

A N N U A L R E P O R T



2018

MESSAGE OF THE PRESIDENT



Dear Members, dear readers

The past year has represented a significant milestone for Med-TSO in the process of building an effective “power” bridge between the two shores of the Mediterranean Sea. The successful conclusion of the first Mediterranean Project 1 (MP1) in April showed how successful is the roadmap undertaken by the Association, based on the strengthened cooperation for promoting the integration of the regional Power System, improving the efficiency of the existing interconnections and fostering the development of new ones, in a general framework of enhanced security of supply and sustainable development.

The first Mediterranean Project and its deliverables have gained a lot of positive comments and evaluations, both from the European Commission and from the regional stakeholders.

This year will be even more challenging for us, with a second Mediterranean Project (MP2) entering in its crucial phase. This new project starts from the results achieved in the frame of MP1, by consolidating some outcomes and enlarging the activity perimeter that now includes also other important aspects of the TSOs business, such as the System Operation.

MP2 represents a new challenge but also a new opportunity for reinforcing the position of Med-TSO as a reference entity in the Mediterranean region. Med-TSO wants to increase the cooperation with all the relevant stakeholders, even beyond the basin of the Mediterranean sea if necessary, with the aim to pay more and more attention to the integration of the Renewable Energy Sources into the European, Northern African and Middle Eastern Power Systems.

It is worth to highlight once more that managing the energy transition in our Region will be possible only by accelerating the implementation of shared rules and regulations, as well as the effective interconnection of the electricity networks of our countries.

Finally, I would like to thank all those who make Med-TSO effective. First of all, the European Commission, who has co-funded both the first and the second Mediterranean Projects and supports continuously the Association. Then, all the Members of Med-TSO, because without their strong commitment the Association would not be able to operate. Last but not least, a special thanks to our people, the experts who share continuously their professionalism, their competence and their knowledge for guaranteeing a safe and sustainable future for our countries.

Moncef Harrabi

Moncef Harrabi
President of Med-TSO

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ABOUT US

What is Med-TSO?

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



21 MEMBERS FROM **19** MEDITERRANEAN COUNTRIES, **8,6 MILLION** KM² CA COVERED



MORE THAN **500 MILLION** CONSUMERS SERVED



MORE THAN **400.000** KM OF TRANSMISSION LINES OPERATED



ALMOST **550.000** MW OF INSTALLED CAPACITY



MORE THAN **1.600** TWH OF TOTAL ELECTRICITY CONSUMPTION

Med-TSO objective and activities

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

The three pillars of Med-TSO activities

1

COMMON TECHNICAL RULES

(MEDITERRANEAN GRID CODE) FOR POWER SYSTEMS INTEROPERABILITY: OPTIMIZING EXISTING INTERCONNECTIONS AND SUPPORT INVESTMENTS TO FAVOR NEW ONES

2

COORDINATED PLANNING

FOR THE MEDITERRANEAN HIGH VOLTAGE TRANSMISSION SYSTEM DEVELOPMENT

3

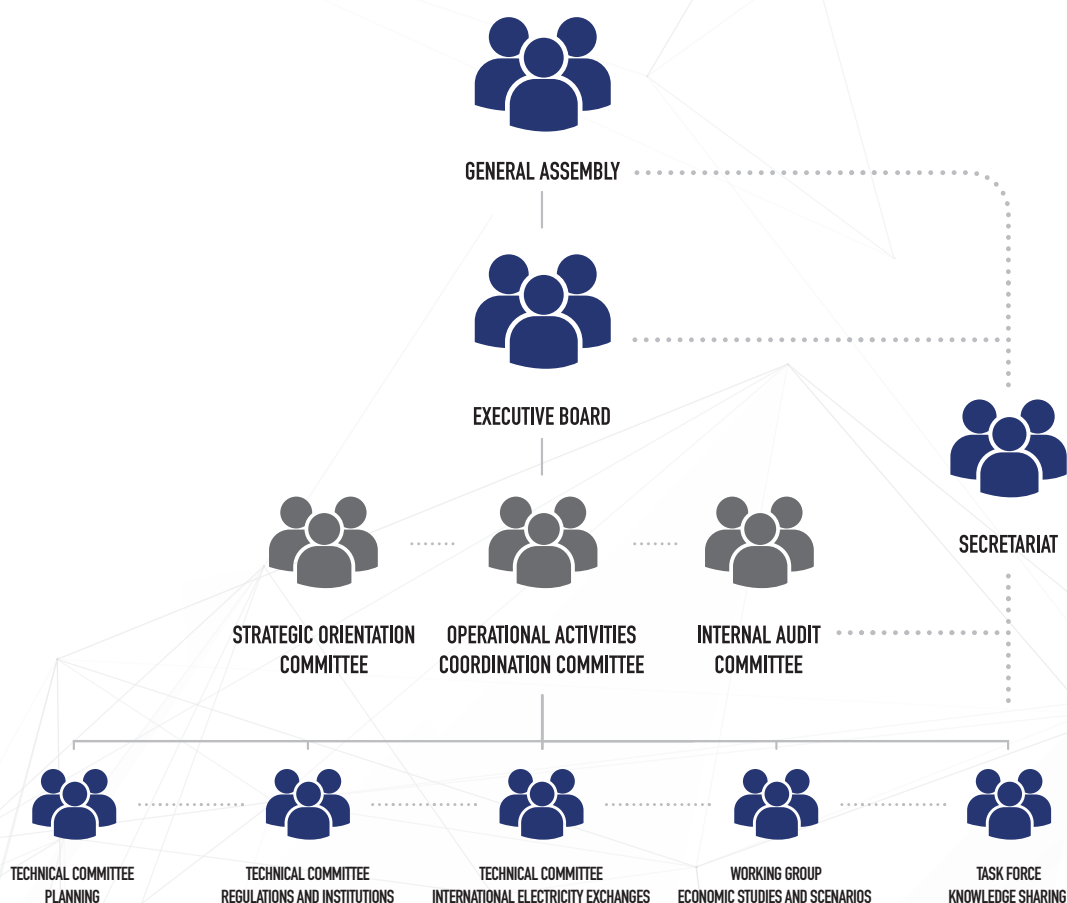
CAPACITY BUILDING

AND KNOWLEDGE SHARING PROGRAMS

BOTTOM-UP
APPROACH BASED
ON TSOs'
PERSPECTIVES

EU SUPPORT:
MEDITERRANEAN PROJECT 1 (MP1)
AND 2 (MP2), FOR HARMONIZATION AND
STRENGTHENING OF ELECTRICITY
MARKETS IN THE MEDITERRANEAN
REGION

Our organization



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

- the coordination among Med-TSO Countries of their National Transmission Network Development Plans and their Power System operation, studying the development of an integrated, secure and sustainable Mediterranean Power System and 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 Mediterranean 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;
- the 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, analyzing and taking common positions on issues that can have an impact on the development and operation of the transmission systems.

MISSION

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

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

Med-TSO is the only Association representing the TSOs in the Mediterranean region. Its primary role is to act as a preeminent actor in the energy dialogue for planning and operating, also by adopting common technical rules, 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 in these years, the Association has found a reliable working method among so many different TSOs: this is the strength of Med-TSO that 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, also for the future, we need to consolidate these achievements and preserve the cooperative attitude built so far among the Members.

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.

The voice of the Mediterranean TSOs

In the near future 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 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, representing the TSOs’ needs and requirements in the energy debates and improving the relations with the other regional stakeholders. In few words, acting as “the voice of the Mediterranean TSOs” towards all the relevant stakeholders.

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.



ANGELO FERRANTE | *SECRETARY GENERAL*



ANTONIO MORETTI | *MP2 PROJECT COORDINATOR*



SIMONA LA CIOPPA | *GENERAL AND INSTITUTIONAL AFFAIRS & AUDIT*



GHERARDO ALFONSO VICHI | *FINANCE & TREASURY*



LUCA RUFFINO | *TECHNICAL PROGRAM*



SERGIO NOTARI | *COMMUNICATION*



EMANUELA ERRICHI | *EVENTS*



ARIANNA ANDREOLETTI | *ASSISTANT*

MESSAGE OF THE SECRETARY GENERAL

2018 has been a crucial year for Med-TSO. When four years ago we launched the first Mediterranean Project, co-funded by the European Commission, probably we were not fully aware about the challenging objective we had to achieve: demonstrating the possibility to implement a cooperative and supportive working model in one of the most complicated regions in the world. And, indeed, we got it!

The first Mediterranean Master Plan, one of the most relevant outcomes of this project, has shown how the intensive cooperation among the Members allows to finalize a concrete example of coordinated development plan of the transmission infrastructures in the Region. This has been made possible by following a bottom-up approach driven by our Members, the Companies responsible for managing the national Power Systems of 19 countries around the shores of the Mediterranean Sea.

We have endowed Med-TSO with a database, DBMED, developed, owned and managed by the Association on behalf of its Members, gathering all the information shared among the Members. DBMED is a tool that will be used for our activities and also for launching further initiatives in the Region. Furthermore, we have relaunched our Knowledge Sharing program for the Members, aimed at increasing the exchange of practices and know-how among us and developing the capacity building of the TSOs personnel.

Three major events have characterized 2018: the new membership of HOPS, the Croatian Transmission System Operator, for further strengthening the role of Med-TSO in that part of the Mediterranean region; the conclusion of the first Mediterranean Project (MP1), enriched by a final event at the European Parliament in April, and the launch of the second Mediterranean Project (MP2) that will strongly commit the Association until mid-2020.

In particular, MP2, co-funded by EC-DG NEAR and based on the outcomes MP1 of develops in six tasks aimed at giving concrete answers to sustainable development, security of supply and markets integration, i.e. the common challenges that Europe, Northern Africa and Middle East will face in the next years.

As a general conclusion, I believe we can express our full satisfaction for the activities carried out in 2018. Nevertheless, I want to conclude these few statements by expressing my warmest thanks to those who I consider the major actors of our story, without whom nothing would have been possible: the experts from the Members, who gave concreteness and content to our work, and, last but not least, the Secretariat staff, for the key role they play in planning and coordinating all the activities of the Association.

Anyhow, we do not want to stop here. New challenging activities are in the pipeline for the next year and Med-TSO is now gearing up to carry them out to the best. Our communication tools are also enhancing, to make you more and more aware about our work and ideas, follow us on our website and social networks.

In the end, enjoy and stay tuned!

Angelo Ferrante

Angelo Ferrante
Secretary General of Med-TSO

MAIN ACHIEVEMENTS

 **14** INTERCONNECTION PROJECTS IDENTIFIED AND ASSESSED IN THE “MEDITERRANEAN MASTERPLAN”

 **16.000** MILLION EUR IN ASSUMED TOTAL INVESTMENT

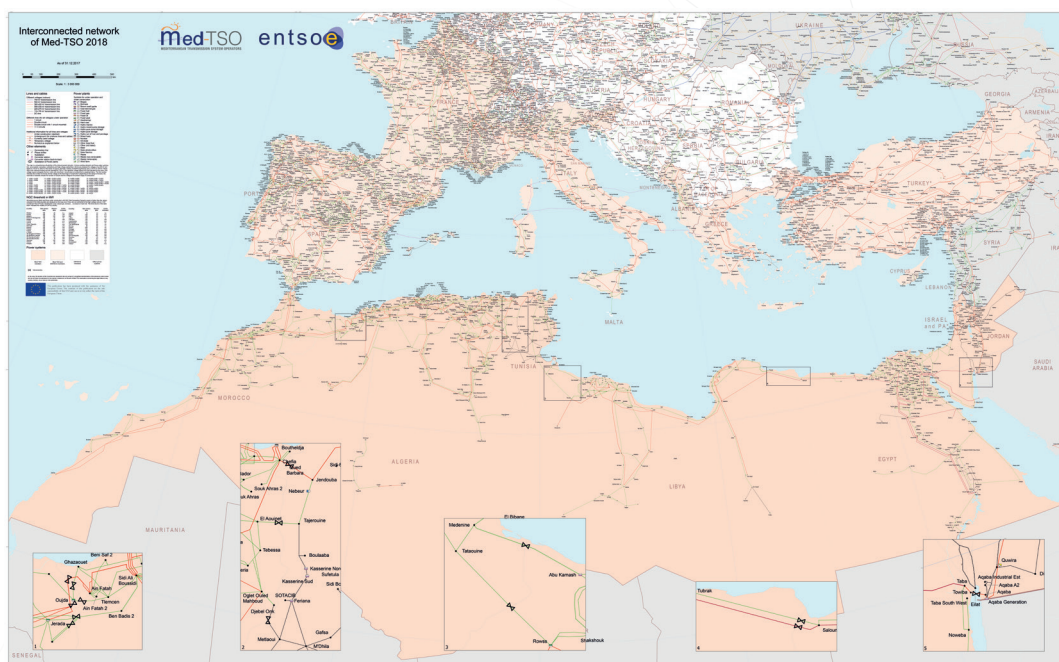
 **18.000 MW** OF NEW INTERCONNECTION CAPACITY IDENTIFIED

 **840 KM** OF RECONDUCTORING DETECTED

 **1** ROAD MAP TOWARDS THE MEDITERRANEAN GRID CODE

 **1** THE MEDITERRANEAN DATABASE

THE MAP OF THE INTERCONNECTED ELECTRICITY TRANSMISSION NETWORKS



This map is a comprehensive illustration of the transmission system network operated by members of the Association of the Mediterranean Transmission System Operators, and it has been developed in cooperation with the European Network of Transmission System Operators (ENTSO-E).

The map represents some 400 000 km of high voltage lines in the Med-TSO region as per the end of year 2017, and it is the first of its genre to give a comprehensive picture of the status of the electric interconnections within the Mediterranean region, an area that groups three different synchronous zones:

- ENTSO-E synchronous Continental Europe zone,
- South Western Mediterranean Block, which is synchronous with the ENTSO-E's synchronous Continental Europe zone;
- South Eastern Mediterranean Block

The lines represented, constitute the relevant electricity grid, i.e. the portion of the grid that can affect the interconnections between the power systems.

In general, the map depicts all transmission lines designed for 220kV voltage and higher and generation stations with net generation capacity of more than 100MW. It is important to note that the map takes into account also the lines between 110 and 150kV given the peculiarities of the power systems of the members of Med-TSO. Moreover, the map includes five zooms in order to highlight the existing interconnections within the Mena region.

MAIN ACHIEVEMENTS



PUBLICATIONS & REPORTS

22



NEW MEMBERS

1



NUMBER OF INTERNATIONAL CONFERENCES MED-TSO TOOK PART

15



NUMBER OF MEETINGS ORGANIZED BY MED-TSO

INSTITUTIONAL 11

TECHNICAL 23

WORKSHOPS 3

CONFERENCES 1

38



TOTAL PARTICIPANTS TO THE MEETINGS ORGANIZED BY MED-TSO

INSTITUTIONAL 126

TECHNICAL 428

WORKSHOPS 159

CONFERENCES 92

805

A N N U A L R E P O R T 2 0 1 8

WORK STREAMS

Planning

In 2018, Med-TSO complemented its first Mediterranean Master Plan, a first attempt for consolidating a secure and sustainable electricity infrastructure through the development of interconnections, while facilitating the integration of Renewable Energy Sources (RES) in the Mediterranean Region. This was the main output of the first Mediterranean Project.

Fourteen interconnection projects have been identified and assessed (9 of them supposed to be deployed in HVDC technology), according to the different energy scenarios elaborated at the year horizon 2030 (target year). Seven of these projects link countries never interconnected before and, in addition, one of the outcomes is the end of the isolation of Cyprus.

In concrete terms, the studies show:

- almost 18 000 MW of new interconnection capacity;
- limited needs of reinforcements (2 200 km of new lines, 840 km of reconductoring and less than 40 new bays and transformers);
- about 16 000 MEUR of additional investments.

As a complement tool for planning, Med-TSO in 2018 issued the “Map of the interconnected electricity transmission networks”, a first comprehensive illustration of the transmission system network operated by members of the Association of the Mediterranean Transmission System Operators and the European Network of Transmission System Operators (ENTSO-E).

The topic of coordination in planning is crucial. Thus, the first Master Plan is just a first step of an activity that for its nature needs a continuous update on a periodical base and that constitutes one of the core Activities of the Association. To this aim in 2018, we have launched, within the EU co-funded Mediterranean Project 2, the preliminary activities aimed at the delivery of an updated version of the Mediterranean Network Development Plan (MNDP).

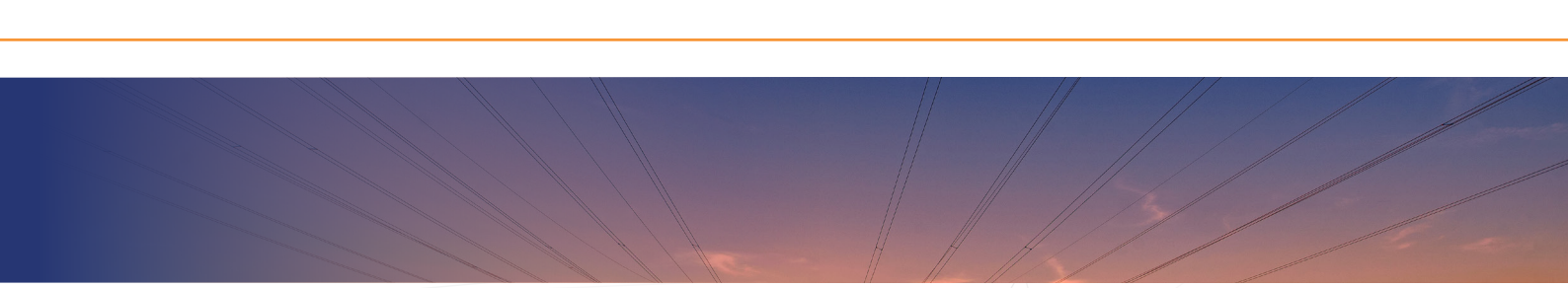
This plan, again, will update the previous first Mediterranean Masterplan by identifying the necessary investments in grid infrastructures, the justification of which is based on:

- harmonized methodologies among Members, coherent with ENTSO-E practices, and agreed procedures for updating similarly to the TYNDP in ENTSO-E, the MNDP;
- Reference energy scenarios;
- Market and grid studies;
- Assessment of costs and benefits as a result of market and network studies.

Regulation & Power System Rules

In 2018, with the conclusion of the Mediterranean Project 1, the Association has finalized the development of a shared set of technical rules and procedures as the basis for a future Mediterranean power system and transmission grid code. It has carried out an investigation on the state of regulation in the TSOs at several levels, which led to the realization of a Starting Regulatory Framework, the Proposal of a Common Target Regulatory Framework for all the Mediterranean electricity systems, the Proposal of a Common Tentative Road Map for adoption and compliance with the proposed Common Target Regulatory Framework and a Models of rules.

With the beginning of the Mediterranean Project 2, the work of the Regulations experts of the Association towards the harmonization of regulation in the region is more focused on a “zonal approach”: this will allow a faster harmonization of a subset of rules in selected zones of the Mediterranean, also through



actual pilot projects in selected priority areas. Furthermore, in order to complete the work accomplished in the Mediterranean Project 1, the experts are working to harmonize technical rules in the fields of management and sharing of system services and, also, to propose a set of data to be transparent and published by all the Med-TSO Members.

Designing solutions for cross border exchanges in the Mediterranean and coordination network operation

In 2018, Med-TSO completed the first Assessment of regional cross border exchanges potential development in the Mediterranean region. The report was built on the basis of the outcome of a comprehensive questionnaire. More than 100 questions have been investigated: data of existing and planned interconnections between Med-TSO Countries; transfer capacity (criteria and process to evaluate the NTC); methods of capacity allocation; publication of data - information and transparency; balancing and volume – price of involuntary exchanges; procedures and rules to guarantee exchanges programs and balancing services; market issues; legal issues; nomination of exchanges in the interconnections; network services providing; system operation and settlement and metering.

The study showed the possibility in the future of exploiting the complementarity of supply and demand (growth and profile), by increasing exchanges even without using an integrated electricity market. This possibility would enhance the development of more technical coordination in terms of network operations and sharing information, which are essential for the development of the electricity market at the sub regional and regional levels. Such potential, in fact, is currently unexploited also due to the issue of the exchange of information related to the operation of power Systems.

The Studies of the Mediterranean Project II, launched in July 2018, expect to overcome this problem by increasing the exchange of information related to the operation of the Med-TSO Members' Power Systems. To this aim, the following results should be achieved in the next two years:

Setup of a Common Web-Platform for TSOs members to gather information on cross-border interconnections;

Drafting of a periodical report on the behavior of the regional electricity system, including a variety of operation data collected from the Members in both normal (energy demand, power supply) and critical conditions (contingencies), as well as standard key performance indicators (KPIs) of the national power systems.

Dissemination and Knowledge Sharing

In 2018 Med-TSO continued to have a particular attention to the dissemination and knowledge sharing activities, 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 making the main results available for the external stakeholders.

In the first part of this year, took place the third Workshop foreseen in the frame of the Mediterranean Project 1: "Network Analysis – Sharing Knowledge and experience on coordinated planning". This workshop was organized by the Technical Committee "Planning" of Med-TSO starting from the concept that the worldwide Energy transition and the evolution of the Energy Sector involve the northern and southern banks of the Mediterranean basin in the same direction but with different peculiarities. The Northern bank is engaged in ambitious decarbonisation targets and market integration within a general stagnation of the electricity demand. The Southern bank is characterized by large potentiality of renewable generation and by a fairly high rate of demand growth, supported by concrete examples of plans and deployment of RES. In the frame of the Mediterranean Project, TSOs worked, among the others, to setting up a development plan of the interconnection. During this workshop it was possible to learn about the Master Plan delivered by the application of the agreed Planning Process, based on the following activities: Scenario Building definition; integration of national generation adequacy plans; set-up of a regional Market model and relevant studies, results of the network studies performed for 14 projects classified along three corridors (Western, Central and Eastern).

With the new Mediterranean Project 2, capacity building and dissemination of experience are still one of the pillars of Med-TSO action plan. The Association is working to set up an intensive exchange of expertise between the Members of the Association and towards both the main stakeholders in the region (MEDREG, Arab Union for Electricity, ENTSO-E) and Academia, throughout training, workshops and events for knowledge dissemination, both internal and external.

T I M E L I N E

- **1 BARCELONA, SPAIN**
UfM Energy Platforms Annual Meeting;

- **8 AMMAN, JORDAN**
Task Force “Knowledge Sharing” meeting;

- **9-10 AMMAN, JORDAN**
Technical Committee “Planning” meeting;

- **11 AMMAN, JORDAN**
Technical Committee “International Electricity Exchange” meeting;

- **6 ROME, ITALY**
Technical Committee “Planning” meeting;

- **7 ROME, ITALY**
Economic Studies and Scenarios Working Group meeting;

- **8 ROME, ITALY**
Technical Committee “Regulation and Institutions” meeting;

- **1 ROME, ITALY**
Technical Committee “International Electricity Exchange” meeting;

- **5-6 BRUSSELS, BELGIUM**
ENTSO-E Workshop “Weather Data for Economic Studies”;

JANUARY

FEBRUARY

MARCH

- **16-17 OPORTO, PORTUGAL**
Technical Committee “Planning”, Western Corridor task force meeting;

- **31 BARCELONA, SPAIN**
UfM Energy Platforms Annual Meeting;

- **14 PARIS, FRANCE**
Operational Activities Coordination Committee meeting;

- **15 PARIS, FRANCE**
Strategic Orientation Committee meeting;

- **28 ROME, ITALY**
Technical Committee “Planning” meeting;
- Executive Board meeting;

- **20 ROME, ITALY**
Med-TSO Workshop “Network Analysis – Sharing knowledge and experience on coordinated planning”

- **21 ROME, ITALY**
Technical Committee “Regulation and Institutions” meeting;

10 BRUSSELS, BELGIUM

Mediterranean Project Closing Conference at European Parliament;

- 15th General Assembly;

11 BRUSSELS, BELGIUM

The Secretary General participates to the "Mediterranean forum on Electricity and Climate Change" organized by CMI and EC DG Energy;

15-16 BRUSSELS, BELGIUM

InnoGrid2020+ Conference;

17 PARIS, FRANCE

Operational Activities Coordination Committee meeting;

6 PARIS, FRANCE

Operational Activities Coordination Committee meeting;

7 BERLIN GERMANY

The Secretary General invited at Renewable Grid Initiative Secretariat;

8 ROME, ITALY

Strategic Orientation Committee meeting;

21 AMMAN, JORDAN

Executive Board meeting;

APRIL

MAY

JUNE

16 TUNIS, TUNISIA

Technical Committee "International Electricity Exchange" meeting;

- Economic Studies and Scenarios Working Group meeting;

17-19 TUNIS, TUNISIA

Med-TSO Workshop "Knowledge sharing on Market Study Modelling";

26-27 TUNIS, TUNISIA

The President and Secretary General of Med-TSO invited at the conference "Renewables and infrastructure for the clean energy transition of Tunisia: The Italian journey on the renewable energies: Excellency and Best Practices", organized by the Italian Embassy and RES4MED&Africa;

27-28 ISTANBUL, TURKEY

Med-TSO Workshop "Scenarios Building";

T I M E L I N E

● 11 ROME, ITALY

Technical Committee “International Electricity Exchange” meeting;

● 12 ROME, ITALY

Technical Committee “Regulation and Institutions” meeting;

● 13 BELGRADE, SERBIA

The Secretary General invited at the conference “Trade facilitation and Investments in the Western Balkans” organized by World Trade Organization and Parliamentary Assembly of the Mediterranean;

● 13 WIEN, AUSTRIA

The Secretary General meets Mr. Janez Kopac, Director of the Energy Community Secretariat;

● 19 MADRID, SPAIN

Technical Committee “Regulation and Institutions” meeting;

● 20 MADRID, SPAIN

Technical Committee “International Electricity Exchange” meeting;

● Joint meeting between Technical Committees “Regulation and Institutions” & “International Electricity Exchange”;

JULY

AUGUST

SEPTEMBER

● 28, 30 PARIS, FRANCE

Med-TSO presents two papers at 47th CIGRE Paris session;

● 26 BEIRUT, LEBANON

The Secretary General invited at Union for the Mediterranean Steering Committee Meeting;

● The Secretary General meets Mr. Kamal Fouad Hayek, Chairman – General Manager of EdL;

● 27 BEIRUT, LEBANON

The Secretary General participates at the “International Beirut Energy Forum for Sustainable Development”;

● The Secretary General invited at the Institutional Working Group meeting of MedReg;

● 2 ISTANBUL, TURKEY

Technical Committee “Planning” meeting;

● 3 ISTANBUL, TURKEY

Economic Studies and Scenarios Working Group meeting;

● 4 AMMAN, JORDAN

Med-TSO representative participates at 6th MEDENER International Conference on Energy Transition in the Euro – Mediterranean Region;

● 5 BARI, ITALY

The Secretary General invited at AEIT 2018 International Annual Conference;

● 7 PARIS, FRANCE

Operational Activities Coordination Committee meeting;

● 21 ROME, ITALY

Technical Committee “International Electricity Exchange” meeting;

● 22 ROME, ITALY

Rome, Italy - Technical Committee “Regulation and Institutions” meeting;

● 11 ROME, ITALY

Technical Committee “Planning” meeting;

● 12-13 ROME, ITALY

Economic Studies and Scenarios Working Group meeting;

OCTOBER

NOVEMBER

DECEMBER

● 11 MILAN, ITALY

The President and the Secretary General of Med-TSO participate at the Italian Energy Day, during the World Energy Week 2018;

● 24-25 MANAMA, BAHREIN

The Secretary General participates at Medelec 25th Annual Meeting;

● 27 ALGIERS, ALGERIA

Executive Board meeting;

● 28 ALGIERS, ALGERIA

16th General Assembly;

MEDITERRANEAN PROJECT 1



SCOPE: IMPROVE THE INTEGRATION OF THE MEDITERRANEAN POWER

- How to optimize the use of the existing interconnections
- Assess the possibility to build new lines



CORE ACTIVITIES

- Common technical rules for accessing the grid, operating the system and sharing resources (grounds for a Med grid code)
- 1st Mediterranean Masterplan



COMPLEMENTARY ACTIVITIES

- Knowledge Sharing and Training programs
- DBMED, the Med-TSO database
- Mediterranean Grid Map (with ENTSO-E)

Security and Socio – economic Development in the Mediterranean strongly depend on energy and on the possibility to develop an integrated regional energy market.

Energy infrastructures are key for achieving this goal, especially for what concerns the development of a reliable, secure and sustainable transmission network, capable to interconnect countries and allow the exchange of electricity and the integration of new generation sources, in primis from RES.

Based on multilateral cooperation as a strategical approach to regional development for facilitating the integration of the Mediterranean Power Systems, Med-TSO has received a three-year lasting grant from the EU Commission (DG NEAR) to carry out the so called “Mediterranean Project” (Feb 2015 – Jan 2018).

The Project aims at the progressive harmonization and strengthening of the electricity markets in the Mediterranean region, following a bottom-up approach and direct involvement of Med-TSO Members, through the following activity lines:

- **Rules.** Developing and sharing a common set of basic rules, in cooperation with the association of the Mediterranean Regulators for energy, Medreg, for the interoperability of the Mediterranean power systems, facilitating electricity exchanges, development of infrastructures and institutional cooperation.
- **Infrastructure.** Preparing and sharing guidelines for Network Planning and implementing a Euro-Mediterranean Electricity Reference Grid for studies and coordinated development of interconnections.
- **International Electricity Exchanges.** Promoting the development of a Mediterranean Electricity System, focusing on methodologies, procedures and mechanisms for sharing resources through cross border exchanges, based on country complementarities and the optimized use of generation and transmission infrastructures.
- **Knowledge Sharing.** Establishing a forum among the relevant professionals working in the fields related to the scope of the project (a sort of “Med-TSO Academy”), supporting also Med-TSO members and other relevant organizations through the organization of specific and oriented knowledge activities.
- **Med-TSO Database.** Creation of a Mediterranean database for managing all the information shared in the frame of the project, dealing with network characteristics, energy scenarios and market data. Med-TSO presented the results after 3 years of Mediterranean Project at the European Parliament during the conference: “Towards a future Secure and Sustainable Electricity Infrastructure in the Mediterranean Region”, held on 10 April 2018.








Closing conference

The conference was hosted by the Member of the European Parliament **Simona Bonafé** and with the key-note speeches by: **Gilles Pargneaux** - Member of the European Parliament and Vice-Chairman of the Delegation for relations with the Mashreq countries, **José Blanco Lopez** – Member of the European Parliament and European Parliament's Industry, Research and Energy Committee (ITRE), **Michael Koehler** – Director Neighbourhood South, Directorate-General for Development Cooperation (DG NEAR).








During the event, Med-TSO discussed about the results in relation with the stakeholders and looked forward the new challenges, with interventions of **Dominique Ristori** – Director General of the European Commission Directorate General for Energy and **Claude Turmes**, Member of the European Parliament.

Different actions have been part of this project: the development of a Mediterranean electricity master plan and the definition of a map of the transmission grid; the definition of a set of rules as a basis for a regional grid code; the optimization of the International electricity exchanges and the creation of a Mediterranean database.

Attendance

4	MEMBERS OF THE EUROPEAN PARLIAMENT	
2	DIRECTOR GENERALS OF THE EUROPEAN COMMISSION	
11	PEOPLE FROM MED-TSO'S STAKEHOLDERS	
8	PEOPLE FROM OTHER ENERGY ASSOCIATIONS	
8	PEOPLE FROM SECTOR INDUSTRIES	
22	PEOPLE FROM INTERNATIONAL FINANCIAL INSTITUTIONS, UNIVERSITIES AND PRESS	
37	PEOPLE FROM MEDITERRANEAN TSOs	

Numbers of the Project

	PROJECT DURATION	FROM 2015 TO 2018	
	PROJECT BUDGET	EUR 3,22 MILLION	
	REINFORCEMENTS OF THE NETWORKS	NEW LINES	2.200 KM
	TSO EXPERTS ENGAGED	146	
			TECHNICAL MEETINGS
			93
	REPORTS	18	
			WORKSHOPS
			7

MEDITERRANEAN PROJECT 2

The Mediterranean Project 1 was a first step in the roadmap towards the integration of the regional power systems. After the good results achieved in the frame of the Mediterranean Project 1, Med-TSO intends to continue, consolidate and improve the activities carried out so far with a new project: the Mediterranean Project 2.

The European Union supports Med-TSO with a new grant contract to develop the action plan of this new project from 2018 to 2020.

Objectives

- increase energy security and reliability
- foster greater RES penetration by facilitating their integration
- increase the overall system efficiency
- generate economies of scale in investments and operations
- improve cooperation and exchange of experience among the Mediterranean TSOs

Work Plan

- Consolidating the activities already carried out in the frame of Mediterranean Project 1
- Extend the perimeter to other areas (e.g. Adequacy assessment and Operation)

The Action Plan of the Mediterranean Project 2 is structured along five activity streams, originated by the need for strengthening cooperation in both system operation and system development, the expected results of which are:

1. PLANNING OF INFRASTRUCTURES

The delivery of an updated version of the Mediterranean Network Development Plan (MNDP), which should become a permanent outcome of Med-TSO on a periodical basis (every two years). This plan identifies the necessary investments in grid infrastructures, the justification of which is based on:

- harmonized methodologies among Members, coherent with ENTSO-E practices, and agreed procedures for updating similarly to the TYNDP in ENTSO-E, the MNDP;
- Reference energy scenarios;
- Market and grid studies;
- Assessment of costs and benefits as a result of market and network studies.

The MNDP includes also the internal reinforcements of the existing grids, necessary to reliably accommodate the expected transit flows in the Med-TSO Region while maintaining security of operation at adequate levels.

2. REGULATION & POWER SYSTEM RULES

The progress in the harmonization of regulation in the Mediterranean region for power system rules (in the perimeter of the network codes) is carefully monitored. A “zonal approach” will be developed to allow a faster harmonization of a subset of rules in selected zones of the Mediterranean (pilot projects). To support these endeavors, expected results are:

- A proposal on harmonization of technical rules in the fields of management and sharing of system services to complete the work accomplished in the Mediterranean Project 1;
- A Zonal Target Regulatory Framework in selected priority areas;
- A Transparency proposal on a set of data to be published by all the Med-TSO Members.

3. SCENARIOS ADEQUACY AND MARKET STUDIES

The Association intends to draw some possible future scenarios for the Mediterranean Power System. To this aim, the following results are expected:

- A set of mid- and long-term scenarios of the Mediterranean Power System. The Market model is built to apply the Cost-Benefit Analysis (CBA) methodology for assessing interconnection transmission projects.
- A periodic Adequacy Report, including Winter or/and Summer Outlook Reports, to complement a statistical approach by severe scenarios simulations which are useful to prepare the crisis management tools.

4. GRID DEVELOPMENT & MARKET INTEGRATION

New complementary activities are foreseen, according to Med-TSO's Action Plan, to cover relevant aspects of the TSO's business hereby qualified as results:

- Grid integration in the Mediterranean and impact on climate change (increased energy efficiency as a result of electricity transmission network integration);
- Allocation of costs and risks for new investments;

5. OPERATION

Med-TSO Members intend to increase the exchange of information related to the operation of their Power Systems. To this aim, the following results should be achieved:

- Setup of a Common Web-Platform for TSOs members to gather information on cross-border interconnections;
- Drafting of a periodical report on the behavior of the regional electricity system, including a variety of operation data collected from the Members in both normal (energy demand, power supply) and critical conditions (contingencies), as well as standard key performance indicators (KPIs) of the national power systems.

6. TRAINING AND KNOWLEDGE SHARING

Capacity building and dissemination of experience are one of the pillars of Med-TSO action plan. It is proposed to set up an intensive exchange of expertise between the Members of the Association and towards both the main stakeholders in the region (MEDREG, Arab Union for Electricity, ENTSO-E) and Academia, throughout training, workshops and events for knowledge dissemination, both internal and external.

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.

During 2018, the Association delivered all the activities under the frame of the first Mediterranean Project, the results of which are available on Med-TSO's website, and launched the second Mediterranean Project.

The cooperation with the European Commission is an important enabling factor for the Association that helps accelerating the activities carried out by Med-TSO to achieve the objective to support all the institutional initiatives aiming at facilitating the creation of a Mediterranean energy market, by fostering the development of an integrated, secure and sustainable regional electricity transmission grid.

ENTSO-E



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

Med-TSO cooperates 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, and furthered in 2017 when the Secretaries General of the two organizations signed the first memorandum of understanding.

This relationship produced in 2018 an initial important result: the first joint map of their interconnected electricity transmission networks. The map, available on the websites of the two Associations, covers the 300.000 km of grids operated by ENTSO-E members and 400.000 km of grids operated by Med-TSO members (some of it overlapping). It took two years to produce this accurate and exhaustive overview of transmission grids in the Euro-Mediterranean region.

Other topics of cooperation developed in 2018 regarding the exchange of data for producing common market and adequacy scenarios and the use of common software tools to compare the outputs of these analyses.

MEDREG



Med-TSO cooperates with 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 2018 the two Associations mainly worked in the frame 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 2018 has been further strengthened not only in the frame of the REM platform, but also through the elaboration of a common action plan for developing initiatives such as trainings and workshops.

COMMUNICATION



NEWS PUBLISHED

19



TWEETS POSTED

64



NEWS POSTED ON MED-TSO FACEBOOK PAGE

33



NEWS POSTED ON THE BRAND NEW MED-TSO LINKEDIN PAGE

21

2018 news by news

27/02/2018

Med-TSO and ENTSO-E map: more than 400.000 km of power networks in the Euro-Mediterranean

The first joint map of the interconnected electricity transmission networks of the two organizations

Rome February 26th - Med-TSO (the Association of the Mediterranean Transmission System Operators for electricity, operating the High Voltage Transmission Networks of 18 Mediterranean Countries), and ENTSO-E (the European Network of Transmission System Operators) publish the first joint map of their interconnected electricity transmission networks of the two organizations.

The map covers the **300 000 km of grids operated by ENTSO-E** members and **400 000 km of grids operated by Med-TSO members** (some of it overlapping). It took two years to produce this accurate and exhaustive overview of transmission grids in the Euro-Mediterranean region.

"We are really proud about this result", commented **Angelo Ferrante, Secretary General of Med-TSO**. "It is in line with our mission which is about fostering the dialogue in the Mediterranean Region and promoting the development of an integrated Mediterranean Electricity System. This map represents a concrete result in the spirit of our Association that intends to act as a bridge between Europe, Northern Africa and the Middle East". "Our cooperation with Med-TSO goes well beyond this Euro-Mediterranean grid map. However, it is a very nice symbol of the work that both organisations have jointly developed. ENTSO-E is working with several other TSO organizations within and outside of Europe. This is very enriching and serves all electricity customers through best practice and information sharing", added **Laurent Schmitt, ENTSO-E Secretary General**.

The map can be consulted online on the Med-TSO web site and on the ENTSO-E website, an online version of it can be ordered and consulted.

For further information, please contact: communication@med-tso.com or media@entsoe.eu

13/03/2018

Med-TSO final rush towards the Mediterranean Project

In view of the closing conference on the 10th of April in Brussels, the Association's initiatives follow each other with the launch of the network map and the next workshop in the Campus of Terna.

The date of April 10 is approaching in which, during the conference "Towards a future Secure and Sustainable Electricity Infrastructure in the Mediterranean Region", will be presented in Brussels, at the headquarters of the European Parliament, the results of the Mediterranean Project at the end of the foreseen three years. A challenge that has seen building, thanks to the work of Med-TSO, a system of dialogue and comparison between the 20 associated TSOs, able to face the commitment to make the networks interoperable in the countries bordering the Mediterranean.

Among the different goals, the first edition of the map of networks of countries associated to Med-TSO has been published in these days. The initiative has been carried out jointly with ENTSO-E. In the map, therefore, it is possible to identify the networks of the associated TSOs and the networks of ENTSO-E, highlighting with a mix of colors the Countries belonging to both realities, and underlining how much the two associations also share the goal of interoperability between systems. The map can be viewed and downloaded freely from the website of Med-TSO. *"This initiative" explains the **Secretary General of Med-TSO Angelo Ferrante**, "represents in concrete the spirit of the association, which wants to propose itself and act as a bridge between Europe, North Africa and Middle East".*

These last days that precede the final conference of the Mediterranean Project, also reserve other initiatives on behalf of the association of Mediterranean TSOs. In the next few days, Terna will be the theater of a workshop to deepen the theme: Planning and Development of the Euro Mediterranean Electricity Reference Grid.

The occasion is part of the dissemination activities of the task force dedicated to sharing skills, foreseen by the Mediterranean Project. A laboratory of experiences that will see the Association increasingly active, a megaphone for highly specialized skills among its members. A project closure rich in initiatives, which sees the harvest of the fruits of three intense years of work.

21/03/2018

Electric grids interconnections, the meeting in Rome

The state of the art about grids planning processes, last 20th March 2018

The worldwide Energy transition and the evolution of the Energy Sector involve the northern and southern banks of the Mediterranean basin in the same direction but with different peculiarities. The Northern bank is engaged in ambitious decarbonisation targets and market integration within a general stagnation of the electricity demand. The southern bank is characterized by large potentiality of renewable generation and by a fairly high rate of demand growth, supported by concrete examples of plans and deployment of RES. In this scenario, Med-TSO was established in 2012, when 12 (now 18) Countries of the two banks of the Mediterranean basin met together in a voluntary Association with the willingness of harmonizing their methodologies and practices. In the frame of the Mediterranean Project, TSOs work, among the others, to setting up a development plan of the interconnection. To divulge these planning processes, a workshop took place last 20 March in Rome at Terna Campus. The workshop was organized by the Technical Committee "Planning" of Med-TSO and hosted by Terna. In this workshop it was possible to learn about the Master Plan delivered by the application of the agreed Planning Process, based on the following activities: Scenario Building definition; integration of national generation adequacy plans; set up of a regional Market model and relevant studies, results of the network studies performed for 14 projects classified along three corridors (Western, Central and Eastern).

We asked to **Patricia Esteban (REE, Spain), chairperson of the Knowledge Sharing Task Force** some comments about the TC activities:

What will be the next step of the Knowledge Sharing Task Force in Med-TSO?

For the next months, we want to continue organizing workshops. On one hand about topics that our associates have identified as relevant, and on the other hand, about the activity of the Technical Committees. Apart from this, we want to organize online activities, like forums or webinars about topics of interest of our members.

Do you think that sharing knowledge could be useful to finalize the success to the Mediterranean Project and how?

Of course, because one of the main objectives of our group and the Association is promoting the training, knowledge sharing and technical assistance in the Region, facilitating the exchange of information, analyses and experiences among the Associates. The ways to achieve these objectives are the workshops, the networking and the close involvement that exists between the participants of the existing groups.



09/04/2018

How to harmonize and strengthen the electricity market in the Mediterranean Region

2

The results of 3 years of work of the "Mediterranean Project" at the Med-TSO conference in the European Parliament

Med-TSO, the Association of the Mediterranean Transmission System Operators for electricity, presented the results after 3 years of Mediterranean Project at the European Parliament during the conference: "Towards a future Secure and Sustainable Electricity Infrastructure in the Mediterranean Region".

The Project has identified and assessed 14 interconnection projects, corresponding to about 18GW of new interconnection capacity, requiring grid reinforcements for about 2,200 Km of new HV lines and 840 km of lines reconductoring. The estimated additional investments count for about 16,000 million euros.

The conference was hosted by the Member of the European Parliament **Simona BONAFÈ** and with the keynote speeches by: **Gilles PARGNEAUX** - Member of the European Parliament and Vice-Chairman of the Delegation for relations with the Mashreq countries, **José BLANCO LOPEZ** - Member of the European Parliament and European Parliament's Industry, Research and Energy Committee (ITRE), **Michael KOEHLER** - Director Neighbourhood South, Directorate-General for Development Cooperation (DG NEAR).

146 experts engaged, with 3.22 million euro of budget **co-financed** by the **European Union**, the Project started in 2015 and has pursued the main objective to promote the progressive integration of electricity Power system of the two Mediterranean shores, aiming at the progressive harmonization and strengthening of the electricity markets in the Mediterranean Region.

During the event, Med-TSO discussed about the results in relation with the stakeholders and looking forward the new challenges. Different actions have been part of this project: the development a Mediterranean electricity master plan and the definition of a map of the transmission grid; the definition of a set of rules as a basis for a regional grid code; the optimization of the International electricity exchanges and the creation of a Mediterranean database.

"We are really proud about these first three years of work" said **Angelo Ferrante Secretary General of Med-TSO**. *"Now we are focused to finalize the Mediterranean Project with the collaboration of EU"*.

The Project outcomes could be helpful for 500 million of consumers living in the 18 countries of the Med-TSO area.

24/04/2018

Med-TSO reaches 21: HOPS is the new entry

3

The Croatian TSO formalized its membership during the General Assembly in Brussels.

The Croatian TSO "**HOPS**" officially became the 21st member of the Association as the General Assembly, held on 10 April 2018 in Brussels, deliberated on its admission (in the picture, President **Harra-bi** welcoming HOPS CEO **Mr. Miroslav Mesic**).

With Croatia, the countries interested by the action of Med-TSO are now 19, covering an area of 8.6 million km² ca, serving more than 500 million of consumers and operating more than 400.000 km of transmission lines.

"Let me express my complete satisfaction about the Closing Conference of the Mediterranean Project – said Moncef Harrabi, President of Med-TSO, opening the assembly – from which emerged the recommendations aimed at encouraging energy cooperation among the Mediterranean countries".

The Conference in Brussels, as the President highlighted, *"encourages the second step of Mediterranean Project. We will multiply our efforts to realize this new and promising project, tracing the future of our association aiming at the reinforcement of the cooperation among the members"*.

The Assembly renewed **Angelo Ferrante** (TERNA, Italy) as Secretary General and appointed as Vice-presidents: **Abdelfattah Al Daradkah** (NEPCO, Jordan); **Carlo Crea** (TERNA, Italia); **Ramon Granadino** (REE, Spain); **Mustafa Izgeç** (TEIAS, Turkey); **Abdellah Kabiri** (ONEE, Morocco); **Hervé Laffaye** (RTE, France); **Abdelhamid Rais** (GRTE, Algeria). All these positions were renewed for the next three years.

The President addressed a personal message of thanks to the former Vice-President and Chairperson of the Operational Activities Coordination Committee (OACC), **Mr. Victor Baptista** (REN, Portugal).

An assembly full of nominations: **Mr. Laffaye** as new chairperson of the OACC and **Mr. Crea** as Chairperson of the Strategic Organizational Committee.

Furthermore, during the assembly, the Senior Communication Manager **Agnese Cecchini** awarded the winner of the first Med-TSO photo contest, **Ms. Niki Manthati** from ADMIE, Greece. Her picture, "The view of energy", is the cover page of the final publication of the Mediterranean Project.

22/06/2018

A new grant from the European Commission to Med-TSO 4

The **Directorate-General European Neighborhood Policy and Enlargement Negotiations of the European Commission** signed a new two-year grant contract to fund Med-TSO's **Mediterranean Project II**.

The project is the natural continuation and extension of the first Mediterranean Project, officially closed last 30 April. These next two years will see the experts coming from the 21 Mediterranean Med-TSO members working on six main tasks: planning and infrastructures; regulation and rules; scenarios adequacy and market studies; grid and markets integrations; operation; training and knowledge sharing.

The President of Med-TSO, **Moncef Harrabi** (CEO of STEG), claimed: *"The three years of the challenging experience of Mediterranean Project have brought us to a second stage: the Mediterranean Project II, an even harder challenge for Med-TSO, because, besides the consolidation of the outcomes of the first project in terms of Planning, Rules, Interconnections, Market Studies and Knowledge Sharing, is going to include the complex activities of the Operation. With this new project, we continue in the effort to build a power bridge between the two shores of the Mediterranean, as it is the key for the security and the sustainable development of the Mediterranean countries"*.

"This grant is really important for Med-TSO: once more, we were recognized for the high value of our activities and for the prominent role that our Association is playing - and I hope it will play ever more in the future - in the Mediterranean energy context and beyond. I would like to thank our members for the hard work carried out by the companies and for the continuous support given to Med-TSO and its Secretariat" stated **Angelo Ferrante**, Secretary General of Med-TSO.

The activities of the Mediterranean Project II have started on 1 June 2018 and the first events already scheduled are a Workshop on Scenarios Building in Istanbul on 27-28 June and two Technical Meetings on 11-12 July in Rome.

28/06/2018

Med-TSO at RES4MED&Africa conference in Tunis 5

The President of Med-TSO **Moncef Harrabi** and the Secretary General **Angelo Ferrante** took part to the conference *"Renewables and infrastructure for the clean energy transition of Tunisia: The Italian journey on the renewable energies: Excellency and Best Practices"*, organized in Tunis by the **Italian Embassy** and **RES4MED&Africa**, last 27 June.

The conference focused on the Italian Excellency and the best practices in the renewable energy sector, and it covered many aspects of the renewable energy (RE) sector, such as large and medium scale RE plants, competitive auctions mechanisms, job creation and local content generated by the RE industry, technology innovation, transmission infrastructures, policies and regulations, and presented some case studies.

Harrabi, also CEO of STEG, during his keynote speech affirmed: *"We strongly believe that the development of electricity transmission infrastructure in the Mediterranean region is strategic to accompany the growth of energy production in progress"*.

During his speech, he recalled the electricity interconnection project between Tunisia and Italy, to be developed by the two Med-TSO Members Terna (Italy) and STEG (Tunisia). This project is fundamental for allowing energy exchanges between the north and south shores of the Mediterranean region and, as President Harrabi highlighted, it has been recently included in the list of **Projects of Common Interest (PCI)** published by the **European Union**.

The status of the TUN-ITA interconnection project was also presented by **Mr. Belhassen Chiboub**, Co-Chairman of Elmed Etudes (joint venture between STEG and TERN) and Director of the IPP department of the Tunisian Ministry of Energy Mining and Renewables.



16/07/2018

Multilateral cooperation in the Mediterranean region: Med-TSO's Secretary General at WTO & PAM conference in Belgrade

6

On 12 and 13 July, the Secretary General of Med-TSO, **Angelo Ferrante**, was in Belgrade, Serbia, to participate to the meeting on "*Trade facilitation and Investments in the Western Balkans*", organized jointly by the **World Trade Organization** and by the **Parliamentary Assembly of the Mediterranean**, held at National Assembly of Serbia. The two-day meeting was focused on the Euro Mediterranean economic-political convergence processes and on the improvement of Trade and Investments flows in the Euro-Mediterranean region through WTO Rules and negotiations.

During the session "*The regional economic integration in the Western Balkans Area*", held on 13 July, the Secretary General intervened on multilateral cooperation in the Mediterranean region, highlighting that transmission infrastructures are essential for the market and, as also recalled by the European Union, energy infrastructures are at the forefront of the effort for promoting a more resource-efficient, more sustainable and more competitive economy. Where an electricity market already exists, as in many Balkans countries, it is necessary to guarantee adequate liquidity to the market for achieving the efficient utilization of existing and envisaged interconnections.

In the Mediterranean, he added, the development of interconnections is essential for meeting the increasing electricity demand of Southern and Eastern Countries and favor the expected huge RES development programs.

The just completed Mediterranean Project is a good example of multilateral coordination among the Mediterranean TSOs, aiming at defining a shared framework made of rules, guidelines, methodologies and scenarios capable to foster investments in the region and favor its integration. The new Mediterranean Project 2, launched on 1 June with the support of the European Union, will consolidate and, to some extent, enlarge the perimeter of Med-TSO activities and give additional impulse to the Mediterranean integration process.

30/08/2018

Med-TSO at the 47th CIGRE session in Paris

7

Established in 1921 in Paris, the **CIGRE**, the *International Council of Large Electric Networks* (Conseil International des Grands Réseaux Electriques) organizes every two years one of the most important events dealing with power systems, known as the "Paris Session", taking place this year from 26 to 31 August. The CIGRE works as a global community committed to the collaborative development and sharing of power system expertise. The community features thousands of professionals from over 90 countries and 1250 member organizations, including some of the world's leading experts.

Med-TSO participates to the 2018 Paris Session with two papers: "*Towards a Common Target Regulatory Framework. Harmonizing Technical Rules for the Mediterranean Power Systems from a TSO perspective*" and "*The Mediterranean Master Plan Consolidating a Secure and Sustainable Electricity Infrastructure in the Mediterranean Region*", both realized after Med-TSO's Mediterranean Project, a three-year lasting project supported by the European Union.

The first paper, presented last Tuesday 28 August on behalf of Med-TSO's Technical Committee "Regulation and Institutions", shows the work performed during the Project, in which a proposal of Common Target Regulatory Framework for the Mediterranean region has been developed, including a tentative roadmap for implementation in three time horizons: short, medium and long. In total, 66 technical issues have been selected to be harmonized, elaborating a first set of models of rules, in particular a Connection Contract between TSO and user, an Operation Agreement between TSOs and the chapters from Connection and Operation for the future Mediterranean Grid Code.

The second paper, presented today, 30 August, deals with the Mediterranean Master Plan, delivered by Med-TSO as a result of an intensive cooperation among the Members. It describes the activity and the main outcomes of about three years of activity carried out by Med-TSO's Technical Committee "Planning" and Working Group "Economic Studies and Scenarios". The paper stresses the complexity of the planning process that involved Med-TSO Members. For the first time, most of the Mediterranean TSOs have engaged themselves in performing a series of harmonized studies including market simulations and network analysis. The Mediterranean Master Plan depicts 14 clusters of cross border interconnections, totaling more than 18 000 MW of new transfer capacity across the Mediterranean Sea at time horizon 2030.

14/09/2018

Med-TSO and the Energy Community agree to strengthen mutual cooperation

Representatives of Med-TSO and of the Energy Community Secretariat evaluated possible opportunities for tightening cooperation between the two entities at a meeting held at Energy Community's premises in Wien, last Thursday 13 September.

"Having common members, common infrastructure and the common target of creating a well-connected regional electricity market does not only give us a basis but calls on us to closely cooperate", underlined **Janez Kopac, Director of the Energy Community Secretariat**.

The two institutions identified a set of topics of common interest that could be in the focus of enhanced cooperation, including transparency, coordination between distribution and transmission system operators and regional infrastructure development.

Discussions also carved out that the introduction of a common set of legal rules would support the development of electricity markets in the Mediterranean countries. *"The Energy Community can serve as a model for us: it proves that fixing a set of common obligations facilitates the development of integrated electricity markets"*, emphasized **Angelo Ferrante, Secretary General of Med-TSO**.

25/09/2018

Med-TSO's Technical Committee "Planning" has a new Chairman 8

The General Assembly of Med-TSO has unanimously deliberated the nomination of the Italian **Modesto Gabrieli Francescato**, from TERNA, as new Chairman of the Technical Committee "Planning", in the frame of Mediterranean Project 2.

Mr. Gabrieli, in TERNA since 2005, is currently the Head of Market Analysis unit. He has a huge experience in harmonized network planning methodologies, matured in his company and also during his engagement with ENTSO-E, where he mainly worked on planning activities, also as convener of working groups, such as "System Adequacy & Market Modelling" and recently, "Data & Models".

Modesto Gabrieli takes over Carlo Sabelli, former Chairman of the Technical Committee, who retired last July.

03/10/2018

The Secretary General of Med-TSO in Lebanon 9

A very intense agenda last week for our Secretary General Angelo Ferrante, in Beirut for two days.

Mr. Ferrante participated last 26 September to the **Union for the Mediterranean (UfM)** Steering Committee Meeting to plan the activities of **UfM Regional Electricity Market (REM) Platform** for the end of 2018 and 2019.

Med-TSO is engaged in this platform together with **MedReg**, the Association of Mediterranean Energy Regulators, the representatives of which were also present to the meeting. The REM platform aims at the progressive integration of energy systems and energy markets in the Mediterranean region and, in particular, at the enhancement of electricity exchanges and interconnections, in order to achieve a secure, affordable and sustainable electricity supply for the benefit of citizens and economies in the Euro-Mediterranean region.

Lately, the same day, Mr. Ferrante met **Mr. Kamal Fouad Hayek, Chairman – General Manager of Electricité du Liban (EdL)**, to discuss about future cooperation between EdL and Med-TSO and about the possibility for the Lebanese TSO to join our Association.

On Thursday, 27 September, our Secretary General participated to the **International Beirut Energy Forum for Sustainable Development**, which took place from 26 to 28 September; he was also invited to the Institutional Working Group meeting of MedReg, in which he held a presentation on the main achievements gained in the frame of the Mediterranean Project 1 and on how to strengthen the cooperation among the two associations.

11/10/2018

Med-TSO at the Italian Energy Day in Milan 10

On Thursday 11 October, in Milan, took place the **Italian Energy Day**. The event was organized by the **World Energy Council** in the frame of the **World Energy Week**, held in Milan from 8 to 11 October, having also Med-TSO among the patrons.

The conference was opened by the welcome speeches of **Marco Margheri, Chairman of World Energy Council Italy**, and of **Moncef Harrabi, President of Med-TSO and Chairman of OME**.



The Secretary General of Med-TSO, Angelo Ferrante, participated to the session “Building resilient energy infrastructure within Euro-Mediterranean and African regions”, having as subject the need to facilitate the development of flexible, safe and resilient energy infrastructures in the Euro-Mediterranean and African regions.

Mr. Ferrante highlighted the role of multilateral cooperation in the Mediterranean in facilitating the regional integration of power systems. He also presented the main results of the just completed Mediterranean Project 1, with a special focus on the Common Target Regulatory Framework (with its relevant Implementation Roadmap), as a basis for a future Mediterranean Network Code, and the Mediterranean Master Plan, i.e. the impact assessment at a regional level of 14 new interconnection projects that could increase the interconnection capacity of about 18 000 MW, requiring some 16 BEUR investments.

The World Energy Week was a global event that provided a high-level forum for discussion of the top energy issues. The Week was built around a series of meetings over four days, including, besides the Italian Energy Day, also the World Energy Leaders Summit, the Future Energy Leaders Summit and the Energy Transition Summit.

18/10/2018

The Secretary General of Med-TSO met IEC representatives

Last Tuesday the **Secretary General of Med-TSO, Angelo Ferrante** visited **Israel Electric Company (IEC)** Headquarters in Haifa.

There, Mr. Ferrante met **Mr. Shimon Fisher, Acting Senior Vice President Planning, Development and Technology & Head of Power Grid Division.**

The meeting was held to strengthen the engagement and the cooperation of IEC in the frame of Med-TSO's Mediterranean Project 2, for which the contribution of the Israeli company is very important to achieve the results and to carry out the studies foreseen by the project action plan.

Also present to the meeting Dr. **Tal Katz**, from the Office of the Senior Vice President of Planning, Development and Technology, who will be the contact point of Med-TSO in the Israeli company for the activities of the project.

29/10/2018

25th MEDELEC Annual Meeting: Med-TSO's participation to the two-day conference

The 25th Annual Meeting of **MEDELEC** took place in Bahrain last 24-25 October. MEDELEC is a “Liaison Committee” which brings together different electricity sector companies working in the areas bordering the Mediterranean Sea, including Southern Europe, Middle-East and Northern Africa.

Med-TSO Secretary General, **Angelo Ferrante**, participated to the event. On the first day he gave an overview about the last developments of the activities, reporting on the conclusion of the Mediterranean Project I and the launch of the new project. On the second day, he took part to a panel discussion focused on the role of harmonized rules and regulation for increasing the efficiency of the regional power systems and promoting the development of interconnections.

Here, Mr. Ferrante showed how Med-TSO's activities represent a good example of multilateral cooperation, a platform where members agree on scenarios, methodologies, guidelines and procedures for promoting development of interconnections and interoperability of the interconnected systems, in the perspective of a future Mediterranean energy market.

During the panel, it was pointed out that a number of projects have been carried out in the last fifteen years, all aiming at the creation of a regional electricity market, but none of them was followed by concrete actions to favor the integration of the Mediterranean Power Systems.

Mr. Ferrante underlined the novelty of the approach implemented by Med-TSO at first in the Mediterranean Project 1 and now in the Mediterranean Project 2. This bottom-up approach involves directly the TSOs, which are responsible for their national development plans, in all the activities carried out by the Association, since the definition of the future energy scenarios and the process to be implemented for assessing the benefits of the proposed new investments. With this method – he continued – we minimize the risk that the results of a regional project cannot receive adequate follow up at a national level because who performed the activities did not take in duly account the peculiarity of each national system.

29/11/2018

Med-TSO 16th General Assembly in Algiers

On Wednesday 28 November 2018 in Algiers took place the 16th General Assembly of Med-TSO, hosted by Sonelgaz.

This was the second General Assembly held in 2018 and it was preceded by the Executive Board meeting of the Association, held the day before.

Opening the Assembly, President M. Harrabi, (Steg, Tunisia), thanked for the support and contribution of the Vice-presidents Abdelfattah Daradkah (Nepco, Jordan) and Mustafa Izgeç (Teias, Turkey), who left their companies and, consequently, the position in Med-TSO.

The Assembly unanimously elected as new Vice-presidents Mr. Albertino Meneses, Director of Operation & Maintenance of Ren, Portugal, and Mr. Serhat Metin, of Head of Planning and Investment Management Department of Teias.

The two new Vice-presidents completed the composition of the Executive Board of the Association, joining President Harrabi and the Vice-presidents Carlo Crea (Terna, Italy), Ramon Granadino (Ree, Spain), Hervé Laffaye (Rte, France), Abdellah Kabiri (Onee, Morocco) and Abdelhamid Rais (Grte, Algeria).

Before the ordinary administrative and financial issues, the General Assembly also nominated Mr. Mehmet Kara, Manager at Foreign Affairs Division in Teias, new Convener of the Regional Working Group East.

The next General Assembly is foreseen on 9 April 2019 in Mallorca, Spain.



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www.med-tso.com
info@med-tso.com

 Med-TSO  @med_tso  Med-TSO Channel  Med-TSO

Viale Egidio Galbani, 70 • 00156 Rome, Italy