory session about Med-TSO and its freshly concluded Mediterranean Project 2, followed by the session “Presentation of the Scenarios”, where Electricity Scenarios at 2030 will be showed starting from a full Mediterranean approach to sub-regional focus on the Western Region.

Then, the webinar will proceed with the session “Presentation of the Mediterranean Masterplan 2020”, during which all the Interconnection Projects at 2030 time horizon will be explored, showing methodology and principles used, and also providing the opportunity to get into the details of each sub-regional project for the Western Region, presented by the involved Transmission System Operators.

These two main sessions will be followed by Q&A .

The projects in the Masterplan, although with different degrees of maturity, aim to interconnect effectively the Mediterranean power systems, a crucial prerequisite for reaching the goal of the energy transition.

With this respect, Transmission System Operators cooperation for developing the grid, improving the operation of the interconnected regional system and guaranteeing adequacy and security in the Mediterranean basin, while exploiting potential complementarities across the countries, is one of the key drivers for enabling this transition.



Webinar “Mediterranean Master plan 2020: focus on Eastern Mediterranean Region”, on 20 January 2021, from 9 to 11 a.m. CET

22/12/2020

Med-TSO Technical Committees Planning and Economic Studies and Scenarios will hold a webinar on 20 January 2021, from 9 to 11 a.m. CET, “Mediterranean Master plan 2020: focus on Eastern Mediterranean Region”, to present the Mediterranean Master Plan 2020, one of the main results of Med-TSO’s Mediterranean Project 2.

This webinar will have an introductory session about Med-TSO and its freshly concluded Mediterranean Project 2, followed by the session “Presentation of the Scenarios”, where Electricity Scenarios at 2030 will be showed starting from a full Mediterranean approach to sub-regional focus on the Eastern Region.

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Med-TSO elected four new Vice-presidents

23/12/2020

Last 22 December 2020 the members of the General Assembly of Med-TSO have met in videoconference to elect four new Vice-presidents of the Association.

The assembly unanimously elected **Ms. Sabah Mashaly**, CEO of the Egyptian Electricity Transmission Company, **Mr. Ramon Granadino**, Director of Investment Projects and Transmission Management in Red Eléctrica de España, **Mr. Guido Guida**, Head of International Institutional Relations of Terna, Italy, and **Mr. Ioannis Kampouris**, Chairman BoD & CEO of Southeast Electricity Network Coordination Center (SEleNe CC), from Ipto, Greece.



The four new Vice-presidents will be in charge for the next three years and they will join in the Executive Board of Med-TSO the Vice-presidents **Mr. Abdellah Kabiri** (Onee, Morocco), **Mr. Hervé Laffaye** (RTE, France), **Mr. Albertino Meneses** (REN, Portugal) and **Mr. Serhat Metin** (Teias, Turkey).

President **Mr. Chaher Boulakhras** (SONEGLAZ, Algeria), closed the assembly congratulating and ensuring his support and availability to the new Vice-presidents, while expressing his gratitude and deep thanks to the ones who left Med-TSO for the precious work carried out and their strong involvement



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